HQCA
Health Quality Council of Alberta

URBAN AND REGIONAL EMERGENCY DEPARTMENT PATIENT EXPERIENCE REPORT (2010-2013)

December 2014

Promoting and improving patient safety and health service quality across Alberta

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Promoting and improving patient safety and health service quality across Alberta

1.0 EXECUTIVE SUMMARY

Overview

In 2010, the HQCA made a significant change to its process for conducting emergency department patient experience surveys. In consultation with Alberta Health Services (AHS), the HQCA shifted to sampling emergency department patients every two weeks beginning in June 2010. This bi-weekly surveying continued until July 2013. The previous HQCA emergency department patient experience surveys were each conducted over a single two-week period: once in 2007 and once in 2009.

The purpose of the change to more frequent sampling in 2010 was to monitor variation and detect changes in emergency department patient experience over time at the provincial aggregate level and at the 13 urban or regional emergency departments, chosen by the HQCA and AHS. This enabled the HQCA to provide emergency department stakeholders (particularly those at the site level) with relevant information that they can use to inform their patient experience, quality of care, and patient safety improvement efforts.

As a result of the change in survey methodology, a valid comparison of the patient experience results for 2010-2013 with the 2007 and 2009 point-in-time results is not possible because of the broader time frame and different sampling frequency employed for this survey.

As in 2007 and 2009, the questionnaire used in the 2010-2013 survey was based on the British Emergency Department Patient Experience Survey tool, which was validated in both Britain and Alberta prior to use. A rigorous survey protocol was followed, resulting in an overall response rate of 44.8 per cent. Response rates for individual sites ranged from 32.8 per cent to 54.4 per cent.

The HQCA's new sampling strategy necessitated the adoption of two different analytical methods to report patient experience data: run charts and control charts. These charts are used to graphically display patient experience data over time as well as to identify instances of non-random variation (which represent operationally meaningful changes) in patient experience. Provincial aggregate and site-specific results are presented together to allow for comparison.

Context of the patient visit

About four in 10 respondents (42%) reported they went to the emergency department because they perceived it to be the only choice available at the time. Almost five in 10 respondents (48%) visited the emergency department because they believed it was the best place to go to deal with their medical problem.

- Almost 6 in 10 respondents (58%) stated that the medical problem that brought them to the emergency department was for new symptoms, either a *new illness or condition* (33%) or a *new injury or accident* (25%).
- Almost 1 in 4 respondents (24%) said that the medical problem that brought them to the emergency department was related to a chronic illness, either for a worsening of their condition (22%) or for routine care of that condition (2%).
- About 1 in 3 respondents (34%) were advised to go to the emergency department by a healthcare professional, most often by their personal family doctor (13%) or a Health Link nurse (9%).

Patient experience in the context of site-level volumes, length of stay, and CTAS

The HQCA highlights three factors that have an impact on emergency department patient experience: patient volumes, length of stay (LOS), and patient acuity (CTAS – Canadian Triage and Acuity Scale). In this report, emergency department volumes, average LOS, and CTAS counts are presented monthly via run charts, and are displayed by site.[i] These factors are reported for the entire population of patients presenting to an emergency department, rather than for the sample of patients surveyed on their experience of care. This provides an overall sense of how these three factors change over time and illustrates the relative magnitude of these pressures on emergency departments over time.

Results revealed that patient volumes have consistently increased for most of the 13 sites since June 2010. Conversely, average LOS tends to vary between sites over the study period. This means that at some sites average LOS consistently increased over the study period, while at other sites, average LOS consistently decreased over the study period. Still at other sites, average LOS initially consistently decreased before moving to a consistent increase toward the end of the study period. Most sites exhibit consistent increases in patient volumes in at least one CTAS level;[ii] while many of these sites exhibit volume increases in at least three CTAS levels.[iii] This often includes patients designated by emergency department staff as CTAS 1 or CTAS 2 (the two most urgent assignments) or both. Despite a general trend indicating increasing volumes in some CTAS levels, sites differ regarding which CTAS levels increased and which did not. Overall, results for patient volumes, average LOS, and CTAS counts indicate that the pressures emergency departments are subjected to are diverse.

Emergency departments are also diverse with respect to the variety of programs and initiatives implemented to improve patient care and experience. The HQCA captured this diversity by consulting with emergency department stakeholders at the site, zone, and provincial levels to construct timelines of the implementation of these various initiatives. Timelines at both the provincial aggregate and site levels revealed that patient care and patient experience are often influenced by multiple and sometimes simultaneously occurring events and initiatives. As a result, many events and initiatives are being implemented and administered concurrently, which makes it difficult to accurately assess the effect of any one of them on patient experience.

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[i] This is administrative data, routinely collected by Alberta Health Services (AHS). Administrative data is data collected for "administrative" purposes such as accounting, billing, tracking of diagnoses, etc. Administrative data was not designed to measure the quality of health care; however, secondary use of administrative data can often produce useful measures of quality. The decision to use AHS' data was made to ensure the HQCA was reporting volumes and LOS that matched AHS' records.

[ii] Consistent volume increases in at least one CTAS level observed at 11 of 13 sites.

[iii] Consistent volume increases in at least three CTAS levels observed at nine sites.

Key Findings

Overall rating of care

Results for the overall (global) rating of care, reported as the percentage of patients who rated their emergency department care as either excellent or very good, were examined over time at the provincial aggregate and site levels. Over the course of the study period, the provincial aggregate data exhibited random variation around a median of 68 per cent of patients who rated their overall care as excellent or very good. There was no evidence of either unsustained or sustained changes at the provincial aggregate level. Similarly, most sites exhibited either random variation or identified some unsustained or temporary changes over the study period. The exception to this was the Sturgeon Community Hospital emergency department, which exhibited a sustained, or lasting, improvement in the percentage of patients who rated their emergency department care as excellent or very good. These results suggest that starting in March 2012, the Sturgeon Community Hospital produced a more positive overall patient experience relative to historical norms.

Factors influencing the overall rating of care

In addition to the overall rating of care, the HQCA monitored specific factors that have been shown to influence the overall rating of care over time.[iv] A synthesis of the different multivariate analyses that were conducted in the 2007 and 2009 emergency department reports determined that staff care and communication is undoubtedly the most important patient experience factor affecting the overall rating of care. The synthesis also revealed the following order of importance for factors influencing the overall rating of care (most influential to least influential):

1. Staff care and communication
2. Wait time and crowding
3. Pain management
4. Respect
5. Facility cleanliness
6. Wait time communication
7. Privacy
8. Medication communication
9. Discharge communication

[iv] These factors were shown to influence the overall rating of care through multivariate regression analyses in the 2007 *Emergency Department Patient Experience Survey* report and the *Urban and Regional Emergency Department Patient Experience Report 2009*, and a path analysis in the *Urban and Regional Emergency Department Patient Experience Report 2009*. These reports are available on the HQCA website [http://hqca.ca/surveys/emergency-department-patient-experience/].

This report monitors results for the above nine factors over time, by examining both composite variables and individual survey questions.[v] Overall, the provincial aggregate results and most of the site-level results exhibited either random variation or some unsustained or temporary periods of change over the study period. Out of 182 total site-level analyses of these patient experience factors, there were five depicting evidence of a sustained or lasting improvement. Of these five improvements, three sites are represented. These improvements include:

- Improvement in wait time and crowding ratings – Sturgeon Community Hospital and University of Alberta Hospital
- An improvement in facility cleanliness ratings – Queen Elizabeth II Hospital
- An improvement in the percentage of patients who self-reported waiting more than two hours to be examined by a doctor – Sturgeon Community Hospital
- An improvement in the percentage of patients who believed that emergency department staff **did not** do everything they could to help control their pain – Sturgeon Community Hospital

After examining the sites individually, patterns and distinct trends emerged at the zone level.[vi] On average:

- The Calgary sites (Peter Lougheed Centre, Rockyview General Hospital, and Foothills Medical Centre) exhibited slightly higher patient experience scores than sites from the other zones.
- The Edmonton sites (Sturgeon Community Hospital, Royal Alexandra Hospital, Grey Nuns Community Hospital, Misericordia Community Hospital, and University of Alberta Hospital) and Chinook Regional Hospital, Medicine Hat Regional Hospital, and Red Deer Regional Hospital exhibited slightly lower patient experience scores than the Calgary sites.
- The Northern sites (Northern Lights Regional Health Centre and Queen Elizabeth II Hospital) exhibited the lowest patient experience scores.

Conclusion

The change in the HQCA's emergency department patient experience survey methodology, from point-in-time surveys to bi-weekly surveys over the entire calendar year, enabled the HQCA to provide emergency department stakeholders with more useful information that can be used to improve patient experience, quality of care, and patient safety.

Monitoring site-level data over time was an important step for demonstrating how emergency department patient experience changed (or did not) from 2010 to 2013. However, explaining why

[v] Composite variables are the average score of responses to all questions related to a specific aspect of patient experience. They provide a summary score for that aspect of patient experience.

[vi] These trends describe patterns that have been discerned from inspecting all of the patient experience results. This is a summary, so there are some discrepancies when specific composite and individual question results are examined. However, overall these distinct trends emerged.

patient experience changed (or did not) proved to be challenging. The HQCA recognizes that emergency departments are diverse in terms of their size, patient population served, and the pressures they experience.[vii] Therefore, this report monitors patient volumes, average LOS, and CTAS counts in addition to patient experience over the study period. It was also recognized that emergency department programs and initiatives have an impact on patient experience. These programs and initiatives vary between sites. Mapping programs and initiatives onto the study timeline revealed that there are many being implemented and administered concurrently, making it difficult to accurately assess the effect of any one of them on patient experience. This underscores the importance of pursuing a systematic and highly structured approach to the implementation and evaluation of emergency department quality improvement programs and initiatives.

Despite many quality improvement efforts, there was little evidence for improvements in emergency department patient experience from June 2010 to July 2013. With the exception of the Sturgeon Community Hospital emergency department (which showed evidence for multiple improvements), patient experience ratings have neither sustained improvements or regressions over the study period.

Conclusions drawn from these patient experience results should acknowledge the effects that increasing volumes and longer average LOS have on the emergency department. Maintaining the same or similar levels of patient experience should be interpreted positively, considering that pressures related to emergency department volumes (and at specific sites, average LOS) have shown increases over the study period.[viii]

[vii] The HQCA highlights patient volumes, average LOS, and CTAS counts as three examples of emergency department pressures that impact patient experience.

[viii] Volume pressures often include increases in the number of higher acuity patients presenting to the emergency department.

2.0 HQCA AND BACKGROUND

The Health Quality Council of Alberta (HQCA) is an independent organization legislated under the *Health Quality Council of Alberta Act*, with a mandate to survey Albertans on their experience and satisfaction with patient safety and health service quality.

The HQCA first completed an emergency department survey and report in 2007, which was the product of a collaboration between the Alberta health regions at the time, the Ministry of Health and Wellness, and other stakeholders, including a working group comprised of emergency department medical professionals, managers, and academics. The survey was repeated in 2009. The 2007 and 2009 emergency department patient experience reports are available on the HQCA website (www.hqca.ca) and include details regarding rationale for the survey, selection and validation of the survey instrument, and survey and analysis methodology.[ix] The 2010-2013 survey was conducted in collaboration with Alberta Health Services and emergency department staff representing each of the participating sites.

As in the previous surveys, the 2010-2013 survey focused on patient experience of emergency department care in 13 of Alberta's large urban and regional hospital emergency departments. The 13 sites included in the 2010-2013 survey are: Chinook Regional Hospital, Foothills Medical Centre, Grey Nun's Community Hospital, Medicine Hat Regional Hospital, Misericordia Community Hospital, Northern Lights Regional Health Centre, Peter Lougheed Centre, Queen Elizabeth II Hospital, Red Deer Regional Hospital, Sturgeon Community Hospital (not surveyed in 2007 and 2009),[x] Rockyview General Hospital, Royal Alexandra Hospital, and University of Alberta Hospital.

2.1 An ongoing focus on emergency department care

In undertaking the 2007 and 2009 surveys, the HQCA recognized the following points that are equally applicable to the 2010-2013 study:

- Many of the challenges facing emergency departments in Alberta, including crowding issues, are health system issues where both causes of problems and their solutions extend beyond the emergency department itself. In this context, improving the experience of patients, and their quality of care, needs to include strategies at broader hospital, AHS zone, and health system levels.
- Emergency department facilities are diverse in terms of the services they provide to the community, their size and volume, patient population, and the causes and degree of pressures they experience. However, it is recognized that facilities may not be able to influence all of the factors that impact their performance from a patient experience perspective.

[ix] These reports can be retrieved from the HQCA website, at http://hqca.ca/surveys/emergency-department-patient-experience/.

[x] The HQCA assessed the impact of adding an additional site in 2010 (Sturgeon Community Hospital) and determined that inclusion of the additional site had no significant impact on the pooled (provincial aggregate) data.

- Results at the provincial aggregate level provide an important overview of emergency department patient experience in the province's urban and regional emergency departments.

Since the release of the 2009 report, the HQCA has recognized that provincial aggregate results also have their limitations. Primarily, provincial aggregate results assume that patients presenting to different sites all enter the same provincial emergency department care delivery system, and this is not the case. As mentioned above, emergency department facilities are extremely diverse; this extends to the programs and initiatives they implement as well as to how patients rate the care they receive. By aggregating results from all sites into a provincial patient experience score, important between-site differences are masked along with valuable actionable information at the site level. Recognizing that patients presenting to different sites do not all enter an identical care delivery system led the HQCA to focus on patient experience at the site level.

2.2 Purpose of the 2010-2013 study

The purpose of the 2010-2013 survey is to monitor variation and detect changes in emergency department patient experience over time at the provincial aggregate level and at the 13 sites with the greatest crowding pressures, longest wait times, and historically the poorest patient experience. Additionally, this report aims to:

- Provide actionable information about patient experience over time that will assist care providers at both the provincial and site levels to improve the quality of emergency department patient care.
- Present site-specific patient experience results in conjunction with results from other sites to encourage comparison for the purposes of shared learning.[xi]
- Monitor variation and detect changes in patient experience over time, relative to historical norms and in response to changes applied to the delivery of emergency department care.

[xi] The HQCA urges caution given the potential for differences between sites that may influence patient experience. However, the HQCA acknowledges that comparison has the potential to aid in the identification of weak or strong aspects of emergency department care delivery. This may encourage discussion regarding practices employed by the higher-performing sites and facilitate learning from best practices.

In 2010, the HQCA made an important change to the process of conducting emergency department surveys compared with 2007 and 2009. Beginning in June 2010, the HQCA shifted to sampling emergency department patients every two weeks (presented monthly in this report) to monitor patient experience results over the entire calendar year. Monitoring results over the calendar year allows for the identification of seasonal variability, which was impossible with the point-in-time approach used in the 2007 and 2009 surveys.

This change means that comparison of the patient experience results for 2010-2013 with the 2007 and 2009 point-in-time results is strongly discouraged; conclusions may be misleading and inappropriate because of the broader time frame and different sampling frequency employed for the 2010-2013 survey.

3.0 STUDY METHODOLOGY

3.1 Survey methodology

The 2007 working group selected and adapted the British Emergency Department Patient Experience Survey tool for use in Alberta. This rigorously developed and validated survey tool provided the core set of questions for the HQCA's survey, and additional items were developed to capture the unique Alberta context. These new items and selected original items underwent both cognitive and psychometric testing, and field testing in Alberta emergency department patient populations prior to use.

The HQCA selected and engaged the services of Prairie Research Associates Incorporated (PRA), a national research firm, to conduct the 2007, 2009, and 2010-2013 emergency department patient experience surveys. During the 2010-2013 survey, PRA was provided with representative samples of patients who had visited each of the 13 sites every two weeks. Patients were selected randomly from the entire population of patients seen in an emergency department during the sample period.[xii] Sample sizes were proportionately larger for smaller facilities, requiring the calculation of cluster sample weights to adjust for the higher probability of patient selection in low volume sites.[xiii] Samples generated for this report exclude children aged 0 to 15,[xiv] patients who left before being seen or treated, and patients who died in the context of their emergency department stay.[xv]

A rigorous four stage survey protocol was used to maximize the response rate and quality of the final sample. Using this protocol, the HQCA was able to achieve an overall response rate of 44.8 per cent (24,181 completed out of 53,963 surveys distributed). Response rates for individual sites ranged from 32.8 per cent to 54.4 per cent. More information regarding this protocol and its outcomes, overall and at the site level, can be found in Appendix I.

In general, the 13 large urban or regional hospital emergency departments surveyed are routinely faced with some of the most severe challenges in the province, including the greatest crowding, longest wait times, and historically the poorest patient experience.

[xii] Site-level sample sizes were based on predicted response rates (from previous surveys) and were set at the level required to report reliable zone-level results on a quarterly basis, and site-level results annually.

[xiii] Cluster weights are applied to the provincial aggregate results but not site-level results, because samples were selected to be representative at the site level.

[xiv] Parents of children 0 to 12 were surveyed for two sites (Alberta Children's Hospital and Stollery Children's Hospital); however results are not included in this report for this fundamentally different population. A separate pediatric report will be produced with this data following the release of this adult report.

[xv] Patients without contact information, and a small number of "privacy" sensitive cases such as domestic abuse, were also excluded from the sample and were randomly replaced with eligible cases.

While the primary goal of this study is to produce actionable information at the site level, results are also analyzed at a provincial aggregate level. This aggregate result should not be interpreted as an overall provincial result because the survey excludes rural emergency departments.

For more information regarding survey methodology, see Appendix I or the 2007 *Emergency Department Patient Experience Survey* technical report (http://hqca.ca/surveys/emergency-department-patient-experience/emergency-department-patient-experience-survey/).

3.2 Measurement and analytical methodology

The HQCA transitioned from collecting data cross-sectionally (at a single point-in-time) to sampling every two weeks in 2010. This decision was made in order to better monitor variation, detect meaningful changes[xvi] in emergency department patient experience over time (i.e., either improving or diminishing patient experience), and ultimately provide emergency department stakeholders with data to inform the improvement of patient experience, quality of care, and patient safety.

This new data collection method necessitated the adoption of different analytical methods to report this data. This report uses both descriptive statistics and statistical process control (SPC) methods to monitor variation and detect changes in emergency department patient experience over time.

The run chart is a widely accepted tool for graphically displaying simple descriptive statistics, such as means (averages), percentages (for categorical or attribute data), and standard deviations, over time. A key component of run chart evaluation involves identifying instances of non-random variation (which represent changes) in patient experience, and then determining whether these changes represent improving or declining patient experience.

Using control charts (the most common application of SPC methods) instead of run charts has an added benefit; in addition to observing variation and identifying changes in quality measures over time, control charts use historical data to determine whether the process is functioning within normally expected limits. These limits define the range of expected random variation and are identified by upper and lower control limits. The upper control limit (UCL) is the maximum acceptable variation above the centreline (an overall average) for a process that is in a state of control, and the lower control limit (LCL) is the maximum acceptable variation below the centreline for a process that is in control.[1] For more information on measurement and analytical methodology see Appendix II.

In this report, run charts are used to display the provincial aggregate patient experience results, but not the site-level results. In contrast, control charts are used to track emergency department performance

[xvi] Used in this context, "meaningful changes" refers to instances of non-random variability in the data over time. These instances of non-random variability are termed "meaningful" because they represent periods of change that can be attributed to an unexpected cause (something that is not inherent to the system and would not normally be expected to influence results).

with respect to patient experience at the site level, but not at the provincial aggregate level. See Appendix III for more information about the reasons for this discrepancy.

For all charts, the plotted results represent pooled patient-level results, collected for a specific month. Although run charts and control charts are similar in many ways, an important difference between the two is in the rules they employ for detecting non-random variation or meaningful changes in the data. The HQCA has adopted the following rules to identify changes in run charts:[2,xvii(3)]

1. *A shift:* Six or more consecutive points above or below the median.
2. *A trend:* Five or more consecutive points increasing or decreasing.
3. *Too many or too few runs:* A run is a series of consecutive points that fall on one side of the median. This rule is based on a complex probability-based test for detecting non-random patterns of data; essentially it tests to see if data clusters above or below the median too often to conclude the data is behaving randomly. Refer to Appendix IV for more information on this rule and for a table depicting the minimum and maximum number of runs required to decide if run chart data is varying randomly or not.
4. *An astronomical data point:* A data point that is obviously or blatantly different than the rest of the data; sometimes referred to as an outlier.

In contrast, the HQCA uses six rules to detect non-random variability, or meaningful change, in control charts (adapted from several established control chart guidelines):[2,4,5]

1. A single point outside of the control limits.
2. A run of eight or more consecutive points above or below the centreline.
3. Six consecutive points increasing or decreasing.[xviii(2)]
4. Two out of three consecutive points near, but not outside (outer one-third) the control limits.
5. Fifteen consecutive points close to the centreline (inner one-third).
6. An unusual or non-random pattern of points.[xix(2,6,7)]

It is important to note that change in emergency department patient experience is directional and can be either positive or negative relative to historical norms. However, not every positive change should be deemed an improvement, nor should every negative change be deemed a regression. To differentiate

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[xvii] Rules one and three for run charts are violations of random patterns and are based on a probability of less than a five per cent chance ($p<.05$) of occurring just by chance when there is no real change.

[xviii] Because the control charts in this report have variable control limits (due to varying numbers of patients surveyed per month), rule three for control charts should be interpreted with caution. According to strict theory it is not correct to use this rule; however, in practice this rule is quite useful for identifying meaningful change.

[xix] This rule seems to be somewhat subjective, but is included because special circumstances may warrant the use of other tests for non-random variation, such as tests from Nelson (1984) or the Western Electric Handbook (1956).

improvements from changes, the HQCA has adopted the following operational definition of improvement:[8]

1. Alter how the work is done…Improvement is the result of some design or redesign of the system.
2. Produce visible, positive differences in results relative to historical norms (defined by control limits).
3. Produce *lasting* or *sustained* impact.
4. The impact must be on measures *that matter* to the organization.

See the illustration in Appendix III for a visual depiction of improvement, according to this operational definition. For more information regarding interpretation and evaluation guidelines for run charts and control charts, or to view visual illustrations of example charts and their characteristics, refer to Appendix III.

4.0 CONTEXTUALIZING PATIENT EXPERIENCE

Patient experience is impacted by a number of factors, some of which are not under the direct control of the emergency departments. These factors can be either patient-centric, focusing on the context of the patient visit, or more structural, referring to circumstances specific to the emergency department at a given time. Patient-centric factors that may influence emergency department patient experience include how urgent patients perceived their medical condition to be and why patients presented to the emergency department.

Results from the 2010-2013 survey revealed that 86 per cent of respondents self-rated their urgency within one category of their Canadian Triage and Acuity Scale (CTAS) score,[xx] indicating that most patients accurately assess how urgent their medical situation is. However, there was also evidence that some patients underestimated the urgency of their health problem. More than two in 10 respondents (23%) in CTAS categories 1 and 2 (the most urgent categories) rated their acuity as only somewhat urgent or not urgent. Furthermore, there is evidence suggesting there may be opportunities to better manage chronic conditions outside of an emergency environment. For example, almost a quarter (24%) of respondents stated that the medical problem that brought them to the emergency department was related to a chronic illness, either for a worsening of their condition (22%) or for routine care of their condition (2%). For more information regarding patient-centric factors that may influence patient experience see Section B.[xxi]

Other factors that impact patient experience are more structural and include circumstances specific to the emergency department at a given time. Three structural factors that have an impact on emergency department patient experience are patient volumes, length of stay (LOS), and acuity of emergency department patients. The HQCA's previous emergency department survey reports indicate that factors related to waiting for care significantly influence patients' overall rating of emergency department care. As perceived wait times and crowding improved (shorter waits, less crowding), so did the overall rating of care.[xxii]

Understanding the influence of structural factors is important when interpreting emergency department patient experience results. For example, if the results show that patient experience scores have not

[xx] Acuity is measured using the Canadian Emergency Department Triage and Acuity Scale (CTAS) developed by the Canadian Association of Emergency Physicians (CAEP). CTAS is a tool used in most emergency departments as an indicator of triage priority and attempts to accurately capture patients' need for timely care. There are five CTAS designations, with 1 being the most urgent and 5 being the least urgent.

[xxi] Section B looks at descriptive information for the entire sample of respondents. For site-specific descriptive information see Appendix VI.

[xxii] This result is reported in the 2007 *Emergency Department Patient Experience Survey* report and the *Urban and Regional Emergency Department Patient Experience Report 2009*, both of which can be found on the HQCA website [http://hqca.ca/surveys/emergency-department-patient-experience/].

changed substantially throughout the study period, and an investigation of administrative data[xxiii] reveals that emergency department volumes, average LOS, and acuity (CTAS) have increased over this same period of time, an interpretation should be that the same or similar levels of patient experience were maintained despite these added pressures.

In this report, emergency department volumes, average LOS, and CTAS are presented monthly via run charts, and are displayed by site. Volumes and average LOS are displayed on the same chart, using different scales. Volumes and average LOS for admitted and discharged patients[xxiv] are displayed separately, because the data was expected to be noticeably different between these two groups. Emergency department volumes are also displayed separately for each CTAS level.

Note that emergency department volumes, average LOS, and volumes by CTAS level are reported for the entire population of patients presenting to an emergency department, and not specifically for the sample of patients surveyed.[xxv] This was done in order to develop an overall sense of how these three factors changed over time, so that the relative magnitude of these pressures on emergency departments over time can be assessed. Also, note that many of these run charts are presented with trend lines instead of the usual median.[xxvi] This was done in accordance with best practice,[2] which states that a trend line can be placed on a run chart in place of the median if the chart shows evidence for a change and the data appears to move in a consistent upward or downward direction. Curved trend lines are used when there are multiple signals for change and the data originally appears to consistently move in one direction before switching to a different direction.

[xxiii] Administrative data are data that were collected for "administrative" purposes such as accounting, billing, tracking of diagnoses, etc. Administrative data were not designed to measure the quality of healthcare; however, secondary use of administrative data can often produce useful measures of quality.

[xxiv] In this report, admitted refers to patients admitted to hospital from the emergency department, while discharged refers to patients discharged home directly from the emergency department without being admitted to hospital.

[xxv] Note: This is administrative data, routinely collected by Alberta Health Services (AHS). The decision to use AHS' data was made to ensure the HQCA was reporting volumes and LOS that matched AHS' records.

[xxvi] See Appendix X for original run charts, containing the median depicting the centre of the distribution and highlighted periods of substantial change.

4.1 Emergency department volumes, length of stay (LOS), and CTAS

Figure 1: Emergency department volumes and LOS for admitted patients at Chinook Regional Hospital

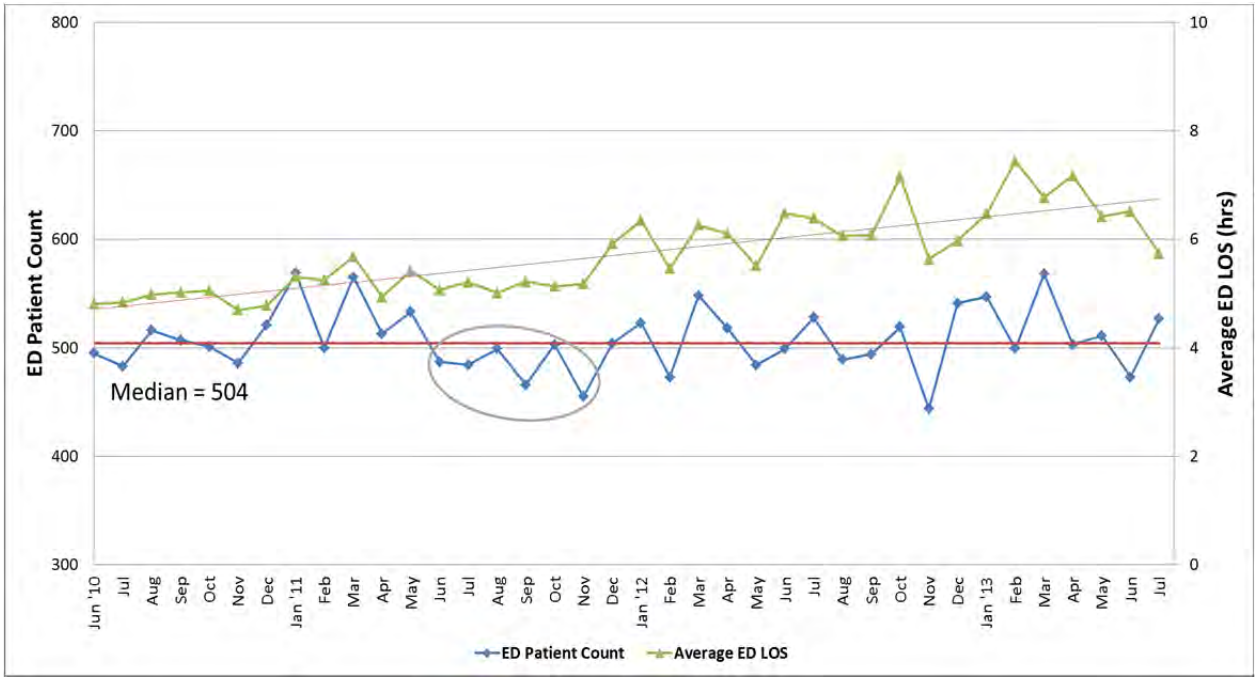
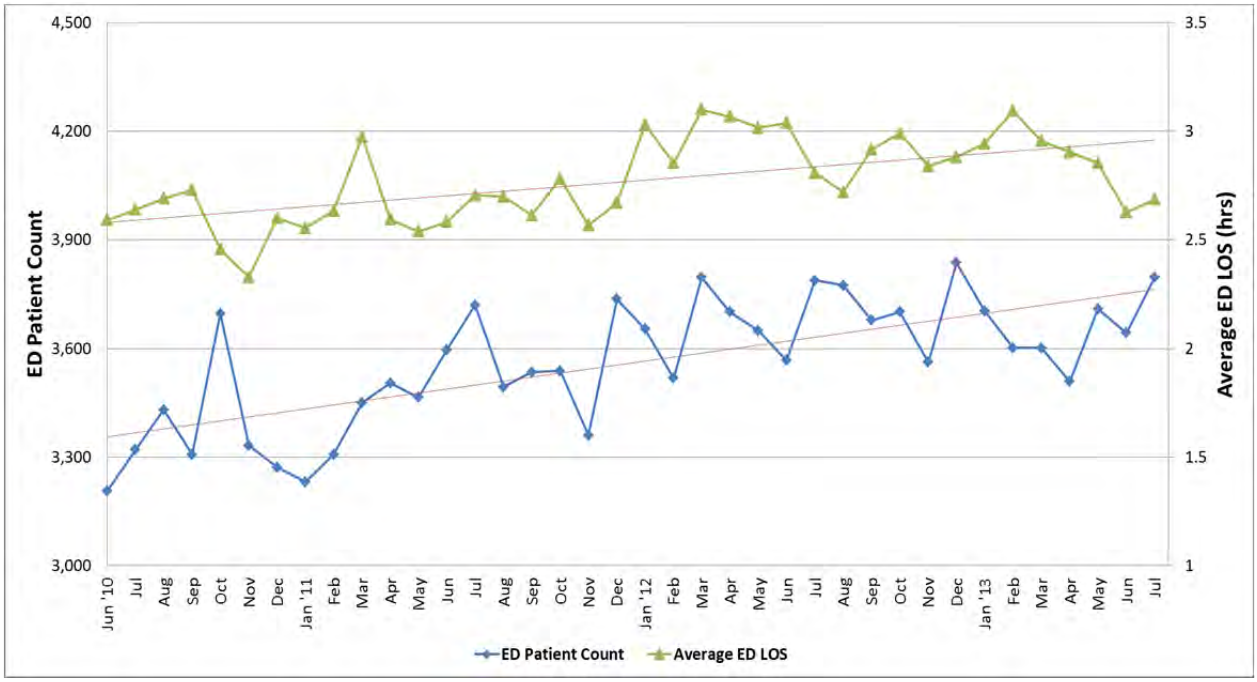
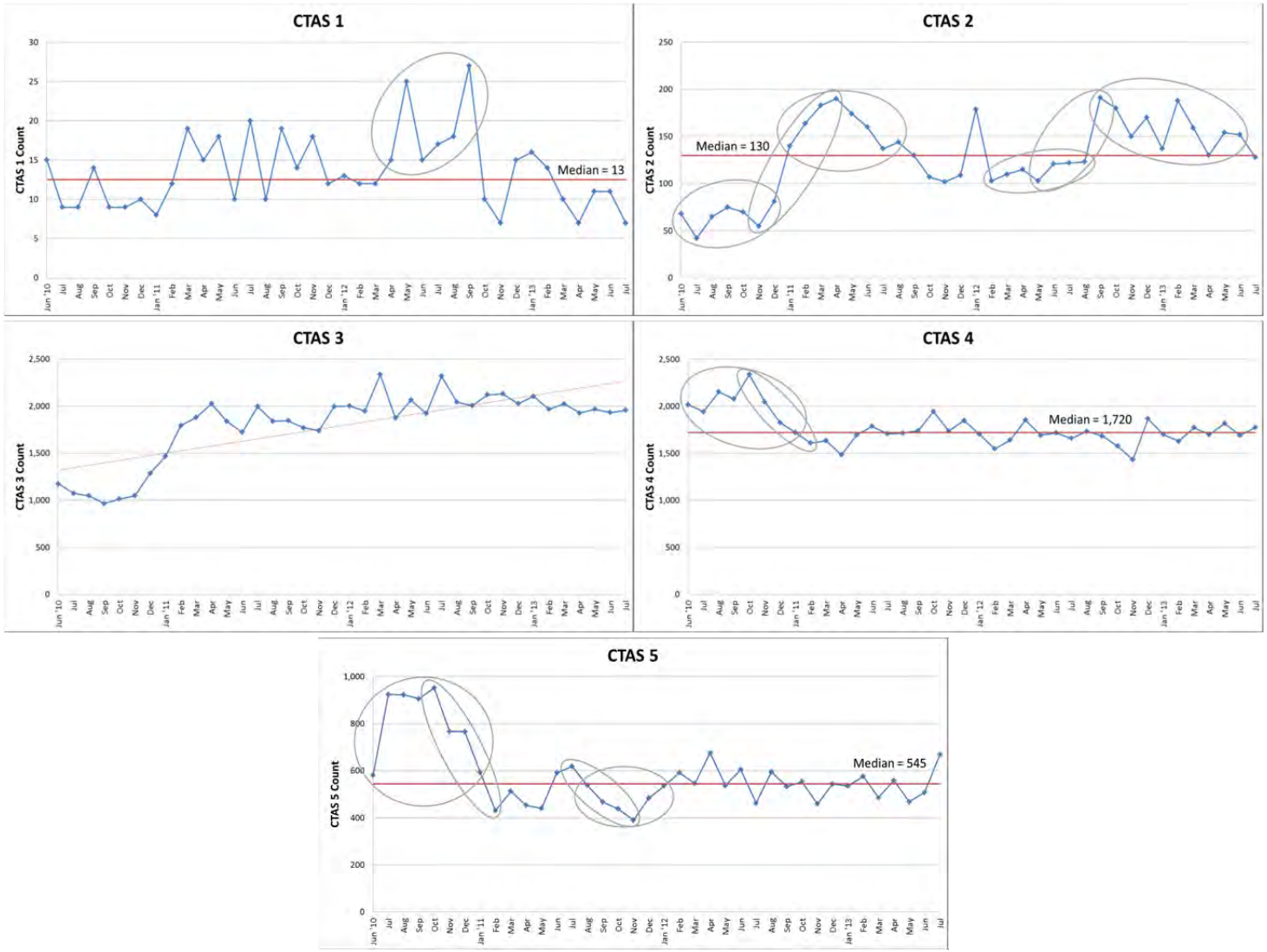


Figure 2: Emergency department volumes and LOS for discharged patients at Chinook Regional Hospital



- Emergency department (ED) patient volumes remained relatively unchanged for admitted patients since June 2010, mostly varying randomly around a median of 504 patients admitted per month.
- There was one unsustained change toward fewer patients being admitted from the emergency department to the hospital from June to November 2011.
- Average LOS increased consistently for admitted patients since June 2010.
- ED patient volumes increased consistently for discharged patients since June 2010.
- Though average LOS is much shorter for discharged patients than admitted patients, the same pattern appears – average LOS has increased consistently for discharged patients since June 2010.

Figure 3: Emergency department volumes by CTAS level at Chinook Regional Hospital



- CTAS 1 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 13 patients triaged as CTAS 1 (the most urgent acuity designation) per month. There was one unsustained change toward more patients being triaged as CTAS 1 from April to September 2012.
- CTAS 2 patient volumes cycle above and below the median (130), and generally do not consistently increase or decrease over time. There were two unsustained changes toward lower numbers of CTAS 2 patients in the emergency department from June to December 2010 and February to August 2011, and four unsustained changes toward higher numbers of CTAS 2 patients from November 2010 to April 2011, January to August 2011, May to September 2012, and September 2012 to June 2013.
- CTAS 3 patient volumes increased consistently since June 2010.
- CTAS 4 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 1,720 patients triaged as CTAS 4 per month. There was one unsustained change toward more patients being triaged as CTAS 4 from June 2010 to January 2011, and one unsustained change toward fewer CTAS 4 patients from October 2010 to February 2011.
- CTAS 5 patient volumes cycle above and below the median (545) for the first half of the study period, and generally do not consistently increase or decrease over time. There was one unsustained change toward more CTAS 5 patients from June 2010 to Januray 2011, and three unsustained changes toward lower numbers of CTAS 5 patients from October 2010 to February 2011, July to November 2011, and August 2011 to January 2012.

Figure 4: Emergency department volumes and LOS for admitted patients at Medicine Hat Regional Hospital

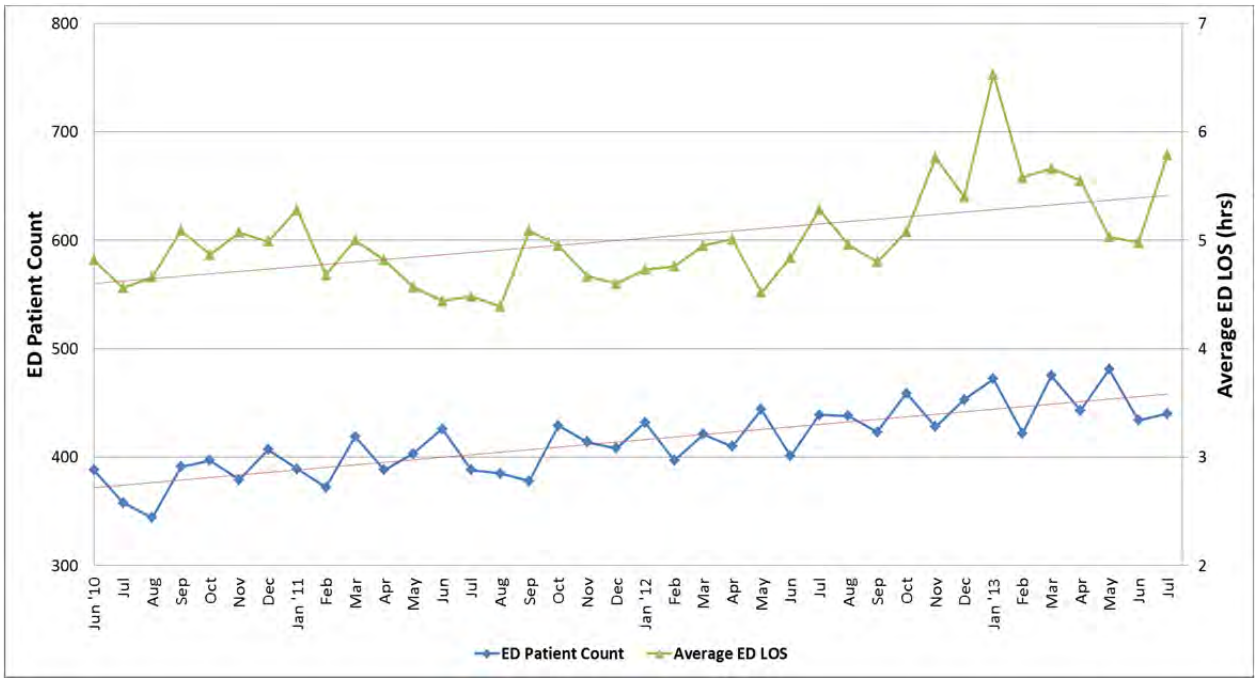
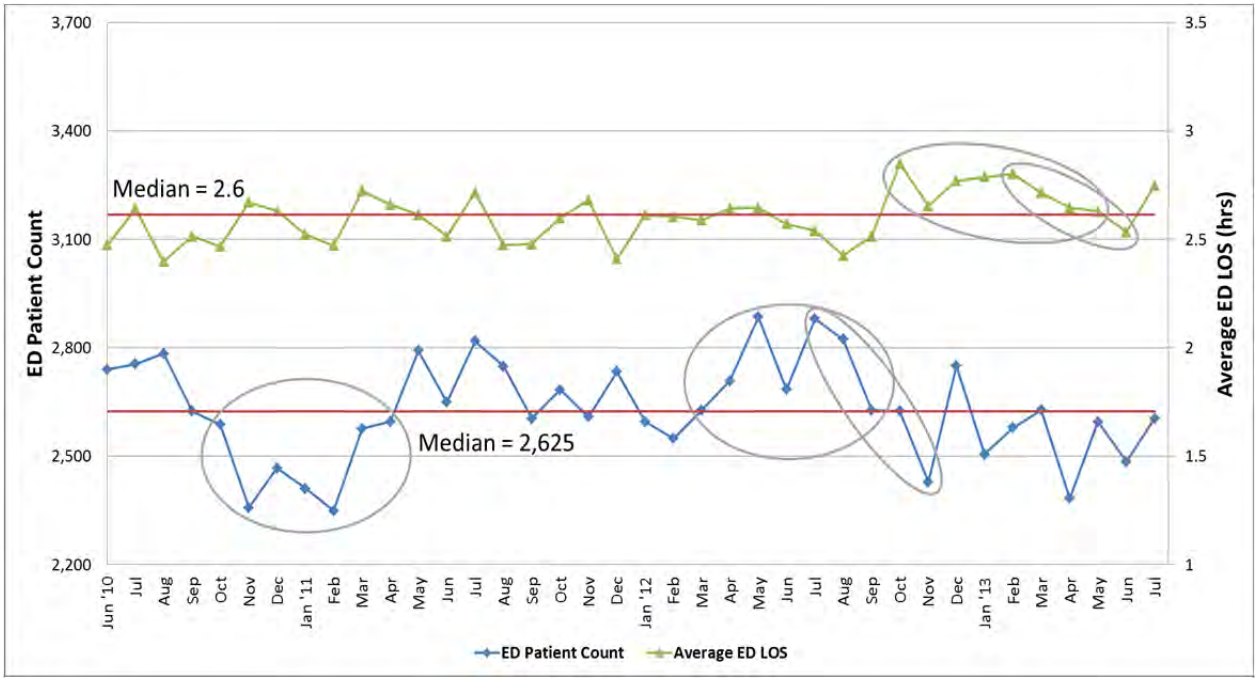
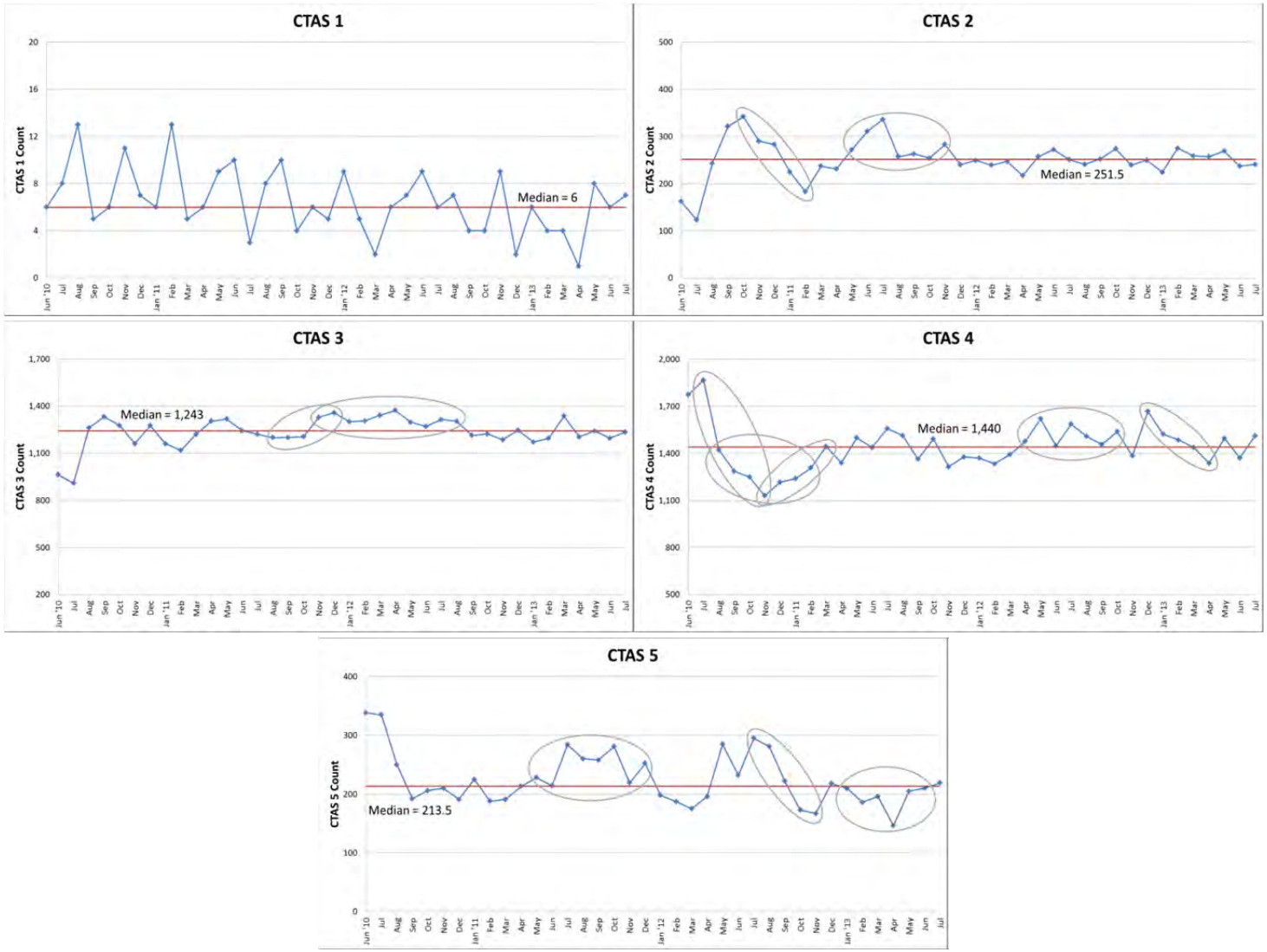


Figure 5: Emergency department volumes and LOS for discharged patients at Medicine Hat Regional Hospital



- ED patient volumes increased consistently for admitted patients since June 2010.
- Average LOS increased consistently for admitted patients since June 2010.
- ED patient volumes cycle above and below the median (2,625) for discharged patients, and generally do not consistently increase or decrease over time.
- There were two unsustained changes toward lower numbers of discharged patients in the emergency department from October 2010 to April 2011 and July to November 2012, and one unsustained change toward higher numbers of discharged patients in the emergency department from March to September 2012.
- Average LOS remained relatively unchanged for discharged patients since June 2010, mostly varying randomly around a median of 2.6 hours.
- There was one unsustained change toward longer average LOS for discharged patients from October 2012 to May 2013, and one unsustained change toward shorter average LOS for discharged patients from February to June 2013.

Figure 6: Emergency department volumes by CTAS level at Medicine Hat Regional Hospital



- CTAS 1 patient volumes remained relatively unchanged since June 2010, varying randomly around a median of 6 patients triaged as CTAS 1 (the most urgent acuity designation) per month.
- CTAS 2 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 251.5 patients triaged as CTAS 2 per month. There was one unsustained change toward fewer patients being triaged as CTAS 2 from October 2010 to February 2011, and one unsustained change toward more CTAS 2 patients from May to November 2011.
- CTAS 3 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 1,243 patients triaged as CTAS 3 per month. There were two unsustained changes toward more CTAS 3 patients from August to December 2011 and November 2011 to August 2012.
- CTAS 4 patient volumes cycle above and below the median (1,440), and generally do not consistently increase or decrease over time. There were three unsustained changes toward lower numbers of CTAS 4 patients in the emergency department from July to November 2010, August 2010 to February 2011, and December 2012 to April 2013, and two unsustained changes toward higher numbers of CTAS 4 patients from November 2010 to March 2011 and April to October 2012.
- CTAS 5 patient volumes cycle above and below the median (213.5), and generally do not consistently increase or decrease over time. There was one unsustained change toward more CTAS 5 patients from May to December 2011, and two unsustained changes toward fewer CTAS 5 patients from July to November 2012 and January to June 2013.

Figure 7: Emergency department volumes and LOS for admitted patients at Red Deer Regional Hospital

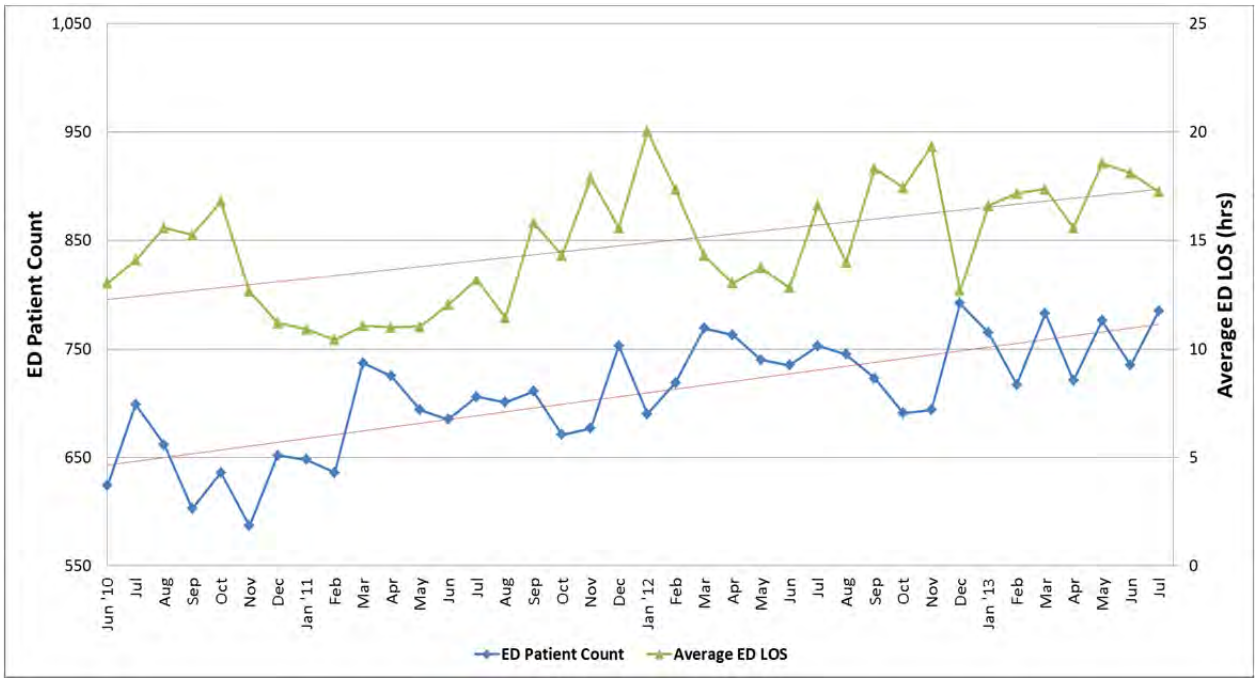
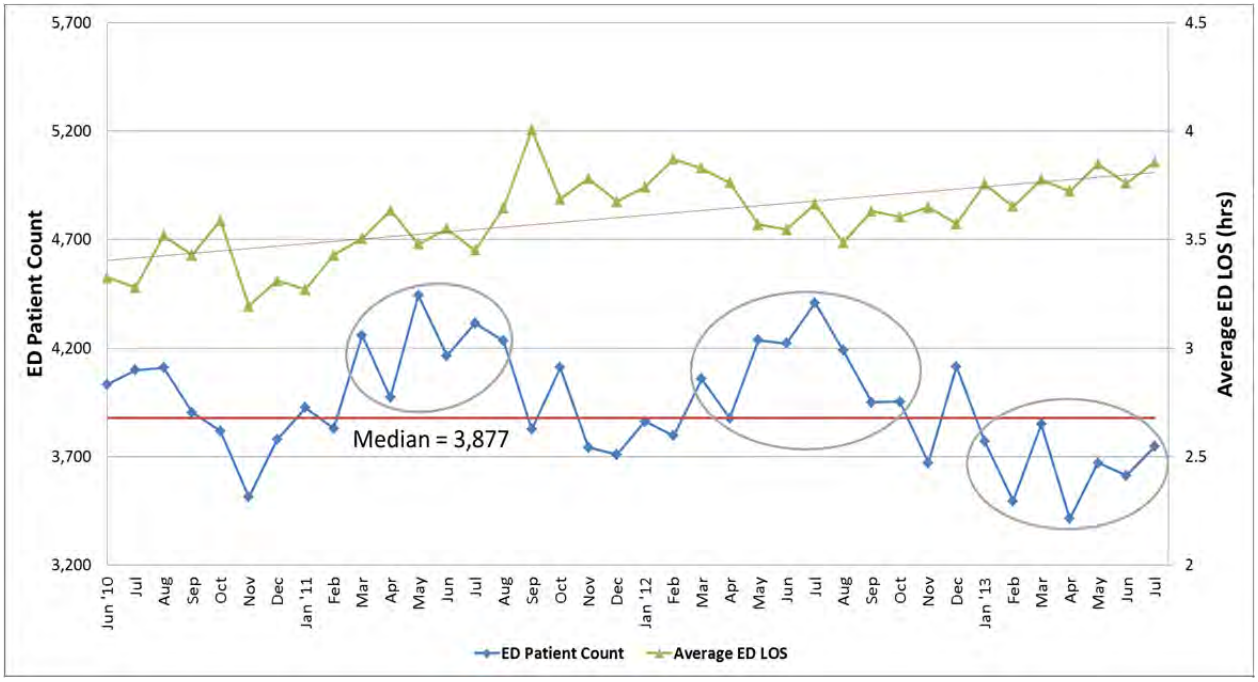
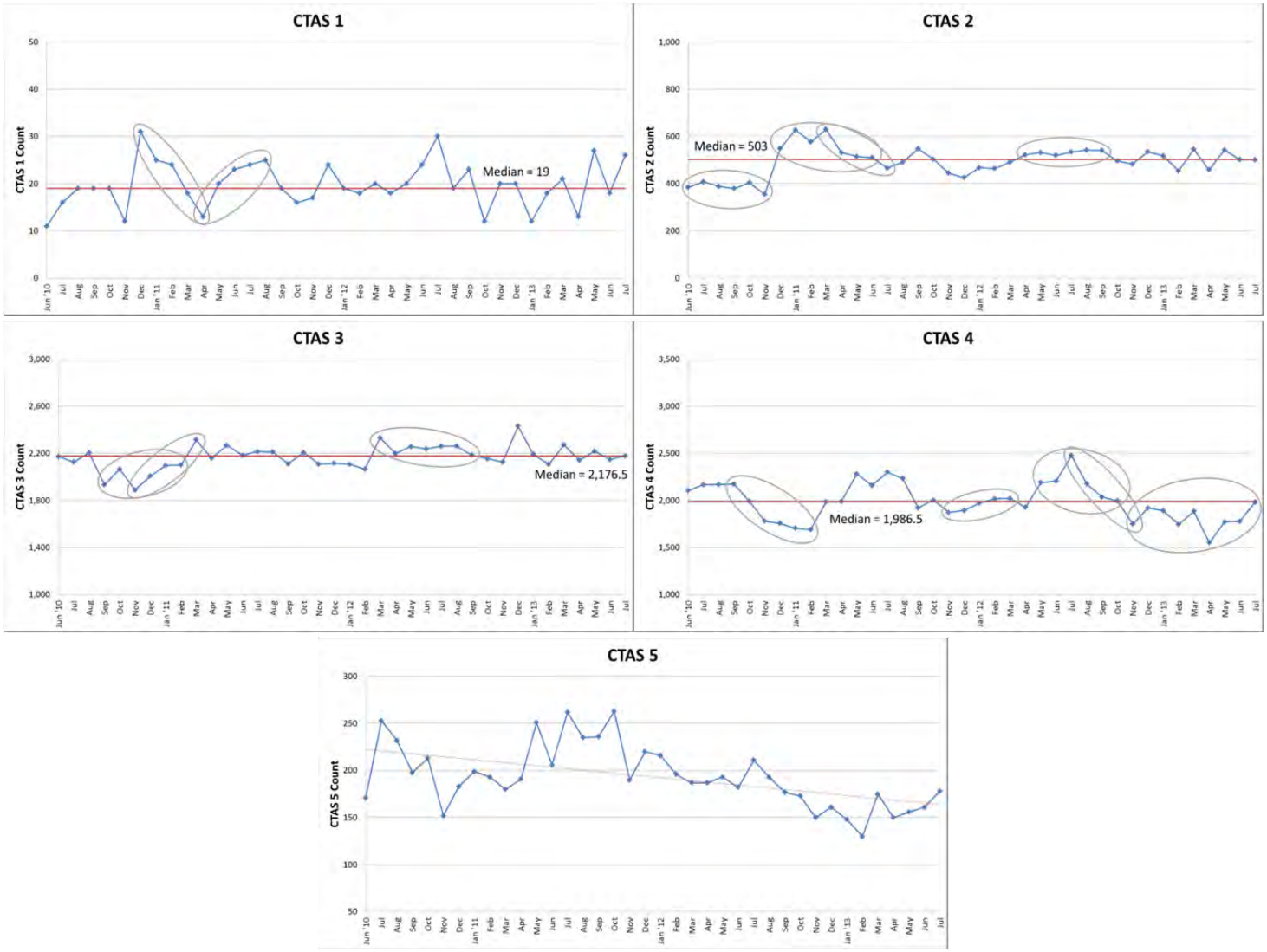


Figure 8: Emergency department volumes and LOS for discharged patients at Red Deer Regional Hospital



- ED patient volumes increased consistently for admitted patients since June 2010.
- Average LOS increased consistently for admitted patients since June 2010.
- ED patient volumes cycle above and below the median (3,877) for discharged patients, and generally do not consistently increase or decrease over time.
- There were two unsustained changes toward higher numbers of discharged patients in the emergency department from March to August 2011 and March to October 2012, and one unsustained change toward lower numbers of discharged patients in the emergency department from January to July 2013.
- Though average LOS is much shorter for discharged patients than admitted patients, the same pattern appears – average LOS has increased consistently for discharged patients since June 2010.

Figure 9: Emergency department volumes by CTAS level at Red Deer Regional Hospital



- CTAS 1 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 19 patients triaged as CTAS 1 per month. There was one unsustained change toward fewer patients being triaged as CTAS 1 from December 2010 to April 2011, and one unsustained change toward more CTAS 1 patients from April to August 2011.
- CTAS 2 patient volumes cycle above and below the median (503), and generally do not consistently increase or decrease over time. There were two unsustained changes toward fewer CTAS 2 patients from June to November 2010 and March to July 2011, and two unsustained changes toward more CTAS 2 patients from December 2010 to June 2011 and April to September 2012.
- CTAS 3 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 2,176.5 patients triaged as CTAS 3 per month. There was one unsustained change toward fewer patients being triaged as CTAS 3 from September 2010 to February 2011, and two unsustained changes toward more CTAS 3 patients from November 2010 to March 2011 and March to September 2012.
- CTAS 4 patient volumes cycle above and below the median (1,986.5), and generally do not consistently increase or decrease over time. There were three unsustained changes toward fewer CTAS 4 patients from September 2010 to February 2011, July to November 2012, and November 2012 to July 2013, and two unsustained changes toward more CTAS 4 patients from November 2011 to March 2012 and May to October 2012.
- CTAS 5 patient volumes decreased consistently since June 2010.

Figure 10: Emergency department volumes and LOS for admitted patients at Peter Lougheed Centre

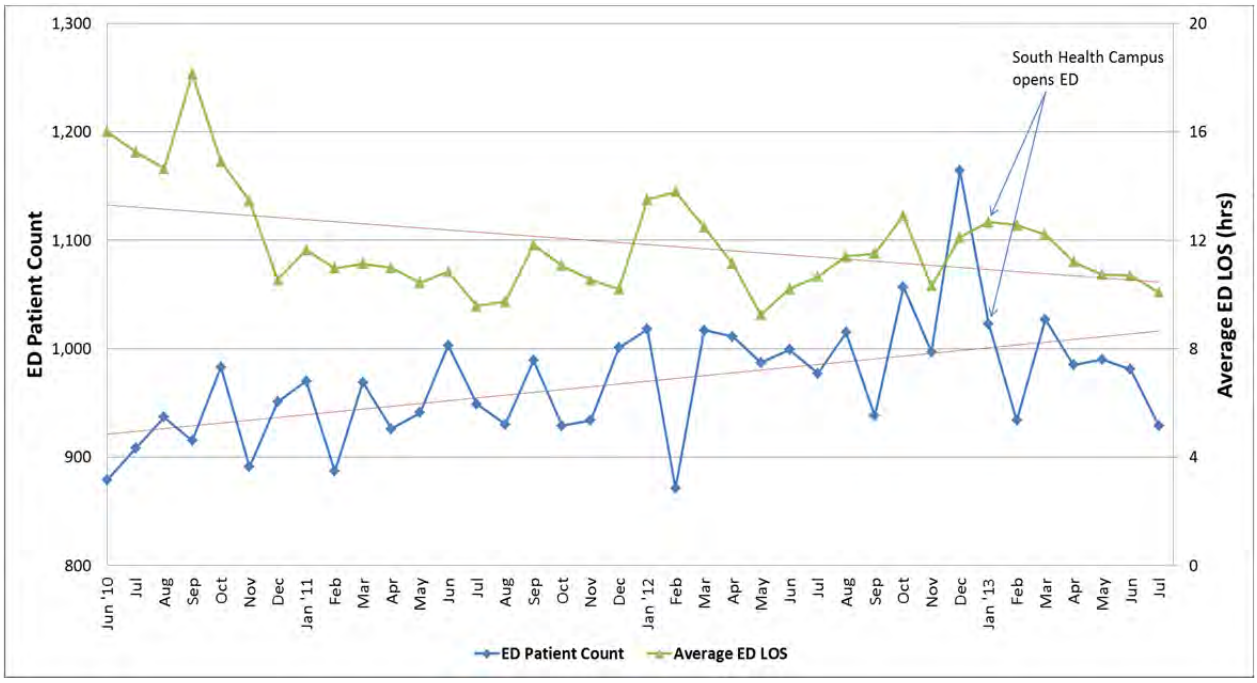
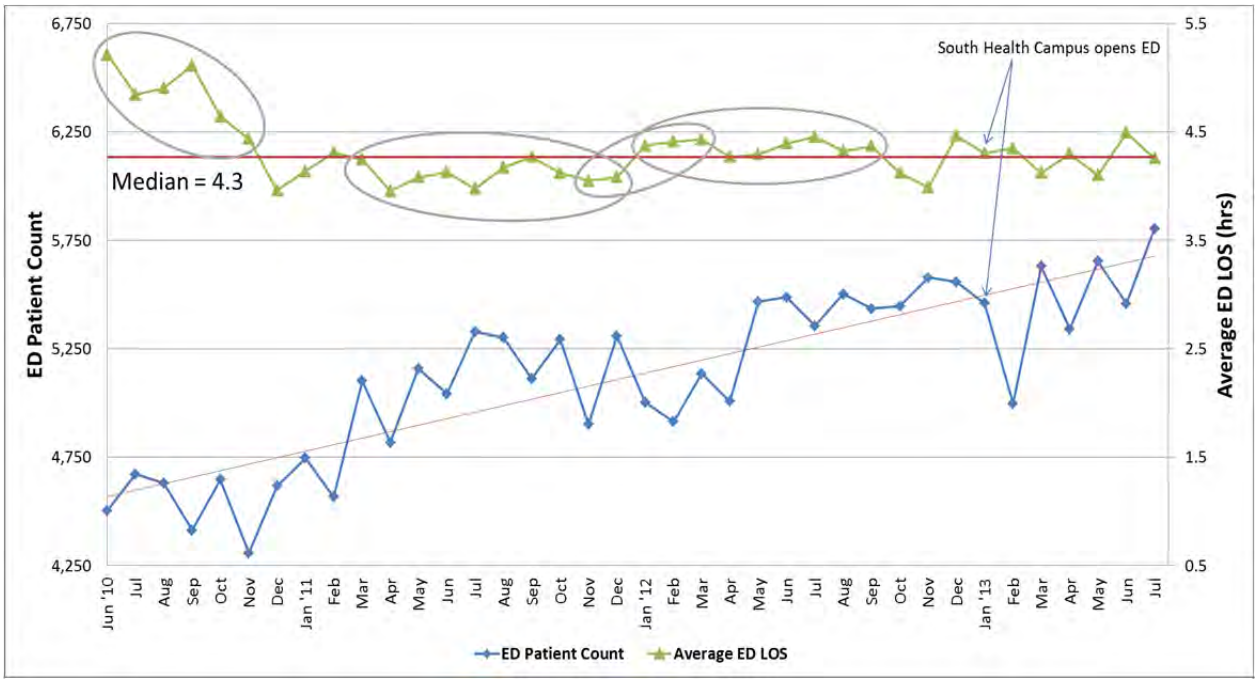
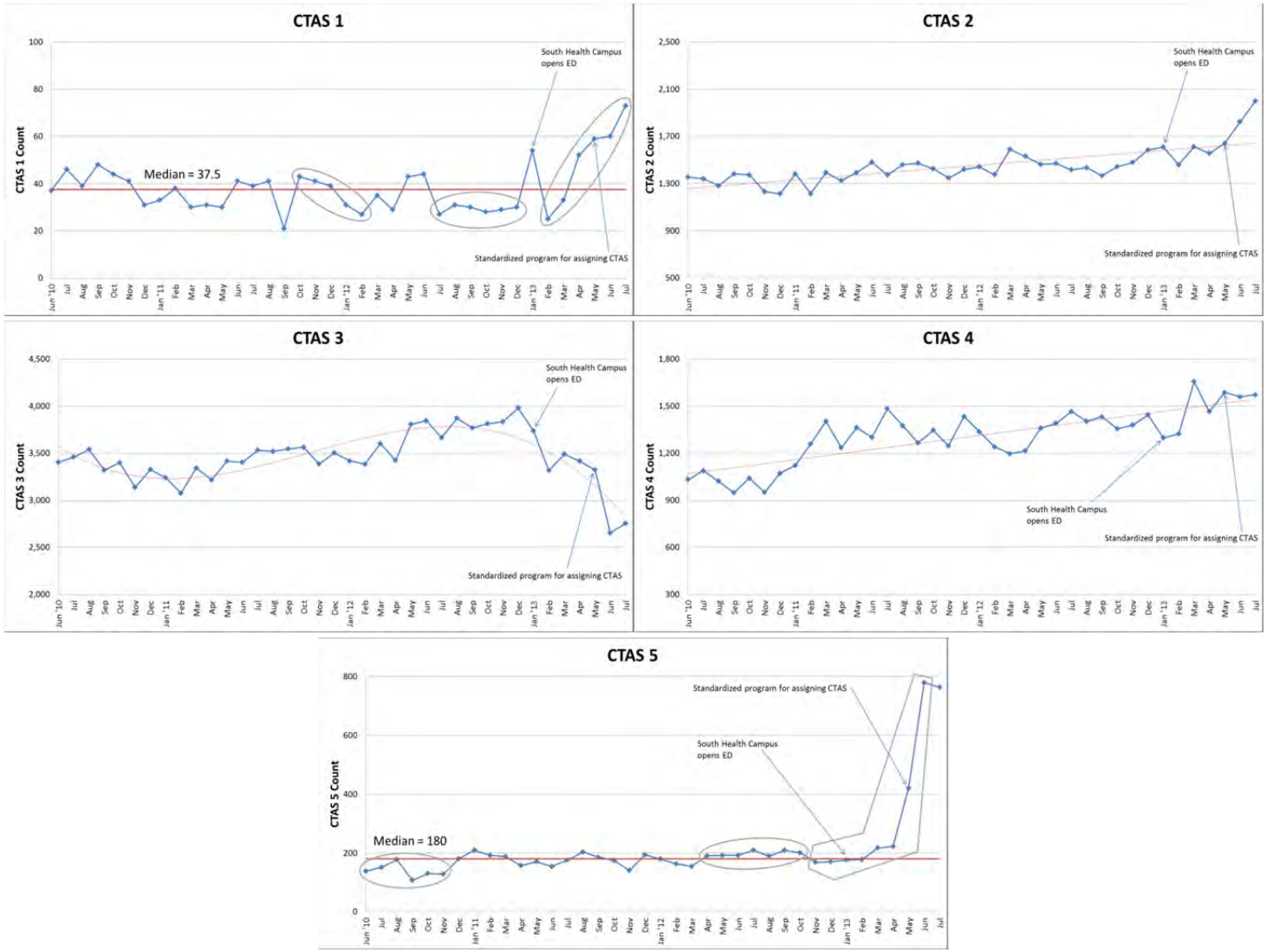


Figure 11: Emergency department volumes and LOS for discharged patients at Peter Lougheed Centre



- ED patient volumes increased consistently for admitted patients since June 2010.
- Average LOS decreased consistently for admitted patients since June 2010.
- ED patient volumes increased consistently for discharged patients since June 2010.
- Average LOS cycles above and below the median (4.3 hours) for discharged patients, and generally does not consistently increase or decrease over time.
- There were three unsustained changes toward longer average LOS for discharged patients from June to November 2010, November 2011 to March 2012, and January to September 2012, and one unsustained change toward shorter average LOS for discharged patients from March to December 2011.

Figure 12: Emergency department volumes by CTAS level at Peter Lougheed Centre



- CTAS 1 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 37.5 patients triaged as CTAS 1 per month. There were two unsustained changes toward fewer patients being triaged as CTAS 1 from October 2011 to February 2012 and July to December 2012, and one unsustained change toward more CTAS 1 patients from February to July 2013.
- CTAS 2 patient volumes increased consistently since June 2010.
- CTAS 3 patient volumes initially decreased consistently from June 2010 until about February 2011, at which time CTAS 3 volumes began to increase consistently, until about December 2012. Volumes of CTAS 3 patients then decreased consistently until the end of the study period.
- CTAS 4 patient volumes increased consistently since June 2010.
- CTAS 5 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 180 patients triaged as CTAS 5 per month. There was one unsustained change toward fewer patients being triaged as CTAS 5 from June to November 2010, and two unsustained changes toward more CTAS 5 patients from April to October 2012 and November 2012 to June 2013.

Large and sudden increases in volumes of CTAS 1 and CTAS 5 patients are observed from early in 2013 until the end of the study period (July 2013). Conversely, CTAS 3 patient volumes decreased suddenly in 2013. These changes are a consequence of a transition to a new emergency department information system which supports standardized computer-assisted assignment of CTAS levels.[xxvii] The transition period extended well beyond the conclusion of the study period (July 2013); therefore, the full extent to which these changes represent greater accuracy in CTAS coding is unknown.[xxviii]

[xxvii] This new emergency department information system is called Sunrise Emergency Care (SEC) and represents the emergency component of the Sunrise Clinical Manager Patient Care Information System (SCM) used in the Calgary zone.

[xxviii] Discussions with Calgary zone emergency department stakeholders suggested that spikes in CTAS 5 patient volumes resulted from issues with the implementation of the SEC information system and do not reflect more accurate CTAS coding. The extent to which changes in other CTAS volumes reflect greater accuracy in CTAS coding remains unknown.

Figure 13: Emergency department volumes and LOS for admitted patients at Rockyview General Hospital

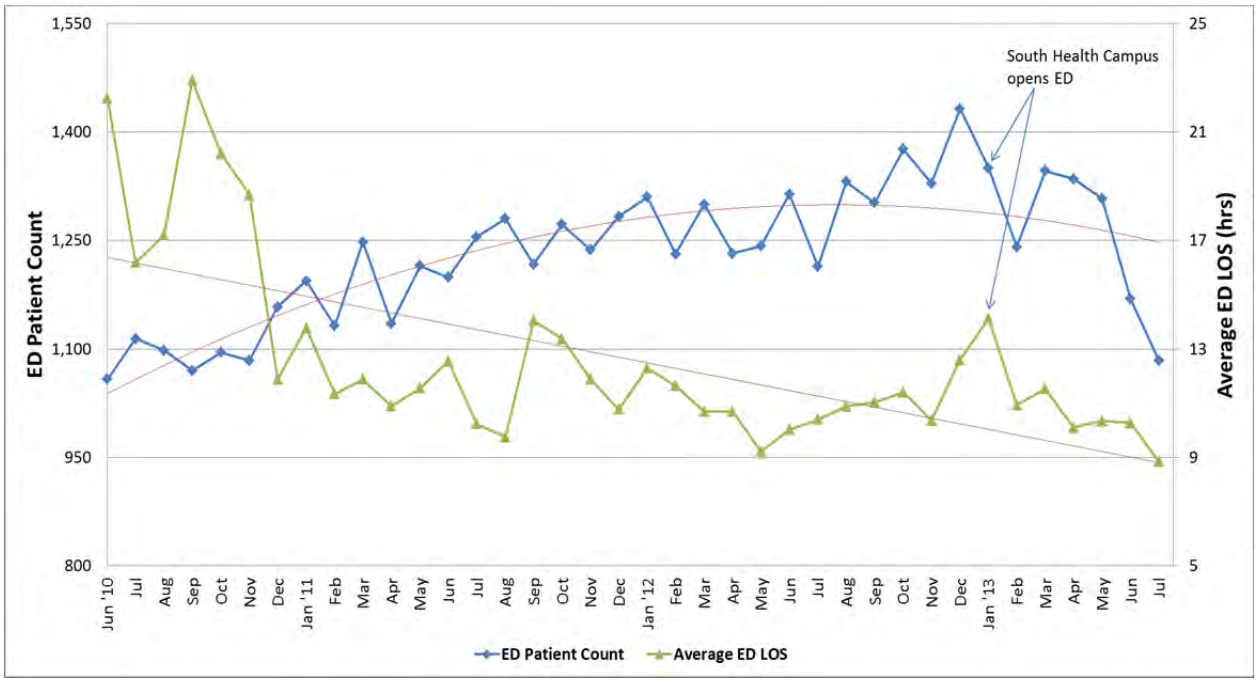
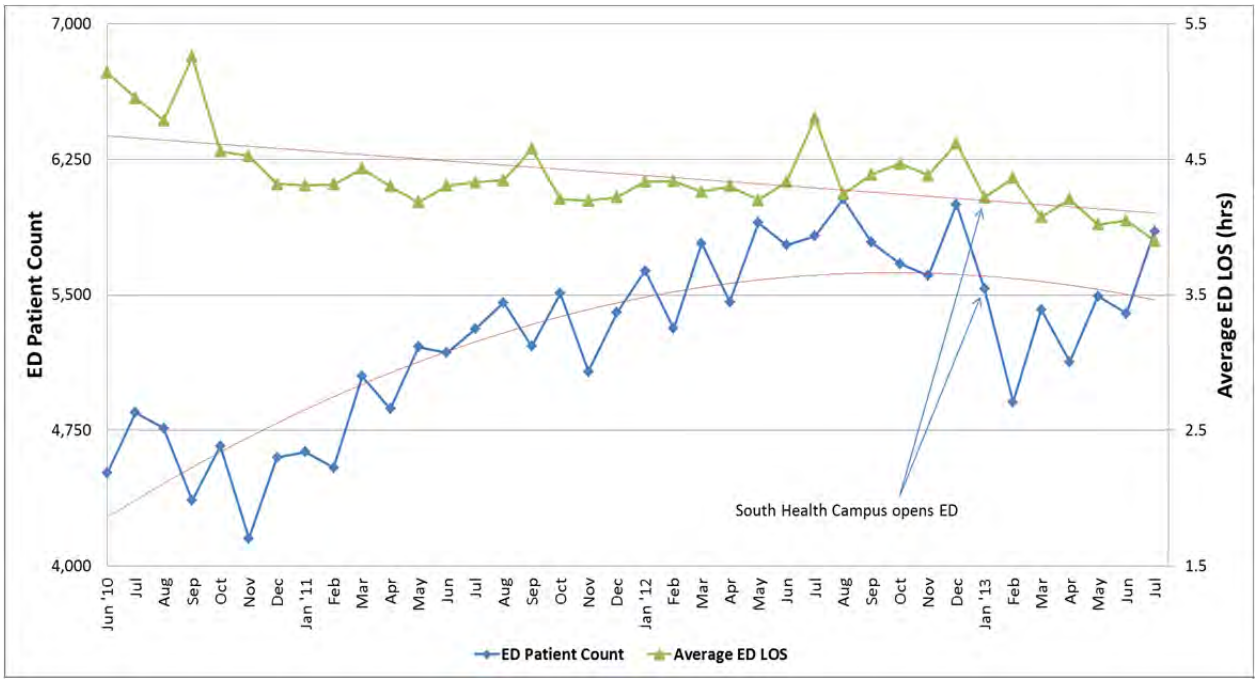
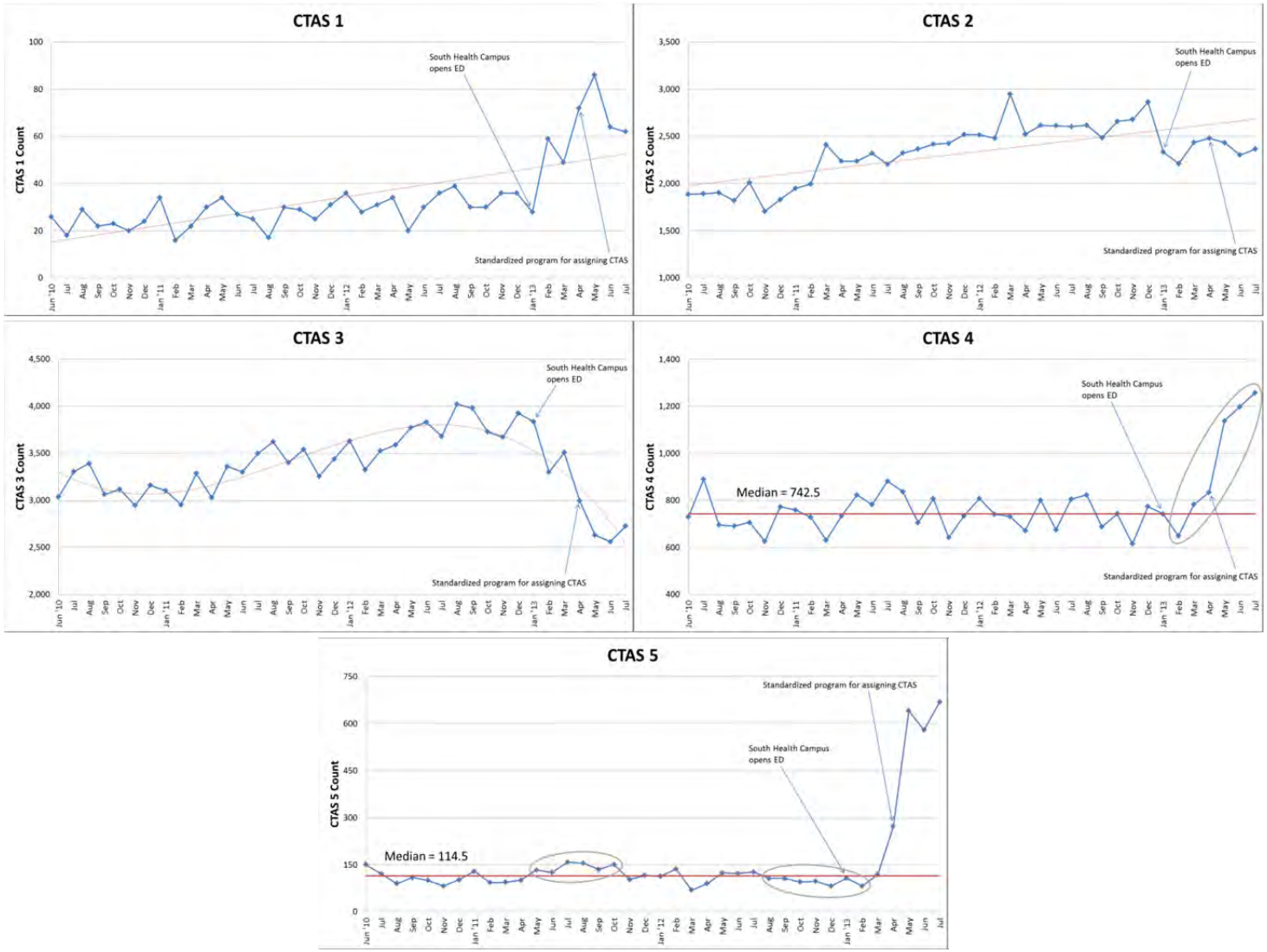


Figure 14: Emergency department volumes and LOS for discharged patients at Rockyview General Hospital



- ED patient volumes increased consistently for admitted patients from June 2010 until about January 2013, at which time ED patient volumes began to decrease consistently.
- Average LOS decreased consistently for admitted patients since June 2010.
- Though ED patient volumes are much higher for discharged patients than admitted patients, the same pattern appears – ED patient volumes increased consistently for discharged patients from June 2010 until about January 2013, at which time ED patient volumes began to decrease consistently.
- Though average LOS is much shorter for discharged patients than admitted patients, the same pattern appears – average LOS has decreased consistently for discharged patients since June 2010.

Figure 15: Emergency department volumes by CTAS level at Rockyview General Hospital



- CTAS 1 patient volumes increased consistently since June 2010.
- CTAS 2 patient volumes increased consistently since June 2010.
- CTAS 3 patient volumes initially decreased consistently from June 2010 until about February 2011, at which time CTAS 3 volumes began to increase consistently, until about December 2012. Volumes of CTAS 3 patients then decreased consistently until the end of the study period.
- CTAS 4 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 742.5 patients triaged as CTAS 4 per month. There was one unsustained change toward more patients being triaged as CTAS 4 from February to July 2013.
- CTAS 5 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 114.5 patients triaged as CTAS 5 per month. There was one unsustained change toward more patients being triaged as CTAS 5 from May to October 2011, and one unsustained change toward fewer CTAS 5 patients from August 2012 to February 2013. There was also a large jump in CTAS 5 patients at the end of the study period, from March to July 2013. This period was not identified as an instance of non-random variation, but the magnitude of the jump in CTAS 5 patients suggests a change has occurred.

Similar to what was observed at Peter Lougheed Centre, large and sudden increases in volumes of CTAS 1, CTAS 4, and CTAS 5 patients are observed from early in 2013 until the end of the study period (July 2013). CTAS 3 patient volumes decreased suddenly in 2013, which was also similar to what was seen at Peter Lougheed Centre. These changes are a consequence of a transition to a new emergency department information system which supports standardized computer-assisted assignment of CTAS levels.[xxix] The transition period extended well beyond the conclusion of the study period (July 2013); therefore, the full extent to which these changes represent greater accuracy in CTAS coding is unknown.[xxx]

[xxix] This new emergency department information system is called Sunrise Emergency Care (SEC) and represents the emergency component of the Sunrise Clinical Manager Patient Care Information System (SCM) used in the Calgary zone.

[xxx] Discussions with Calgary zone emergency department stakeholders suggested that spikes in CTAS 5 patient volumes resulted from issues with the implementation of the SEC information system and do not reflect more accurate CTAS coding. The extent to which changes in other CTAS volumes reflect greater accuracy in CTAS coding remains unknown.

Figure 16: Emergency department volumes and LOS for admitted patients at Foothills Medical Centre

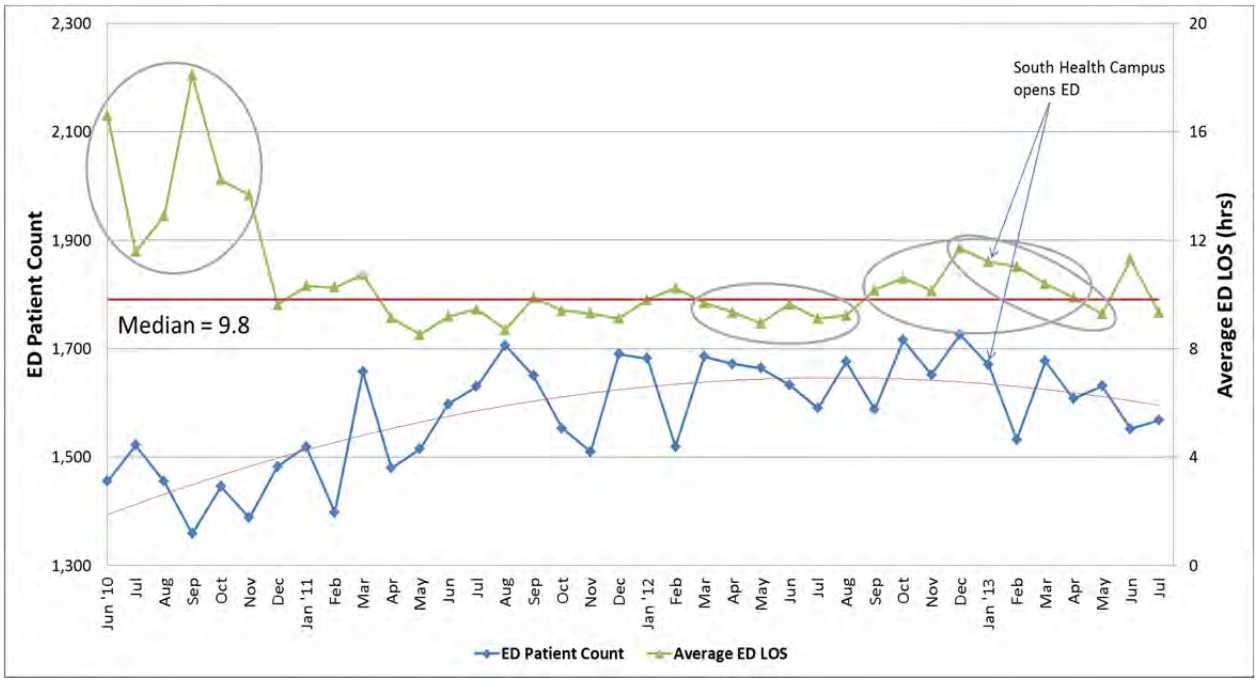
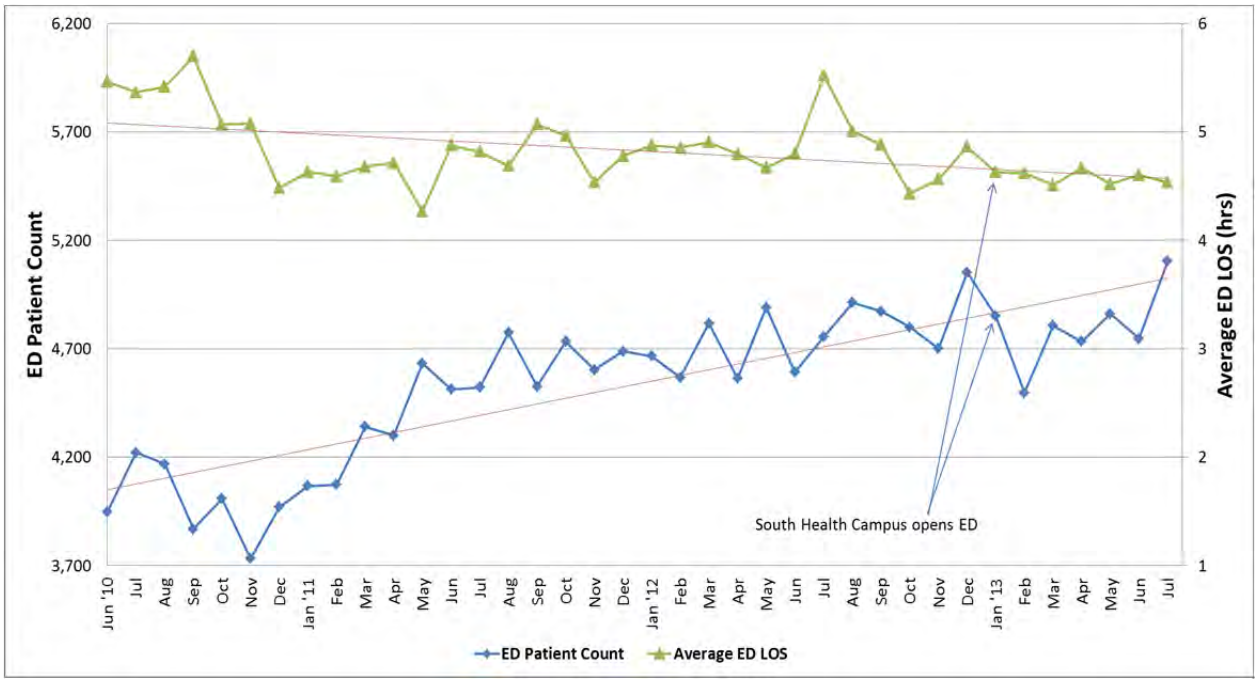
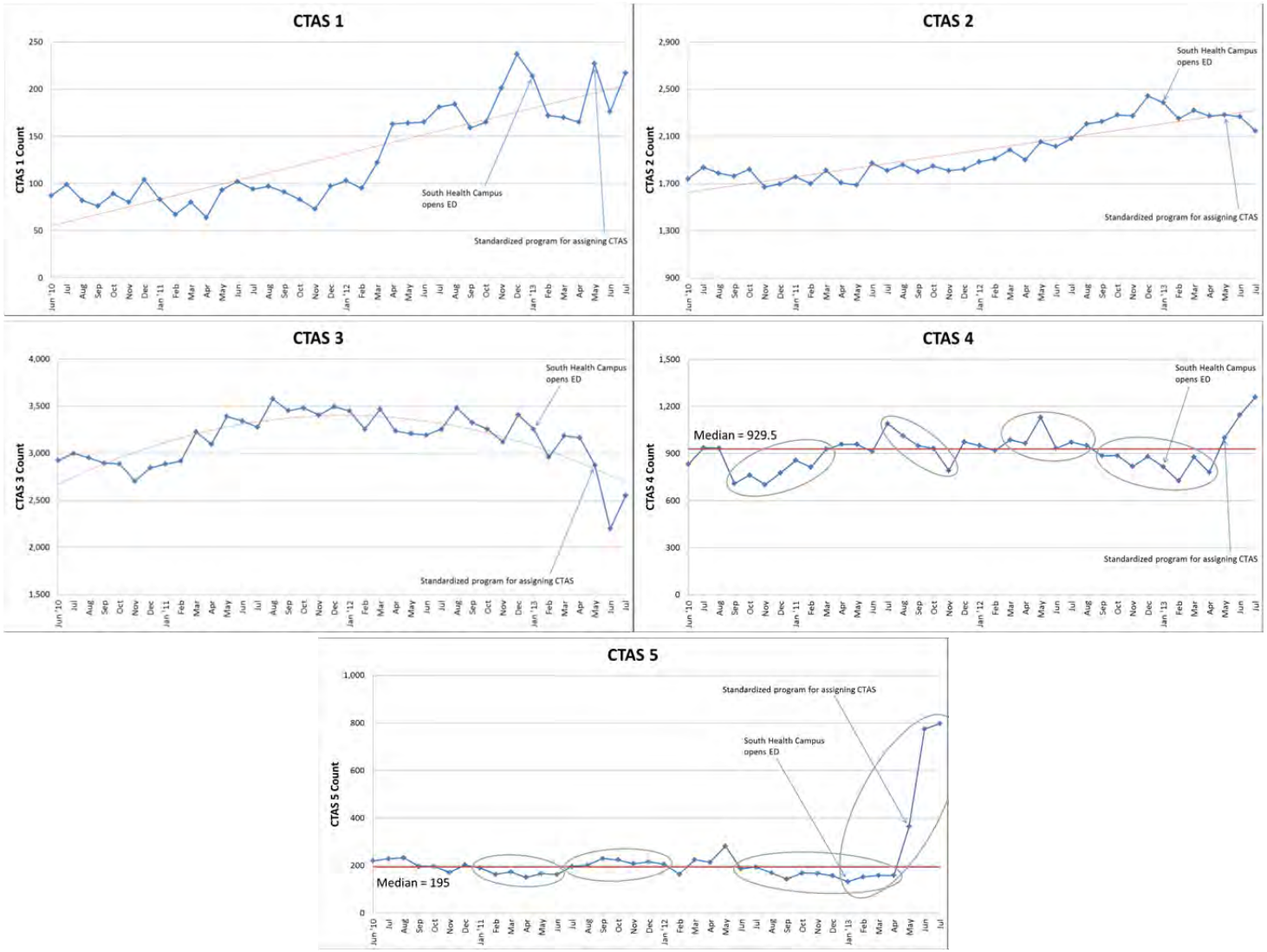


Figure 17: Emergency department volumes and LOS for discharged patients at Foothills Medical Centre



- ED patient volumes increased consistently for admitted patients from June 2010 until about January 2013, at which time ED patient volumes began to decrease consistently.
- Average LOS cycles above and below the median (9.8 hours) for admitted patients, and generally does not consistently increase or decrease over time.
- There were two unsustained changes toward longer average LOS for admitted patients from June to November 2010 and September 2012 to April 2013, and two unsustained changes toward shorter average LOS for admitted patients from March to August 2012 and December 2012 to May 2013.
- ED patient volumes increased consistently for discharged patients since June 2010.
- Average LOS decreased consistently for discharged patients since June 2010.

Figure 18: Emergency department volumes by CTAS level at Foothills Medical Centre



- CTAS 1 patient volumes increased consistently since June 2010.
- CTAS 2 patient volumes increased consistently since June 2010.
- CTAS 3 patient volumes increased consistently from June 2010 until about August 2012, at which time CTAS 3 volumes began to decrease consistently.
- CTAS 4 patient volumes cycle above and below the median (929.5), and generally do not consistently increase or decrease over time. There were three unsustained changes toward fewer CTAS 4 patients from September 2010 to March 2011, July to November 2011, and September 2012 to April 2013, and one unsustained change toward more CTAS 4 patients from March to August 2012.
- CTAS 5 patient volumes cycle above and below the median (195), and generally do not consistently increase or decrease over time. There were two unsustained changes toward fewer CTAS 5 patients from January to June 2011 and June 2012 to April 2013, and two unsustained changes toward more CTAS 5 patients from July 2011 to January 2012 and January to July 2013.

Large and sudden increases in volumes of CTAS 1 and CTAS 5 patients were observed from early in 2013 until the end of the study period (July 2013). Conversely, CTAS 3 patient volumes decreased suddenly in 2013. These results were similar to what was observed at Peter Lougheed Centre and Rockyview General Hospital. These changes are a consequence of a transition to a new emergency department information system which supports standardized computer-assisted assignment of CTAS levels.[xxxi] The transition period extended well beyond the conclusion of the study period (July 2013); therefore, the full extent to which these changes represent greater accuracy in CTAS coding is unknown.[xxxii]

[xxxi] This new emergency department information system is called Sunrise Emergency Care (SEC) and represents the emergency component of the Sunrise Clinical Manager Patient Care Information System (SCM) used in the Calgary zone.

[xxxii] Discussions with Calgary zone emergency department stakeholders suggested that spikes in CTAS 5 patient volumes resulted from issues with the implementation of the SEC information system and do not reflect more accurate CTAS coding. The extent to which changes in other CTAS volumes reflect greater accuracy in CTAS coding remains unknown.

Figure 19: Emergency department volumes and LOS for admitted patients at Sturgeon Community Hospital

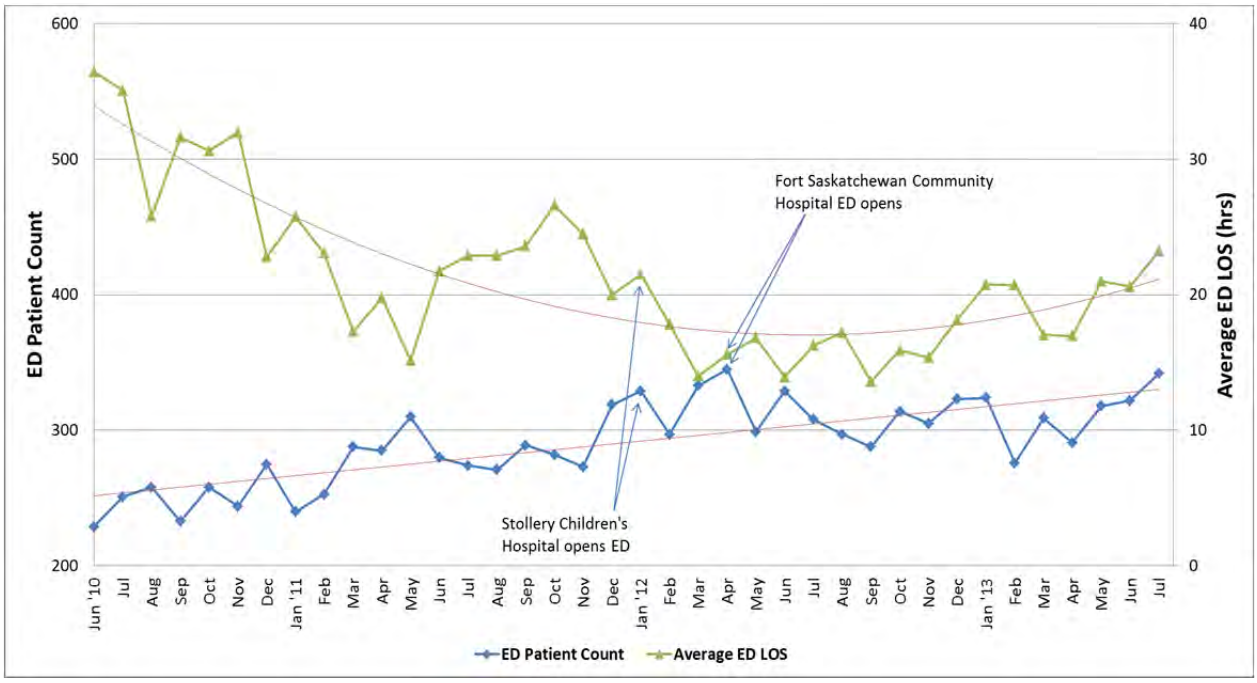
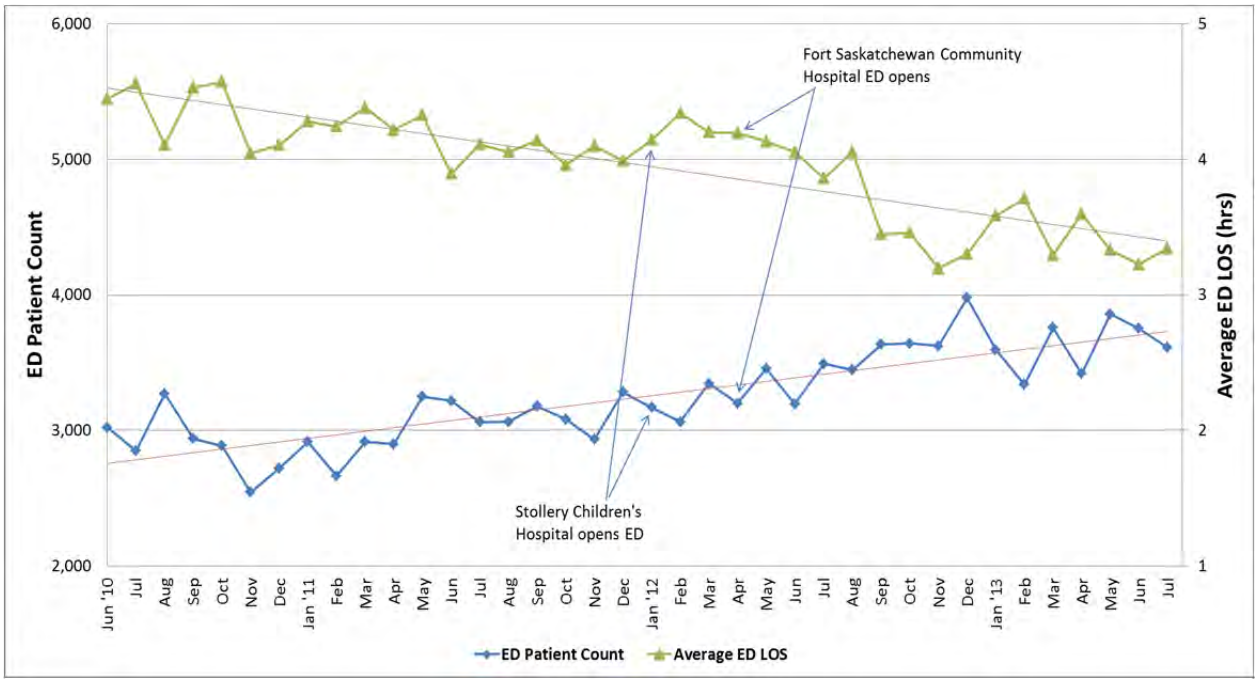
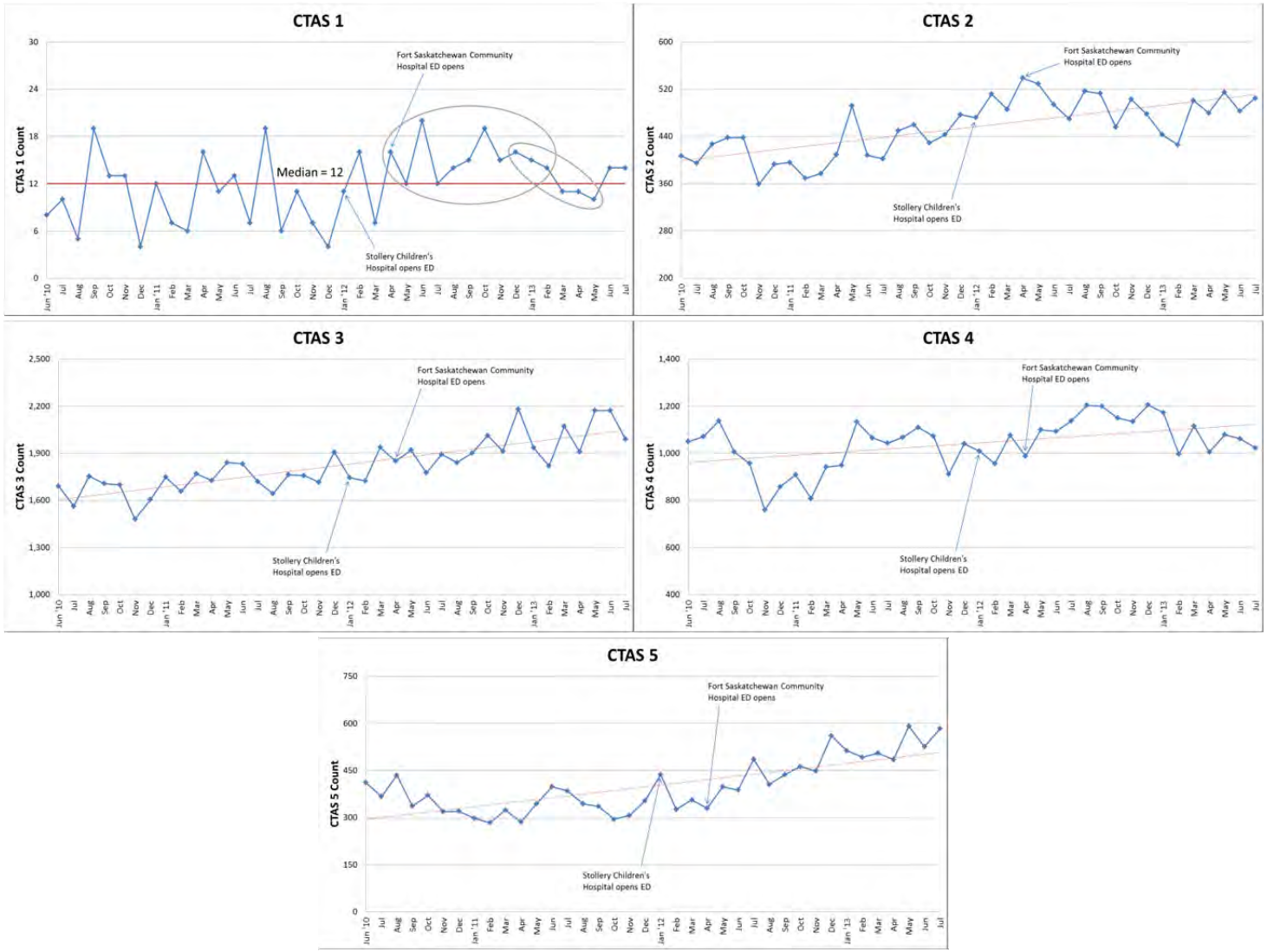


Figure 20: Emergency department volumes and LOS for discharged patients at Sturgeon Community Hospital



- ED patient volumes increased consistently for admitted patients since June 2010.
- Average LOS decreased consistently for admitted patients from June 2010 until about June 2012, at which time average LOS began to increase consistently.
- Though ED patient volumes are much higher for discharged patients than admitted patients, the same pattern appears – ED patient volumes increased consistently for discharged patients since June 2010.
- Average LOS decreased consistently for discharged patients since June 2010.

Figure 21: Emergency department volumes by CTAS level at Sturgeon Community Hospital



- CTAS 1 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 12 patients triaged as CTAS 1 per month. There was one unsustained change toward more patients being triaged as CTAS 1 from April 2012 to February 2013, and one unsustained change toward fewer patients triaged as CTAS 1 from December 2012 to May 2013.
- CTAS 2 patient volumes increased consistently since June 2010.
- CTAS 3 patient volumes increased consistently since June 2010.
- CTAS 4 patient volumes increased consistently since June 2010.
- CTAS 5 patient volumes increased consistently since June 2010.

Figure 22: Emergency department volumes and LOS for admitted patients at Royal Alexandra Hospital

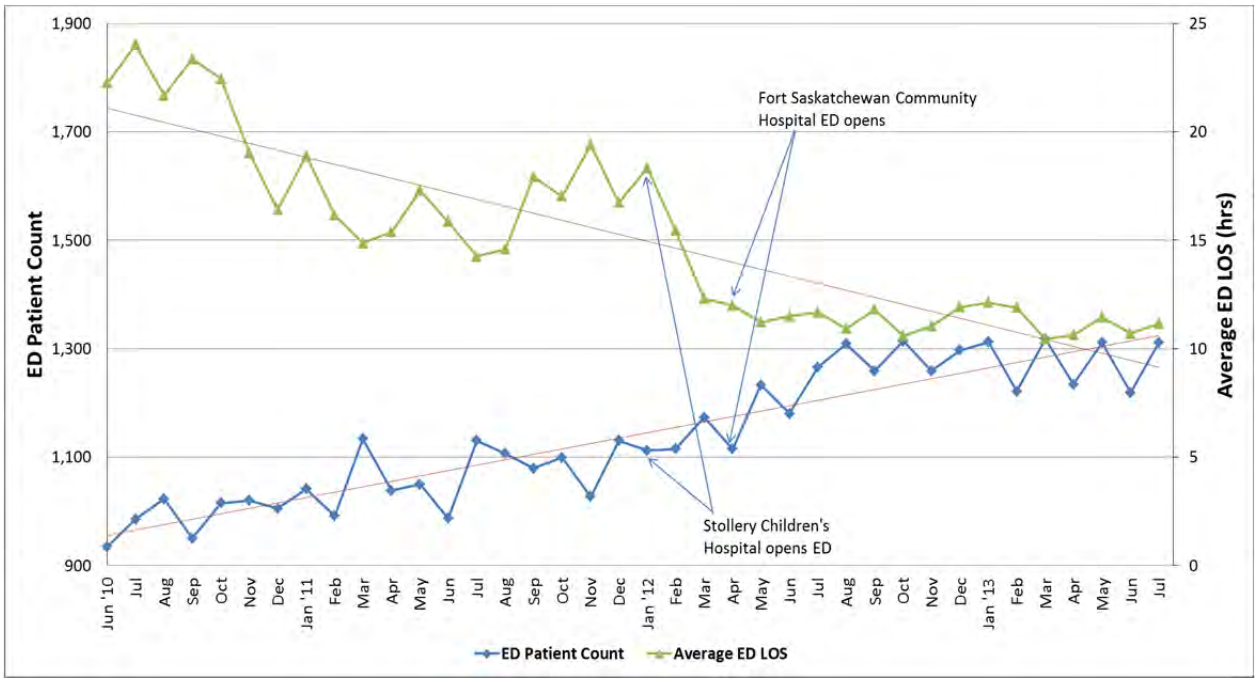
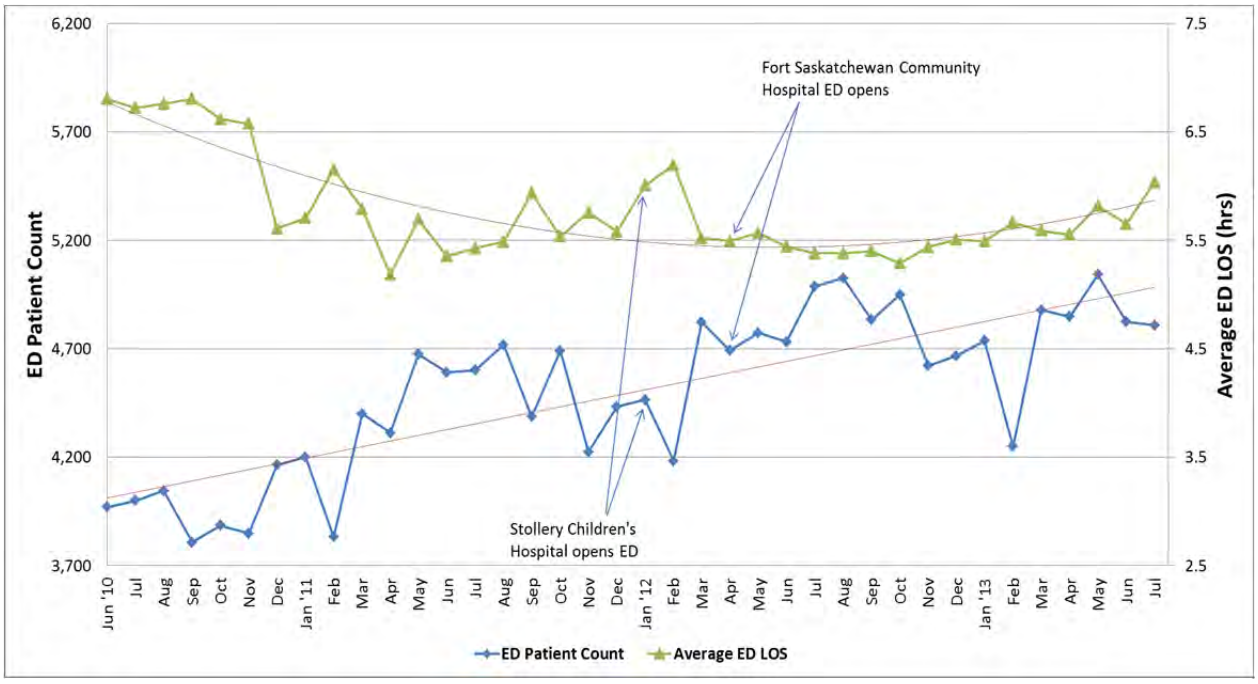
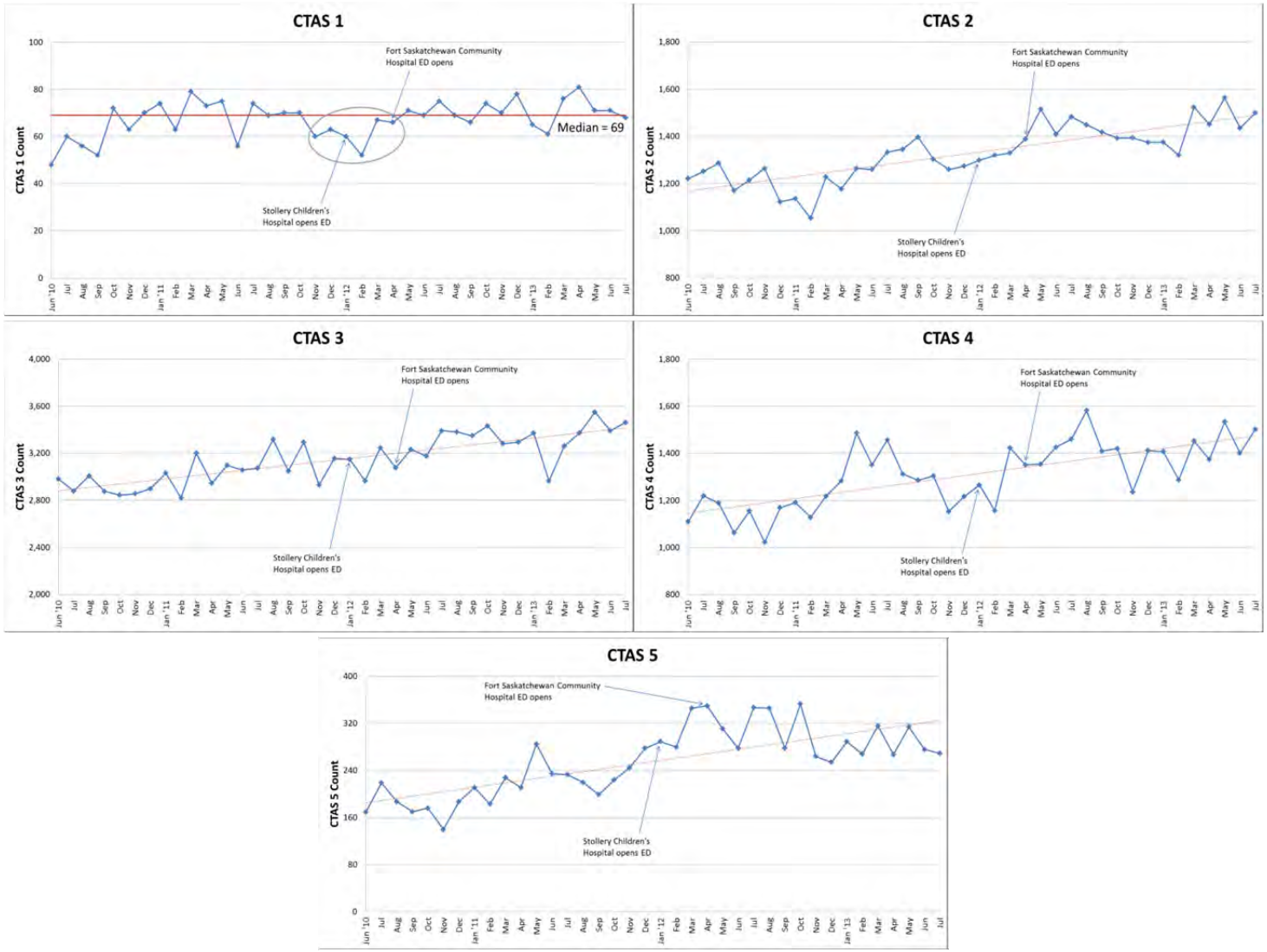


Figure 23: Emergency department volumes and LOS for discharged patients at Royal Alexandra Hospital



- ED patient volumes increased consistently for admitted patients since June 2010.
- Average LOS decreased consistently for admitted patients since June 2010.
- ED patient volumes increased consistently for discharged patients since June 2010.
- Average LOS decreased consistently for discharged patients from June 2010 until about October 2012, at which time average LOS began to increase consistently.

Figure 24: Emergency department volumes by CTAS level at Royal Alexandra Hospital



- CTAS 1 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 69 patients triaged as CTAS 1 per month. There was one unsustained change toward fewer patients being triaged as CTAS 1 from November 2011 to April 2012.
- CTAS 2 patient volumes increased consistently since June 2010.
- CTAS 3 patient volumes increased consistently since June 2010.
- CTAS 4 patient volumes increased consistently since June 2010.
- CTAS 5 patient volumes increased consistently since June 2010.

Figure 25: Emergency department volumes and LOS for admitted patients at Grey Nuns Community Hospital

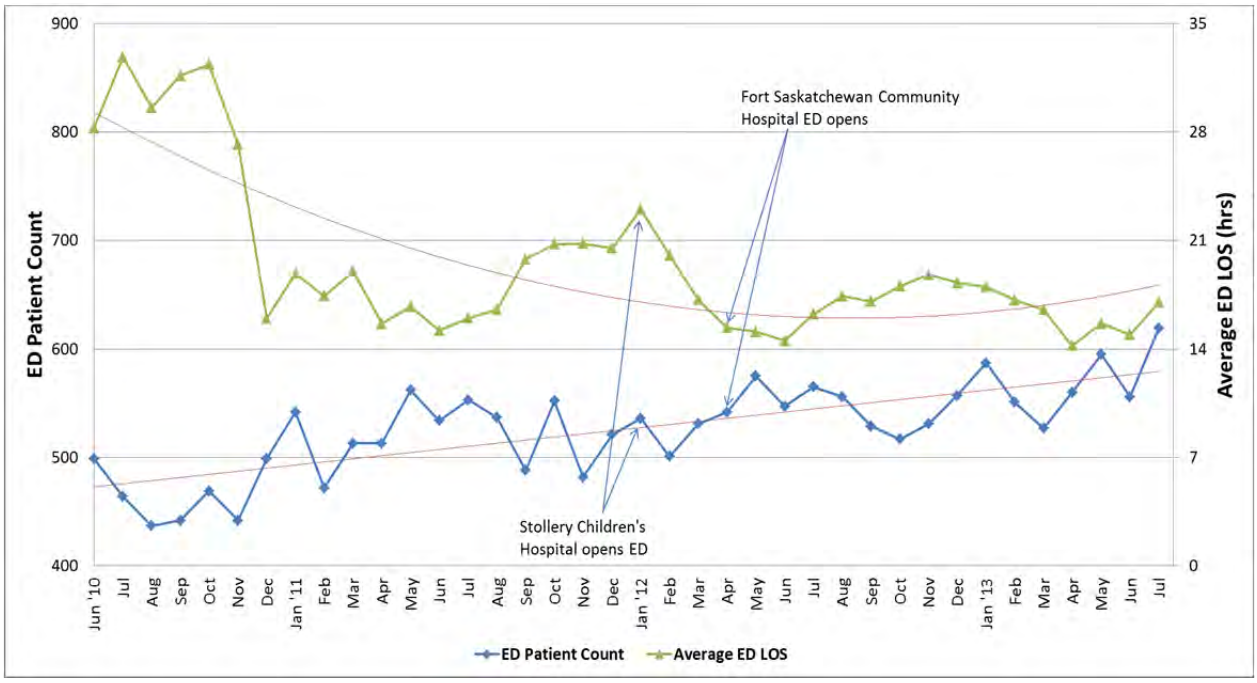
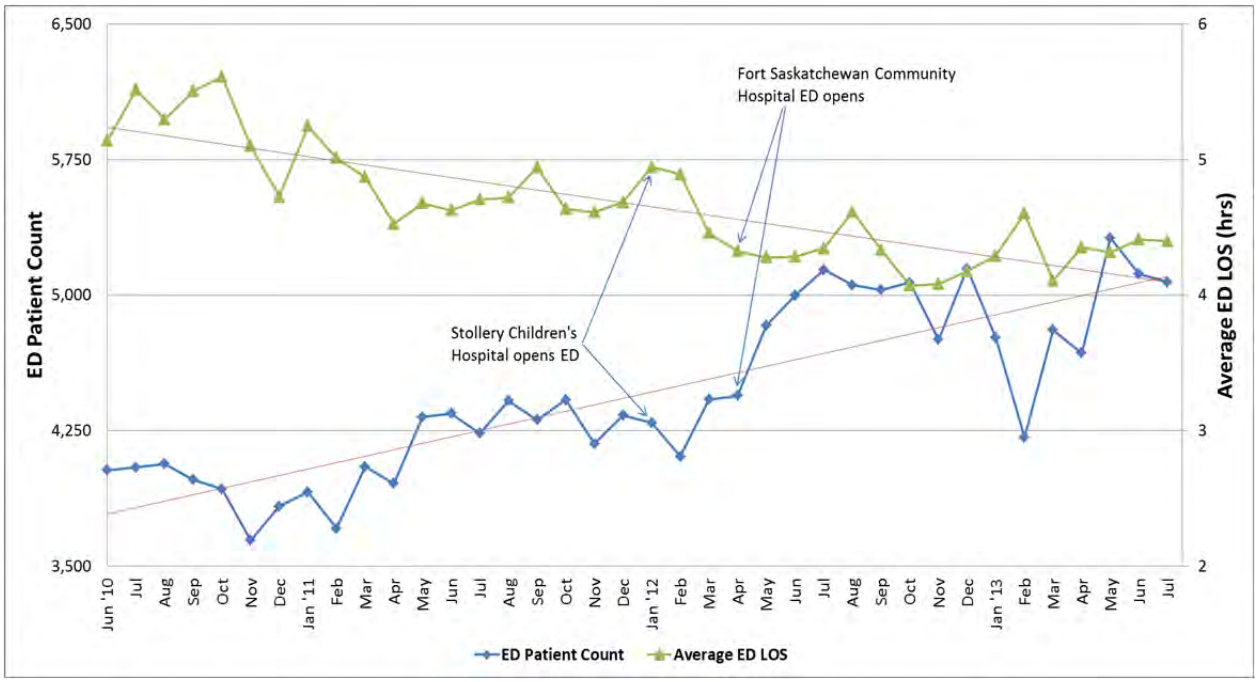
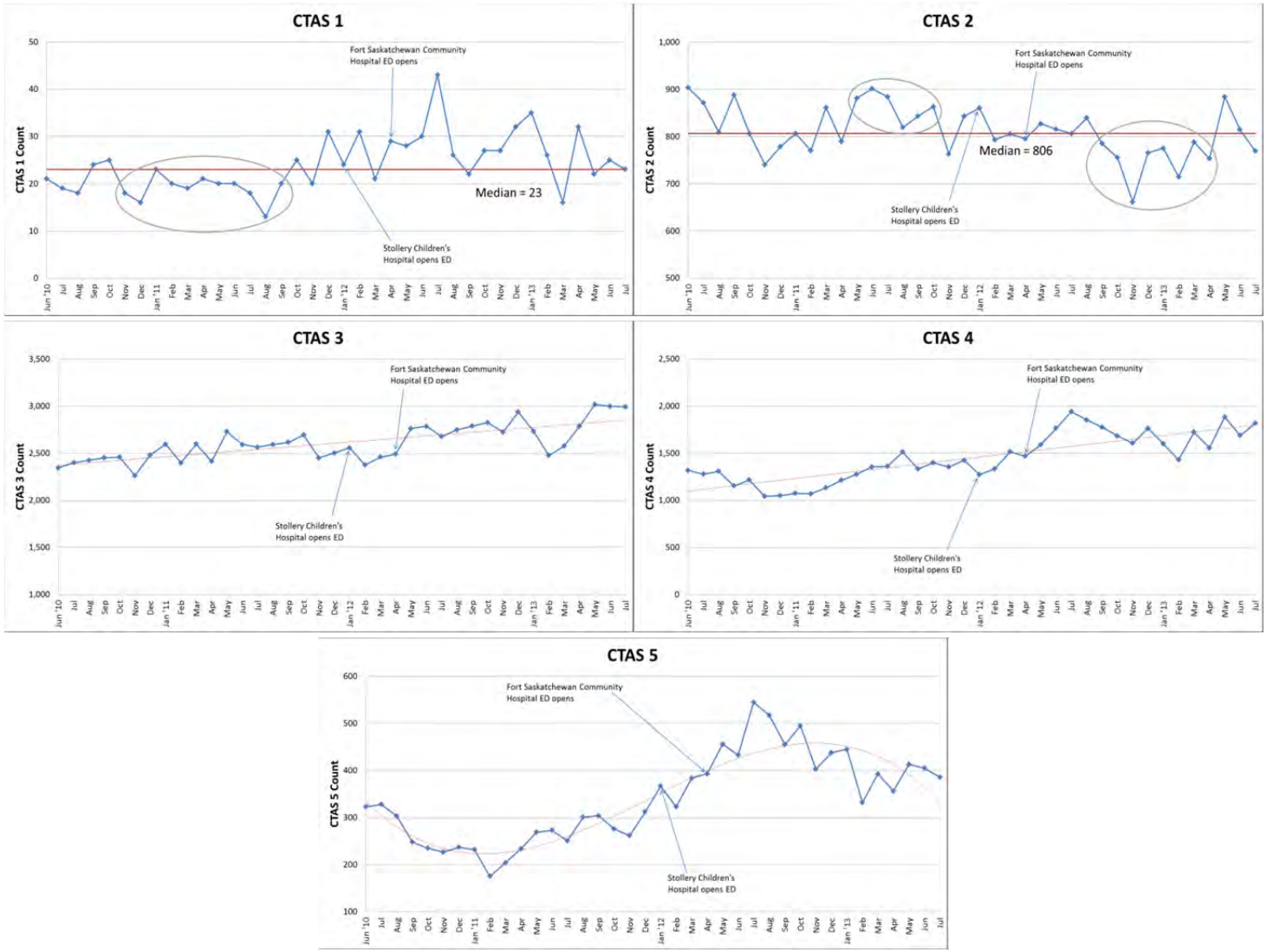


Figure 26: Emergency department volumes and LOS for discharged patients at Grey Nuns Community Hospital



- ED patient volumes increased consistently for admitted patients since June 2010.
- Average LOS decreased consistently for admitted patients from June 2010 until about June 2012, at which time average LOS began to increase consistently.
- Though ED patient volumes are much higher for discharged patients than admitted patients, the same pattern appears – ED patient volumes increased consistently for discharged patients since June 2010.
- Average LOS decreased consistently for discharged patients since June 2010.

Figure 27: Emergency department volumes by CTAS level at Grey Nuns Community Hospital



- CTAS 1 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 23 patients triaged as CTAS 1 per month. There was one unsustained change toward fewer patients being triaged as CTAS 1 from November 2010 to September 2011.
- CTAS 2 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 806 patients triaged as CTAS 2 per month. There was one unsustained change toward more patients being triaged as CTAS 2 from May to October 2011, and one unsustained change toward fewer patients triaged as CTAS 2 from September 2012 to April 2013.
- CTAS 3 patient volumes increased consistently since June 2010.
- CTAS 4 patient volumes increased consistently since June 2010.
- CTAS 5 patient volumes initially decreased consistently from June 2010 until about February 2011, at which time CTAS 5 volumes began to increase consistently, until about July 2012. Volumes of CTAS 5 patients then decreased consistently until the end of the study period.

Figure 28: Emergency department volumes and LOS for admitted patients at Misericordia Community Hospital

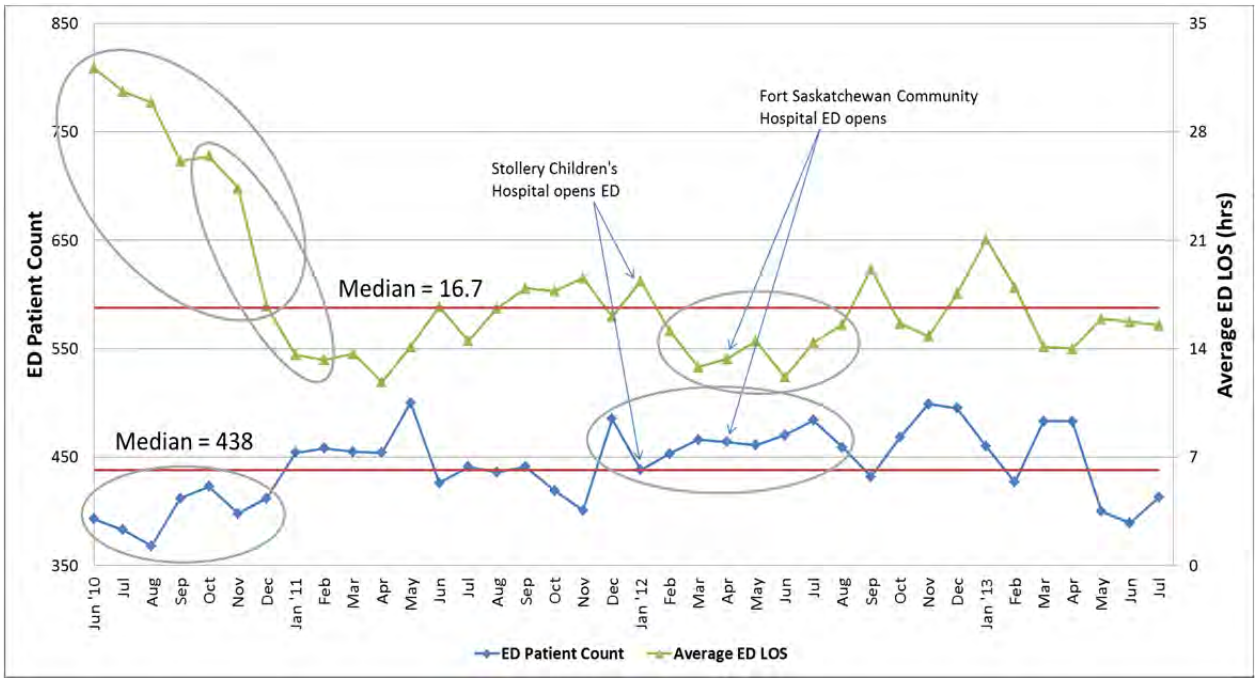
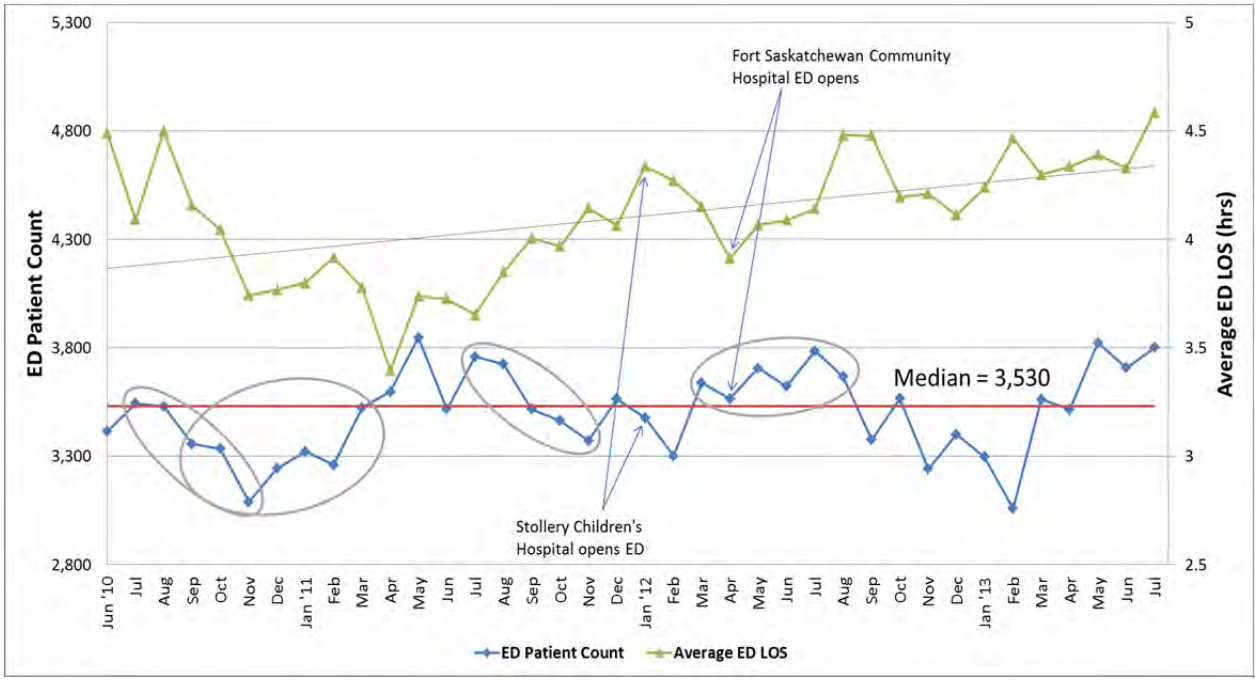
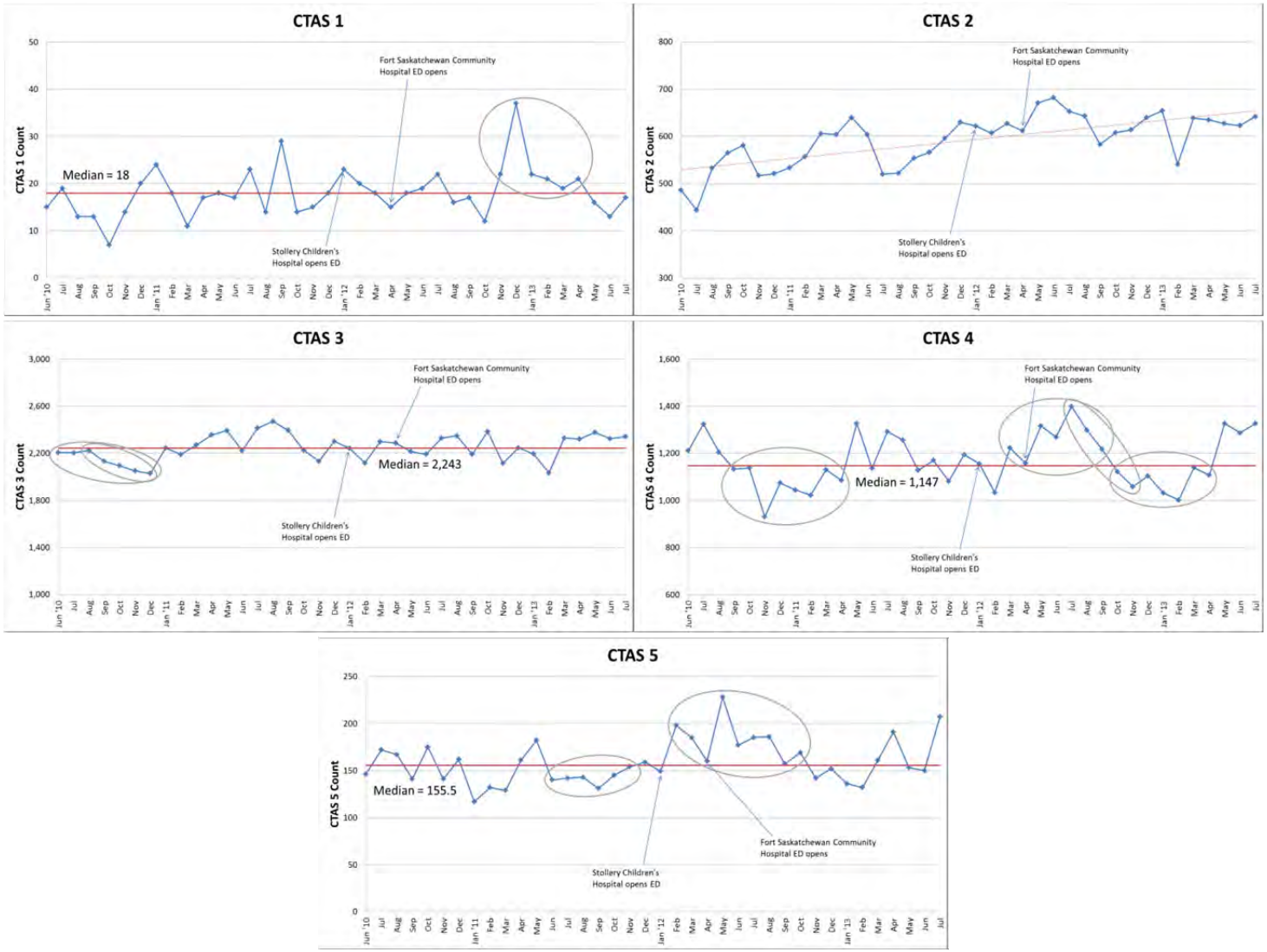


Figure 29: Emergency department volumes and LOS for discharged patients at Misericordia Community Hospital



- ED patient volumes cycle above and below the median (438 patients) for admitted patients, and generally does not consistently increase or decrease over time.
- There was one unsustained change toward higher numbers of patients admitted from the emergency department to the hospital from December 2011 to August 2012, and one unsustained change toward lower numbers of patients admitted from the emergency department to the hospital from June to December 2010.
- After an initial decrease from June 2010 to February 2011, average LOS remained relatively unchanged for admitted patients, mostly varying randomly around a median of 16.7 hours.
- There was an initial unsustained change toward longer average LOS for admitted patients from June to December 2010 that was immediately followed by a change indicating shorter average LOS for admitted patients from October 2010 to February 2011. There was also one unsustained change toward shorter average LOS for admitted patients from February to August 2012.
- ED patient volumes cycle above and below the median (3,530 patients) for discharged patients, and generally does not consistently increase or decrease over time.
- There was one unsustained change toward higher numbers of discharged patients in the emergency department from March to August 2012, and three unsustained changes toward lower numbers of discharged patients in the emergency department from July to November 2010, September 2010 to March 2011, and July to November 2011.
- Average LOS increased consistently for discharged patients since June 2010.

Figure 30: Emergency department volumes by CTAS level at Misericordia Community Hospital



- CTAS 1 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 18 patients triaged as CTAS 1 per month. There was one unsustained change toward more patients being triaged as CTAS 1 from November 2012 to April 2013.
- CTAS 2 patient volumes increased consistently since June 2010.
- CTAS 3 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 2,243 patients triaged as CTAS 3 per month. There were two unsustained changes toward fewer patients being triaged as CTAS 3 from June to December 2010 and August to December 2010.
- CTAS 4 patient volumes cycle above and below the median (1,147), and generally do not consistently increase or decrease over time. There were three unsustained changes toward fewer CTAS 4 patients from September 2010 to April 2011, July to November 2012, and October 2012 to April 2013, and one unsustained change toward more CTAS 4 patients from March to September 2012.
- CTAS 5 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 155.5 patients triaged as CTAS 5 per month. There was one unsustained change toward fewer patients being triaged as CTAS 5 from June to November 2011, and one unsustained change toward more patients triaged as CTAS 5 from February to October 2012.

Figure 31: Emergency department volumes and LOS for admitted patients at University of Alberta Hospital

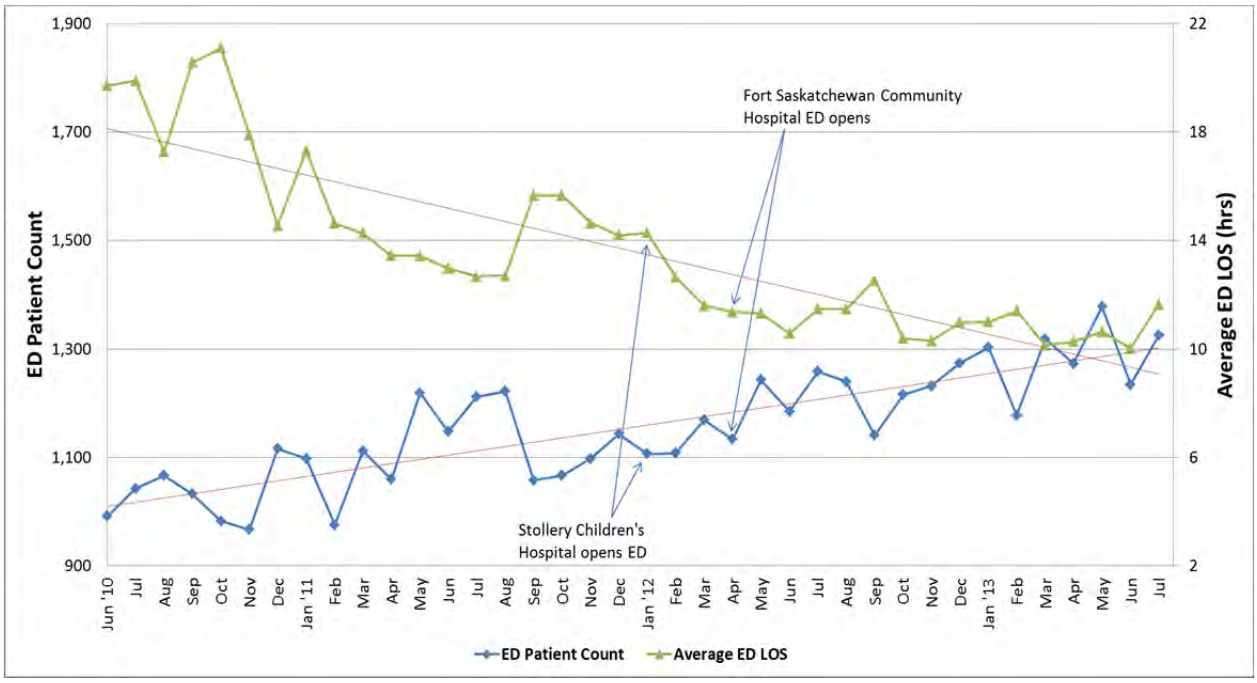
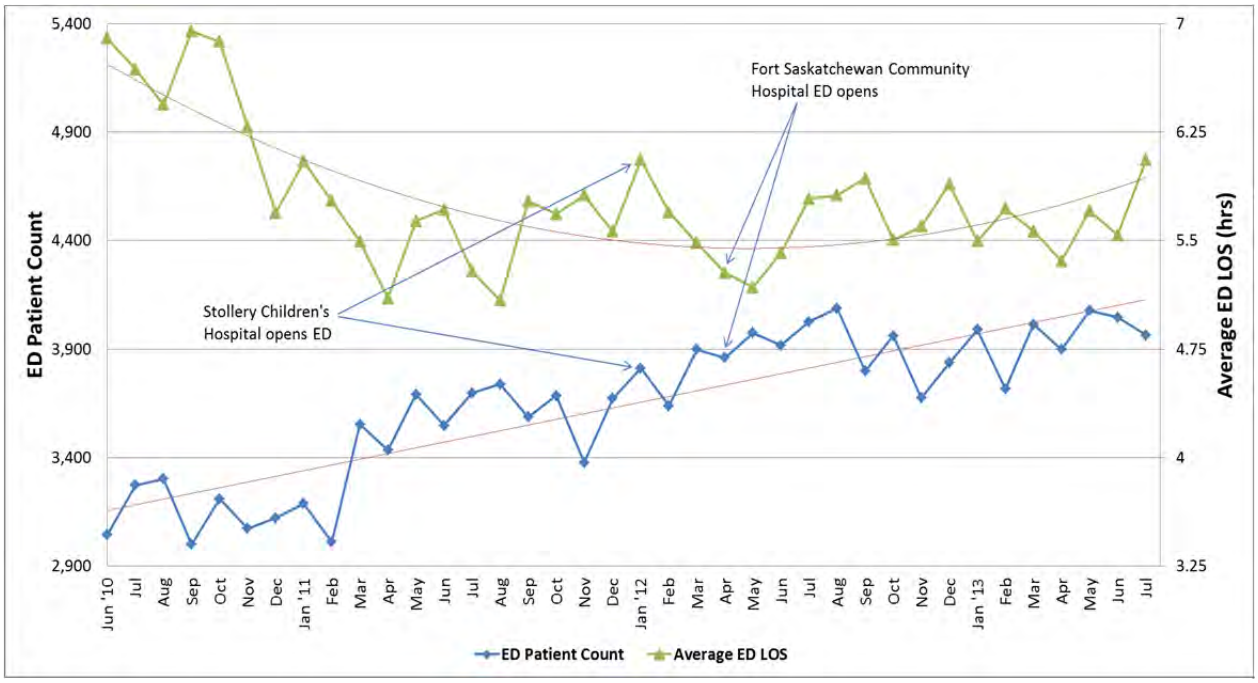
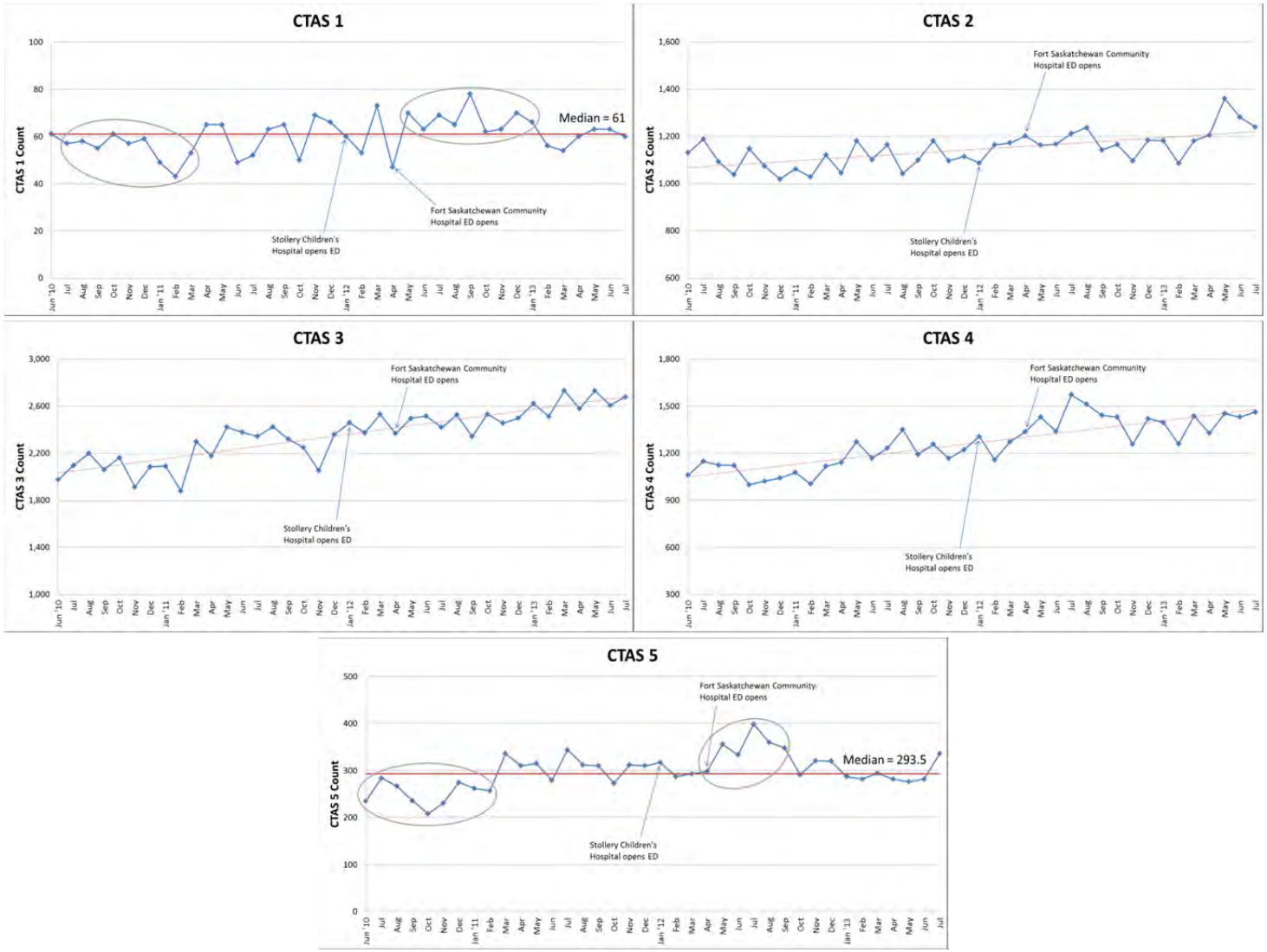


Figure 32: Emergency department volumes and LOS for discharged patients at University of Alberta Hospital



- ED patient volumes increased consistently for admitted patients since June 2010.
- Average LOS decreased consistently for admitted patients since June 2010.
- Though ED patient volumes are much higher for discharged patients than admitted patients, the same pattern appears – ED patient volumes increased consistently for discharged patients since June 2010.
- Average LOS decreased consistently for discharged patients from June 2010 until about May 2012, at which time average LOS began to increase consistently.

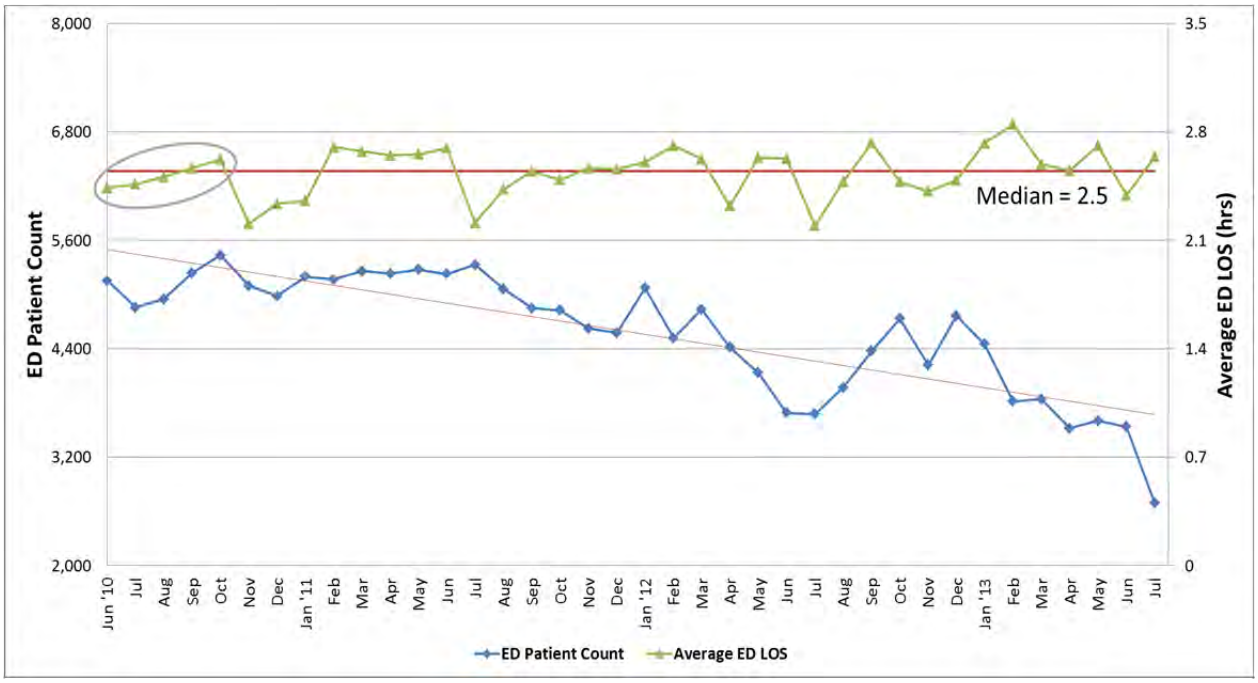
Figure 33: Emergency department volumes by CTAS level at University of Alberta Hospital



- CTAS 1 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 61 patients triaged as CTAS 1 per month. There was one unsustained change toward fewer patients being triaged as CTAS 1 from July 2010 to March 2011, and one unsustained change toward more patients triaged as CTAS 1 from May 2012 to January 2013.
- CTAS 2 patient volumes increased consistently since June 2010.
- CTAS 3 patient volumes increased consistently since June 2010.
- CTAS 4 patient volumes increased consistently since June 2010.
- CTAS 5 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 293.5 patients triaged as CTAS 5 per month. There was one unsustained change toward fewer patients being triaged as CTAS 5 from June 2010 to February 2011, and one unsustained change toward more patients triaged as CTAS 5 from April to September 2012.

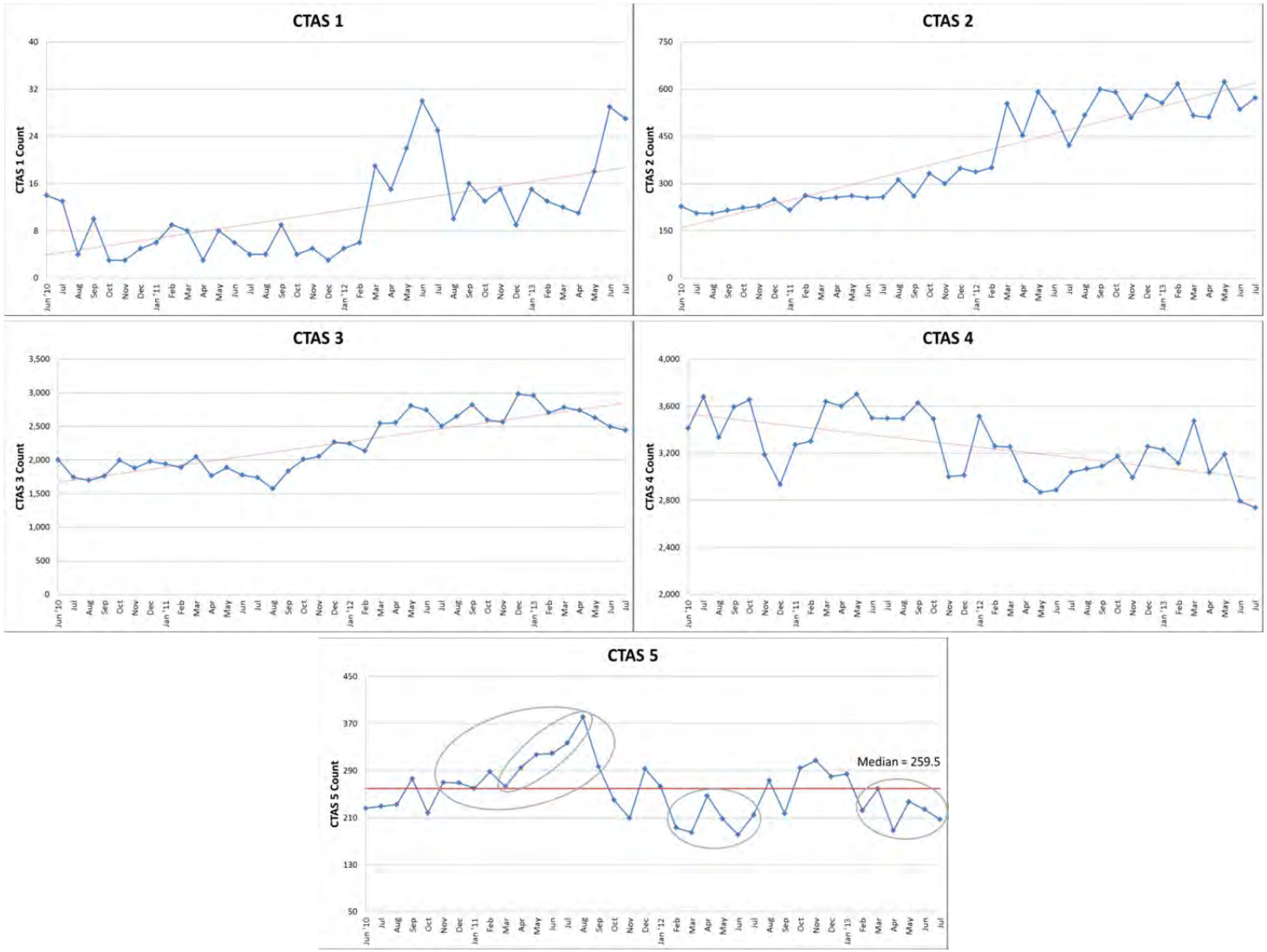
Figure 34: Emergency department volumes and LOS for admitted patients at Northern Lights Regional Health Centre

Figure 35: Emergency department volumes and LOS for discharged patients at Northern Lights Regional Health Centre



- ED patient volumes increased consistently for admitted patients since June 2010.
- Average LOS decreased consistently for admitted patients from June 2010 until about December 2011, at which time average LOS began to increase consistently.
- ED patient volumes decreased consistently for discharged patients since June 2010.
- Average LOS remained relatively unchanged for discharged patients since June 2010, mostly varying randomly around a median of 2.5 hours.
- There was one unsustained change toward longer average LOS for discharged patients from June to October 2010.

Figure 36: Emergency department volumes by CTAS level at Northern Lights Regional Health Centre



- CTAS 1 patient volumes increased consistently since June 2010.
- CTAS 2 patient volumes increased consistently since June 2010.
- CTAS 3 patient volumes increased consistently since June 2010.
- CTAS 4 patient volumes decreased consistently since June 2010.
- CTAS 5 patient volumes cycle above and below the median (259.5), and generally do not consistently increase or decrease over time. There were two unsustained changes toward more CTAS 5 patients from November 2010 to September 2011 and March to August 2011, and two unsustained changes toward fewer CTAS 5 patients from February to July 2012 and February to July 2013.

Figure 37: Emergency department volumes and LOS for admitted patients at Queen Elizabeth II Hospital

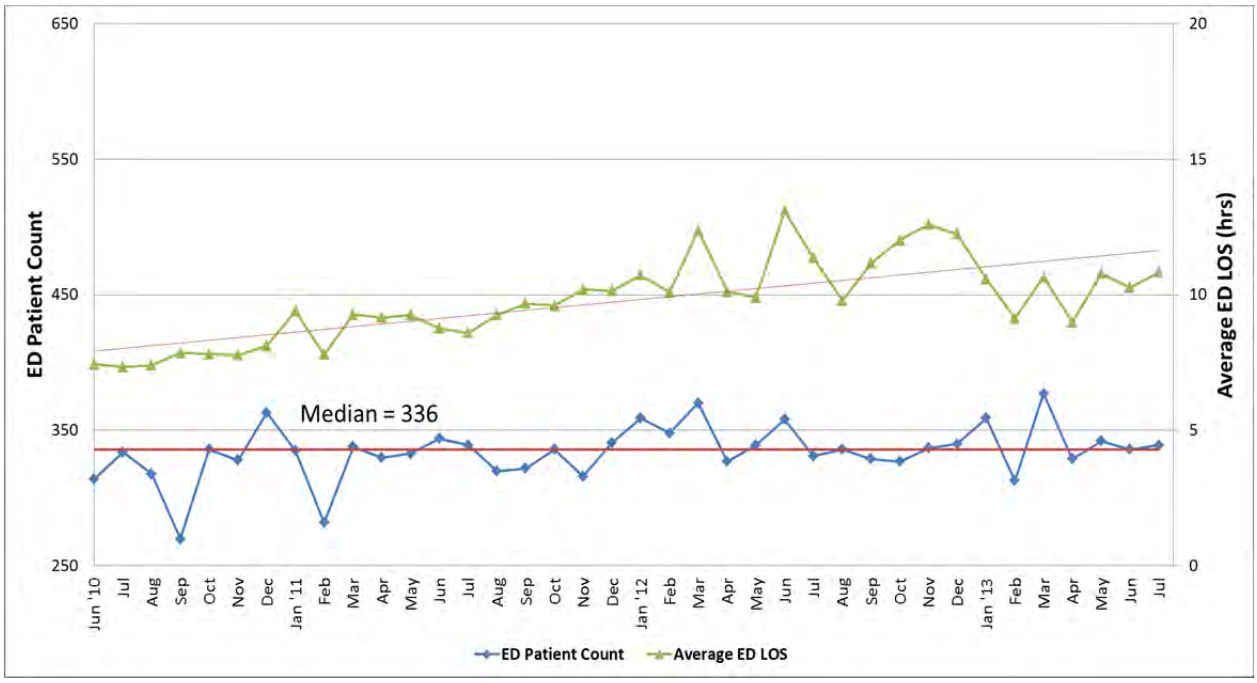
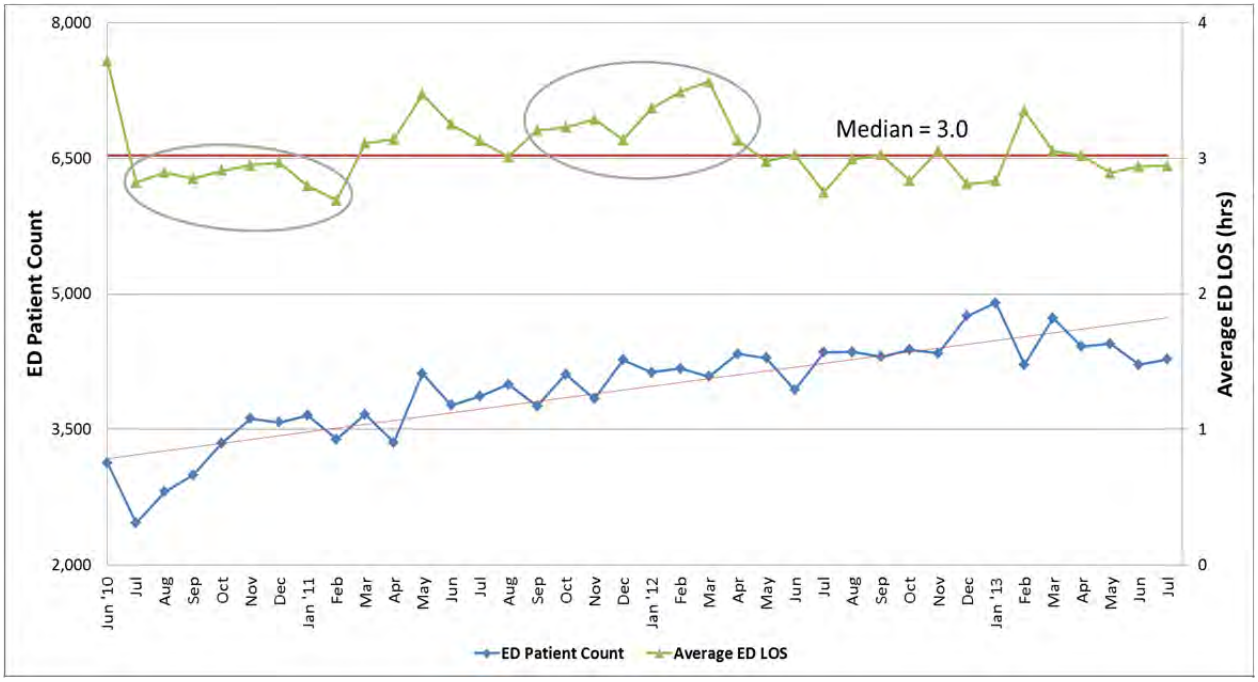
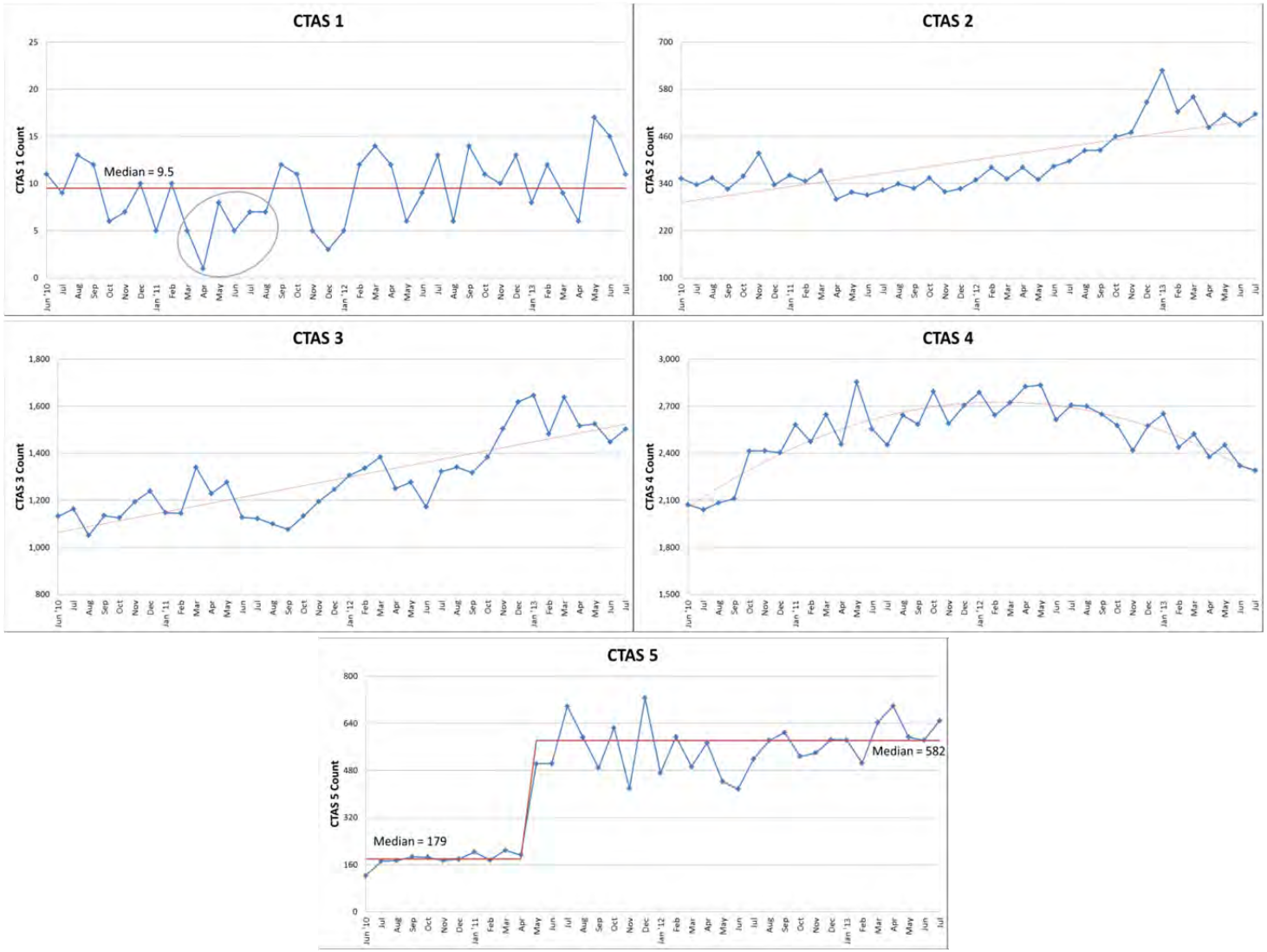


Figure 38: Emergency department volumes and LOS for discharged patients at Queen Elizabeth II Hospital



- ED patient volumes remained relatively unchanged for admitted patients since June 2010, varying randomly around a median of 336 admitted patients.
- Average LOS increased consistently for admitted patients since June 2010.
- ED patient volumes increased consistently for discharged patients since June 2010.
- Average LOS cycles above and below the median (3.0 hours) for discharged patients, and does not consistently increase or decrease over time.
- There was one unsustained change toward longer average LOS for discharged patients from September 2011 to April 2012, and one unsustained change toward shorter average LOS for discharged patients from July 2010 to February 2011.

Figure 39: Emergency department volumes by CTAS level at Queen Elizabeth II Hospital



- CTAS 1 patient volumes remained relatively unchanged since June 2010, mostly varying randomly around a median of 9.5 patients triaged as CTAS 1 per month. There was one unsustained change toward fewer patients being triaged as CTAS 1 from March to August 2011.
- CTAS 2 patient volumes increased consistently since June 2010.
- CTAS 3 patient volumes increased consistently since June 2010.
- CTAS 4 patient volumes increased consistently from June 2010 until about May 2012, at which time CTAS 4 volumes began to decrease consistently.
- CTAS 5 patient volumes initially remained relatively unchanged, varying randomly around a median of 179 patients triaged as CTAS 5 per month from June 2010 to April 2011. In May 2011 CTAS 5 volumes jumped dramatically. From May 2011 until the end of the study period CTAS 5 volumes remained relatively unchanged, varying randomly around a median of 582 patients triaged as CTAS 5 per month.

A large and sudden increase in volumes of CTAS 5 patients at the Queen Elizabeth II Hospital emergency department is observed in May 2011 and is sustained through the end of the study period (July 2013). This change resulted from a shift in how CTAS 5 designations were assigned. Prior to May 2011, patients presenting to the emergency department for issues that were considered non-emergent were not assigned a CTAS score at triage.[xxxiii] This practice was eliminated in May 2011. Since then, all patients presenting to the emergency department were assigned a CTAS level at triage, resulting in patients who were previously considered non-emergent (who did not receive a CTAS score) being coded as CTAS 5 (the least urgent CTAS designation).[xxxiv]

Summary

The emergency department patient volume (by discharge status and CTAS level) and LOS data presented above can be useful when considered alongside emergency department patient experience results (see Sections 5.2 to 6.10). The analysis illustrates that emergency departments are diverse in terms of the pressures they are subject to. Despite the heterogeneity of results, pressures on emergency department facilities (especially those related to emergency department patient volumes and acuity) have increased for many sites since June 2010. There is evidence that a number of facilities have been successful at controlling or reducing average emergency department LOS despite volume increases overall and within specific CTAS levels. Whether or not this success is reflected in emergency department patient experience is revealed in the following sections (5.2 to 6.10). However, there is also evidence indicating that some sites have been unsuccessful at controlling or reducing average LOS.

[xxxiii] Examples include dressing changes, repeat antibiotic treatment, etc.

[xxxiv] Discussions with emergency department stakeholders at the Queen Elizabeth II Hospital suggested that the observed increase in CTAS 5 patient volumes is entirely attributable to non-emergent patients receiving a CTAS score at triage. Stakeholders reported that the magnitude of the CTAS 5 volume increase starting in May 2011 was approximately equal to the number of patients that were previously classified as non-emergent and not assigned a CTAS level.

There are examples of increasing average LOS accompanying increasing volumes, as well as increasing average LOS when volumes remained relatively unchanged.

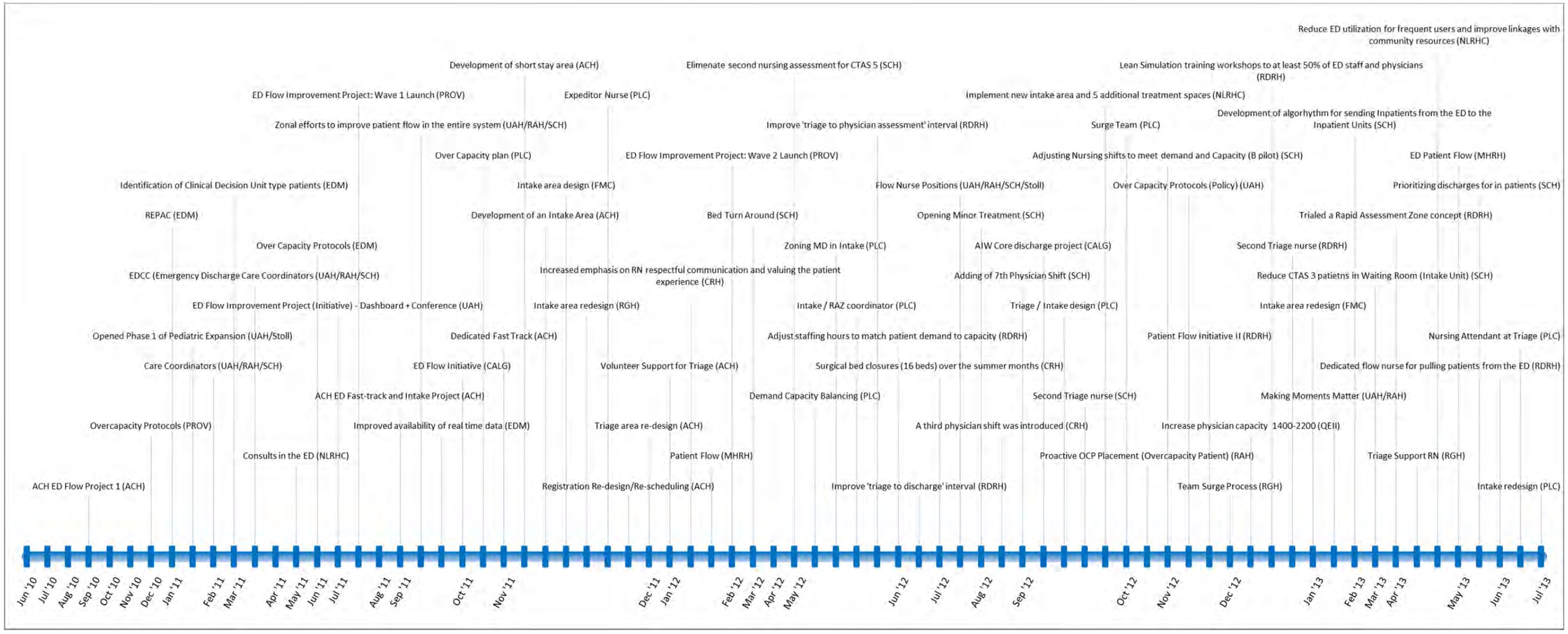
4.2 Emergency department programs and initiatives

Emergency departments are diverse with respect to the services they provide to the community, their size, patient population served, and the causes and degree of pressures they experience. Differences between sites also extend to the programs and initiatives implemented to try to improve patient care and experience. The HQCA attempted to capture this diversity by consulting with emergency department stakeholders at the site, zone, and provincial levels to construct timelines of the implementation of these various initiatives. One of the barriers to collecting this information was that emergency department stakeholders were often unable to provide specifics about when an initiative was implemented or an event occurred. This was not surprising given the retrospective nature of this report.

The following provincial aggregate timeline has been edited by HQCA staff to include only those events and initiatives determined to have the most potential impact on patient experience as captured by the emergency department patient experience survey questions. This includes just over 26 per cent (66 out of 250 events and initiatives) of the total useable information obtained from consultation with emergency department stakeholders. For the full provincial aggregate emergency department programs and initiatives timeline, see Appendix V.

The timelines reveal that patient experience is often influenced by multiple events and initiatives that may occur simultaneously. This was prevalent at both the provincial aggregate and site levels (see Appendix V) and introduces a level of complexity when investigating the cause of changes in patient experience. The provincial aggregate timeline below illustrates this point; there are simply too many events and initiatives being implemented and administered concurrently to accurately assess the effect of any one of them on patient experience.

Figure 40: Provincial aggregate emergency department programs and initiatives timeline



In order for the regular measurement of patient experience (e.g., every two weeks) to provide stakeholders with actionable information that can be used to improve experience, event and initiative implementation needs to be systematic. Measurement projects should be coupled with well-established evaluation methods specifically designed to capture the unique effects of change initiatives. Some examples of potentially useful methods include on/off protocols, pre- and post-intervention measurement, and various other quasi-experimental design methods. Regular measurement of emergency department patient experience has the potential to provide stakeholders with important actionable information if steps are taken to be more systematic with initiative implementation and evaluation.

The following run charts and control charts are only annotated with event and initiative information when there is evidence of a change in patient experience occurring, and that change coincides with the implementation of an initiative or event. Even when a change in patient experience aligns with the timing of an event or initiative, at most, the change may be the result of the event or initiative; however, it is equally possible that the change was caused by something that was not captured in these timelines.

Conversely, there are instances when an initiative or event was implemented but no change was detected. This may imply that the initiative had no impact on patient experience; however, it is also possible that the initiative's effect on patient experience was masked by other simultaneously occurring factors that impacted patient experience.

5.0 OVERALL QUESTIONS ABOUT CARE

This section examines patients' responses to several questions, whereby respondents provide an overall evaluation of their visit to the emergency department. While each of these items provides a different and useful perspective on that overall experience, the most important of these variables is the overall (global) rating of care (question 57), which asks respondents to rate their overall emergency department experience on a six-point scale ranging from *very poor* to *excellent*. This item demonstrated very high reliability at the site level,[xxxv] and is arguably useful as a discrete performance measure.[xxxvi] The properties of this variable also make it suitable for use as an outcome variable in multivariate analyses. The overall (global) rating of care provides a "yard-stick" against which other variables can be compared relative to how much they influence the overall rating.

Traditional tests of significance (specifically the chi-square and t-test) are applied to the descriptive statistics presented in Section 5.1 and Section B, but are not applied to the data presented over time in run and control charts. Identifying important changes in run and control charts employs alternative probability-based tests specifically suited for examining data over time.

When traditional tests are used, the HQCA suggests using a significance level of 0.001 to designate whether a relationship is statistically significant. See Appendix I for more information on statistical significance and strength of association.

5.1 Overall questions about care: descriptive statistics

In terms of the overall care respondents reported receiving while in the emergency department, Table 1 shows:

- Almost 7 in 10 respondents (67%) rated their overall care as *excellent* (33%) or *very good* (34%).
- Almost 6 in 10 respondents (59%) reported the main reason for their visit was dealt with completely to their satisfaction.
- Conversely, slightly more than 4 in 10 respondents (41%) reported the main reason for their visit was either not dealt with to their satisfaction (11%), or only to some extent (30%).

[xxxv] As calculated using the SAS macro: General Reliability and Intra-class Correlation Program (GRIP) see Appendix D of the 2007 *Emergency Department Patient Experience Survey* technical report for details (http://hqca.ca/surveys/emergency-department-patient-experience/emergency-department-patient-experience-survey/).

[xxxvi] Alberta Health Services (AHS) used this overall rating of emergency department care during the survey study period (June 2010 to July 2013) as one of their key performance measures prior to restructuring their performance measures in January 2014.

- Exactly 3 in 4 respondents (75%) reported they were always treated with respect and dignity while they were in the emergency department.

Table 1: Overall care received in the emergency department

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=19,122)**
Excellent	33%
Very good	34%
Good	18%
Fair	9%
Poor	4%
Very poor	2%
Main reason for visit dealt with to satisfaction	**(n=19,044)**
Yes, completely	59%
Yes, to some extent	30%
No	11%
Overall, treated with respect and dignity	**(n=19,052)**
Yes, all of the time	75%
Yes, some of the time	20%
No	5%
Note: Data is weighted for cluster sample at site level	

Table 2 displays the overall rating of emergency department care, this time reported as a dichotomous (two-category) measure to capture the proportion of patients rating their overall care as *excellent* or *very good*, and stratified by admitted and discharged patients. Results indicate that the overall rating of care is significantly lower for discharged patients compared to those who were admitted, although the strength of this association is very weak (Phi[xxxvii] < 0.15).

Table 2: Overall care received in the emergency department (dichotomous) by discharge disposition

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=3,161)**
Less than Excellent or Very Good‡	21%
Excellent or Very Good	79%
Discharged	**(n=15,743)**
Less than Excellent or Very Good‡	35%
Excellent or Very Good	65%
p value	Chi-squared = 0.000 Phi = 0.1092

Note: Data is weighted for cluster sample at site level

‡ *Includes the following categories: very poor, poor, fair, and good*

[xxxvii] Phi is preferred over Cramer's V when both variables are dichotomous, that is, they both have two categories. In this case, Cramer's V and Phi give identical strength of association statistics.

5.2 Overall rating of emergency department care: results over time

This section monitors variation, and identifies and explores changes in patients' overall rating of emergency department care (question 57). Results for this dichotomous indicator (reporting the percentage of patients who rated their emergency department care as either excellent or very good) are presented over time at both the provincial aggregate and individual site levels.

> Provincial aggregate data is weighted to adjust for cluster sampling at the site level. Conversely, site-level data is unweighted, as sample sizes were determined to achieve a representative sample at the site level.

Results highlights

The provincial aggregate run chart exhibited random variation throughout the study period, with no evidence of unsustained or sustained changes. At the site level, the overall rating of care results revealed some unsustained periods of non-random variation or change, and a single example of a sustained improvement in the overall rating of care. This illustrates the importance of analyzing at the site level. These changes would have been missed with only provincial aggregate results (see Figure 41).

> As noted in Section 4.0, patient experience is impacted by a number of factors, some of which are not under the direct control of the emergency departments. Therefore, patient experience results should be interpreted in the context of several factors, including emergency department volumes, emergency department length of stay (LOS), and acuity (CTAS) of emergency department patients. Section 4.1 revealed that volumes consistently increased in most emergency departments (including volume increases in at least three CTAS levels at nine sites), while trends in average emergency department LOS tend to vary between sites over the course of the study period (June 2010 to July 2013).

- At Red Deer Regional Hospital, an unsustained change toward lower overall ratings of emergency department care occurred from September to October 2012. The percentage of patients who rated their overall care as excellent or very good in September and October are in the outer one-third of the control limits below the centreline, indicating that a substantially lower percentage of patients than expected rated their overall care as excellent or very good, given the otherwise stable results.
- At Foothills Medical Centre, an unsustained change toward lower overall ratings of emergency department care occurred from January to March 2012. The percentage of patients who rated their overall care as excellent or very good in January and March are in the outer one-third of the control limits below the centreline, indicating that a substantially lower percentage of patients than expected rated their overall care as excellent or very good, given the otherwise stable results.
- At Sturgeon Community Hospital, a sustained change toward higher overall ratings of emergency department care occurred between March 2012 and the end of the study period.

Multiple and successive periods of positive change were identified from March 2012 to July 2013 (see Appendix XII), prompting a shift of the control limits to indicate that a sustained improvement had occurred. These results suggest that beginning in March 2012, Sturgeon produced a more positive overall patient experience relative to historical norms.

- At Grey Nuns Community Hospital, an unsustained change toward lower overall ratings of emergency department care occurred from July to December 2011. The percentage of patients rating their overall care as excellent or very good consistently decreased during this time period.
- At Misericordia Community Hospital, an unsustained change occurred from December 2011 to January 2012. The percentage of patients who rated their overall care as excellent or very good in December and January are in the outer one-third of the control limits (December above the centreline, January below the centreline). This is interpreted as a negative change in that the variability between months is not controlled effectively, relative to the otherwise stable results.
- At Queen Elizabeth II Hospital, an unsustained change toward lower overall ratings of emergency department care occurred in December 2012; during this month, the percentage of patients who rated their overall care as excellent or very good was substantially lower than expected, given the otherwise stable results.

The other emergency department sites were stable with respect to the percentage of patients who rated their overall care as excellent or very good, exhibiting only random variation. Essentially, they maintained the status quo throughout the duration of the study period.

Additionally, by comparing the centrelines (percentage who reported their care was excellent or very good for the study period)[xxxviii] of the site-level control charts, it is possible to assess how specific sites are performing relative to other sites.

- Over the study period, two of the three Calgary sites exhibited slightly higher overall ratings of care than sites from the other zones. At the Rockyview General Hospital and Foothills Medical Centre, on average 76 and 77 per cent of patients reported they received excellent or very good care, respectively. The exception to this would be at the Peter Lougheed Centre, where on average 68 per cent of patients reported they received excellent or very good care.
- The Edmonton sites (Sturgeon Community Hospital, Royal Alexandra Hospital, Grey Nuns Community Hospital, Misericordia Community Hospital, and the University of Alberta Hospital) exhibited overall ratings of care that were slightly below the Calgary sites over the study period. At the Royal Alexandra, Grey Nuns, and Misericordia emergency departments, between 65 and 67 per cent of patients reported they received excellent or very good care, on average. The University of Alberta and Sturgeon Community Hospitals scored similarly to the Calgary sites;

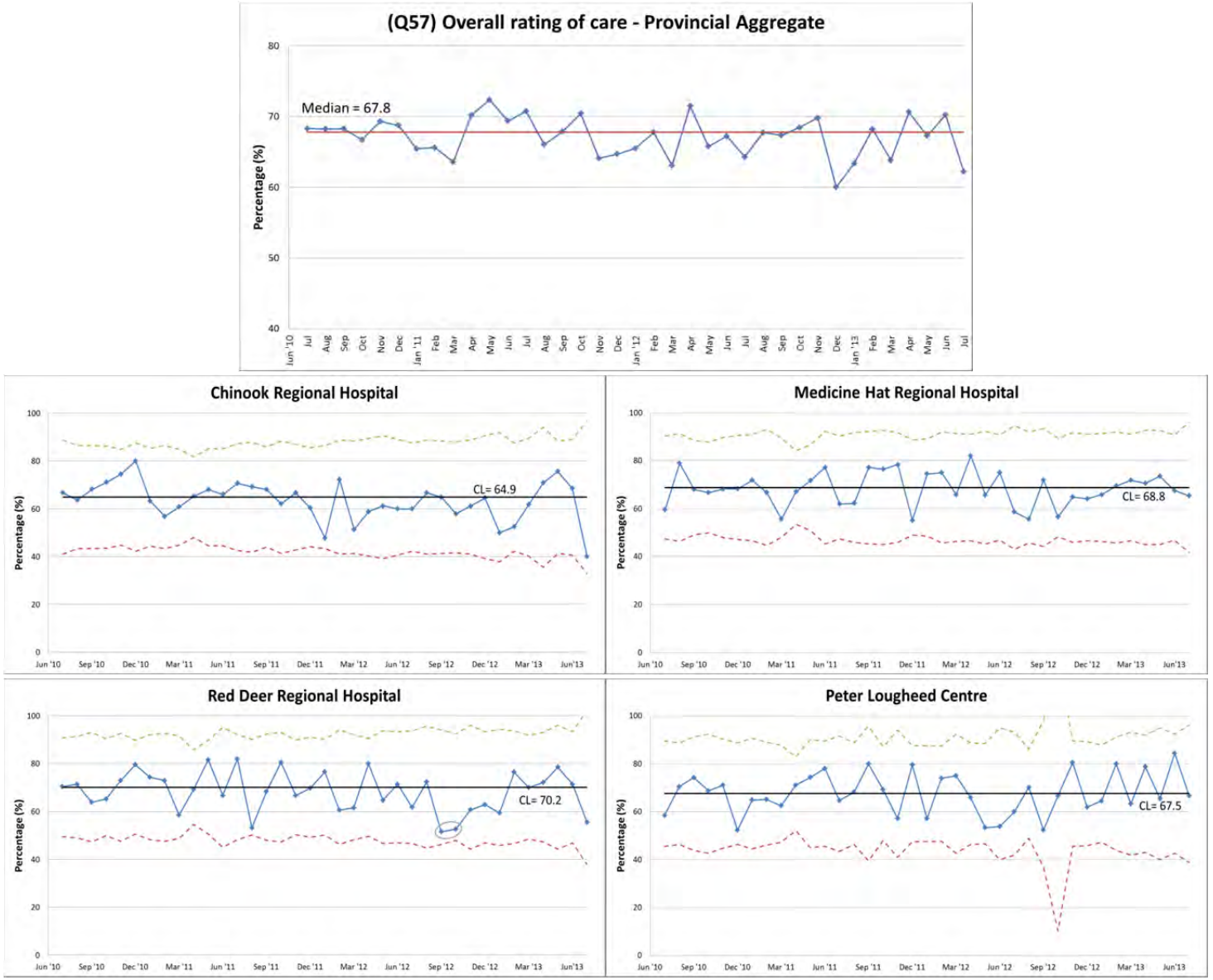
[xxxviii] In practice, the centreline is calculated for the first two years of stable data and then extended to apply to the final year of data. For more information on the centreline calculation for *P* charts, see Appendix VIII.

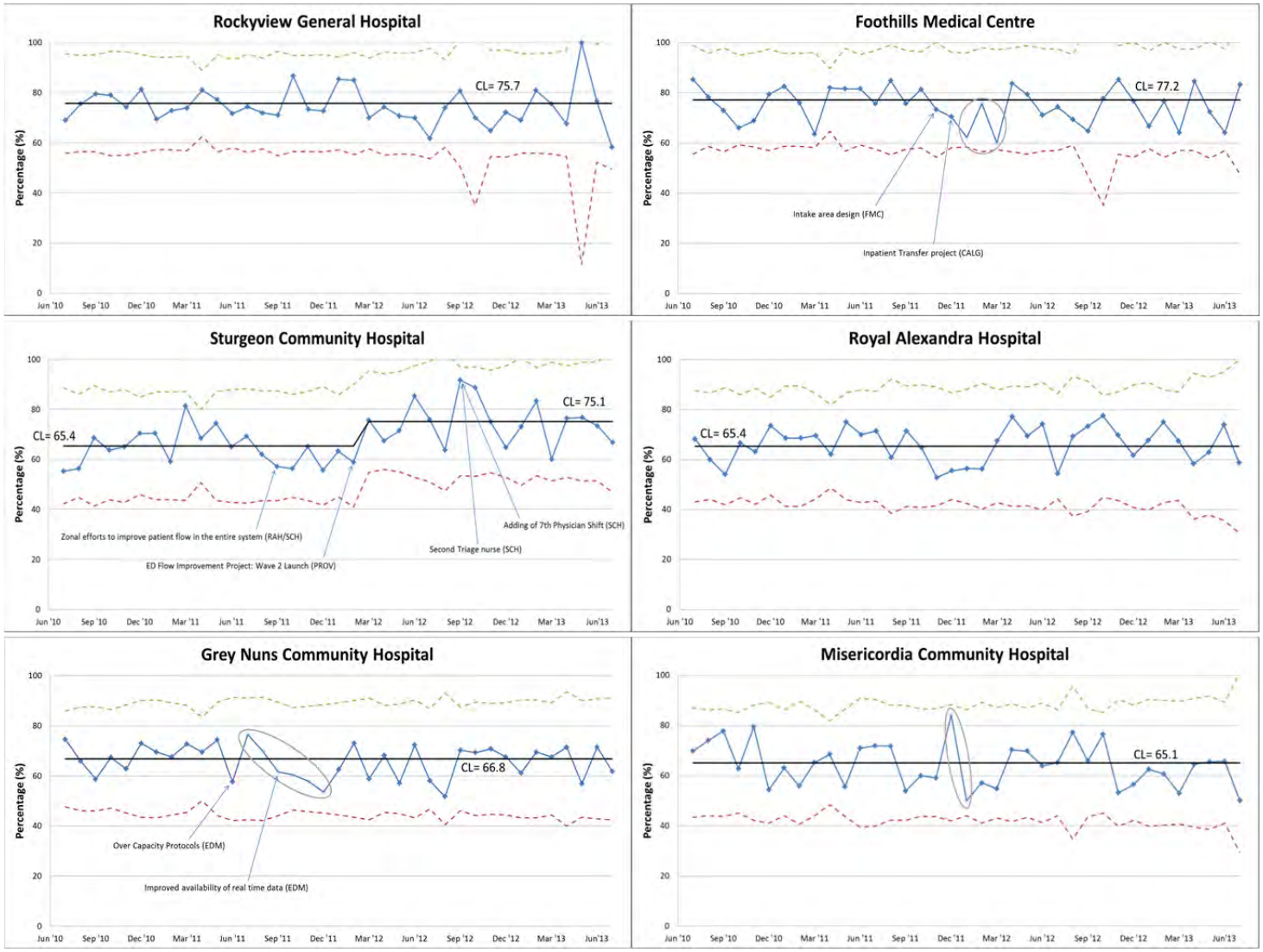
on average, 72 and 75 per cent of patients reported they received excellent or very good care, respectively.

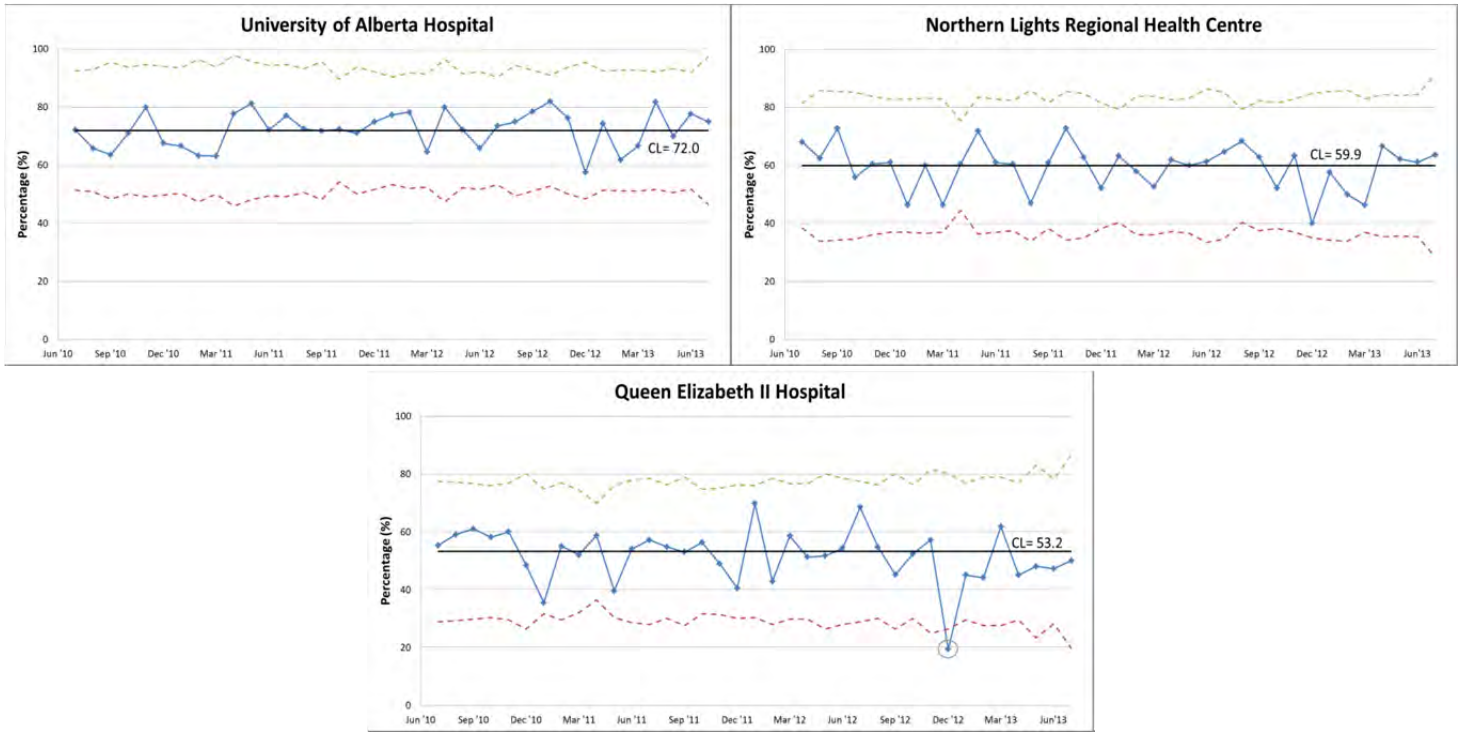
- The Chinook Regional Hospital, Medicine Hat Regional Hospital, and Red Deer Regional Hospital exhibited similar scores to the Edmonton sites. Between 65 and 70 per cent of patients reported they received excellent or very good care, on average.
- The Northern sites (Queen Elizabeth II Hospital and Northern Lights Regional Health Centre) exhibited the lowest overall ratings of care; on average, 53 and 60 per cent of patients reported they received excellent or very good emergency department care, respectively.

Determining the acceptability of the centreline or level at which each site is performing with respect to the overall rating of emergency department care is complex, given the unique pressures each facility is subject to. As a result, these considerations should be left to emergency department managers, administrators, and other stakeholders at each site who have a more comprehensive understanding of their unique challenges.

Figure 41: Overall rating of emergency department care – Provincial aggregate and site-level results




Rockyview General Hospital
CL= 75.7
Foothills Medical Centre
CL= 77.2
Intake area design (FMC)
Inpatient Transfer project (CALG)
Sturgeon Community Hospital
CL= 65.4
CL= 75.1
Zonal efforts to improve patient flow in the entire system (RAH/SCH)
ED Flow Improvement Project: Wave 2 Launch (PROV)
Second Triage nurse (SCH)
Adding of 7th Physician Shift (SCH)
Royal Alexandra Hospital
CL= 65.4
Grey Nuns Community Hospital
CL= 66.8
Over Capacity Protocols (EDM)
Improved availability of real time data (EDM)
Misericordia Community Hospital
CL= 65.1
Percentage (%)
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13


University of Alberta Hospital
Percentage (%)
CL= 72.0
Northern Lights Regional Health Centre
Percentage (%)
CL= 59.9
Queen Elizabeth II Hospital
Percentage (%)
CL= 53.2
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13

6.0 PROVINCIAL RUN CHARTS AND SITE-LEVEL CONTROL CHARTS: RESULTS FOR COMPOSITES AND SPECIFIC PATIENT EXPERIENCE QUESTIONS

The following sections reflect specific aspects of patient-perceived quality of care.[xxxix] The following statements apply to all of the remaining patient experience results presented over time:

- Provincial aggregate data is weighted to adjust for cluster sampling at the site level. Conversely, site-level data is unweighted, as sample sizes were determined to achieve a representative sample at the site level.
- Analyzing at the site level is important for developing a comprehensive understanding of how patient experience has changed over time; many site-level changes in patient experience would be missed if only provincial aggregate results were reported.
- Discussion of site-specific results is limited to those emergency department sites that showed evidence for change in patient experience over time. The other sites exhibited only random variation. Essentially, the sites that exhibited only random variation or unsustained changes maintained the status quo throughout the duration of the study period.
- Site-specific performance with respect to patient experience and relative to other sites can be assessed through the comparison of centrelines on control charts. However, the HQCA recognizes that determining the acceptability of the centreline, or level at which each site is performing with respect to patient experience, is complex, given the unique pressures each facility is subject to.

6.1 Description of composite variables and relative importance

Individual survey questions have been grouped into sets of items that are related and are shown to address a common underlying construct or issue. These sets of questions have been demonstrated to be sufficiently related to belong to a common scale or factor, and composite variables for each factor have been calculated from the individual questions that belong to that factor.

The detailed analysis and methodology for identification, validation, and computation of composites are provided in Appendix D of the 2007 *Emergency Department Patient Experience Survey* technical report (this report can be accessed on the HQCA website, at http://hqca.ca/surveys/emergency-department-patient-experience/emergency-department-patient-experience-survey/). This analysis (and subsequent multivariate analyses) indicates that these variables are valid, reliable, and have significant predictive power with respect to patients' overall rating of care quality and other outcome variables.

[xxxix] Selection of the original Healthcare Commission survey questions was based on extensive qualitative evaluation of emergency department patient issues, as well as patient rating of the relative importance of these issues. Closed ended questions are based on this research.

The composite variables are essentially the average score of responses to all variables within a common scale or factor. They provide a summary score for the common quality characteristic represented by the scale. For each, the composite score is presented as a standardized score where zero is the lowest possible score and 100 is the highest and best possible score.[xl] Given they are shown to be valid, composite variables are often better performance measures than the individual question items they represent.

The patient experience results covered in the subsequent sections are presented so that composite factors, and any of the selected individual questions that are related to them (and have individually been shown to be important predictors of patients' overall rating of care), are presented together, in order of relative importance to the overall rating of care, as determined by previous HQCA measurement activities.[xli]

Table 3: Order of importance for composite effects on overall (global) rating of emergency department care (Q57)

Composite
1. Staff care and communication composite
2. Wait time and crowding composite
3. Pain management composite
4. Respect composite
5. Facility cleanliness composite
6. Wait time communication composite
7. Privacy composite
8. Medication communication composite
9. Discharge communication composite
Note: The order of importance reflects a synthesis of the different multivariate analyses that have been conducted since 2007. Wait time and Pain management have significant indirect effects, which are reflected in a path analysis but are not captured in conventional regression analyses.

Previous HQCA measurement activities determined that the staff care and communication composite is by far the most important patient experience factor affecting the overall rating of care (question 57). The results for question 30 are reported with the staff care and communication composite results. It asks, "If you needed attention, were you able to get a member of staff to help you?" Although not included in the

[xl] The scoring scheme used to generate the zero to 100 score follows the methods developed by the Healthcare Commission for their *British Emergency Department Patient Experience* survey.

[xli] Order of relative importance to overall rating of care was determined from the following HQCA measurement activities: the 2007 *Emergency Department Patient Experience Survey* report and the *Urban and Regional Emergency Department Patient Experience Report 2009*, which can be found on the HQCA's website (http://hqca.ca/surveys/emergency-department-patient-experience/).

composite calculation,[xlii] getting staff to help (question 30) is shown to be associated with the staff care and communication composite and its constituent items.[9] More importantly, this individual question has been shown to have a significant influence on patients' overall rating of care. This influence has been captured in both traditional regression analyses (performed in the HQCA's 2007 and 2009 emergency department survey reports) and a path analysis (included in the HQCA's 2009 emergency department survey report).

The previously conducted path analysis also revealed that both wait time and pain management have significant secondary interaction effects (with other variables) on the overall rating of care. In view of this, their total importance to the overall rating is elevated over what can be measured using conventional regression analysis. Results for question 13, which asks, "From the time you first arrived at the emergency department, how long did you wait before being examined by a doctor?" are reported with the wait time and crowding composite results. Time to being seen by a doctor (question 13) is used in the calculation of the wait time and crowding composite, but has also been shown to have a significant influence on the overall rating of care on its own.[10] Similarly, results for question 42, which asks, "Do you think emergency department staff did everything they could to help control your pain?" are reported with pain management composite results. This individual question is used in the calculation of the pain management composite, but has also been shown to significantly influence the overall rating of care on its own.[10]

The respect composite also significantly influences patients' overall rating of care. Results for question 19, which asks, "Did the doctors and nurses treating and assessing you introduce themselves?" are reported with the composite results. Although not included in the calculation,[xliii] whether doctors and nurses introduced themselves (question 19) is shown to be associated with the respect composite and its constituent items.[9] More importantly, question 19 has been shown to have a significant influence on patients' overall rating of care.[10]

Though less influential on the overall rating of care, the wait time communication composite is worth mentioning because its results are supplemented by another individual survey question, question 17, which asks, "Did a member of staff check on you while you were waiting?" As with the questions that supplemented the wait time and crowding and pain management composite results, question 17 is used in the calculation of the wait time communication composite. However, results from this individual question have been shown to significantly influence the overall rating of care on its own.[10]

While the relationship between some variables or composites and the overall rating (question 57) may be weaker, one should not conclude that such variables are unimportant. For example, communication about medications does not appear to have a significant impact on the overall rating of care; however it is important for other reasons.

[xlii] Being able to get staff to help (question 30) was not included in the computation of the composite because dropping it improved internal consistency reliability.

[xliii] Not included in the computation of the composite because dropping it improved internal consistency reliability.

6.2 Staff care and communication composite

This section monitors variation, and identifies and explores changes in the staff care and communication composite over time at both the provincial aggregate and individual site levels.

Table 4: Staff care and communication composite questions

Core questions included in the calculation
Q22: While you were in the Emergency Department, did a doctor or nurse explain your condition and treatment in a way you could understand?
Q27: While you were in the Emergency Department, how much information about your condition or treatment was given to you?
Q23: If you had any anxieties or fears about your condition or treatment, did a doctor or nurse discuss them with you?
Q21: Did the doctors and nurses listen to what you had to say?
Q25: In your opinion, did the doctors and nurses in the Emergency Department know enough about your condition or treatment?
Q24: Did you have confidence and trust in the doctors and nurses examining and treating you?
Q32: Were you involved as much as you wanted to be in decisions about your care and treatment?
Q20: Did you have enough time to discuss your health or medical problem with the doctor or nurse?
Notes:
Core questions included in the calculation of the composite are listed in order of influence on the composite score[xliv]
Composites are scored on a scale from 0 to 100, where 100 is the best possible score
Provincial aggregate data is weighted to adjust for cluster sampling at the site level
Site-level data is unweighted; sample sizes were determined to achieve a representative sample at the site level
2007 Site-level reliability (GRIP macro): 0.93; 2007 Standardized Scale Alpha (Cronbach's): 0.90

Results highlights

The provincial aggregate run chart exhibited random variation throughout the study period, with no evidence of unsustained or sustained changes. At the site level, the staff care and communication composite results revealed some unsustained periods of non-random variation or change (see Figure 42).

- At Chinook Regional Hospital, an unsustained change toward lower average ratings of staff care and communication occurred in February 2013. During this month, the average staff care and communication rating was substantially lower than expected, given the otherwise stable results.

[xliv] Order of influence on the composite score is determined from a principle components factor analysis, conducted in the HQCA's 2007 *Emergency Department Patient Experience Survey* report. Factor loadings were used to determine the strength of association between each question and its overarching factor. This work can be found on the HQCA website: (http://hqca.ca/surveys/emergency-department-patient-experience/emergency-department-patient-experience-survey/).

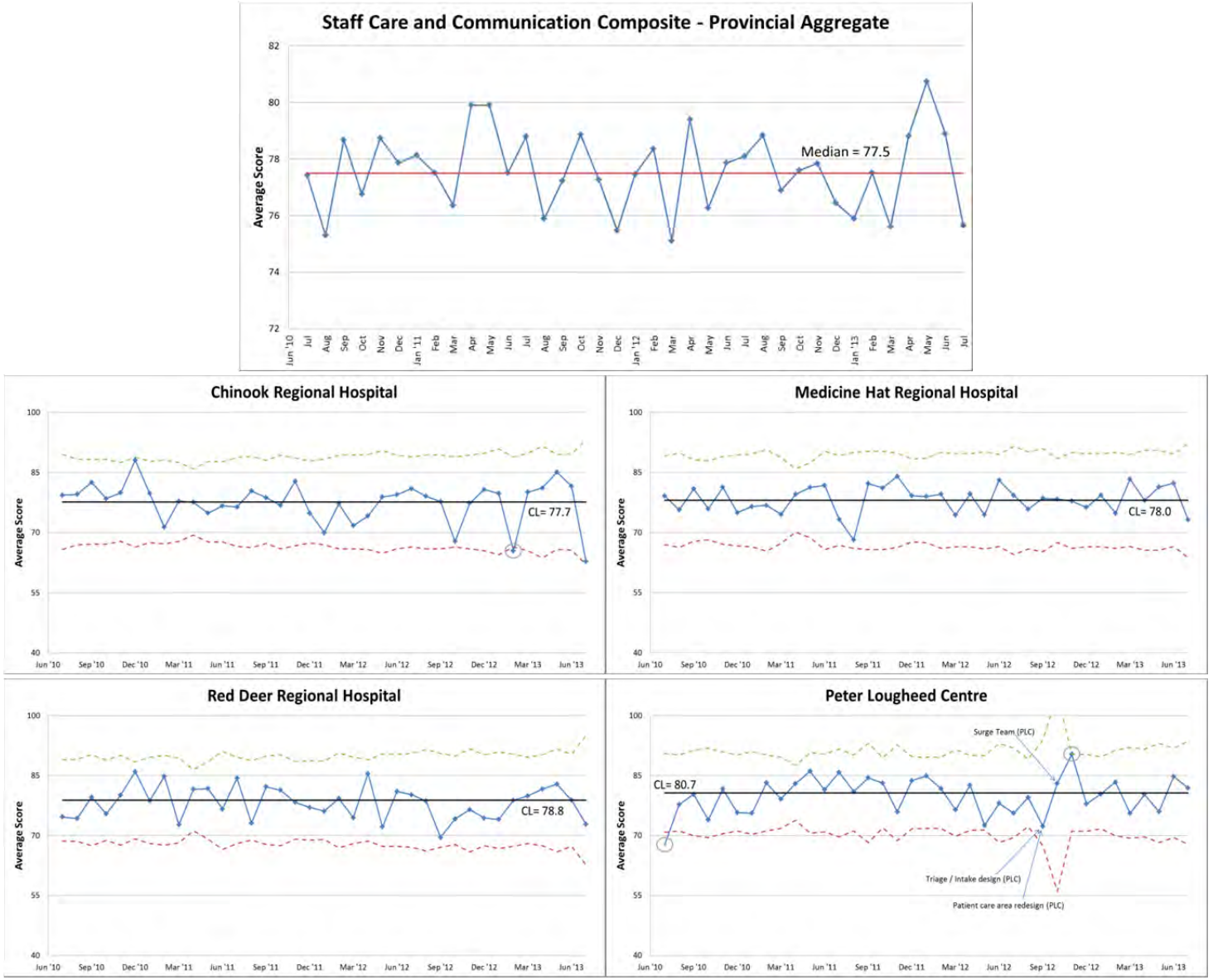
- At Peter Lougheed Centre, two instances of unsustained change occurred. In July 2010 an unsustained change toward lower average ratings of staff care and communication occurred (i.e., the average staff care and communication rating was substantially lower than expected). Conversely, an unsustained change toward higher average ratings of staff care and communication occurred in November 2012 (i.e., the average rating was substantially higher than expected, given the mostly stable historical results).
- At Misericordia Community Hospital, an unsustained change toward higher average ratings of staff care and communication occurred from December 2012 to May 2013. Average staff care and communication ratings consistently increased during this time period.

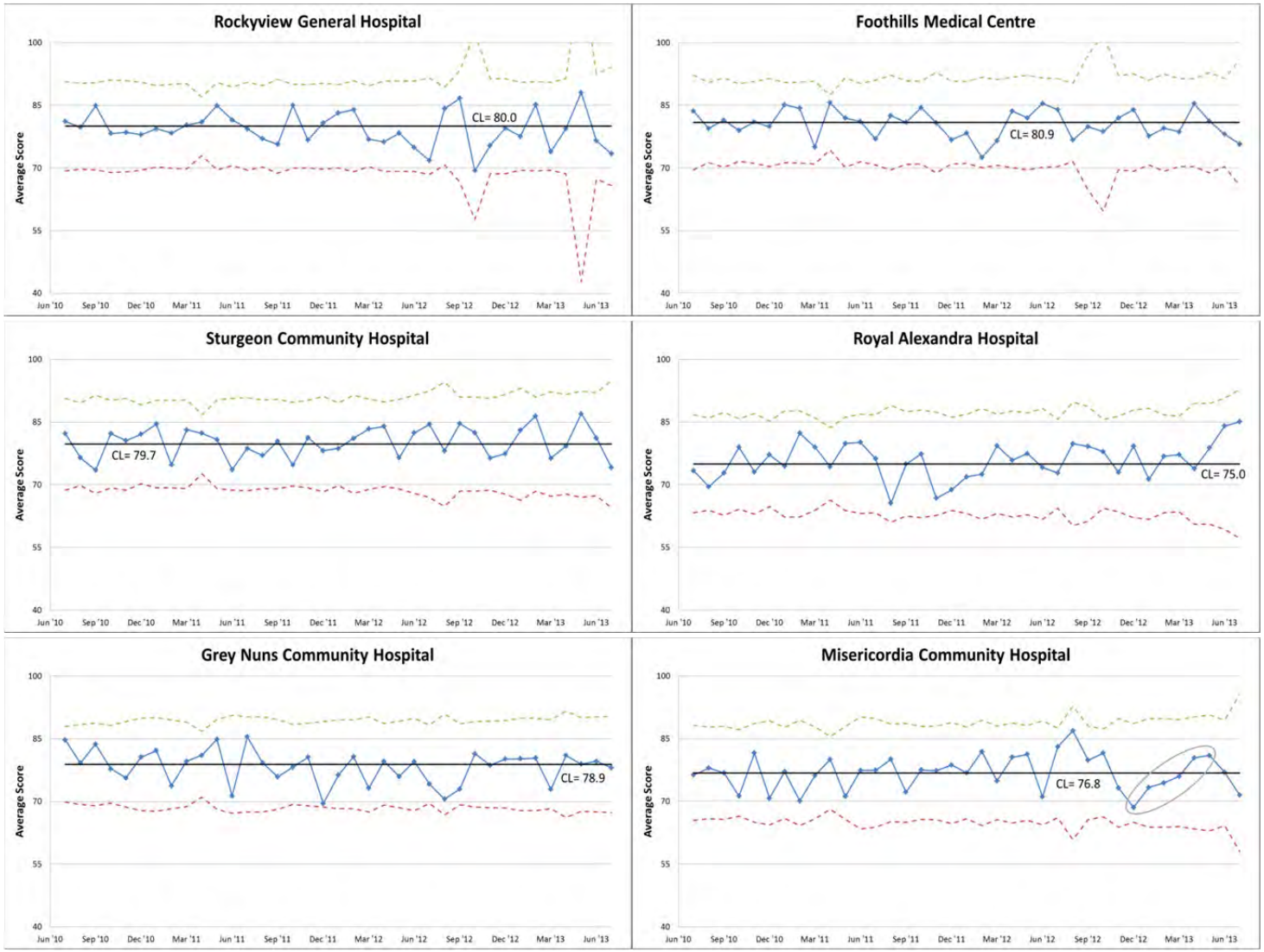
Additionally, by comparing the centrelines (overall averages) of the site-level control charts, it is possible to assess how specific sites are performing, relative to other sites.[xlv]

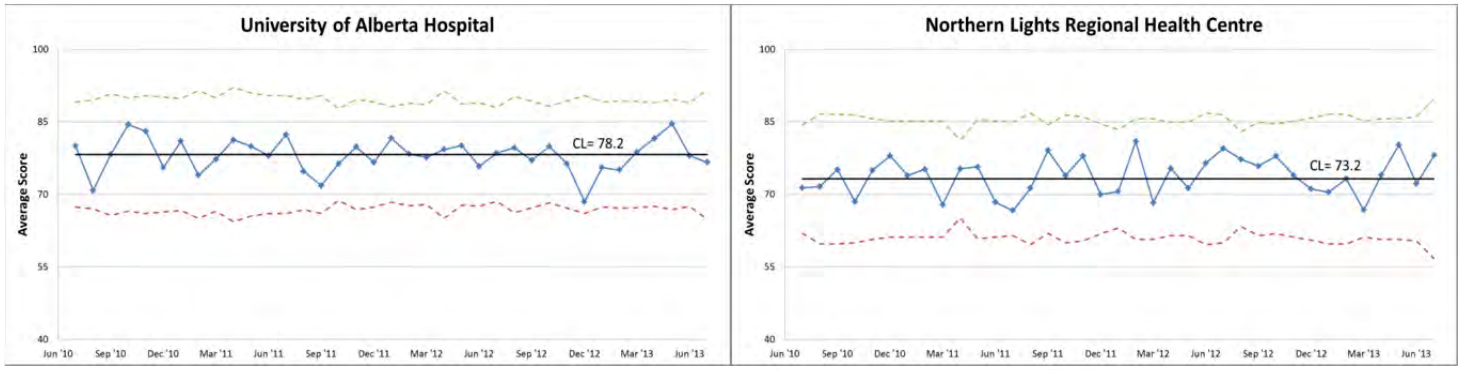
- Over the study period, the Calgary sites (Peter Lougheed Centre, Rockyview General Hospital, and Foothills Medical Centre) exhibited slightly higher overall average ratings of staff care and communication than sites from the other zones, on average scoring between 80/100 and 81/100.
- Chinook Regional Hospital, Medicine Hat Regional Hospital, and Red Deer Regional Hospital exhibited similar results to the Calgary sites, on average scoring between 78/100 and 79/100.
- The Edmonton sites (Sturgeon Community Hospital, Royal Alexandra Hospital, Grey Nuns Community Hospital, Misericordia Community Hospital, and the University of Alberta Hospital) scored between 75/100 and 80/100 on their overall average ratings of staff care and communication, on average.
- The Northern sites (Queen Elizabeth II Hospital and Northern Lights Regional Health Centre) exhibited the lowest overall average ratings of staff care and communication, on average scoring 71/100 and 73/100, respectively.

[xlv] The centreline represents a weighted overall average rating of staff care and communication. The term 'weighted' references the fact that average composite scores for months with larger sample sizes more heavily influence the calculation of the centreline or overall average. For more information on the overall average, see Appendix VIII for control chart calculation formulas.

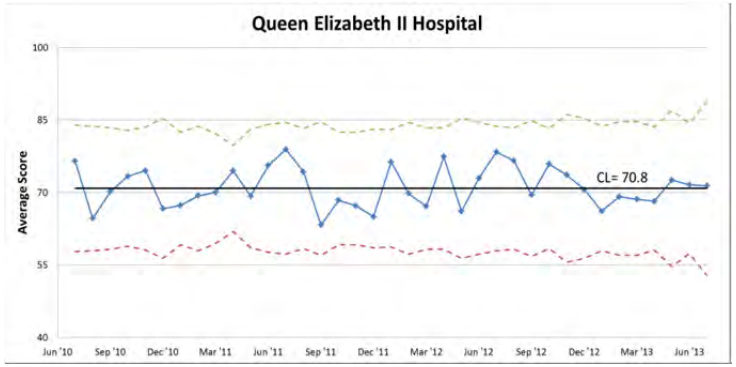
Figure 42: Staff care and communication composite – Provincial aggregate and site-level results




Rockyview General Hospital
CL= 80.0
Foothills Medical Centre
CL= 80.9
Sturgeon Community Hospital
CL= 79.7
Royal Alexandra Hospital
CL= 75.0
Grey Nuns Community Hospital
CL= 78.9
Misericordia Community Hospital
CL= 76.8
Average Score
100
85
70
55
40
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


University of Alberta Hospital
Average Score
100
85
70
55
40
CL= 78.2
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

Northern Lights Regional Health Centre
Average Score
100
85
70
55
40
CL= 73.2
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


Queen Elizabeth II Hospital
Average Score
100
85
70
55
40
CL= 70.8
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

6.2.1 If you needed attention, were you able to get a member of staff to help you?

This section monitors variation, and identifies and explores changes in patients' ability to get staff to help (question 30), when needed. Results are presented over time at both the provincial aggregate and individual site levels. Question 30 asks respondents:

Q30: If you needed attention, were you able to get a member of staff to help you?

These charts present the percentage of patients who, if needing attention, were **not** always able to get a member of staff to help, and excludes those who reported not needing attention during their emergency department visit. As previously mentioned, the ability to get staff to help (question 30) is not included in the calculation of the staff care and communication composite;[xlvi] however, it is shown to be associated with the composite and its constituent items.[9] More importantly, it has been shown to have a significant influence on patients' overall rating of care.

Results highlights

The provincial aggregate run chart exhibited random variation throughout the study period, with the exception of an unsustained change toward lower patient experience that occurred from November 2010 to March 2011. The percentage of patients who reported they were not always able to get a member of staff to help when they needed attention consistently increased during this time period, which would not be expected if the results had been stable. At the site level, results for patients not being able to get staff to help revealed some unsustained periods of non-random variation or change (see Figure 43).

- At Chinook Regional Hospital, an unsustained change toward lower patient experience occurred from April to December 2012. The percentage of patients who reported they were not always able to get a member of staff to help when they needed attention was entirely above the centreline, indicating that a substantially higher percentage of patients reported not being able to get staff to help than expected, given the otherwise stable results.
- At Red Deer Regional Hospital, three instances of unsustained change occurred. From November 2010 to July 2011 an unsustained change toward higher patient experience occurred, where the percentage of patients who reported they were not always able to get a member of staff to help was entirely below the centreline, substantially lower than expected had the results been stable. Another unsustained change toward higher patient experience occurred from August 2011 to January 2012, where the percentage of patients who reported they were not always able to get a member of staff to help consistently decreased. Conversely, a change toward lower patient experience occurred in May 2012, where the percentage of patients who reported they were not

[xlvi] Being able to get staff to help (question 30) was not included in the computation of the composite because dropping it improved internal consistency reliability.

always able to get a member of staff to help was substantially higher than expected had the results been stable.

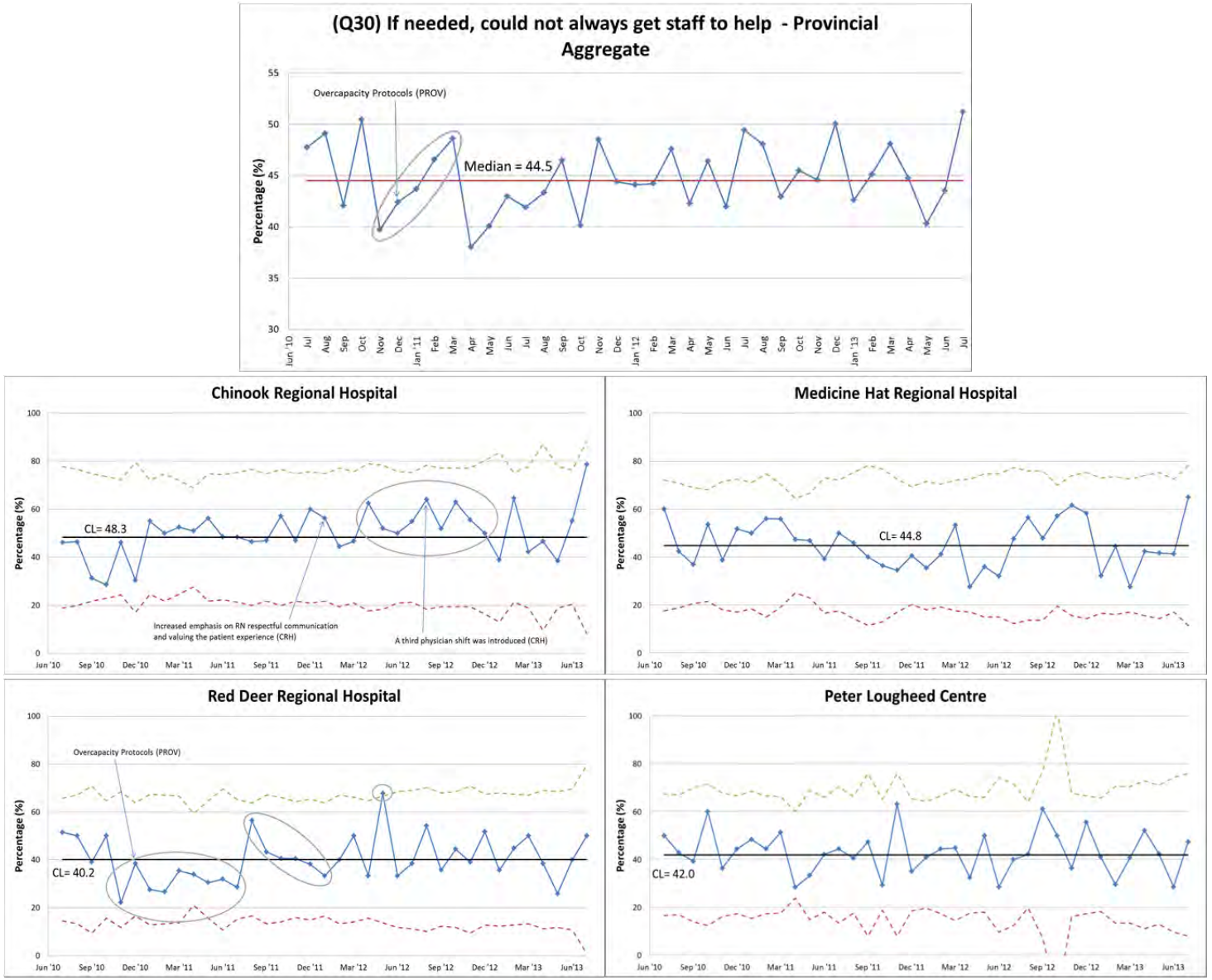
- At Foothills Medical Centre, an unsustained change toward lower patient experience occurred from October 2012 to June 2013. The percentage of patients who reported they were not always able to get a member of staff to help was entirely above the centreline, substantially higher than expected given the otherwise stable results.
- At Grey Nuns Community Hospital, an unsustained change toward higher patient experience occurred from April to May 2011. Results in April and May are in the outer one-third of the control limits below the centreline, indicating that the percentage of patients who reported they were not always able to get a member of staff to help is substantially lower than expected, given the otherwise stable results.

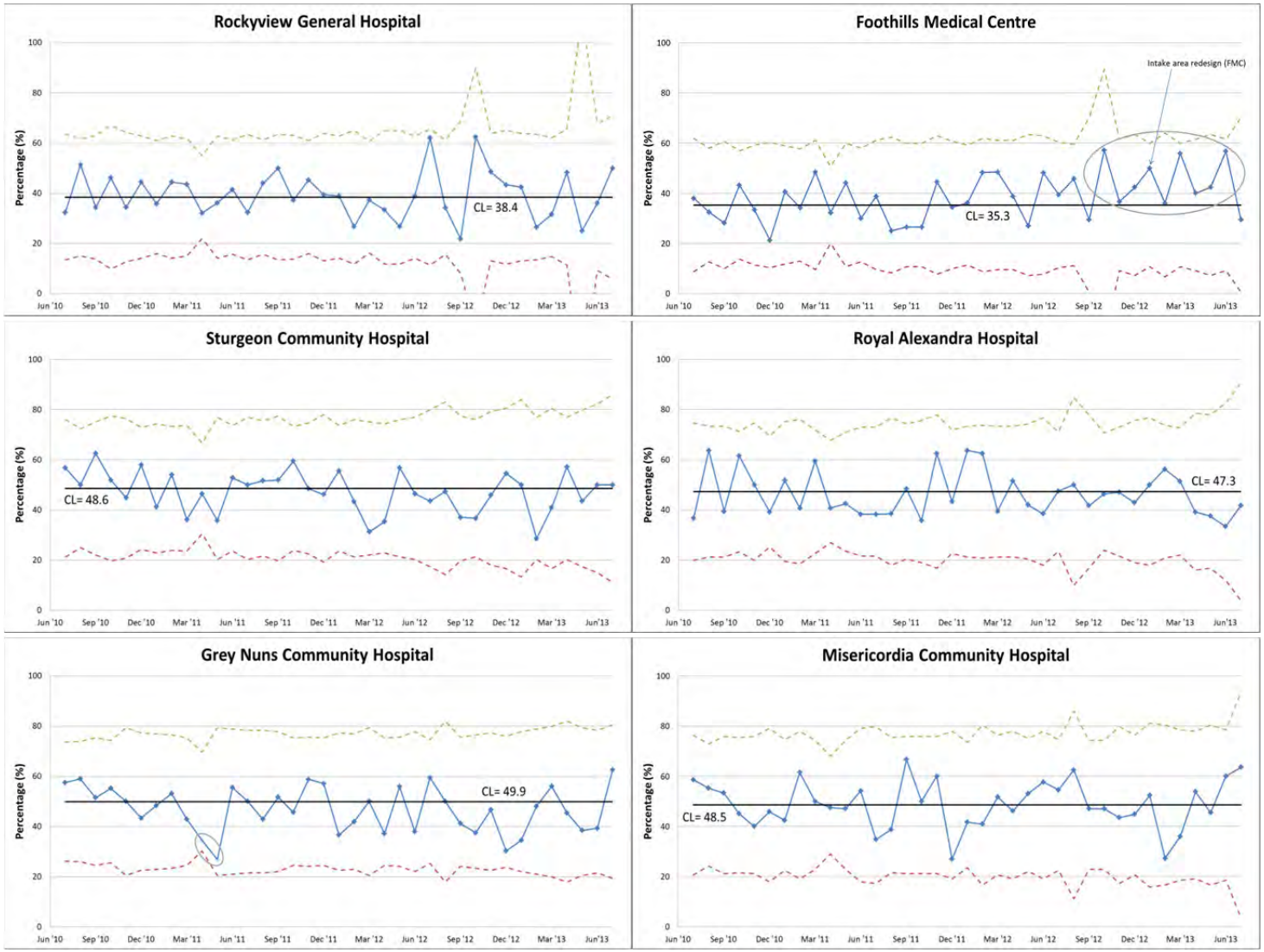
Additionally, by comparing the centrelines (percentage who reported they were not always able to get a member of staff to help for the whole study period)[xlvii] of the site-level control charts, it is possible to assess how specific sites are performing relative to other sites.

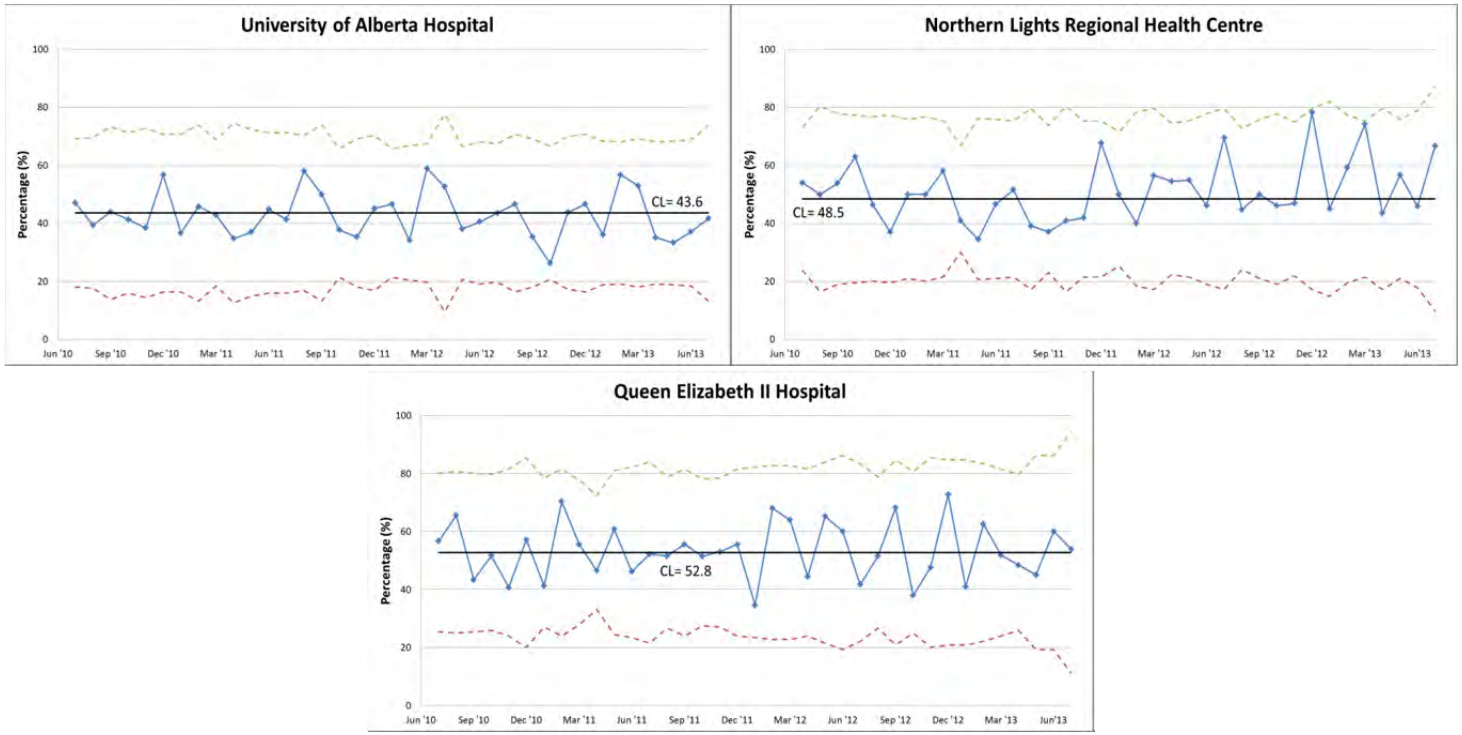
- Over the study period, the Calgary sites (Peter Lougheed Centre, Rockyview General Hospital, and Foothills Medical Centre) and Red Deer Regional Hospital exhibited slightly lower percentages of patients who reported they were not always able to get a member of staff to help than sites from the other zones, on average between 35 and 42 per cent.
- Medicine Hat Regional Hospital and Chinook Regional Hospital exhibited slightly higher percentages of patients who reported they were not always able to get a member of staff to help than the Calgary sites and Red Deer, on average 45 and 48 per cent, respectively.
- The Edmonton sites (Sturgeon Community Hospital, Royal Alexandra Hospital, Grey Nuns Community Hospital, Misericordia Community Hospital, and the University of Alberta Hospital) exhibited similar results to Chinook and Medicine Hat, with between 44 and 50 per cent of patients who reported they were not always able to get a member of staff to help, on average over the study period.
- The Northern sites (Northern Lights Regional Health Centre and Queen Elizabeth II Hospital) exhibited slightly higher percentages of patients who reported they were not always able to get a member of staff to help than sites from the other zones, on average 48 and 53 per cent, respectively.

[xlvii] In practice, the centreline is calculated for the first two years of stable data and then extended to apply to the final year of data. For more information on the centreline calculation for *P* charts, see Appendix VIII.

Figure 43: If needed attention, were not always able to get a member of staff to help – Provincial aggregate and site-level results




Rockyview General Hospital
Percentage (%)
CL= 38.4
Foothills Medical Centre
Intake area redesign (FMC)
CL= 35.3
Sturgeon Community Hospital
CL= 48.6
Royal Alexandra Hospital
CL= 47.3
Grey Nuns Community Hospital
CL= 49.9
Misericordia Community Hospital
CL= 48.5
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13


University of Alberta Hospital
Percentage (%)
CL= 43.6
Northern Lights Regional Health Centre
Percentage (%)
CL= 48.5
Queen Elizabeth II Hospital
Percentage (%)
CL= 52.8
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13

6.3 Wait time and crowding composite

This section monitors variation, and identifies and explores changes in the wait time and crowding composite over time at both the provincial aggregate and individual site levels.

Table 5: Wait time and crowding composite questions

Core questions included in the calculation
Q7: How crowded was the emergency department waiting room when you first arrived there?
Q18: Overall, how long did your visit to the emergency department last?
Q13: From the time you first arrived at the emergency department, how long did you wait before being examined by a doctor?
Q10: How long did you wait before you first spoke to the triage nurse, that is, the person who first asked you about your health problem?
Q8: Were you able to find a comfortable place to sit in the waiting area?
Notes:
Core questions included in the calculation of the composite are listed in order of influence on the composite score[xlviii]
Composites are scored on a scale from 0 to 100, where 100 is the best possible score
Provincial aggregate data is weighted to adjust for cluster sampling at the site level
Site-level data is unweighted; sample sizes were determined to achieve a representative sample at the site level
2007 Site-level reliability (GRIP macro): 0.99; 2007 Standardized Scale Alpha (Cronbach's): 0.73

Results highlights

The provincial aggregate run chart exhibited random variation throughout the study period, with the exception of an unsustained change toward higher average ratings of wait time and crowding that occurred from February to June 2013. Average wait time and crowding ratings consistently increased during this time period, which would not be expected if the results had been stable. At the site level, the wait time and crowding composite results revealed some unsustained periods of non-random variation or change, and two examples of sustained improvements in average ratings of wait time and crowding (see Figure 44).

- At Medicine Hat Regional Hospital, three instances of unsustained change occurred. From August to November 2012 an unsustained change toward lower average ratings of wait time and crowding occurred; results in August, October, and November are in the outer one-third of the control limits below the centreline, indicating that average wait time and crowding ratings are substantially lower than expected given the stable historical results. Similarly, a change toward

[xlviii] Order of influence on the composite score is determined from a principle components factor analysis, conducted in the HQCA's 2007 *Emergency Department Patient Experience Survey* report. Factor loadings were used to determine the strength of association between each question and its overarching factor. This work can be found on the HQCA website (http://hqca.ca/surveys/emergency-department-patient-experience/emergency-department-patient-experience-survey/).

lower average ratings of wait time and crowding occurred in February 2013; during this month, the average wait time and crowding rating was substantially lower than expected, given the mostly stable historical results.

- At Red Deer Regional Hospital, four instances of unsustained change occurred. Results in October and December 2010 were both in the outer one-third of the control limits (October below the centreline, December above the centreline). This is interpreted as a negative change in that the variability between months is not being controlled effectively, relative to historical norms. Similarly, in November 2010, January 2011, and May 2011 unsustained changes toward higher average ratings of wait time and crowding occurred; the average wait time and crowding ratings were substantially higher than expected, relative to historical norms.
- At Rockyview General Hospital, two unsustained changes occurred. In September 2010 an unsustained change toward lower average wait time and crowding ratings occurred; the average rating was substantially lower than expected had the results been stable. Additionally, from May 2011 to July 2012 results clustered within the inner one-third of the control limits. This is interpreted as a positive change in that the variability between months is being controlled effectively.
- At Foothills Medical Centre, an unsustained change toward lower average ratings of wait time and crowding occurred from October to November 2010. Results are in the outer one-third of the control limits below the centreline, indicating that average wait time and crowding ratings are substantially lower than expected given the otherwise stable results.
- At Sturgeon Community Hospital, an unsustained change toward lower average ratings of wait time and crowding occurred from July to September 2010. Results are in the outer one-third of the control limits below the centreline, indicating that average wait time and crowding ratings are substantially lower than expected had the results been stable. Conversely, a sustained change toward higher average ratings of wait time and crowding occurred from September 2012 through the end of the study period. Multiple and successive periods of positive change were identified (see Appendix XII), prompting a shift of the control limits to indicate that a sustained improvement had occurred relative to historical norms.
- At Royal Alexandra Hospital, an unsustained change toward lower average ratings of wait time and crowding occurred from January to February 2012. Results are in the outer one-third of the control limits below the centreline, indicating that average wait time and crowding ratings are substantially lower than expected given the otherwise stable results.
- At Grey Nuns Community Hospital, an unsustained change toward lower average ratings of wait time and crowding occurred in October 2010; during this month, the average wait time and crowding rating was substantially lower than expected, given the otherwise stable results.
- At the University of Alberta Hospital, a sustained change toward higher average ratings of wait time and crowding occurred from February 2012 through the end of the study period. Multiple and successive periods of positive change were identified (see Appendix XII), prompting a shift of the control limits to indicate that a sustained improvement had occurred relative to historical norms.

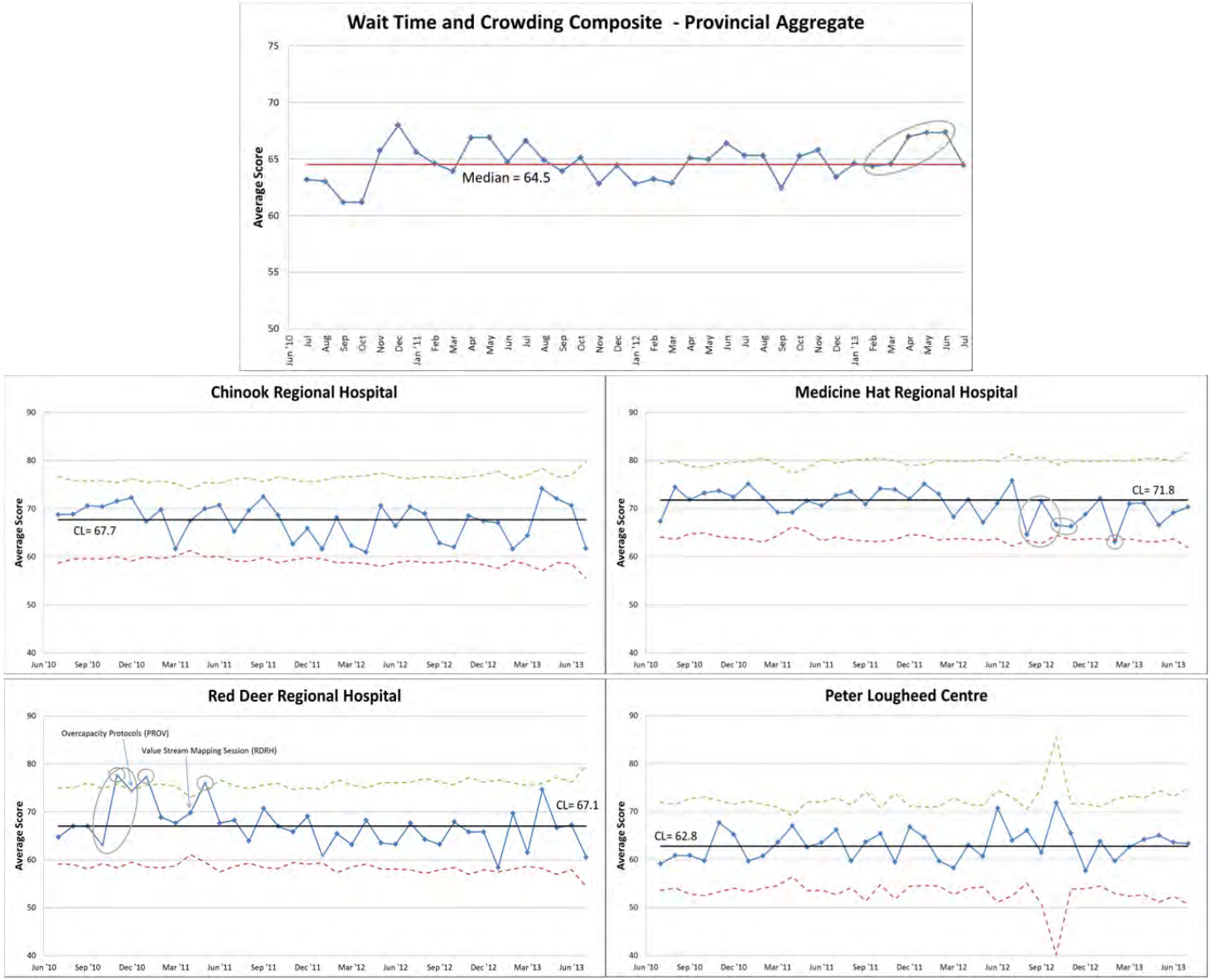
- At Northern Lights Regional Health Centre, four instances of unsustained change occurred. From July to September 2011 a change toward higher average ratings of wait time and crowding occurred; results in July and September are in the outer one-third of the control limits above the centreline, indicating that average wait time and crowding ratings are substantially higher than expected had the results been stable. Similarly, in June 2013 a change toward higher average ratings of wait time and crowding occurred; during this month, the average wait time and crowding rating was substantially higher than expected. Conversely, an unsustained change toward lower average ratings of wait time and crowding occurred from September 2011 to March 2012; average ratings consistently decreased during this time period. Another change toward lower average ratings of wait time and crowding occurred from July 2012 to March 2013; during this time period results were entirely below the centreline, indicating that average wait time and crowding ratings were substantially lower than expected had the results been stable.
- At Queen Elizabeth II Hospital, an unsustained change toward higher average ratings of wait time and crowding occurred from January to July 2012; average ratings consistently increased during this time period.

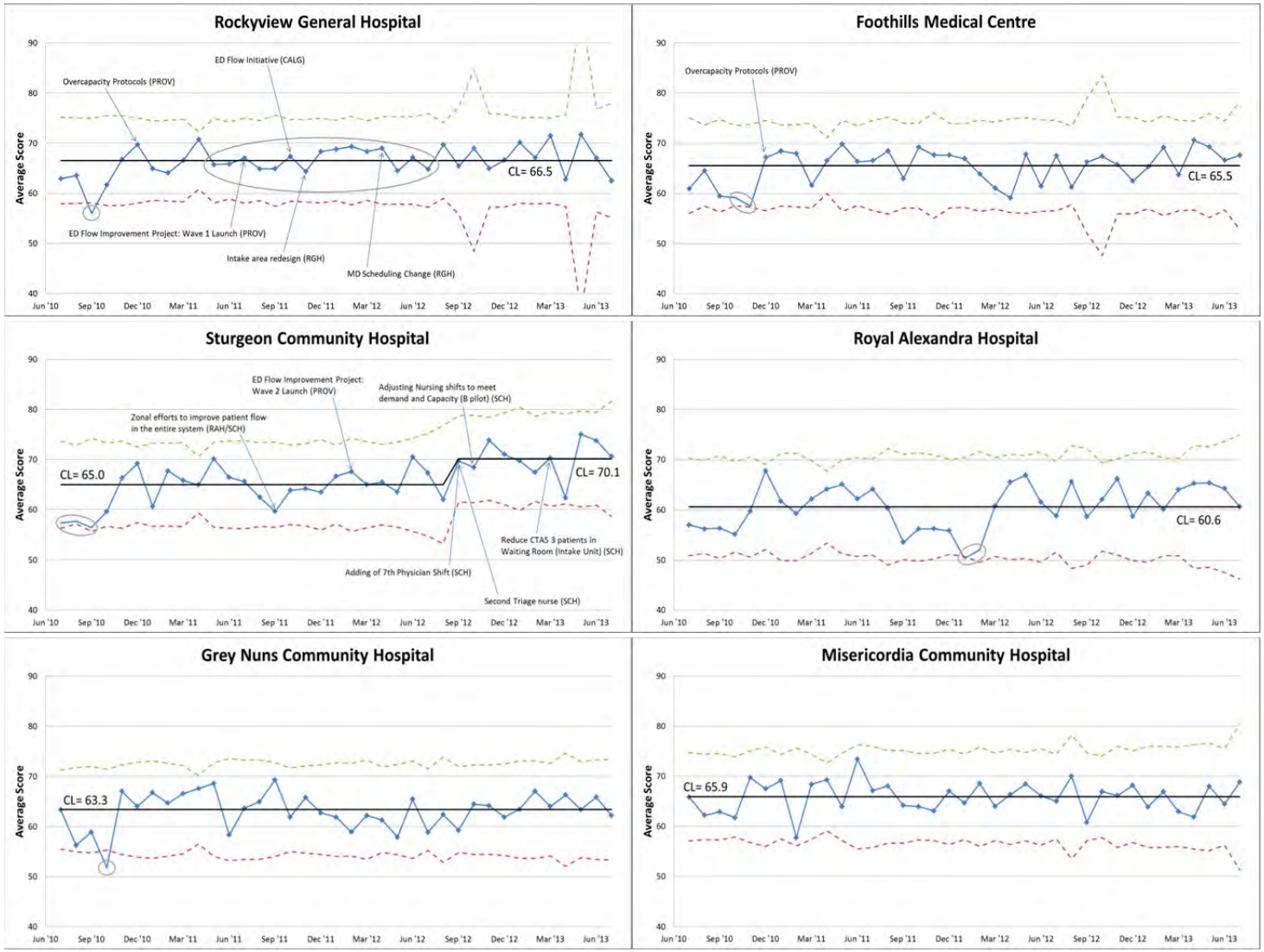
Additionally, by comparing the centrelines (overall averages) of the site-level control charts, it is possible to assess how specific sites are performing, relative to other sites.[xlix]

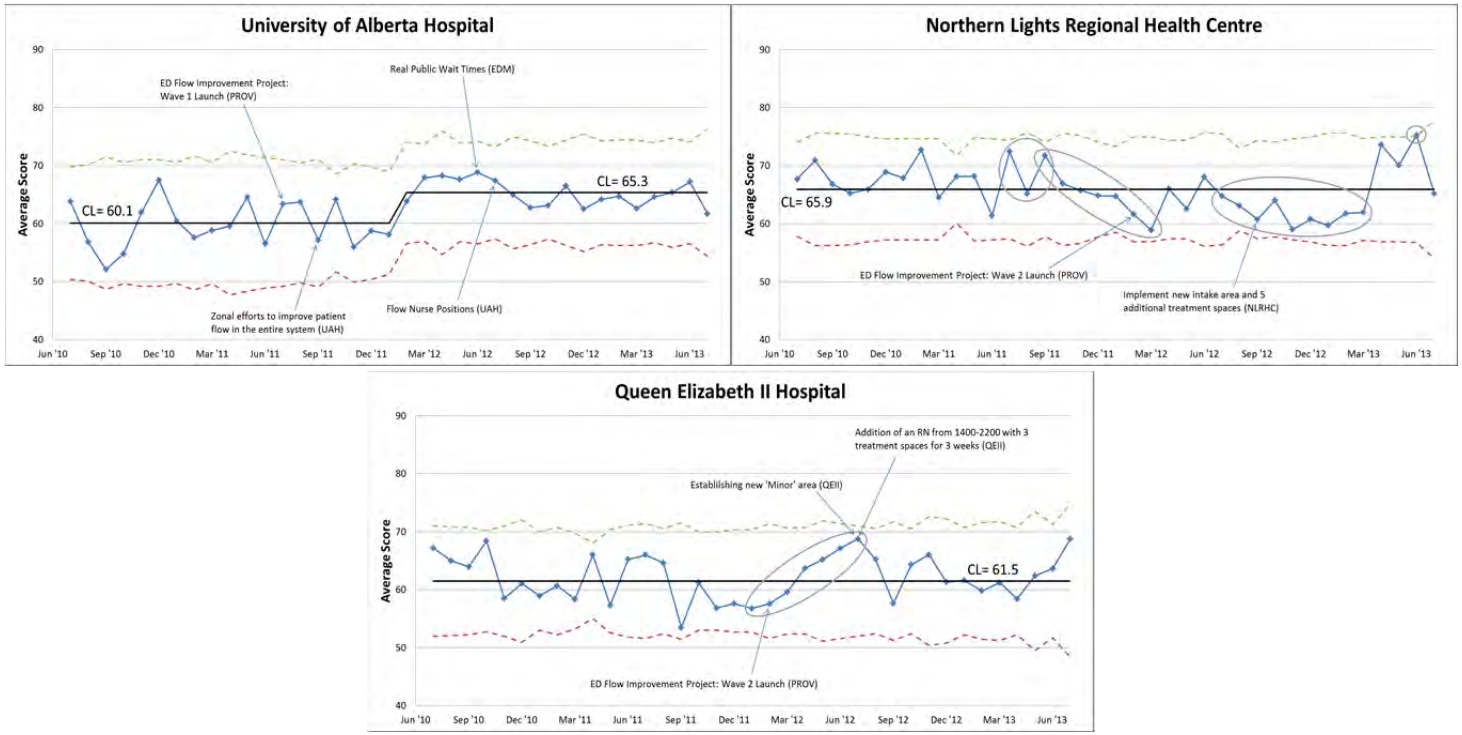
- Over the study period, the Chinook Regional Hospital, Medicine Hat Regional Hospital, and Red Deer Regional Hospital exhibited slightly higher overall average ratings of wait time and crowding than sites from the other zones, on average scoring between 67/100 and 72/100.
- The Calgary sites (Peter Lougheed Centre, Rockyview General Hospital, and Foothills Medical Centre) exhibited slightly lower overall average ratings of wait time and crowding than Chinook, Medicine Hat, and Red Deer, on average scoring between 63/100 and 67/100.
- Most of the Edmonton sites (Royal Alexandra Hospital, Grey Nuns Community Hospital, Misericordia Community Hospital, and the University of Alberta Hospital) exhibited similar scores to the Calgary sites, on average scoring between 61/100 and 66/100 on ratings of wait time and crowding. The exception to this would be Sturgeon Community Hospital, which scored 70/100, on average over the study period.
- The Northern sites (Queen Elizabeth II Hospital and Northern Lights Regional Health Centre) exhibited similar scores to both the Calgary and Edmonton sites, on average scoring 62/100 and 66/100, respectively.

[xlix] The centreline represents a weighted overall average rating of wait time and crowding. The term 'weighted' references the fact that average composite scores for months with larger sample sizes more heavily influence the calculation of the centreline or overall average. For more information on the overall average, see Appendix VIII for control chart calculation formulas.

Figure 44: Wait time and crowding composite – Provincial aggregate and site-level results




Rockyview General Hospital
Average Score
Overcapacity Protocols (PROV)
ED Flow Initiative (CALG)
ED Flow Improvement Project: Wave 1 Launch (PROV)
Intake area redesign (RGH)
MD Scheduling Change (RGH)
CL= 66.5
Foothills Medical Centre
Overcapacity Protocols (PROV)
CL= 65.5
Sturgeon Community Hospital
ED Flow Improvement Project: Wave 2 Launch (PROV)
Adjusting Nursing shifts to meet demand and Capacity (B pilot) (SCH)
Zonal efforts to improve patient flow in the entire system (RAH/SCH)
CL= 65.0
CL= 70.1
Reduce CTAS 3 patients in Waiting Room (Intake Unit) (SCH)
Adding of 7th Physician Shift (SCH)
Second Triage nurse (SCH)
Royal Alexandra Hospital
CL= 60.6
Grey Nuns Community Hospital
CL= 63.3
Misericordia Community Hospital
CL= 65.9
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


University of Alberta Hospital
Average Score
90
80
70
60
50
40
ED Flow Improvement Project:
Wave 1 Launch (PROV)
Real Public Wait Times (EDM)
CL= 60.1
CL= 65.3
Zonal efforts to improve patient
flow in the entire system (UAH)
Flow Nurse Positions (UAH)
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13
Northern Lights Regional Health Centre
CL= 65.9
ED Flow Improvement Project: Wave 2 Launch (PROV)
Implement new intake area and 5
additional treatment spaces (NLRHC)
Queen Elizabeth II Hospital
Addition of an RN from 1400-2200 with 3
treatment spaces for 3 weeks (QEII)
Establishing new 'Minor' area (QEII)
CL= 61.5
ED Flow Improvement Project: Wave 2 Launch (PROV)

6.3.1 How long did you wait before being examined by a doctor?

This section monitors variation, and identifies and explores changes in patients' perceived wait time to be examined by a doctor (question 13). Results are presented over time at both the provincial aggregate and individual site levels. Question 13 asks respondents:

Q13: From the time you first arrived at the emergency department, how long did you wait before being examined by a doctor?

These charts present the percentage of patients who self-reported waiting more than two hours to be examined by a doctor. As previously mentioned, perceived wait time to be examined by a doctor (question 13) is used in the calculation of the wait time and crowding composite; however, it has also been shown to have a significant influence on the overall rating of care on its own.

Results highlights

The provincial aggregate run chart exhibited random variation throughout the study period, with the exception of an unsustained change toward lower patient experience that occurred from October 2011 to February 2012. The percentage of patients who reported they waited more than two hours to be examined by a doctor consistently increased during this time period, which would not be expected if the results had been stable. At the site level, results for patient perceived wait time to be examined by a doctor revealed some unsustained periods of non-random variation or change, and a single example of a sustained improvement in perceived wait times (see Figure 45).

- At Chinook Regional Hospital, an unsustained change toward lower patient experience occurred from August 2011 to January 2012. The percentage of patients who reported they waited more than two hours to be examined by a doctor consistently increased during this time period.
- At Red Deer Regional Hospital, two instances of unsustained change occurred. In January 2011 a change toward higher patient experience occurred; the percentage of patients who reported they waited more than two hours to be examined by a doctor was substantially lower than expected had the results been stable. Conversely, a change toward lower patient experience occurred from October 2011 to May 2012; results were entirely above the centreline, indicating that the percentages of patients who reported waiting more than two hours to be examined by a doctor were substantially higher than expected had the results been stable.
- At Rockyview General Hospital, an unsustained change toward lower patient experience occurred from July to September 2010. Results in July and September are in the outer one-third of the control limits above the centreline, indicating that a substantially higher percentage of patients reported waiting more than two hours to be examined by a doctor than expected, given the otherwise stable results.
- At Foothills Medical Centre, an unsustained change occurred from March to May 2011. Results in March and May are in the outer one-third of the control limits (March above the centreline, May below the centreline). This can be interpreted as a negative change because the variability between months is not being controlled effectively, relative to the otherwise stable results.
- At Sturgeon Community Hospital, an unsustained change toward higher patient experience occurred from August 2011 to January 2012. The percentage of patients who reported they waited more than two hours to be examined by a doctor consistently decreased during this time

period. Also, a sustained change toward higher ratings of patient experience occurred from February 2012 through the end of the study period. Multiple and successive periods of positive change were identified (see Appendix XII), prompting a shift of the control limits to indicate that a sustained improvement had occurred, relative to historical norms.

- At Royal Alexandra Hospital, an unsustained change toward lower patient experience occurred from December 2011 to January 2012. Results in December and January are in the outer one-third of the control limits above the centreline, indicating that a substantially higher percentage of patients reported waiting more than two hours to be examined by a doctor than expected, given the otherwise stable results.
- At Grey Nuns Community Hospital, an unsustained change toward lower patient experience occurred in October 2010; during this month, the percentage of patients who reported they waited more than two hours to be examined by a doctor was substantially higher than expected had the results been stable. Conversely, from August 2012 to March 2013 an unsustained change toward higher patient experience occurred; during this time period results were entirely below the centreline, indicating that the percentages of patients who reported waiting more than two hours to be examined by a doctor were substantially lower than expected had the results been stable.
- At Queen Elizabeth II Hospital, three instances of unsustained change occurred. From January to March 2011 lower ratings of patient experience occurred. Results in January and March are in the outer one-third of the control limits above the centreline, indicating that a substantially higher percentage of patients reported waiting more than two hours to be examined by a doctor than expected had the results been stable. A second change toward lower patient experience occurred from September 2011 to April 2012, where results were entirely above the centreline, indicating that the percentages of patients who reported waiting more than two hours to be examined by a doctor were substantially higher than expected had the results been stable. Another unsustained change occurred from March to April 2011. Results in March and April are in the outer one-third of the control limits (March above the centreline, April below the centreline). This is interpreted as a negative change in that the variability between months is not being controlled effectively, relative to historical norms.

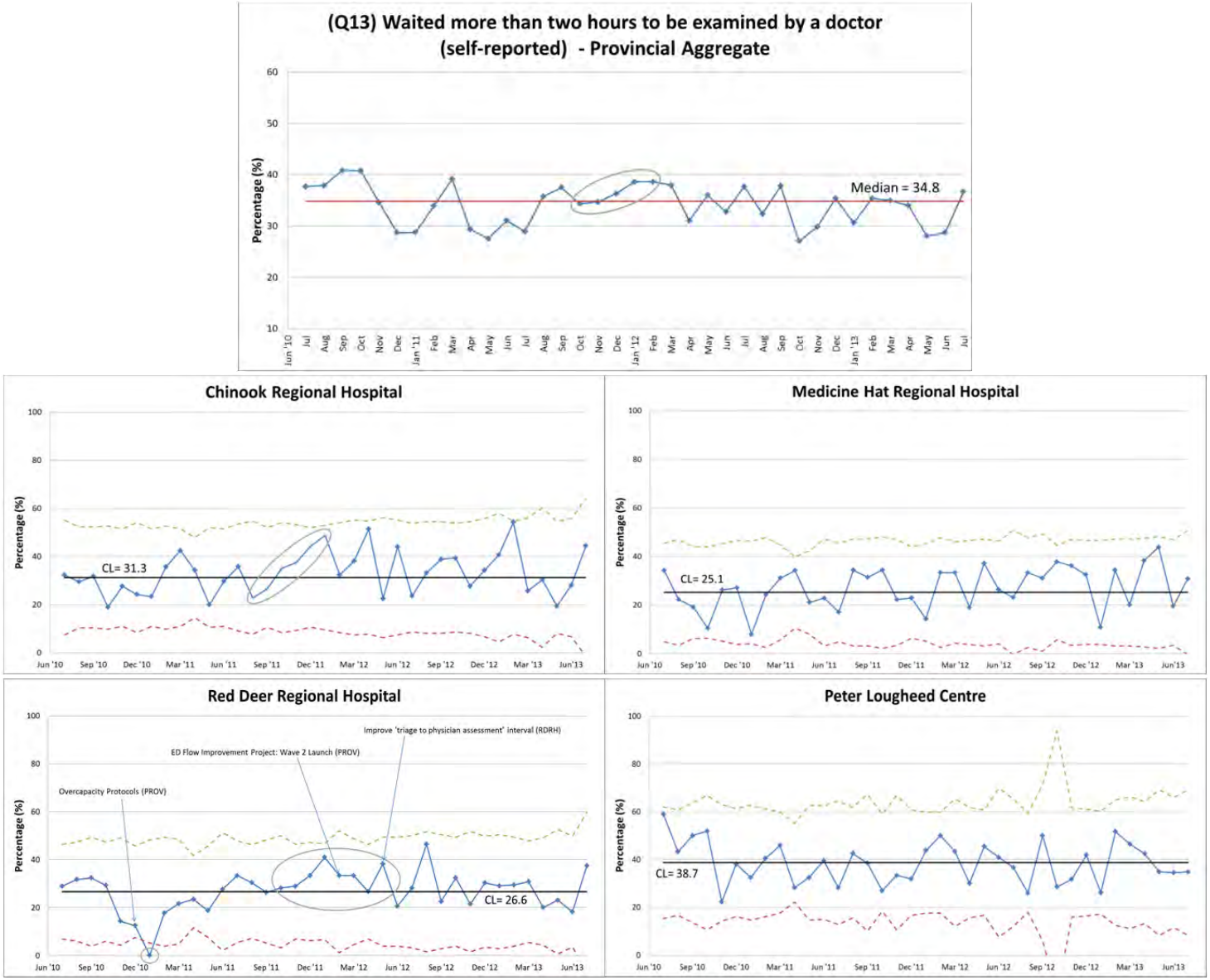
Additionally, by comparing the centrelines (percentage who reported waiting more than two hours to be examined by a doctor for the whole study period)[l] of the site-level control charts, it is possible to assess how specific sites are performing relative to other sites.

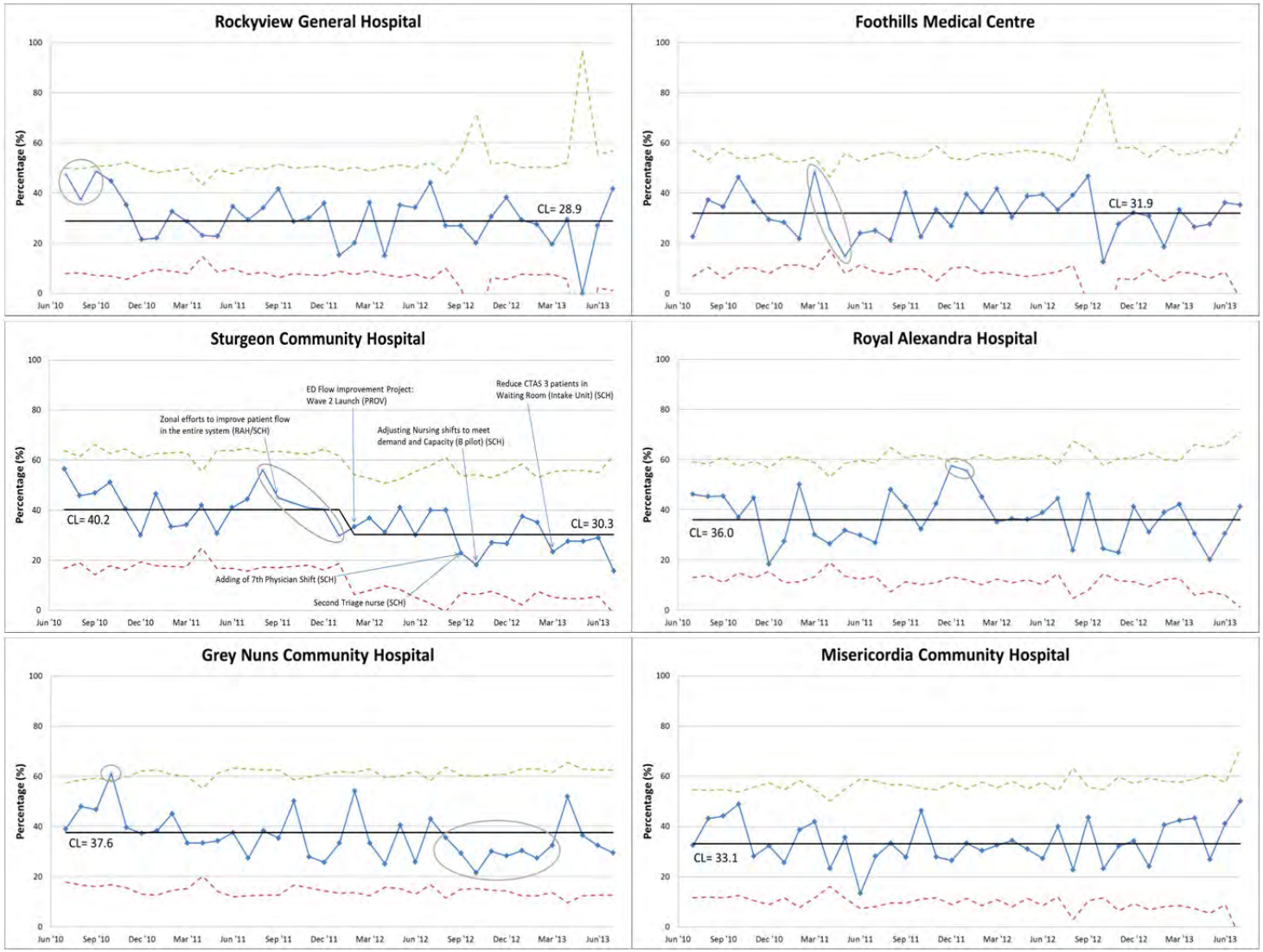
- The Chinook Regional Hospital, Medicine Hat Regional Hospital, and Red Deer Regional Hospital exhibited slightly lower percentages of patients who reported they waited more than two hours to be examined by a doctor, on average between 25 and 31 per cent over the study period.

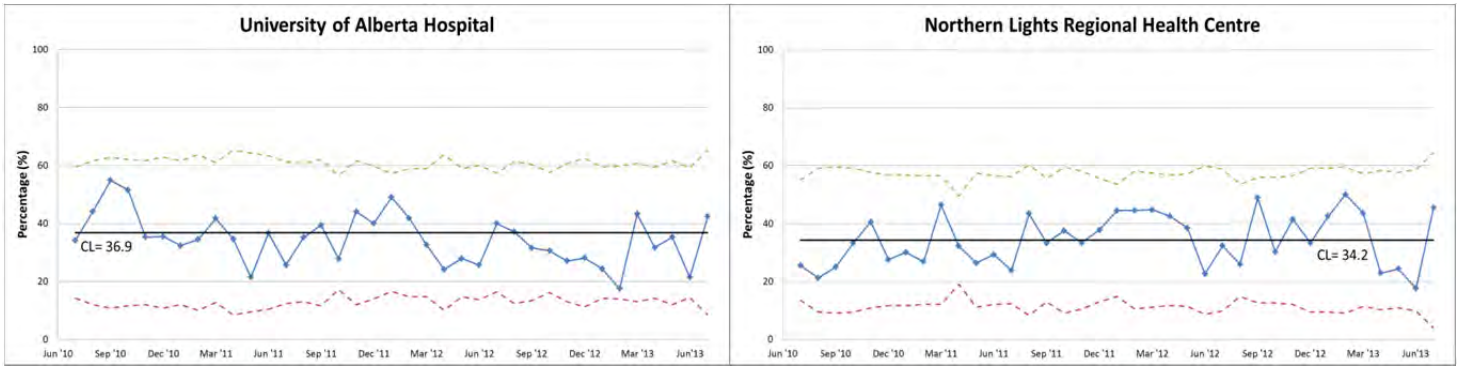
[l] In practice, the centreline is calculated for the first two years of stable data and then extended to apply to the final year of data. For more information on the centreline calculation for *P* charts, see Appendix VIII.

- The Calgary sites (specifically Rockyview General Hospital and Foothills Medical Centre) exhibited slightly higher percentages of patients who reported waiting more than two hours to be examined by a doctor, on average between 29 and 32 per cent. Peter Lougheed Centre would be the exception to this, where on average 39 per cent of patients report waiting more than two hours.
- The Edmonton sites (Sturgeon Community Hospital, Royal Alexandra Hospital, Grey Nuns Community Hospital, Misericordia Community Hospital, and the University of Alberta Hospital) and Northern Lights Regional Health Centre exhibited similar results to the Calgary sites, where between 30 and 38 per cent of patients reported waiting more than two hours to be examined by a doctor, on average over the study period.
- Queen Elizabeth II Hospital exhibited the highest percentage of patients who reported waiting more than two hours to be examined by a doctor, on average 42 per cent over the study period.

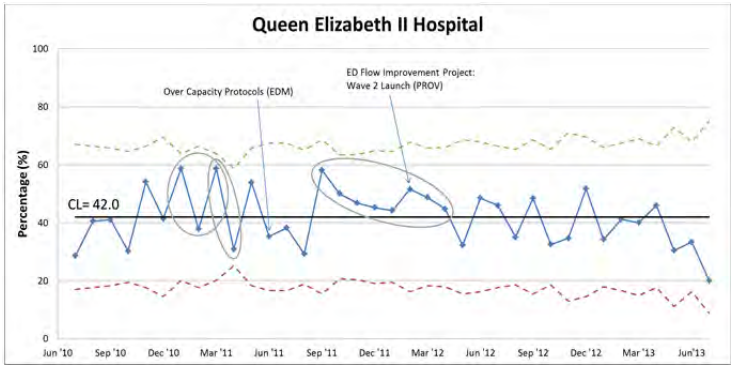
Figure 45: Waited more than two hours to be examined by a doctor (self-reported) – Provincial aggregate and site-level results




Rockyview General Hospital
Percentage (%)
CL= 28.9
Foothills Medical Centre
CL= 31.9
Sturgeon Community Hospital
ED Flow Improvement Project: Wave 2 Launch (PROV)
Reduce CTAS 3 patients in Waiting Room (Intake Unit) (SCH)
Zonal efforts to improve patient flow in the entire system (RAH/SCH)
Adjusting Nursing shifts to meet demand and Capacity (B pilot) (SCH)
CL= 40.2
CL= 30.3
Adding of 7th Physician Shift (SCH)
Second Triage nurse (SCH)
Royal Alexandra Hospital
CL= 36.0
Grey Nuns Community Hospital
CL= 37.6
Misericordia Community Hospital
CL= 33.1
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13


University of Alberta Hospital
Percentage (%)
CL= 36.9
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13

Northern Lights Regional Health Centre
Percentage (%)
CL= 34.2
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13


Queen Elizabeth II Hospital
Over Capacity Protocols (EDM)
ED Flow Improvement Project:
Wave 2 Launch (PROV)
Percentage (%)
CL= 42.0
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13

6.4 Pain management composite

This section monitors variation, and identifies and explores changes in the pain management composite over time at both the provincial aggregate and individual site levels.

Table 6: Pain management composite questions

Core questions included in the calculation
Q41: How many minutes after you requested pain medicine did it take before you got it?
Q42: Do you think the emergency department staff did everything they could to help control your pain?
Notes:
Core questions included in the calculation of the composite are listed in order of influence on the composite score[li]
Composites are scored on a scale from 0 to 100, where 100 is the best possible score
Provincial aggregate data is weighted to adjust for cluster sampling at the site level
Site-level data is unweighted; sample sizes were determined to achieve a representative sample at the site level
2007 Site-level reliability (GRIP macro): 0.99; 2007 Standardized Scale Alpha (Cronbach's): 0.78

Results highlights

The provincial aggregate run chart exhibited random variation throughout the study period, with the exception of an unsustained change toward higher average ratings of pain management that occurred from February to June 2012. Average pain management ratings consistently increased during this time period, which would not be expected if the results had been stable. At the site level, the pain management composite results revealed some unsustained periods of non-random variation or change (see Figure 46).

- At Chinook Regional Hospital, an unsustained change toward lower average ratings of pain management occurred in January 2012; during this month, the average pain management rating was substantially lower than expected, given the otherwise stable results.
- At Red Deer Regional Hospital, two instances of unsustained change occurred. From April to September 2011 a change toward lower average ratings of pain management occurred; average pain management results consistently decreased during this time period. Similarly, a change toward lower average ratings of pain management occurred from May 2012 to January 2013; results were entirely below the centreline, indicating that average pain management ratings were substantially lower than expected had the results been stable.

[li] Order of influence on the composite score is determined from a principle components factor analysis, conducted in the HQCA's 2007 *Emergency Department Patient Experience Survey* report. Factor loadings were used to determine the strength of association between each question and its overarching factor. This work can be found on the HQCA website (http://hqca.ca/surveys/emergency-department-patient-experience/).

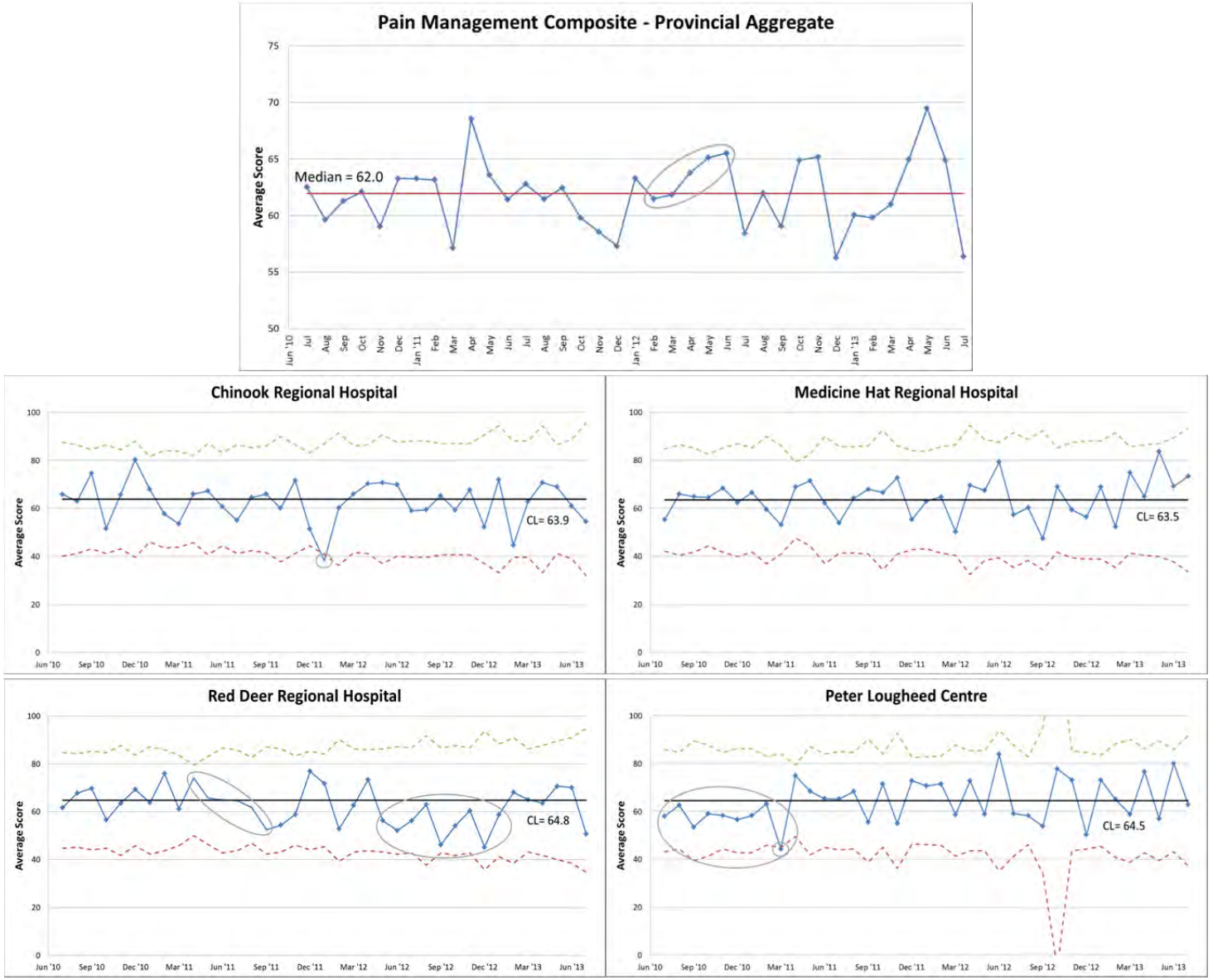
- At Peter Lougheed Centre, an unsustained change toward lower average ratings of pain management occurred in March 2011; during this month, the average pain management rating was substantially lower than expected had the result been stable. Similarly, a change toward lower average ratings of pain management occurred from July 2010 to March 2011; results were entirely below the centreline, indicating that average pain management ratings were substantially lower than expected, given the otherwise stable results.
- At Royal Alexandra Hospital, an unsustained change occurred from October to November 2010. Average pain management ratings in October and November are in the outer one-third of the control limits (October above the centreline, November below the centreline). This is interpreted as a negative change in that the variability between months is not being controlled effectively, relative to the otherwise stable results.

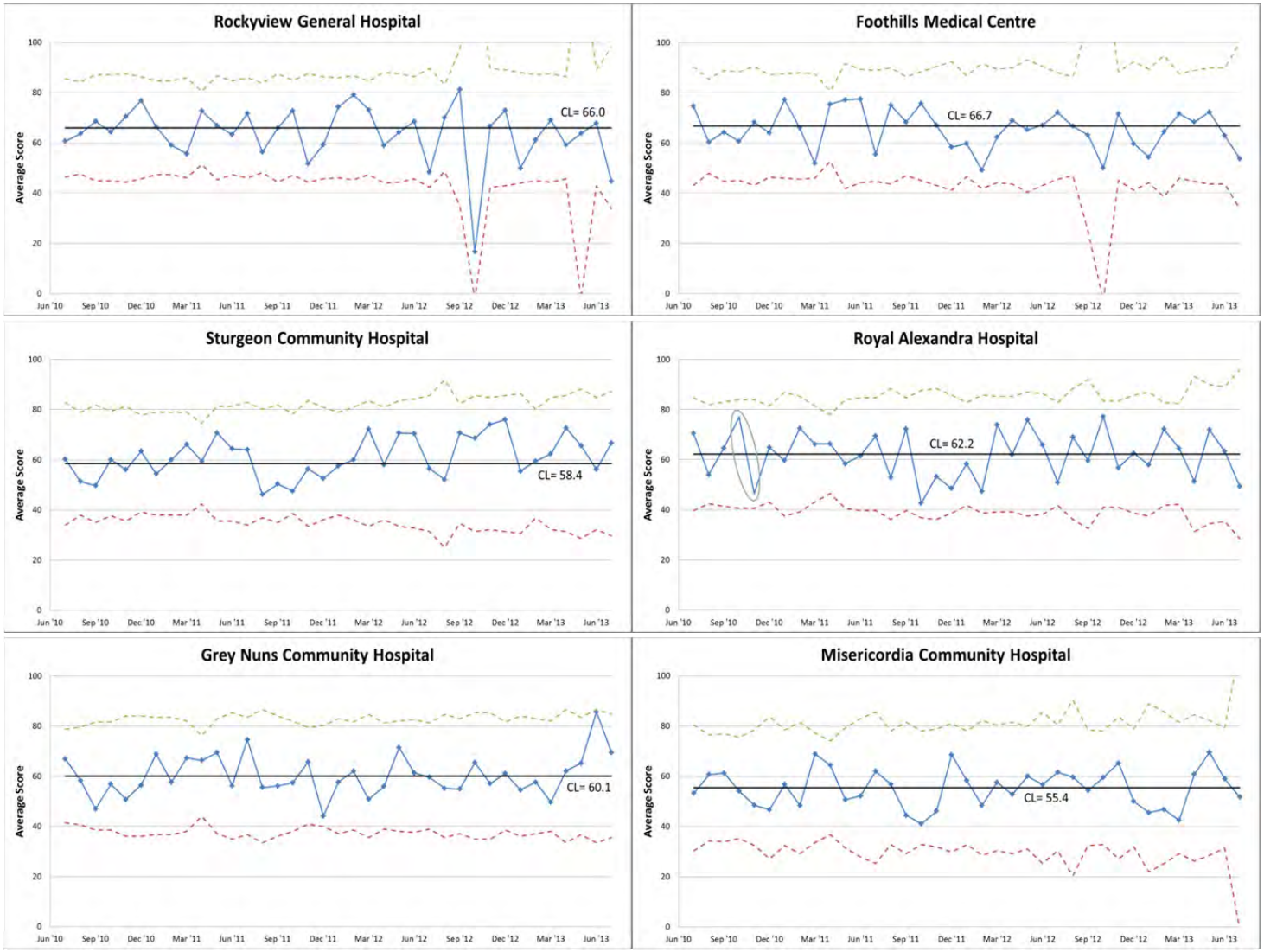
Additionally, by comparing the centrelines (overall averages) of the site-level control charts, it is possible assess how specific sites are performing, relative to other sites.[lii]

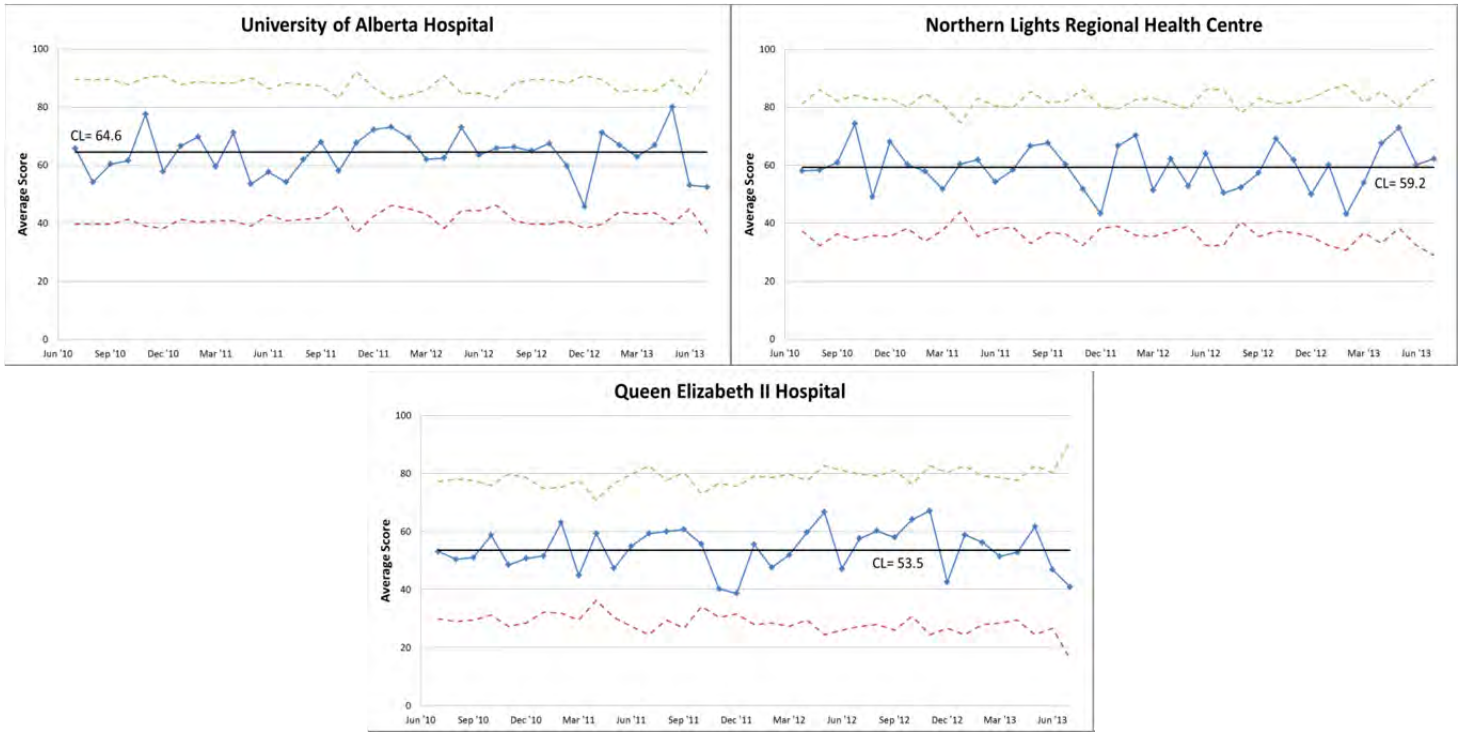
- The Calgary sites (Peter Lougheed Centre, Rockyview General Hospital, and Foothills Medical Centre) exhibited slightly higher overall average ratings of pain management than sites from the other zones, on average scoring between 65/100 and 67/100 over the study period.
- Chinook Regional Hospital, Medicine Hat Regional Hospital, and Red Deer Regional Hospital exhibited similar results to the Calgary sites, on average scoring between 64/100 and 65/100 over the study period.
- The Edmonton sites (Sturgeon Community Hospital, Royal Alexandra Hospital, Grey Nuns Community Hospital, Misericordia Community Hospital, and the University of Alberta Hospital) on average scored between 55/100 and 65/100 on their overall average ratings of pain management over the study period.
- The Northern sites (Queen Elizabeth II Hospital and Northern Lights Regional Health Centre) exhibited the lowest overall average ratings of pain management over the study period, scoring 54/100 and 59/100, respectively.

[lii] The centreline represents a weighted overall average rating of pain management. The term 'weighted' references the fact that average composite scores for months with larger sample sizes more heavily influence the calculation of the centreline or overall average. For more information on the overall average, see Appendix VIII for control chart calculation formulas.

Figure 46: Pain management composite – Provincial aggregate and site-level results




Rockyview General Hospital
CL= 66.0
Foothills Medical Centre
CL= 66.7
Sturgeon Community Hospital
CL= 58.4
Royal Alexandra Hospital
CL= 62.2
Grey Nuns Community Hospital
CL= 60.1
Misericordia Community Hospital
CL= 55.4
Average Score
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


University of Alberta Hospital
Average Score
CL= 64.6
Northern Lights Regional Health Centre
CL= 59.2
Queen Elizabeth II Hospital
CL= 53.5
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

6.4.1 Did staff do everything they could to help control your pain?

This section monitors variation, and identifies and explores changes in patients' perception of whether emergency department staff did all they could to help control their pain (question 42). Results are presented over time at both the provincial aggregate and individual site levels. Question 42 asks respondents:

Q42: Do you think the emergency department staff did everything they could to help control your pain?

These charts present the percentage of patients who believed that emergency department staff **did not** do everything they could to help control their pain, and excludes respondents who reported not being in pain during their visit. As previously mentioned, perceptions of whether staff did all they could to help control the patient's pain (question 42) is used in the calculation of the pain management composite; however, it has also been shown to have a significant influence on the overall rating of care on its own.

Results highlights

The provincial aggregate run chart indicates that two instances of unsustained change occurred at the provincial level. From June to December 2011 results were entirely above the centreline indicating that the percentages of patients who believed staff did not do everything they could to help control their pain were substantially higher than expected had the results been stable. Conversely, from January to June 2012 results were entirely below the centreline, indicating that the percentage of patients who believed staff did not do everything they could to help control their pain were substantially lower than expected had the results been stable. At the site level, results for patient perceptions of whether staff did all they could to help control their pain revealed some unsustained periods of non-random variation or change, and a single example of a sustained improvement in perceived help with pain (see Figure 47).

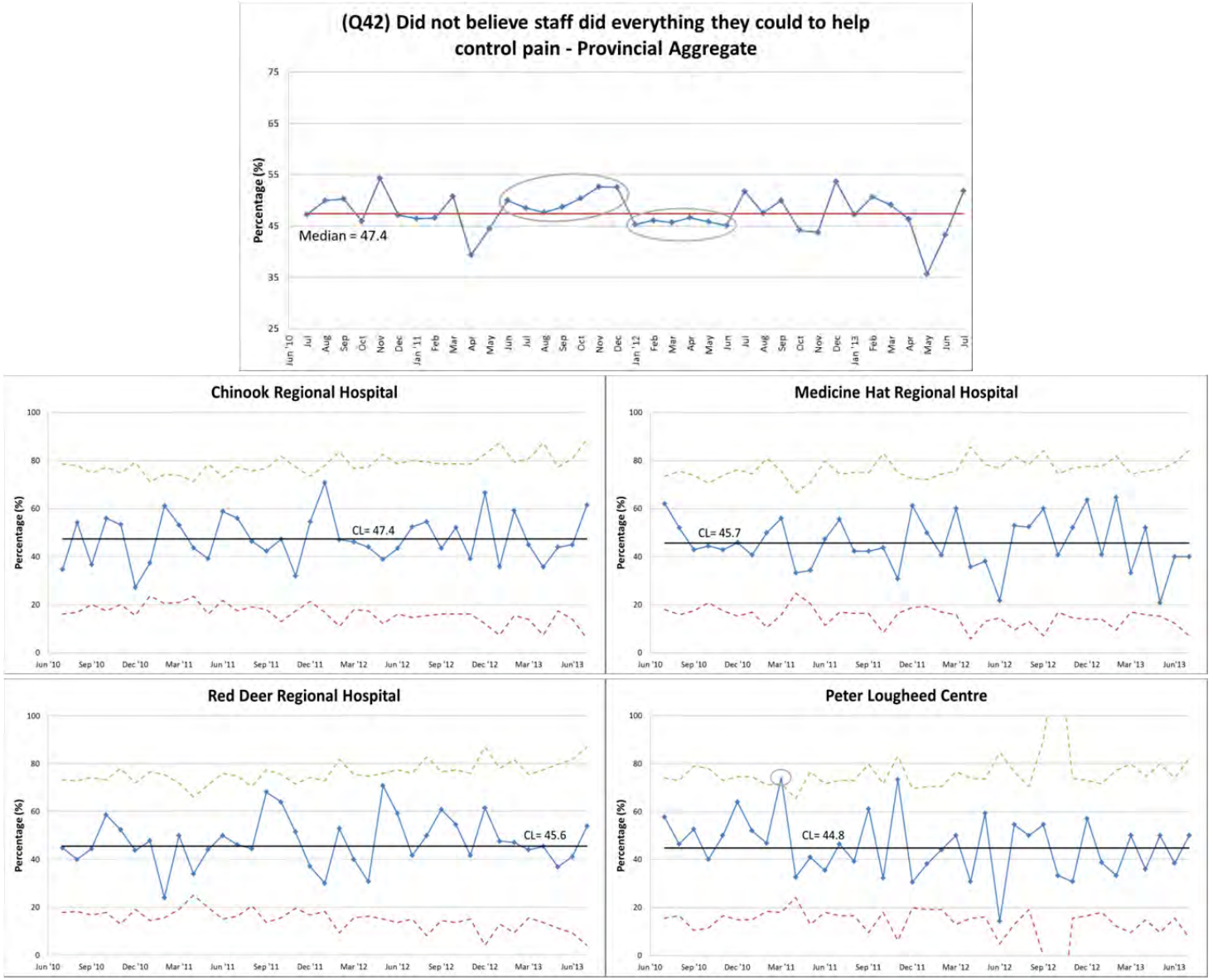
- At Peter Lougheed Centre, an unsustained change toward lower patient experience occurred in March 2011; during this month, the percentage of patients who believed staff did not do everything they could to help control their pain was substantially higher than expected, given the otherwise stable results.
- At Foothills Medical Centre, an unsustained change occurred from March to April 2011. The percentage of patients who believed staff did not do everything they could to help control their pain in March and April are in the outer one-third of the control limits (March above the centreline, April below the centreline). This is interpreted as a negative change in that the variability between months is not being controlled effectively, relative to the otherwise stable results.
- At Sturgeon Community Hospital, a sustained change toward higher patient experience occurred from February 2012 through the end of the study period. Multiple and successive periods of positive change were identified (see Appendix XII), prompting a shift of the control limits to indicate that a sustained improvement had occurred, relative to historical norms.

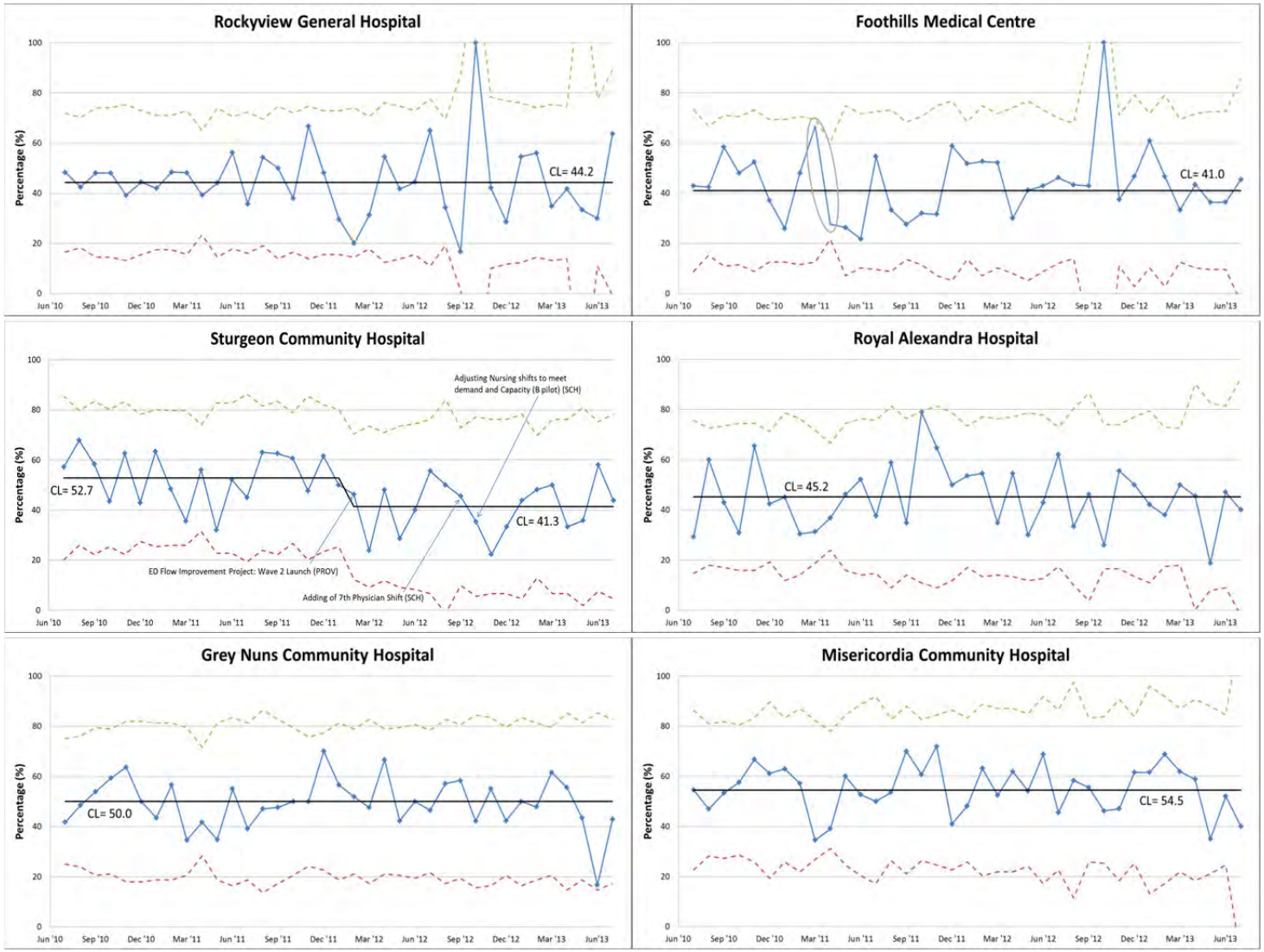
Additionally, by comparing the centrelines (percentage who believed staff did not do all they could to help control their pain for the whole study period)[liii] of the site-level control charts, it is possible to assess how specific sites are performing relative to other sites.

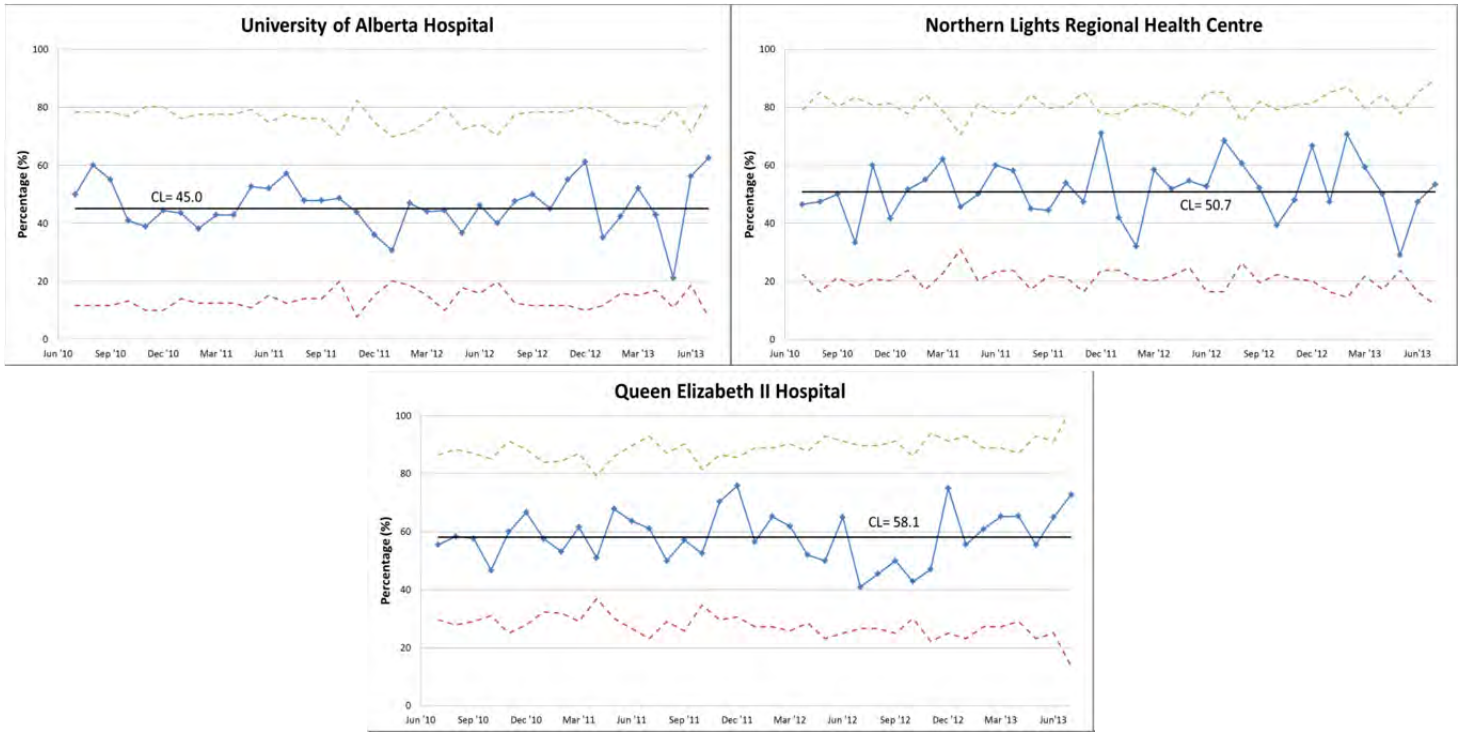
- The Calgary sites (Peter Lougheed Centre, Rockyview General Hospital, and Foothills Medical Centre) exhibited slightly lower percentages of patients who believed staff did not do everything they could to help control their pain compared to sites from other zones, on average between 41 and 45 per cent.
- The Chinook Regional Hospital, Medicine Hat Regional Hospital, and Red Deer Regional Hospital exhibited similar, but slightly higher, percentages of patients who believed staff did not do everything they could to help control their pain, on average between 46 and 47 per cent.
- The Edmonton sites (Sturgeon Community Hospital, Royal Alexandra Hospital, Grey Nuns Community Hospital, Misericordia Community Hospital, and the University of Alberta Hospital) exhibited percentages of patients who believed staff did not do everything they could to help control their pain between 41 and 55 per cent over the study period.
- The Northern sites (Northern Lights Regional Health Centre and Queen Elizabeth II Hospital) exhibited slightly higher percentages of patients who believed staff did not do everything they could to help control their pain, on average 51 and 58 per cent, respectively.

[liii] In practice, the centreline is calculated for the first two years of stable data and then extended to apply to the final year of data. For more information on the centreline calculation for *P* charts, see Appendix VIII.

Figure 47: Did not believe that staff did everything they could to help control their pain – Provincial aggregate and site-level results




Rockyview General Hospital
Percentage (%)
CL= 44.2
Foothills Medical Centre
CL= 41.0
Sturgeon Community Hospital
Adjusting Nursing shifts to meet demand and Capacity (B pilot) (SCH)
CL= 52.7
CL= 41.3
ED Flow Improvement Project: Wave 2 Launch (PROV)
Adding of 7th Physician Shift (SCH)
Royal Alexandra Hospital
CL= 45.2
Grey Nuns Community Hospital
CL= 50.0
Misericordia Community Hospital
CL= 54.5
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13


University of Alberta Hospital
Percentage (%)
CL= 45.0
Northern Lights Regional Health Centre
CL= 50.7
Queen Elizabeth II Hospital
CL= 58.1
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13

6.5 Respect composite

This section monitors variation, and identifies and explores changes in the respect composite over time at both the provincial aggregate and individual site levels.

Table 7: Respect composite questions

Core questions included in the calculation
Q26: Did doctors or nurses talk in front of you as if you weren't there?
Q31: Sometimes in a hospital, a member of staff will say one thing and another will say something quite different. Did this happen to you in the emergency department?
Q35: Was your family member or friend allowed to join you in the treatment area when you wanted?
Q16: Overall, did you think the order in which patients were seen was fair?
Q11: How would you rate the courtesy of the emergency department triage nurse, that is, the person who first asked you about your health problem?
Notes:
Core questions included in the calculation of the composite are listed in order of influence on the composite score[liv]
Composites are scored on a scale from 0 to 100, where 100 is the best possible score
Provincial aggregate data is weighted to adjust for cluster sampling at the site level
Site-level data is unweighted; sample sizes were determined to achieve a representative sample at the site level
2007 Site-level reliability (GRIP macro): 0.92; 2007 Standardized Scale Alpha (Cronbach's): 0.59

Results highlights

The provincial aggregate run chart exhibited random variation throughout the study period, with the exception of an unsustained change toward lower average ratings of respect that occurred from August to December 2012. Average respect ratings consistently decreased during this time period, which would not be expected if the results had been stable. At the site level, the respect composite results revealed some unsustained periods of non-random variation or change (see Figure 48).

- At Chinook Regional Hospital, an unsustained change toward lower average ratings of respect occurred from January to March 2012. Results in January and March are in the outer one-third of the control limits below the centreline, indicating that average respect ratings are substantially lower than expected, given the otherwise stable results.
- At Red Deer Regional Hospital, two instances of unsustained change occurred. From October 2010 to May 2011 a change toward higher average ratings of respect occurred; results were

[liv] Order of influence on the composite score is determined from a principle components factor analysis, conducted in the HQCA's 2007 *Emergency Department Patient Experience Survey* report. Factor loadings were used to determine the strength of association between each question and its overarching factor. This work can be found on the HQCA website (http://hqca.ca/surveys/emergency-department-patient-experience/).

entirely above the centreline, indicating that average respect ratings were substantially higher than expected had the results been stable. Also, an unsustained change occurred from April to May 2012. Average respect ratings in April and May are in the outer one-third of the control limits (April above the centreline, May below the centreline). This is interpreted as a negative change in that variability between months is not being controlled effectively, relative to historical norms.

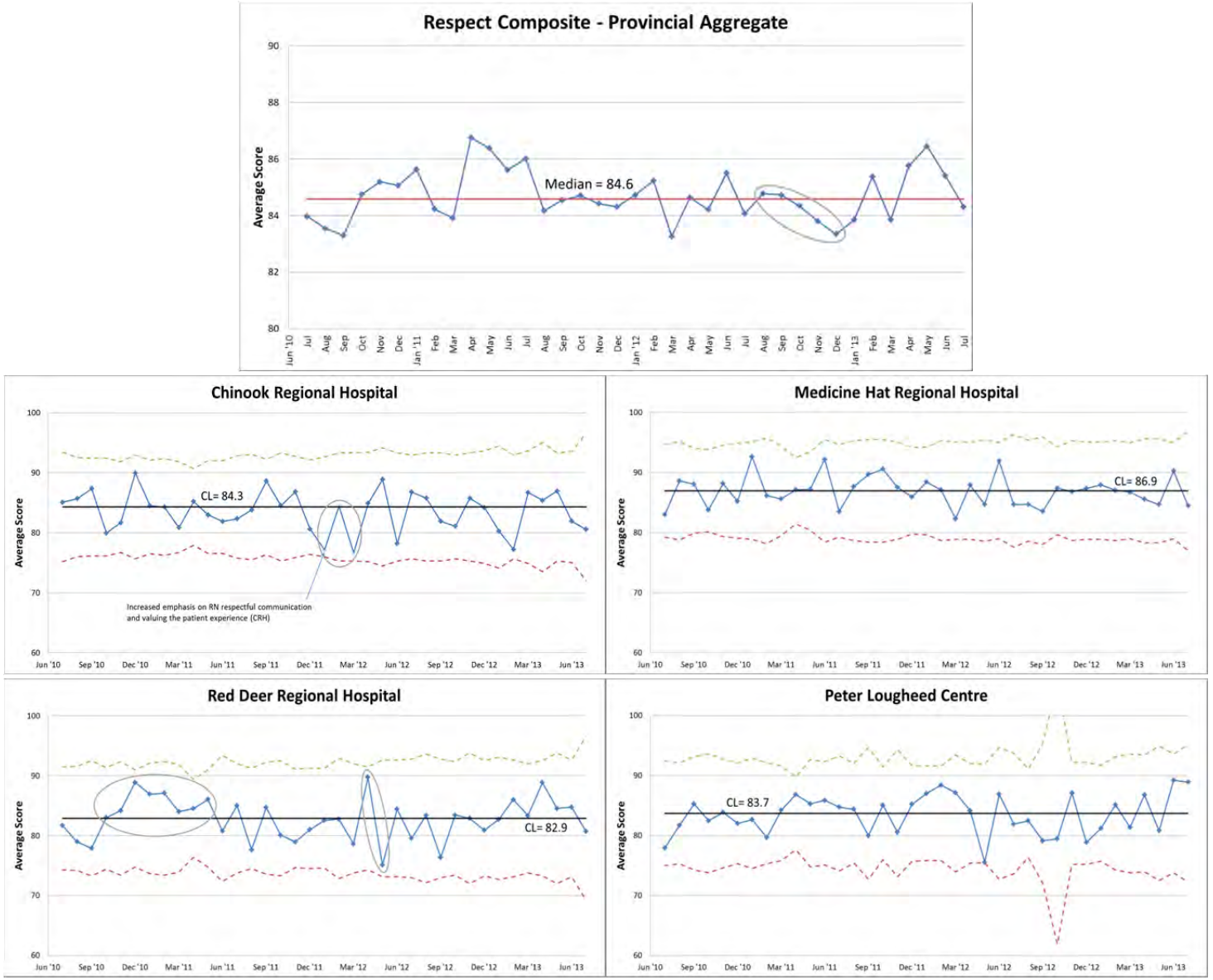
- At Sturgeon Community Hospital, an unsustained change toward higher average ratings of respect occurred from March to November 2012. Results were entirely above the centreline, indicating that average respect ratings were substantially higher than expected, given the otherwise stable results.
- At Royal Alexandra Hospital, an unsustained change occurred from September to October 2010. Average respect ratings in September and October are in the outer one-third of the control limits (September below the centreline, October above the centreline). This is interpreted as a negative change in that variability between months is not being controlled effectively, relative to the otherwise stable results.
- At Northern Lights Regional Health Centre, an unsustained change toward lower average ratings of respect occurred from August 2012 to March 2013. Results were entirely below the centreline, indicating that average respect ratings were substantially lower than expected, given the otherwise stable results.
- At Queen Elizabeth II Hospital, an unsustained change toward lower average ratings of respect occurred from August 2012 to May 2013. Results were entirely below the centreline, indicating that average respect ratings were substantially lower than expected, given the otherwise stable results.

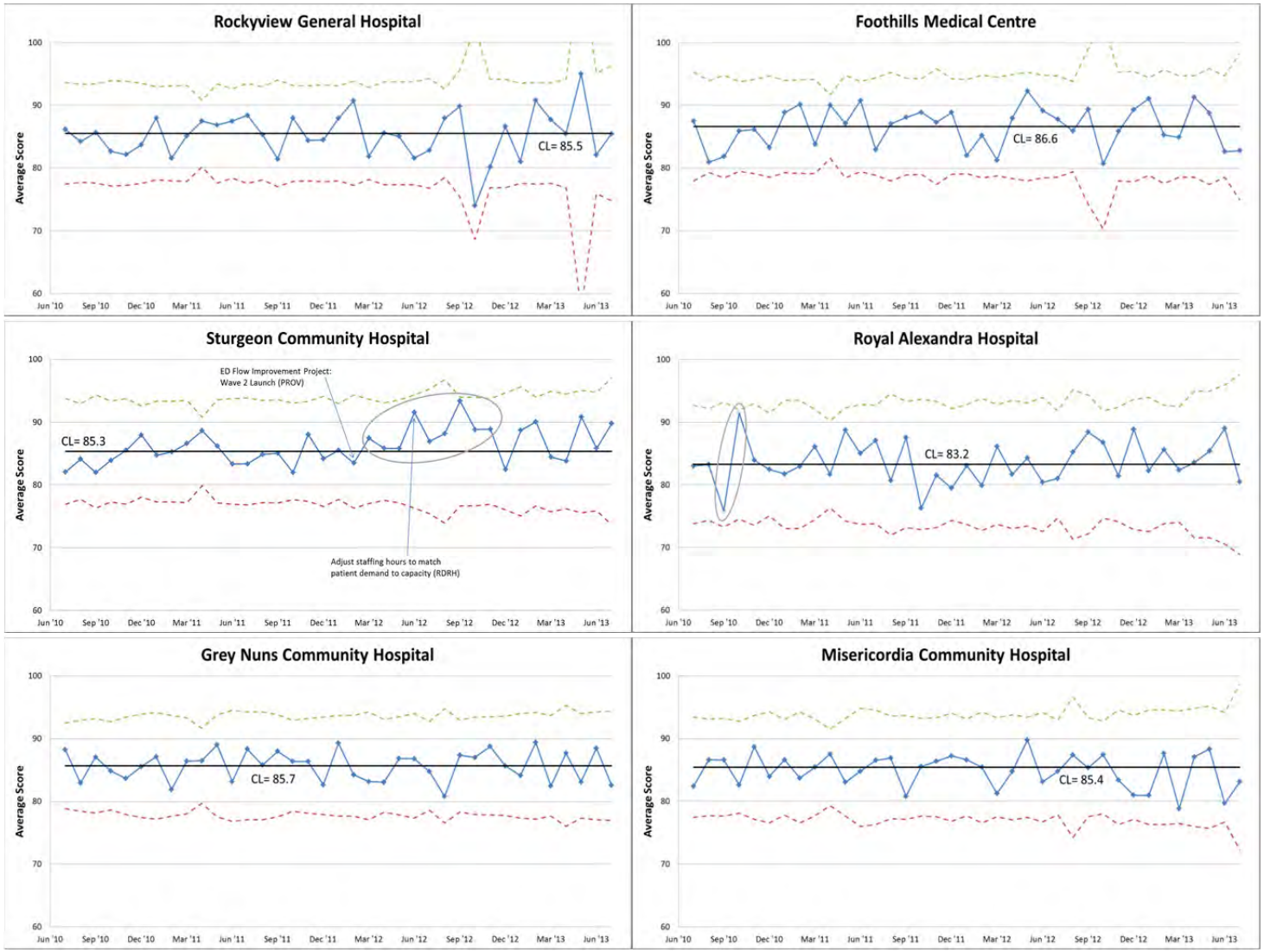
Additionally, by comparing the centrelines (overall averages) of the site-level control charts, it is possible to assess how specific sites are performing, relative to other sites.[lv]

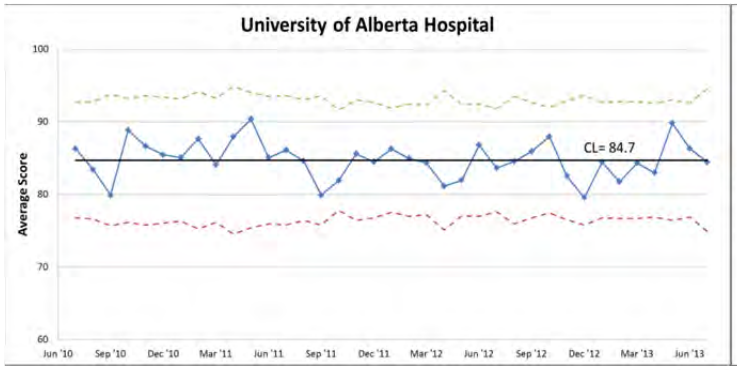
- Over the course of the study period, all of the sites exhibited remarkably similar overall average ratings of respect, scoring between 83/100 and 87/100 on average.

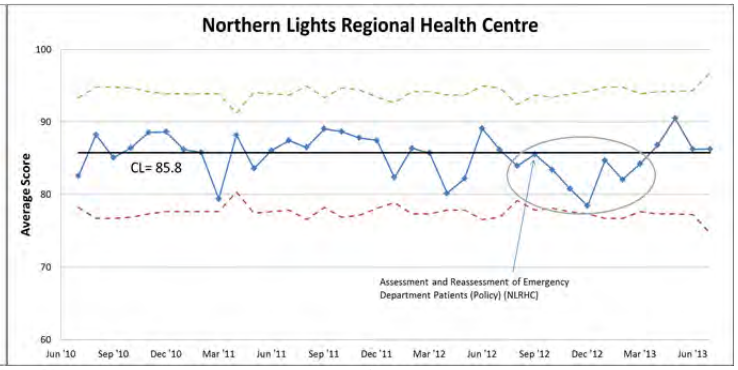
[lv] The centreline represents a weighted overall average rating of respect. The term 'weighted' references the fact that average composite scores for months with larger sample sizes more heavily influence the calculation of the centreline or overall average. For more information on the overall average, see Appendix VIII for control chart calculation formulas.

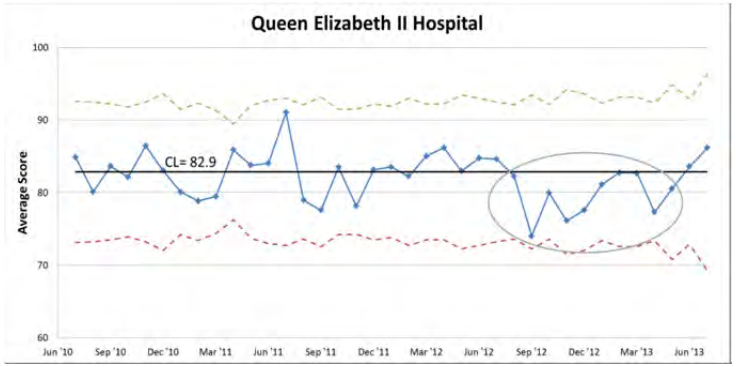
Figure 48: Respect composite – Provincial aggregate and site-level results




Rockyview General Hospital
Average Score
CL= 85.5
Foothills Medical Centre
CL= 86.6
Sturgeon Community Hospital
ED Flow Improvement Project:
Wave 2 Launch (PROV)
CL= 85.3
Adjust staffing hours to match
patient demand to capacity (RDRH)
Royal Alexandra Hospital
CL= 83.2
Grey Nuns Community Hospital
CL= 85.7
Misericordia Community Hospital
CL= 85.4
100
90
80
70
60
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


University of Alberta Hospital
Average Score
100
90
80
70
60
CL= 84.7
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


Northern Lights Regional Health Centre
Average Score
100
90
80
70
60
CL= 85.8
Assessment and Reassessment of Emergency Department Patients (Policy) (NLRHC)
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


Queen Elizabeth II Hospital
Average Score
100
90
80
70
60
CL= 82.9
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

6.5.1 Did doctors and nurses introduce themselves?

This section monitors variation, and identifies and explores changes in patient reports of whether doctors and nurses introduced themselves (question 19). Results are presented over time at both the provincial aggregate and individual site levels. Question 19 asks respondents:

Q19: Did the doctors and nurses treating and assessing you introduce themselves?

These charts present the percentage of patients who reported that **none, or only some**, of the doctors and nurses treating and assessing them introduced themselves. As previously mentioned, whether or not doctors and nurses introduced themselves to patients (question 19) is not included in the calculation of the respect composite;[lvi] however, it is shown to be associated with the composite and its constituent items.[9] More importantly, it has been shown to have a significant influence on patients' overall rating of care.

Results highlights

The provincial aggregate run chart exhibited random variation throughout the study period, with no evidence of unsustained or sustained changes. At the site level, the results depicting the percentage of patients who reported that none, or only some, of the doctors and nurses treating and assessing them introduced themselves revealed some unsustained periods of non-random variation or change (see Figure 49).

- At Chinook Regional Hospital, an unsustained change toward higher patient experience occurred in May 2013; during this month, the percentage of patients who reported that none, or only some, of the doctors and nurses treating and assessing them introduced themselves was substantially lower than expected, given the otherwise stable historical results.
- At Medicine Hat Regional Hospital, two instances of unsustained change occurred. From August to October 2011 an unsustained change occurred; results in August and October are in the outer one-third of the control limits (August above the centreline, October below the centreline). This is interpreted as a negative change in that the variability between months is not being controlled effectively, relative to historical norms. Also, a change toward higher patient experience occurred from January to February 2012. Results in January and February are in the outer one-third of the control limits below the centreline, indicating that a substantially lower percentage of patients reported that none, or only some, of the doctors and nurses treating and assessing them introduced themselves than expected, given the historical results.
- At Peter Lougheed Centre, two instances of unsustained change occurred. From August 2010 to March 2011 a change toward lower patient experience occurred; results were entirely above the centreline, indicating that the percentage of patients who reported that none, or only some, of

[lvi] Doctors and nurses introducing themselves (question 19) was not included in the computation of the composite because dropping it improved internal consistency reliability.

the doctors and nurses introduced themselves was substantially higher than expected, had the results been stable. Conversely, a change toward higher patient experience occurred from October to December 2011. Results in October and December are in the outer one-third of the control limits below the centreline, indicating that a substantially lower percentage of patients reported that none, or only some, of the doctors and nurses introduced themselves than expected, had the results been stable.

- At Sturgeon Community Hospital, an unsustained change toward higher patient experience occurred from November 2011 to April 2012. The percentage of patients who reported that none, or only some, of the doctors and nurses introduced themselves consistently decreased during this time period.
- At Royal Alexandra Hospital, an unsustained change toward higher patient experience occurred from August 2012 to March 2013; results were entirely below the centreline, indicating that the percentage of patients who reported that none, or only some, of the doctors and nurses introduced themselves was substantially lower than expected, given the otherwise stable results.
- At Misericordia Community Hospital, an unsustained change toward higher patient experience occurred from August to October 2012. Results in August and October are in the outer one-third of the control limits below the centreline, indicating that a substantially lower percentage of patients reported that none, or only some, of the doctors and nurses introduced themselves than expected, given the otherwise stable results.
- At Northern Lights Regional Health Centre, an unsustained change toward higher patient experience occurred from February to September 2012; results were entirely below the centreline, indicating that the percentage of patients who reported that none, or only some, of the doctors and nurses introduced themselves was substantially lower than expected, given the otherwise stable results.

Additionally, by comparing the centrelines (percentage reporting that none, or only some, of the doctors and nurses treating and assessing them introduced themselves for the whole study period)[lvii] of the site-level control charts, it is possible to assess how specific sites are performing relative to other sites.

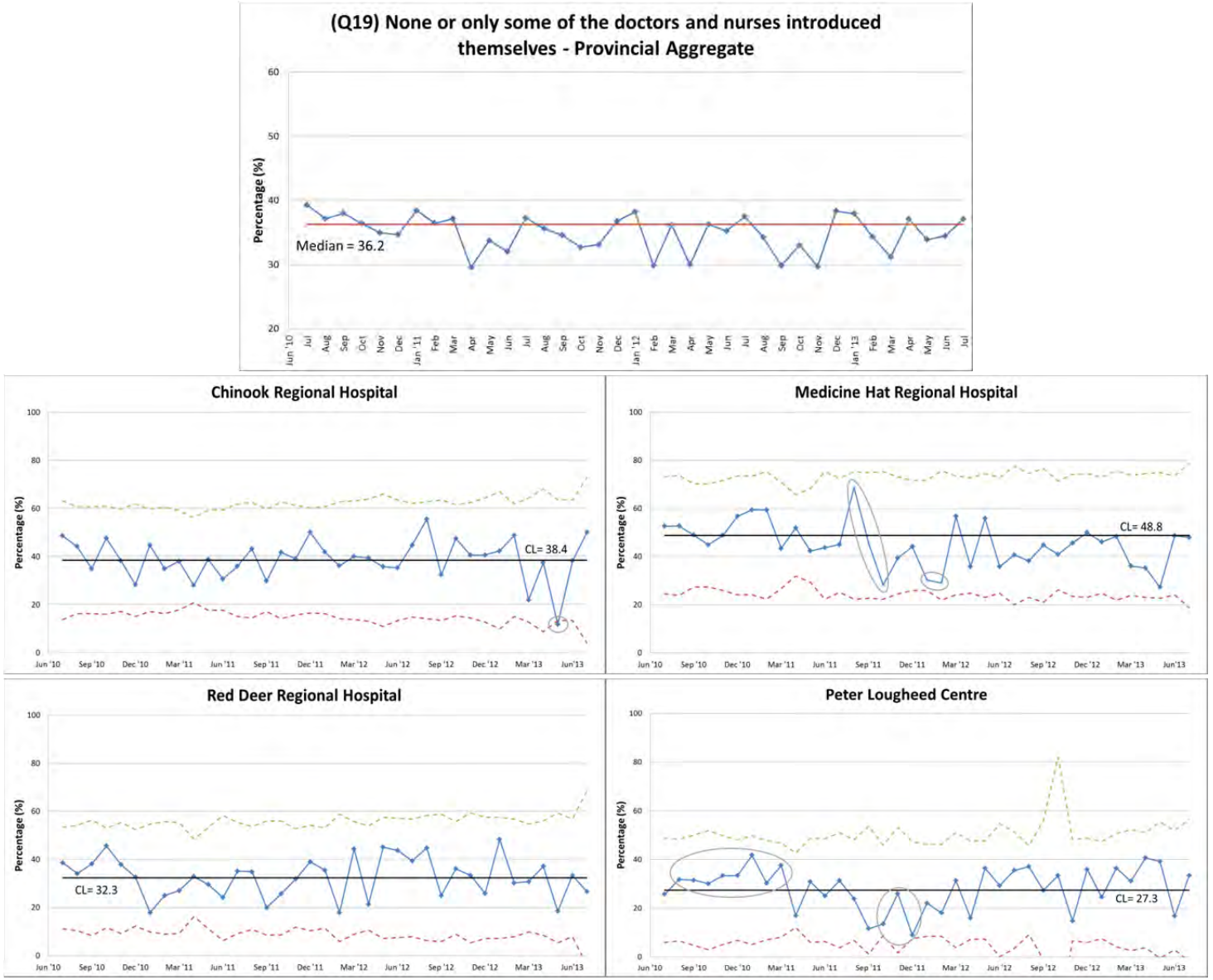
- The Calgary sites (Peter Lougheed Centre, Rockyview General Hospital, and Foothills Medical Centre) exhibited slightly lower percentages of patients who reported that none, or only some, of the doctors and nurses introduced themselves compared to sites from the other zones, on average between 24 and 28 per cent over the study period.
- The Edmonton sites (Sturgeon Community Hospital, Royal Alexandra Hospital, Grey Nuns Community Hospital, Misericordia Community Hospital, and the University of Alberta Hospital)

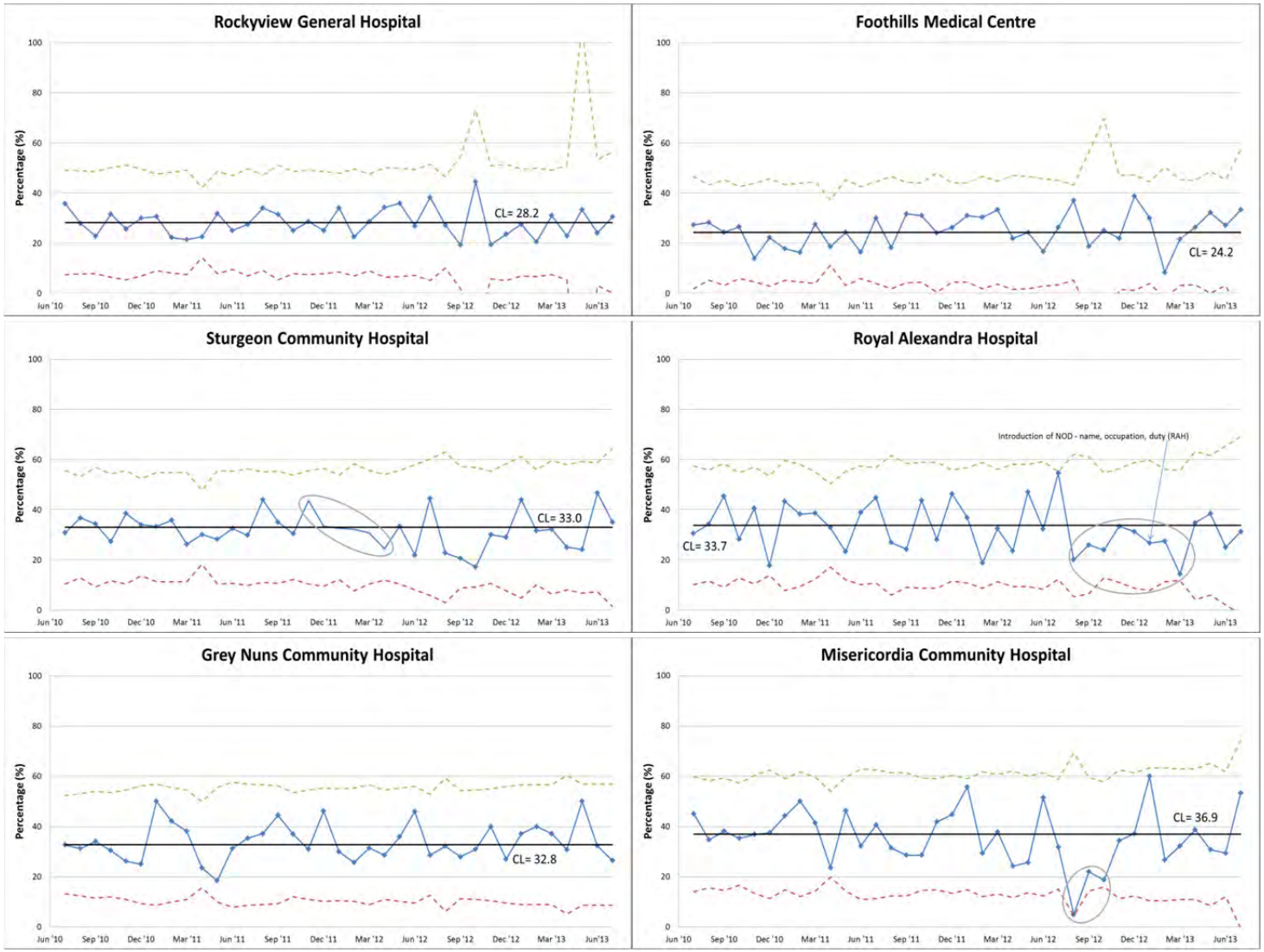
[lvii] In practice, the centreline is calculated for the first two years of stable data and then extended to apply to the final year of data. For more information on the centreline calculation for *P* charts, see Appendix VIII.

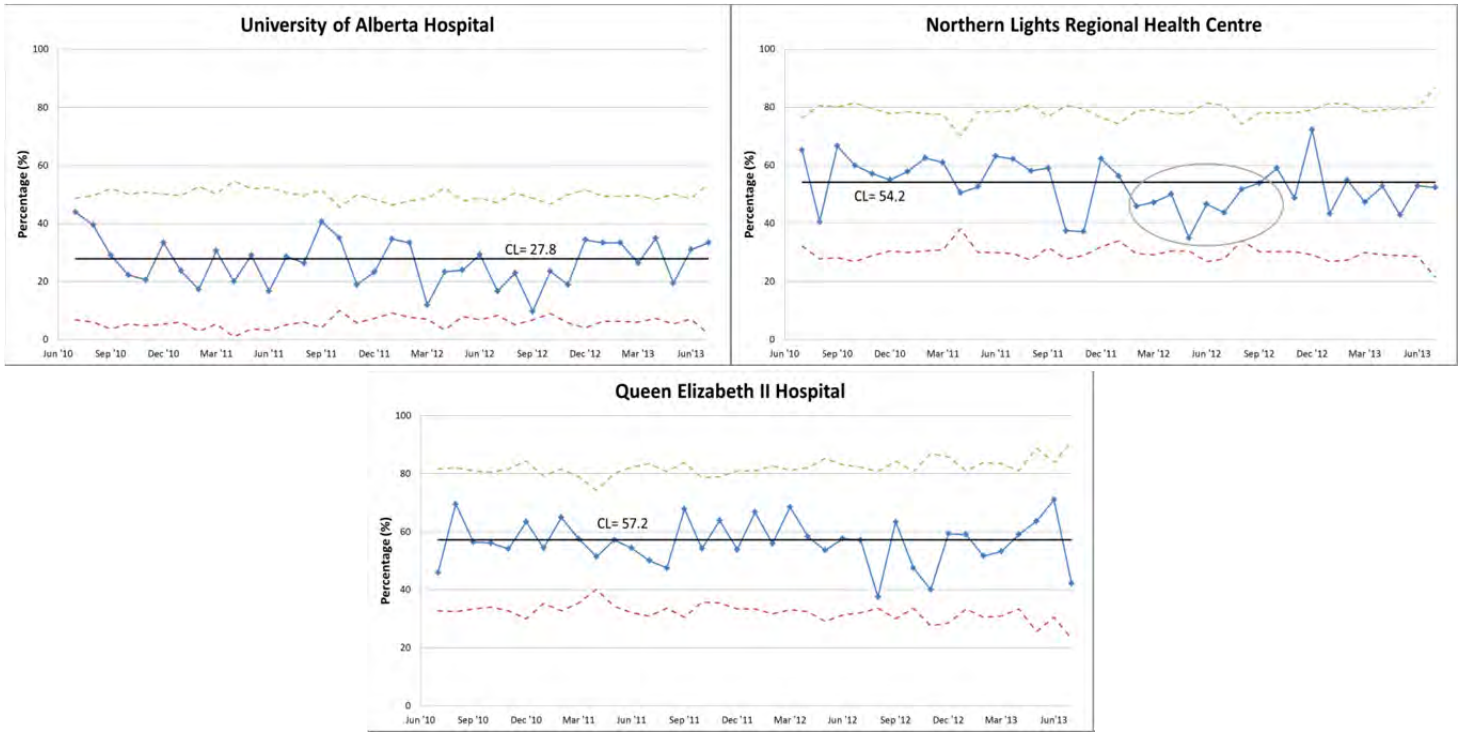
and Red Deer Regional Hospital exhibited slightly higher percentages of patients who reported that none, or only some, of the doctors and nurses introduced themselves compared to the Calgary sites, on average between 28 and 37 per cent.

- Chinook Regional Hospital and Medicine Hat Regional Hospital exhibited higher percentages of patients who reported that none, or only some, of the doctors and nurses introduced themselves, on average 38 and 49 per cent, respectively.
- The Northern sites (Northern Lights Regional Health Centre and Queen Elizabeth II Hospital) exhibited the highest percentage of patients who reported that none, or only some, of the doctors and nurses introduced themselves, on average 54 and 57 per cent, respectively.

Figure 49: None or only some of the doctors and nurses introduced themselves – Provincial aggregate and site-level results




Rockyview General Hospital
Percentage (%)
CL= 28.2
Foothills Medical Centre
CL= 24.2
Sturgeon Community Hospital
CL= 33.0
Royal Alexandra Hospital
Introduction of NOD - name, occupation, duty (RAH)
CL= 33.7
Grey Nuns Community Hospital
CL= 32.8
Misericordia Community Hospital
CL= 36.9
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13


University of Alberta Hospital
Percentage (%)
CL= 27.8
Northern Lights Regional Health Centre
CL= 54.2
Queen Elizabeth II Hospital
CL= 57.2
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13

6.6 Facility cleanliness composite

This section monitors variation, and identifies and explores changes in the facility cleanliness composite over time at both the provincial aggregate and individual site levels.

Table 8: Facility cleanliness composite questions

Core questions included in the calculation
Q44: How clean were the toilets in the emergency department?
Q43: In your opinion, how clean was the emergency department?
Notes:
Core questions included in the calculation of the composite are listed in order of influence on the composite score[lviii]
Composites are scored on a scale from 0 to 100, where 100 is the best possible score
Provincial aggregate data is weighted to adjust for cluster sampling at the site level
Site-level data is unweighted; sample sizes were determined to achieve a representative sample at the site level
2007 Site-level reliability (GRIP macro): 0.98; 2007 Standardized Scale Alpha (Cronbach's): 0.79

Results highlights

The provincial aggregate run chart indicates that two instances of unsustained change occurred at the provincial level. From September 2011 to January 2012 a change toward lower average ratings of facility cleanliness occurred; results consistently decreased during this time period, which would not be expected if results had been stable. Similarly, from August 2012 to March 2013 results were entirely below the centreline, indicating that average facility cleanliness ratings were substantially lower than expected, given historical norms. At the site level, the facility cleanliness composite results revealed some unsustained periods of non-random variation or change, and a single example of a sustained improvement in average facility cleanliness ratings (see Figure 50).

- At Chinook Regional Hospital, two instances of unsustained change occurred. From August 2012 to April 2013 a change toward lower average ratings of facility cleanliness occurred; results were entirely below the centreline, indicating that average facility cleanliness ratings were substantially lower than expected, given the historically stable results. Similarly, a change toward lower average ratings of facility cleanliness occurred in February 2013; during this month, the average rating of facility cleanliness was substantially lower than expected, given the historically stable results.

[lviii] Order of influence on the composite score is determined from a principle components factor analysis, conducted in the HQCA's 2007 *Emergency Department Patient Experience Survey* report. Factor loadings were used to determine the strength of association between each question and its overarching factor. This work can be found on the HQCA website (http://hqca.ca/surveys/emergency-department-patient-experience/).

- At Red Deer Regional Hospital, an unsustained change toward lower average ratings of facility cleanliness occurred from February to July 2013; average facility cleanliness ratings were consistently decreasing during this time period.
- At Peter Lougheed Centre, an unsustained change toward lower average ratings of facility cleanliness occurred from September 2012 to April 2013; results were entirely below the centreline, indicating that average facility cleanliness ratings were substantially lower than expected, given the otherwise stable results.
- At Rockyview General Hospital, an unsustained change toward lower average ratings of facility cleanliness occurred from November 2012 to July 2013; results were entirely below the centreline, indicating that average facility cleanliness ratings were substantially lower than expected, given the otherwise stable results.
- At Sturgeon Community Hospital, three instances of unsustained change occurred. A change toward lower average facility cleanliness ratings occurred from July to September 2010; results in July and September are in the outer one-third of the control limits below the centreline, indicating that average facility cleanliness ratings were substantially lower than expected had the results been stable. Similarly, unsustained changes toward lower average ratings of facility cleanliness occurred in October and November 2010; during these months, average facility cleanliness ratings were substantially lower than expected had results been stable.
- At Royal Alexandra Hospital, an unsustained change toward lower average ratings of facility cleanliness occurred in July 2012; during this month, the average facility cleanliness rating was substantially lower than expected, given the otherwise stable results.
- At Grey Nuns Community Hospital, an unsustained change toward higher average ratings of facility cleanliness occurred from December 2010 to May 2011; average facility cleanliness ratings consistently increased during this time period.
- At Misericordia Community Hospital, two instances of unsustained change occurred. From October to November 2011 a change toward lower average ratings of facility cleanliness occurred; results in October and November are in the outer one-third of the control limits below the centreline, indicating that average facility cleanliness ratings were substantially lower than expected, given historical norms. Similarly, a change toward lower average ratings of facility cleanliness occurred in January 2013; during this month, the average facility cleanliness rating was substantially lower than expected, relative to historical norms.
- At the University of Alberta Hospital, an unsustained change toward lower average ratings of facility cleanliness occurred in December 2012; during this month, the average facility cleanliness rating was substantially lower than expected, given the otherwise stable results.
- At Northern Lights Regional Health Centre, there are multiple instances of unsustained change. In April 2011 a change toward higher average ratings of facility cleanliness occurred; during this month, the average facility cleanliness rating was substantially higher than expected had results been stable. Conversely, a change toward lower average ratings of facility cleanliness occurred from August 2012 to March 2013; among other signals for change, results during this period of time were entirely below the centreline, indicating that average facility cleanliness ratings were substantially lower than expected had results been stable.

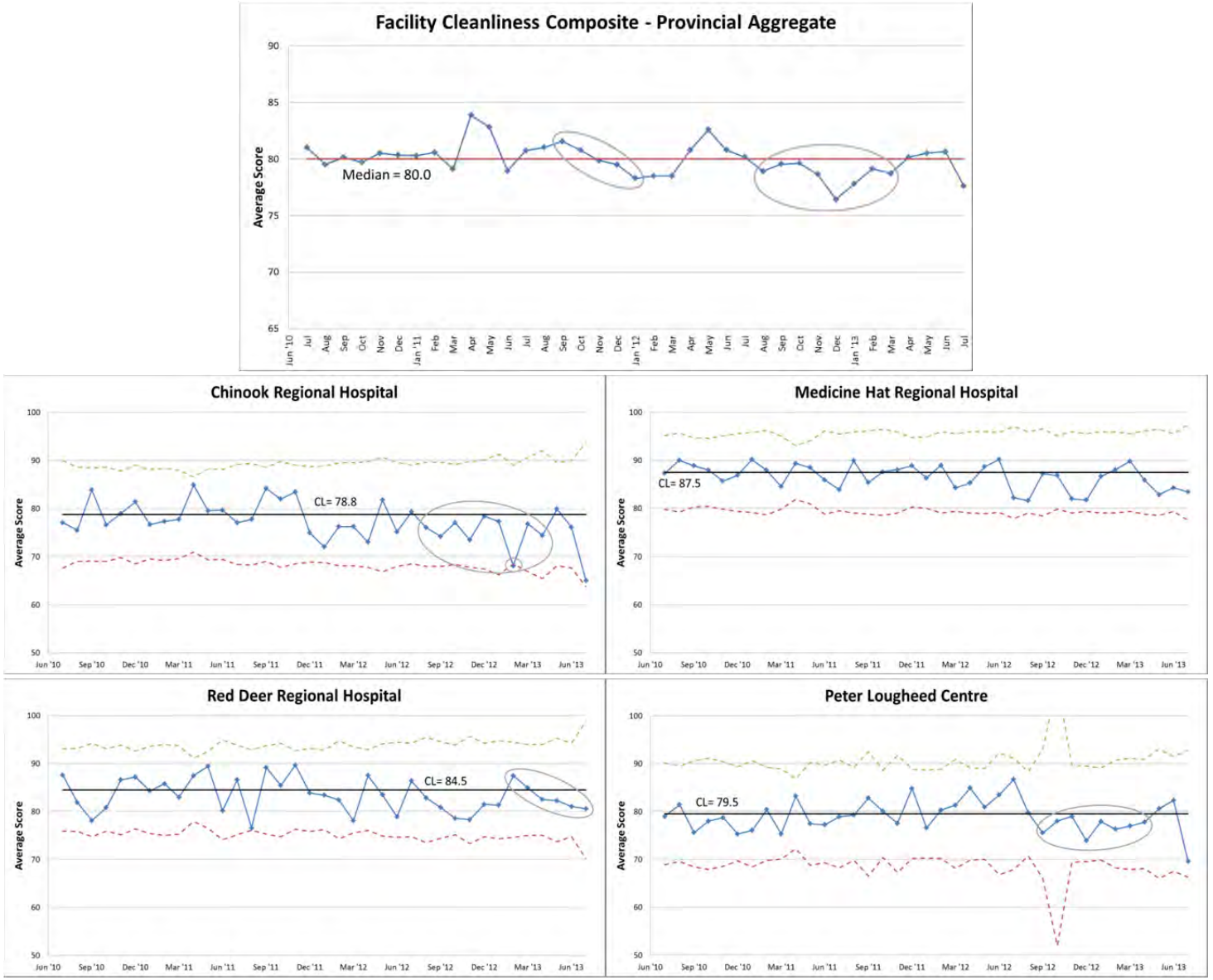
- At Queen Elizabeth II Hospital, two instances of unsustained change occurred. From September to November 2010 a change toward higher average ratings of facility cleanliness occurred; results in September and November are in the outer one-third of the control limits above the centreline, indicating that average ratings were substantially higher than expected had results been stable. Another change occurred from November to December 2010; average facility cleanliness ratings in November and December are in the outer one-third of the control limits (November above the centreline, December below the centreline). This is interpreted as a negative change in that the variability between months is not being controlled effectively, relative to established control limits. Also, a sustained change toward higher average facility cleanliness ratings occurred from March 2012 through the end of the study period. Multiple and successive periods of positive change were identified (see Appendix XII), prompting a shift of the control limits to indicate that a sustained improvement had occurred, relative to historical norms.

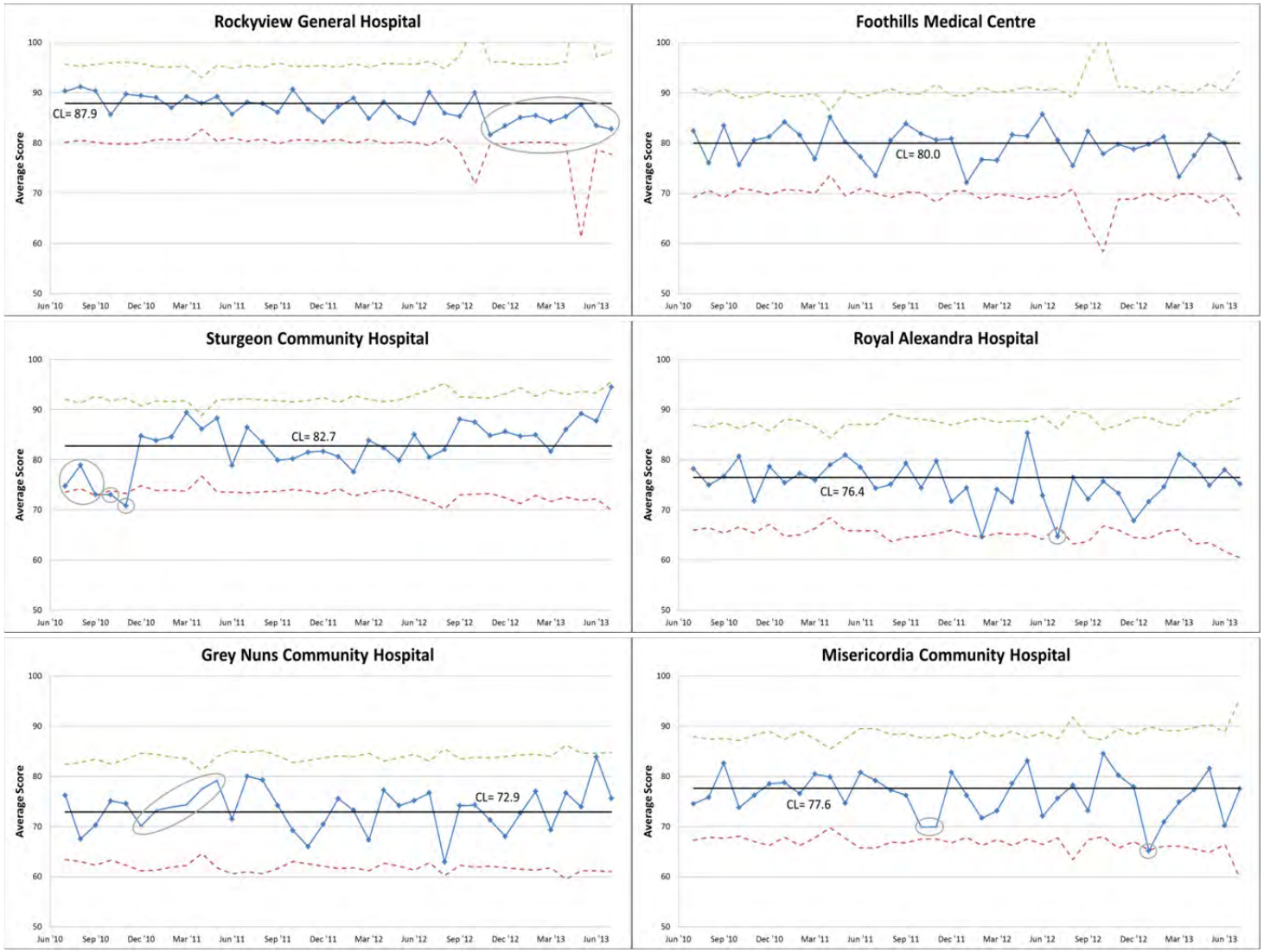
Additionally, by comparing the centrelines (overall averages) of the site-level control charts, it is possible to assess how specific sites are performing, relative to other sites.[lix]

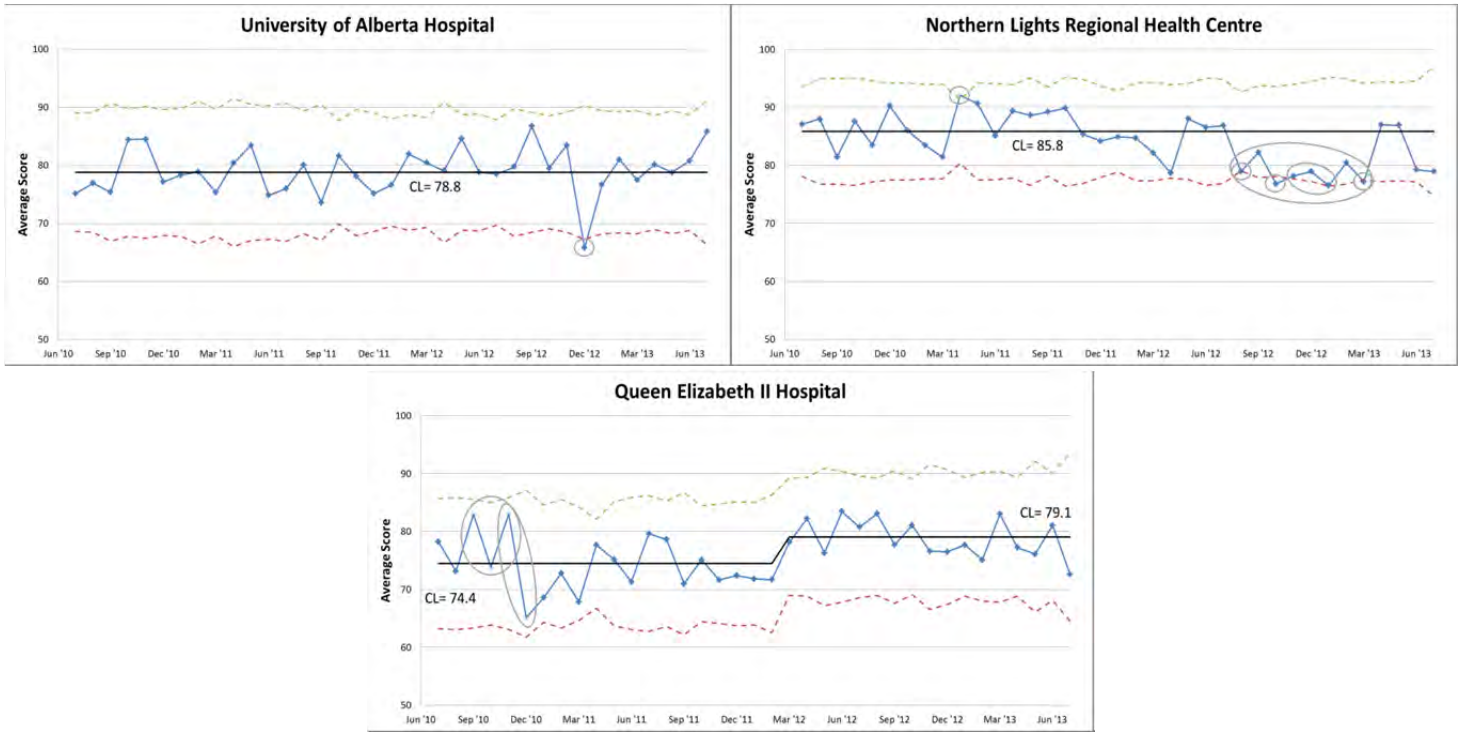
- Over the course of the study period, all of the sites exhibited relatively similar overall average ratings of facility cleanliness, on average scoring between 73/100 and 88/100. Unlike the analyses for many of the other patient experience factors, site-level overall average ratings of facility cleanliness do not appear to be patterned by zone. Sites in the same zone do not necessarily have similar overall average facility cleanliness ratings.

[lix] The centreline represents a weighted overall average rating of facility cleanliness. The term 'weighted' references the fact that average composite scores for months with larger sample sizes more heavily influence the calculation of the centreline or overall average. For more information on the overall average, see Appendix VIII for control chart calculation formulas.

Figure 50: Facility cleanliness composite – Provincial aggregate and site-level results




Rockyview General Hospital
CL= 87.9
Foothills Medical Centre
CL= 80.0
Sturgeon Community Hospital
CL= 82.7
Royal Alexandra Hospital
CL= 76.4
Grey Nuns Community Hospital
CL= 72.9
Misericordia Community Hospital
CL= 77.6
Average Score
100
90
80
70
60
50
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


University of Alberta Hospital
Average Score
CL= 78.8
Northern Lights Regional Health Centre
CL= 85.8
Queen Elizabeth II Hospital
CL= 79.1
CL= 74.4
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

6.7 Wait time communication composite

This section monitors variation, and identifies and explores changes in the wait time communication composite over time at both the provincial aggregate and individual site levels.

Table 9: Wait time communication composite questions

Core questions included in the calculation
Q15: Were you told why you had to wait to be examined?
Q14: Were you told how long you would have to wait to be examined?
Q17: Did a member of staff check on you while you were waiting?
Notes:
Core questions included in the calculation of the composite are listed in order of influence on the composite score[lx]
Composites are scored on a scale from 0 to 100, where 100 is the best possible score
Provincial aggregate data is weighted to adjust for cluster sampling at the site level
Site-level data is unweighted; sample sizes were determined to achieve a representative sample at the site level
2007 Site-level reliability (GRIP macro): 0.95; 2007 Standardized Scale Alpha (Cronbach's): 0.78

Results highlights

The provincial aggregate run chart exhibited random variation throughout the study period, with the exception of an unsustained change toward lower average ratings of wait time communication that occurred from November 2010 to March 2011. Average wait time communication ratings consistently decreased during this time period, which would not be expected if the results had been stable. At the site level, the wait time communication composite results revealed some unsustained periods of non-random variation or change (see Figure 51).

- At Chinook Regional Hospital, two instances of unsustained change occurred. From April 2012 to May 2013 a change toward lower average ratings of wait time communication occurred; results were entirely below the centreline, indicating that average wait time communication ratings were substantially lower than expected, given the historically stable results. Similarly, a change toward lower average ratings of wait time communication occurred from December 2012 to February 2013; results in December and February are in the outer one-third of the control limits below the centreline, indicating that average wait time communication ratings were substantially lower than expected, given the historically stable results.

[lx] Order of influence on the composite score is determined from a principle components factor analysis, conducted in the HQCA's 2007 *Emergency Department Patient Experience Survey* report. Factor loadings were used to determine the strength of association between each question and its overarching factor. This work can be found on the HQCA website (http://hqca.ca/surveys/emergency-department-patient-experience/).

- At Red Deer Regional Hospital, an unsustained change occurred from August to October 2011. Results in August and October are in the outer one-third of the control limits (August below the centreline, October above the centreline). This is interpreted as a negative change in that the variability between months is not being controlled effectively, given the otherwise stable results.
- At Peter Lougheed Centre, an unsustained change toward lower average ratings of wait time communication occurred from August 2012 to April 2013; results were entirely below the centreline, indicating that average wait time communication ratings were substantially lower than expected, given the otherwise stable results.
- At Rockyview General Hospital, an unsustained change occurred from October to November 2010. Results in October and November were in the outer one-third of the control limits (October below the centreline, November above the centreline). This is interpreted as a negative change in that the variability between months is not being controlled effectively, given the otherwise stable results.
- At Foothills Medical Centre, an unsustained change toward higher average wait time communication ratings occurred from July to December 2012. Average wait time communication ratings consistently increased during this time period.
- At Sturgeon Community Hospital, five instances of unsustained change occurred. From January to June 2012 a change toward higher average wait time communication ratings occurred; results consistently increased during this time period. Similarly, from June to September 2012 there are two changes toward higher average wait time communication ratings. During this time period, June, August, and September are in the outer one-third of the control limits above the centreline, indicating that average wait time communication ratings were substantially higher than expected had results been stable. Another change toward higher average wait time communication ratings occurred from February to December 2012; results were entirely above the centreline, indicating that average wait time communication ratings were substantially higher than expected had results been stable. Conversely, a change toward lower average wait time communication ratings occurred from August 2012 to January 2013; average wait time communication ratings consistently decreased during this time period. Viewed together, these five instances of change demonstrate that average wait time communication ratings increased and remained substantially higher than expected for a period of time, relative to stable historical norms, before decreasing back to where they were at the beginning of the study period and varying randomly around the centreline.
- At Royal Alexandra Hospital, an unsustained change toward higher average wait time communication ratings occurred in October 2010; during this month average wait time communication ratings were substantially higher than expected, given the otherwise stable results.
- At Grey Nuns Community Hospital, an unsustained change toward lower average wait time communication ratings occurred from July 2011 to May 2012; results were entirely below the centreline, indicating that average wait time communication ratings were substantially lower than expected, given the otherwise stable results.

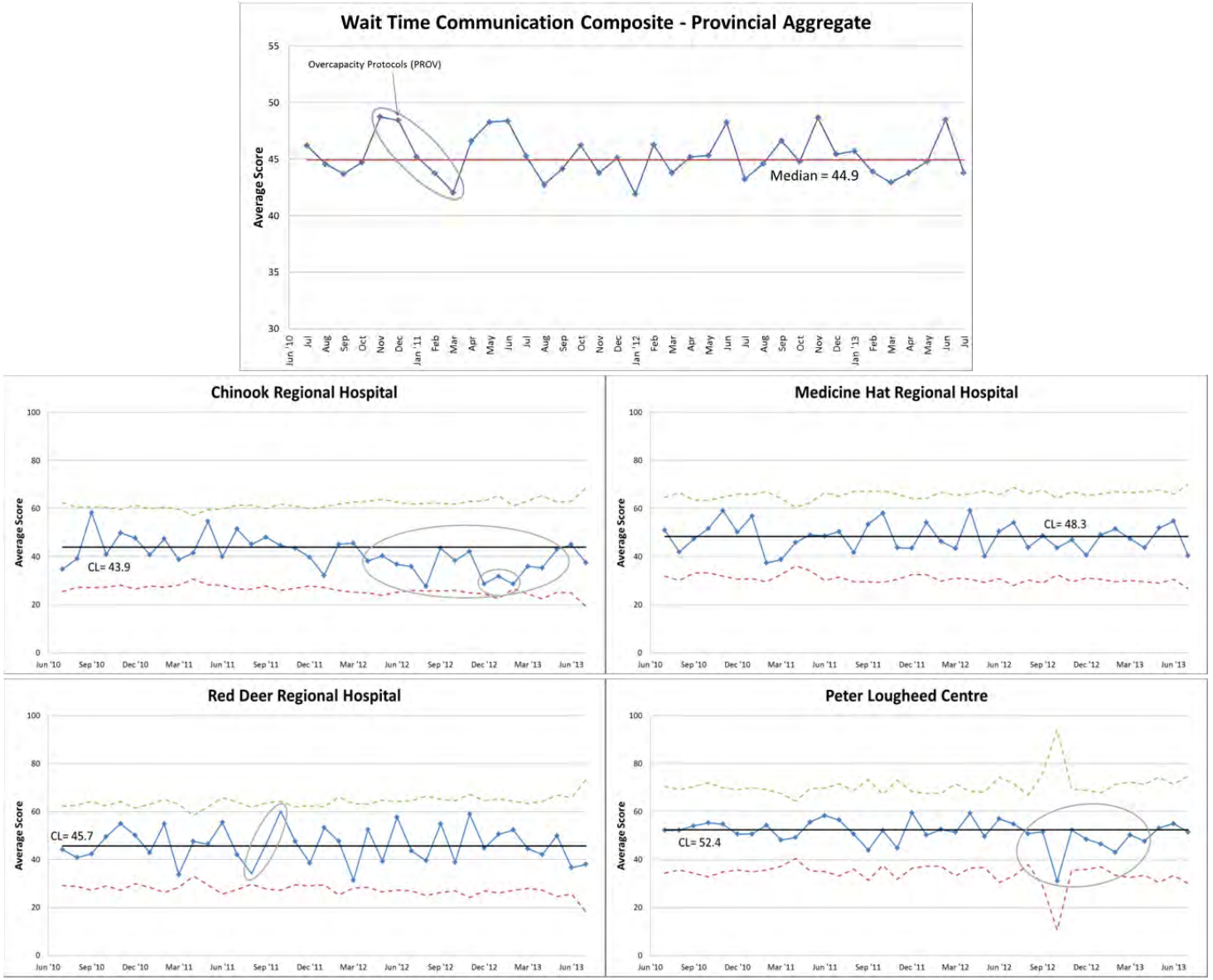
- At Queen Elizabeth II Hospital, an unsustained change toward higher average wait time communication ratings occurred in August 2012; during this month, the average wait time communication rating was substantially higher than expected, given the otherwise stable results.

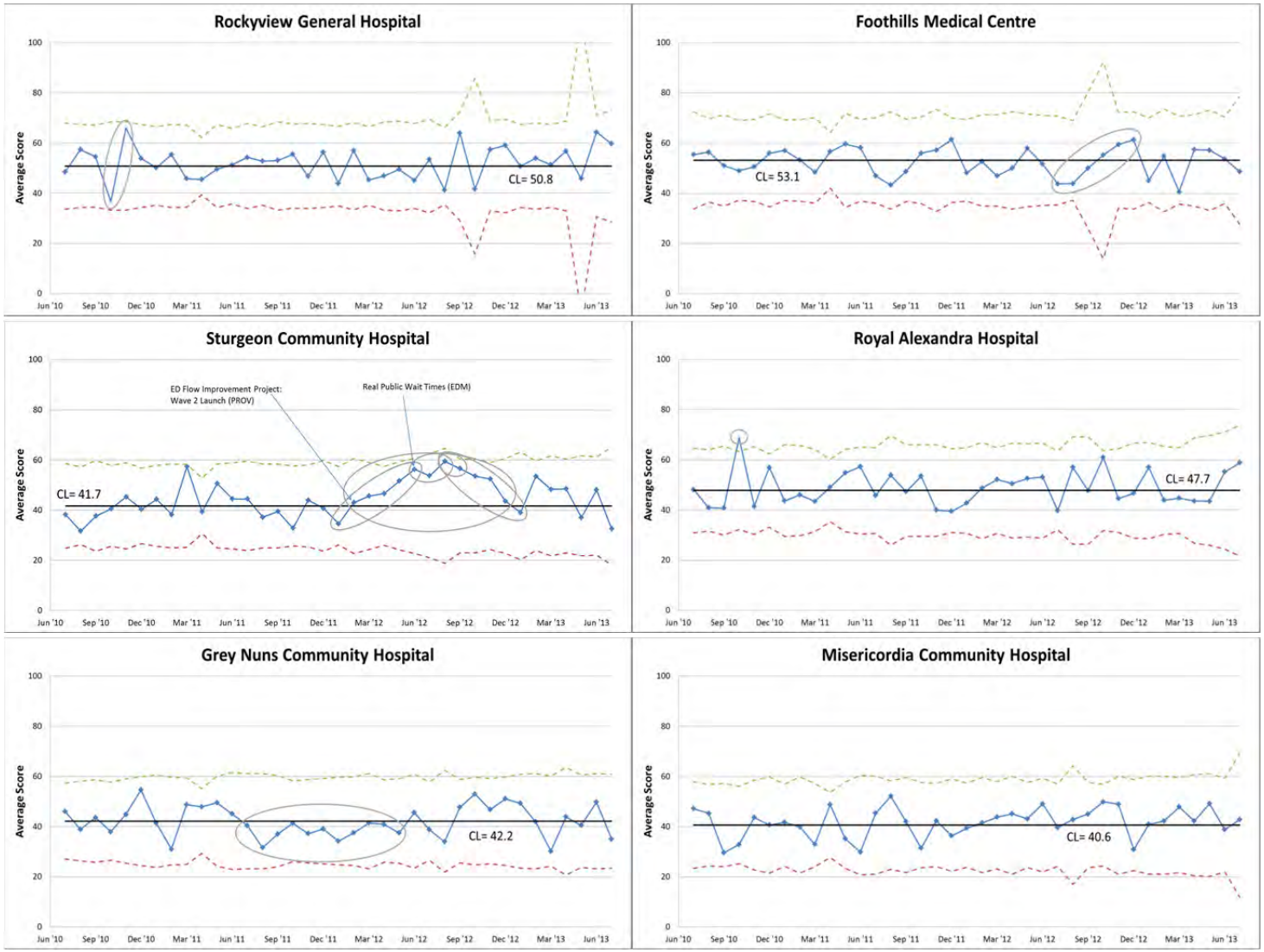
Additionally, by comparing the centrelines (overall averages) of the site-level control charts, it is possible to assess how specific sites are performing, relative to other sites.[lxi]

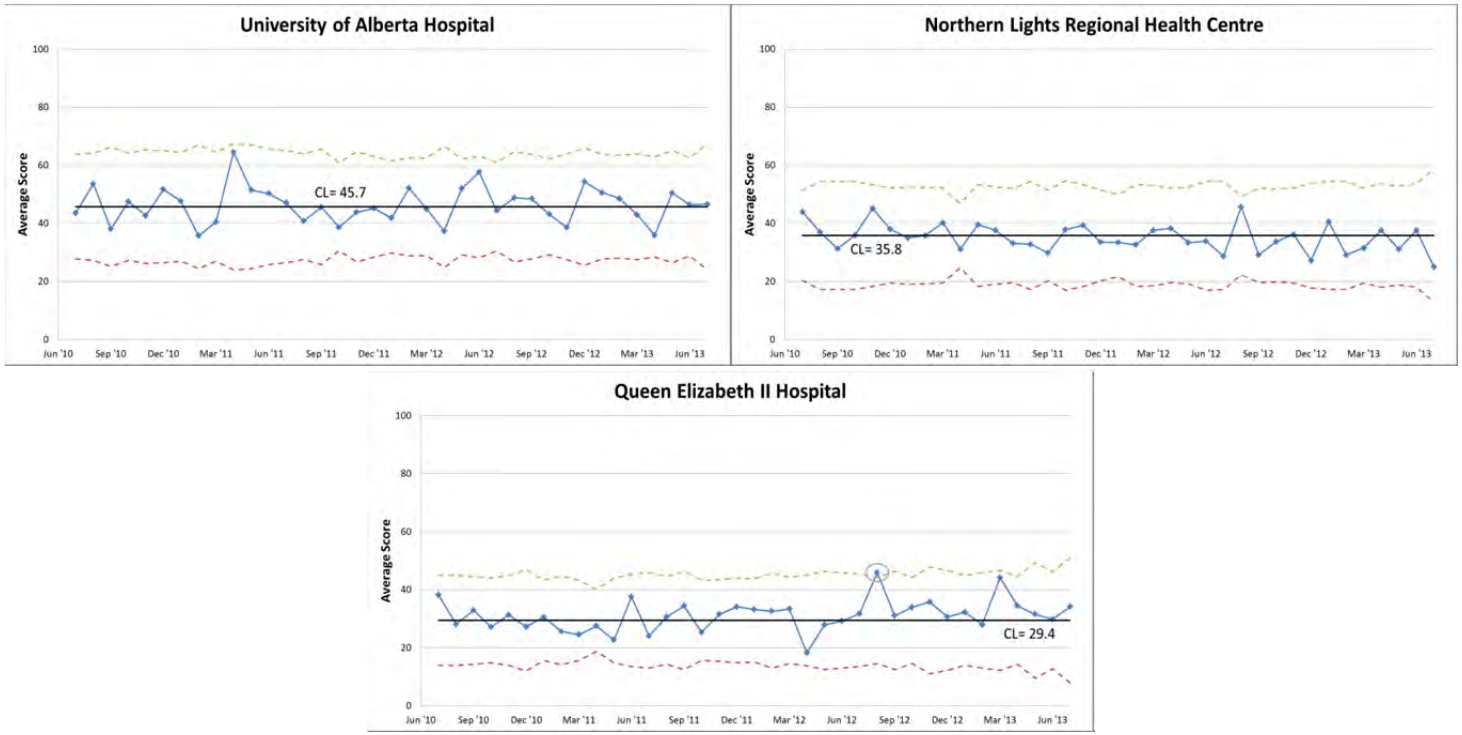
- Over the study period, the Calgary sites (Peter Lougheed Centre, Rockyview General Hospital, and Foothills Medical Centre) exhibited slightly higher overall average ratings of wait time communication than sites from the other zones, on average scoring between 51/100 and 53/100.
- Chinook Regional Hospital, Medicine Hat Regional Hospital, and Red Deer Regional Hospital exhibited slightly lower overall average wait time communication ratings than the Calgary sites, on average scoring between 44/100 and 48/100.
- The Edmonton sites (Sturgeon Community Hospital, Royal Alexandra Hospital, Grey Nuns Community Hospital, Misericordia Community Hospital, and the University of Alberta Hospital) exhibited similar results to Chinook, Medicine Hat, and Red Deer, on average scoring between 41/100 and 48/100.
- The Northern sites (Queen Elizabeth II Hospital and Northern Lights Regional Health Centre) exhibited the lowest overall average ratings of wait time communication over the study period, on average scoring 29/100 and 36/100, respectively.

[lxi] The centreline represents a weighted overall average rating of wait time communication. The term 'weighted' references the fact that average composite scores for months with larger sample sizes more heavily influence the calculation of the centreline or overall average. For more information on the overall average, see Appendix VIII for control chart calculation formulas.

Figure 51: Wait time communication composite – Provincial aggregate and site-level results




Rockyview General Hospital
Average Score
CL= 50.8
Foothills Medical Centre
CL= 53.1
Sturgeon Community Hospital
ED Flow Improvement Project: Wave 2 Launch (PROV)
Real Public Wait Times (EDM)
CL= 41.7
Royal Alexandra Hospital
CL= 47.7
Grey Nuns Community Hospital
CL= 42.2
Misericordia Community Hospital
CL= 40.6
Jun '10 Sep '10 Dec '10 Mar '11 Jun '11 Sep '11 Dec '11 Mar '12 Jun '12 Sep '12 Dec '12 Mar '13 Jun '13


University of Alberta Hospital
Average Score
CL= 45.7
Northern Lights Regional Health Centre
CL= 35.8
Queen Elizabeth II Hospital
CL= 29.4
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

6.7.1 Did a member of staff check on you while you were waiting?

This section monitors variation, and identifies and explores changes in patient reports of whether emergency department staff checked on them while they waited (question 17). Results are presented over time at both the provincial aggregate and individual site levels. Question 17 asks respondents:

Q17: Did a member of staff check on you while you were waiting?

These charts present the percentage of patients who reported they were **not checked on, or were not checked on frequently enough**, by staff while they waited (excludes those who did not mind not being checked on). As previously mentioned, staff checking on patients while they waited (question 17) is used in the calculation of the wait time communication composite; however, it has also been shown to have a significant influence on the overall rating of care on its own.

Results highlights

The provincial aggregate run chart exhibited random variation throughout the study period, with the exception of an unsustained change toward lower patient experience that occurred from April to September 2011. The percentage of patients who reported they were not checked on, or were not checked on frequently enough, by staff while they waited consistently increased during this time period, which would not be expected if the results had been stable. At the site level, results for whether emergency department staff checked on patients while they waited revealed some unsustained periods of non-random variation or change (see Figure 52).

- At Chinook Regional Hospital, two instances of unsustained change occurred. From June to August 2012 a change toward lower patient experience occurred. Results in June and August are in the outer one-third of the control limits above the centreline, indicating the percentage of patients who reported that staff did not check on them, or did not check on them frequently enough, while they waited was substantially higher than expected, given the historically stable results. Similarly, a change toward lower patient experience occurred from August 2012 to April 2013; results were entirely above the centreline, indicating that the percentage of patients who reported they were not checked on, or were not checked on frequently enough, by staff while they waited was substantially higher than expected, relative to historical norms.
- At Medicine Hat Regional Hospital, an unsustained change occurred from June to August 2012. Results in June and August are in the outer one-third of the control limits (June below the centreline, August above the centreline). This is interpreted as a negative change in that the variability between months is not being controlled effectively, given the otherwise stable results.
- At Rockyview General Hospital, an unsustained change toward lower patient experience occurred in October 2010; during this month, the percentage of patients who reported they were not checked on, or were not checked on frequently enough, while they waited was substantially higher than expected, given the otherwise stable results.
- At Sturgeon Community Hospital, three instances of unsustained change occurred. From March to May 2011 a change toward higher patient experience occurred. Results in March and May are in the outer one-third of the control limits below the centreline, indicating the percentage of patients who reported they were not checked on, or were not checked on frequently enough,

while they waited was substantially lower than expected had results been stable. Similarly, a change toward higher patient experience occurred from January to December 2012; results were entirely below the centreline, indicating that the percentage of patients who reported they were not checked on, or were not checked on frequently enough, by staff while they waited was substantially lower than expected had results been stable. Also, a change toward higher patient experience occurred in November 2012; during this month, the percentage of patients who reported they were not checked on, or were not checked on frequently enough, while they waited was substantially lower than expected had results been stable.

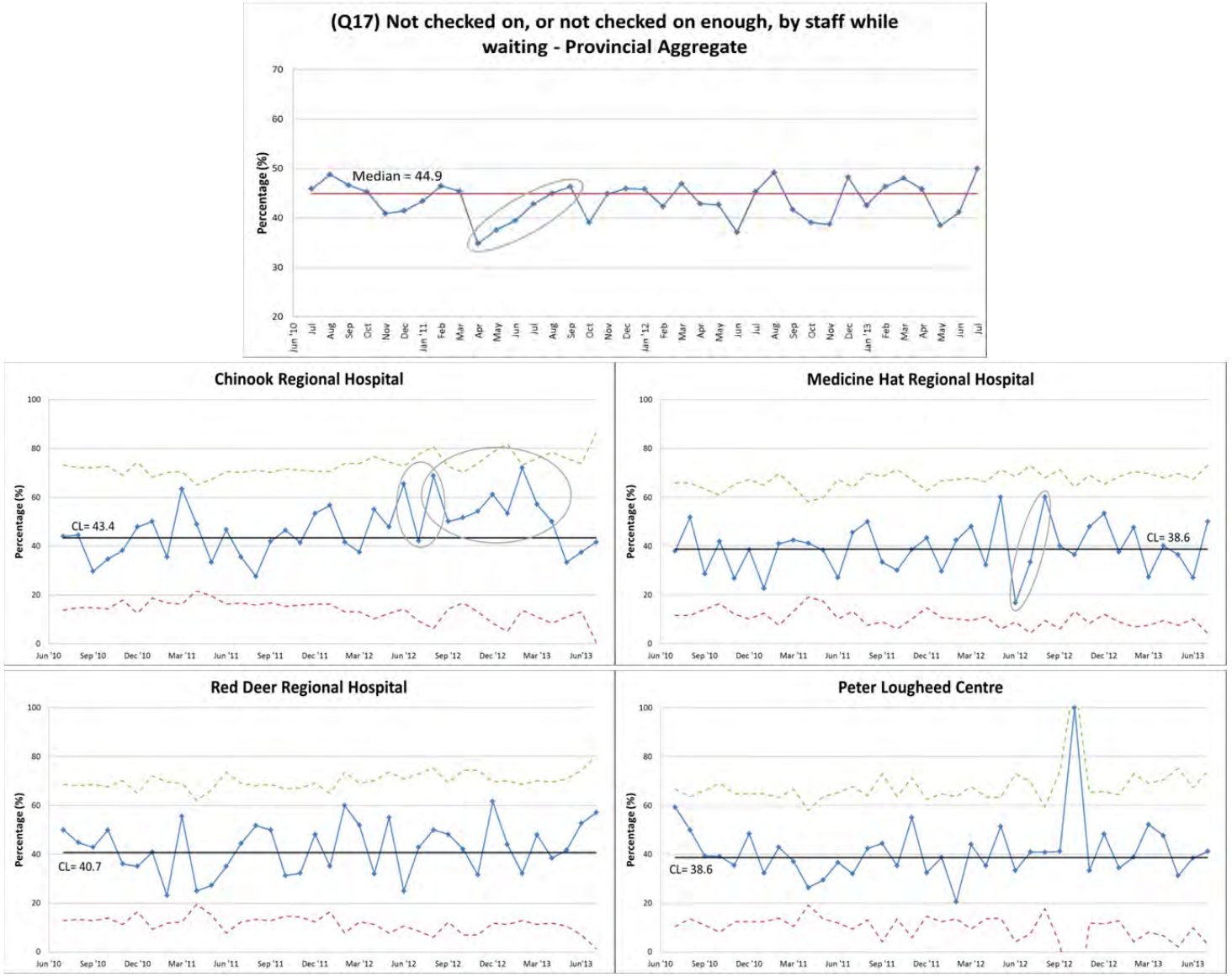
- At Grey Nuns Community Hospital, three unsustained changes occurred. From February to March 2012 a change toward lower patient experience occurred. Results in February and March are in the outer one-third of the control limits above the centreline, indicating the percentage of patients who reported they were not checked on, or were not checked on frequently enough, while they waited was substantially higher than expected had results been stable. Another unsustained change occurred from August to October 2012. Results in August and October are in the outer one-third of the control limits (August above the centreline, October below the centreline). This is interpreted as a negative change in that the variability between months is not being controlled effectively, relative to historical norms. A change toward higher ratings of patient experience occurred from October to December 2012. Results in October and December are in the outer one-third of the control limits below the centreline, indicating the percentage of patients who reported they were not checked on, or were not checked on frequently enough, while they waited was substantially lower than expected had results been stable.
- At the University of Alberta Hospital, an unsustained change toward higher patient experience occurred from May 2012 to January 2013; results were entirely below the centreline, indicating that the percentage of patients who reported they were not checked on, or were not checked on frequently enough, by staff while they waited was substantially lower than expected, given the otherwise stable results.
- At Northern Lights Regional Health Centre, two instances of unsustained change occurred. From July 2010 to September 2011 results cluster within the inner one-third of the control limits. This is interpreted as a positive change in that variability between months is being consistently controlled, relative to established norms. Also, a change toward higher patient experience occurred from November 2010 to June 2011; results were entirely below the centreline, indicating that the percentage of patients who reported they were not checked on, or were not checked on frequently enough, by staff while they waited was substantially lower than expected had results been stable.

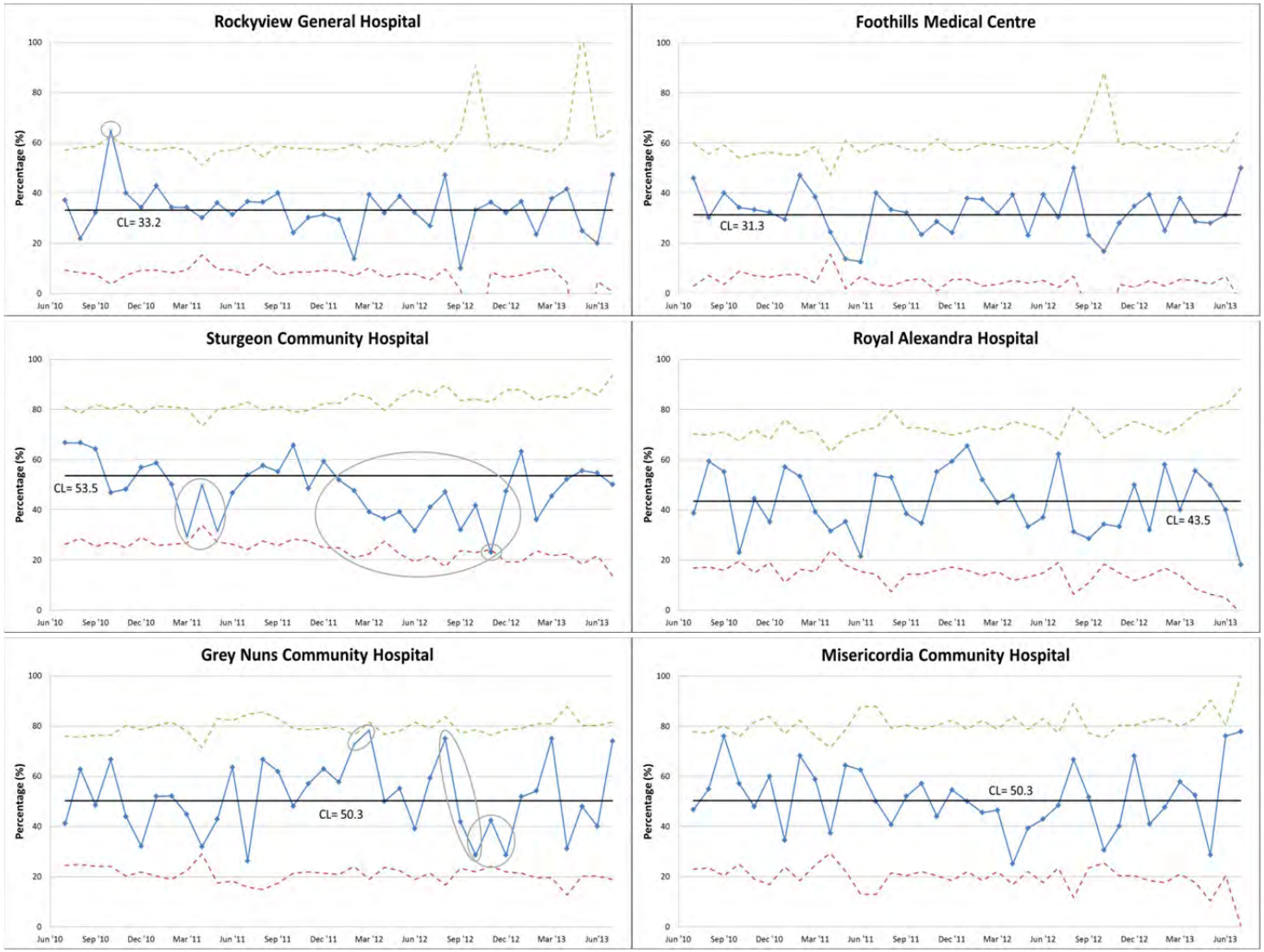
Additionally, by comparing the centrelines (percentage who reported they were not checked on, or were not checked on frequently enough, while they waited for the whole study period)[lxii] of the site-level control charts, it is possible to assess how specific sites performed relative to other sites.

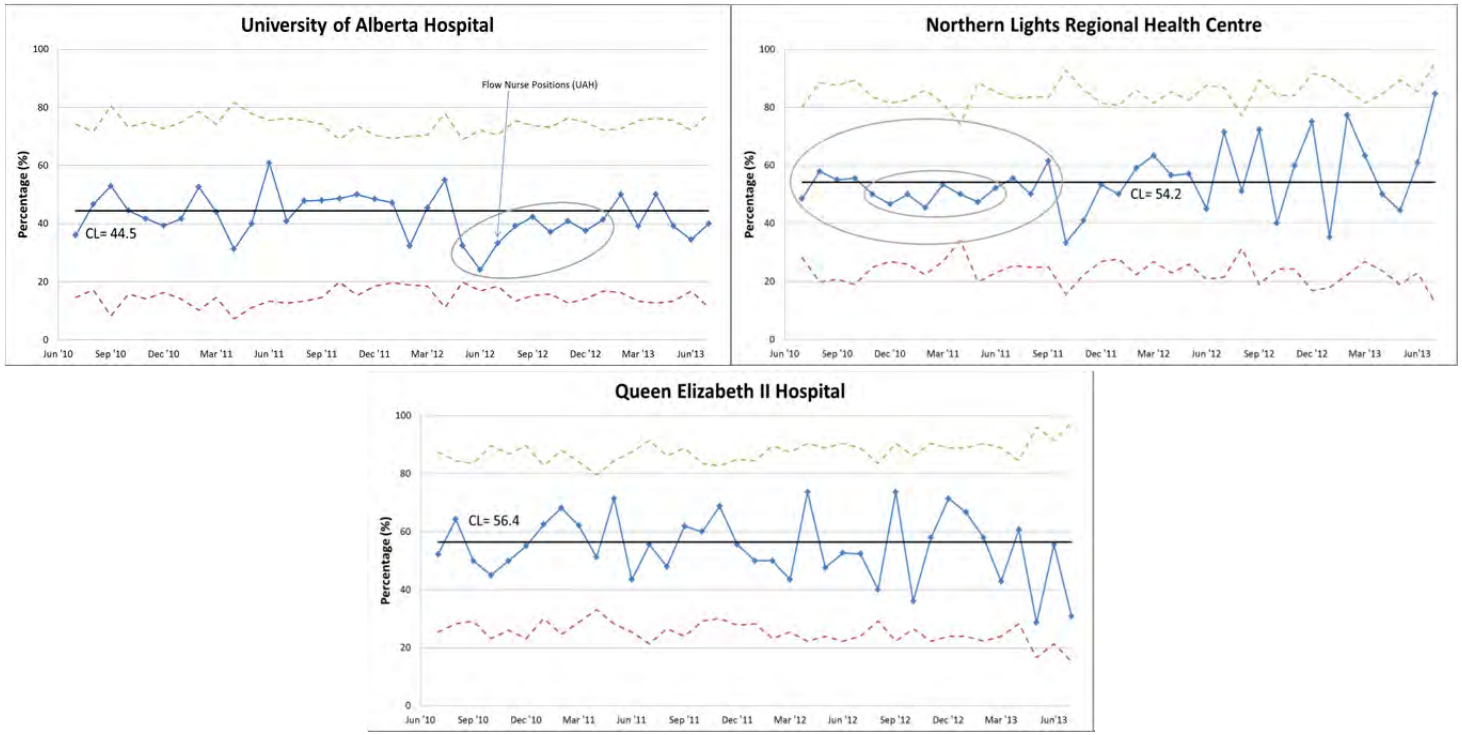
- The Calgary sites (Peter Lougheed Centre, Rockyview General Hospital, and Foothills Medical Centre) exhibited slightly lower percentages of patients who reported they were not checked on, or were not checked on frequently enough while they waited, compared to sites from the other zones, on average between 31 and 39 per cent over the study period.
- Chinook Regional Hospital, Medicine Hat Regional Hospital, and Red Deer Regional Hospital exhibited slightly higher percentages of patients who reported they were not checked on, or were not checked on frequently enough while they waited, compared to the Calgary sites, on average between 39 and 43 per cent over the study period.
- The Edmonton sites (specifically Royal Alexandra Hospital, Grey Nuns Community Hospital, Misericordia Community Hospital, and the University of Alberta Hospital) exhibited slightly higher percentages of patients who reported they were not checked on, or were not checked on frequently enough while they waited compared to Chinook, Medicine Hat, and Red Deer, on average between 44 and 50 per cent.
- The Northern sites (Northern Lights Regional Health Centre and Queen Elizabeth II Hospital) and Sturgeon Community Hospital exhibited the highest percentages of patients who reported they were not checked on, or were not checked on frequently enough while they waited, on average between 54 and 56 per cent.

[lxii] In practice, the centreline is calculated for the first two years of stable data and then extended to apply to the final year of data. For more information on the centreline calculation for *P* charts, see Appendix VIII.

Figure 52: Patients not checked on, or not checked on frequently enough, by staff while they waited – Provincial aggregate and site-level results




Rockyview General Hospital
CL= 33.2
Foothills Medical Centre
CL= 31.3
Sturgeon Community Hospital
CL= 53.5
Royal Alexandra Hospital
CL= 43.5
Grey Nuns Community Hospital
CL= 50.3
Misericordia Community Hospital
CL= 50.3
Percentage (%)
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13


University of Alberta Hospital
Flow Nurse Positions (UAH)
CL= 44.5
Percentage (%)
Northern Lights Regional Health Centre
CL= 54.2
Percentage (%)
Queen Elizabeth II Hospital
CL= 56.4
Percentage (%)
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun'13

6.8 Privacy composite

This section monitors variation, and identifies and explores changes in the privacy composite over time at both the provincial aggregate and individual site levels.

Table 10: Privacy composite questions

Core questions included in the calculation
Q29: Were you given enough privacy when being examined or treated?
Q28: Were you given enough privacy when discussing your condition or treatment?
Notes:
Core questions included in the calculation of the composite are listed in order of influence on the composite score[lxiii]
Composites are scored on a scale from 0 to 100, where 100 is the best possible score
Provincial aggregate data is weighted to adjust for cluster sampling at the site level
Site-level data is unweighted; sample sizes were determined to achieve a representative sample at the site level
2007 Site-level reliability (GRIP macro): 0.93; 2007 Standardized Scale Alpha (Cronbach's): 0.78

Results highlights

The provincial aggregate run chart exhibited random variation throughout the study period, with the exception of an unsustained change toward lower average ratings of privacy that occurred from July to December 2012. Average privacy ratings consistently decreased during this time period, which would not be expected if the results had been stable. At the site level, the privacy composite results revealed some unsustained periods of non-random variation or change (see Figure 53).

- At Chinook Regional Hospital, an unsustained change toward lower average privacy ratings occurred in February 2013; during this month, the average privacy rating was substantially lower than expected, relative to historical norms.
- At Medicine Hat Regional Hospital, an unsustained change toward lower average privacy ratings occurred in July 2013; during this month, the average privacy rating was substantially lower than expected, relative to historical norms.
- At Peter Lougheed Centre, an unsustained change occurred from September to November 2012. Results in September and November are in the outer one-third of the control limits (September below the centreline, November above the centreline). This is interpreted as a negative change in that the variability between months is not being controlled effectively, relative to the otherwise stable results.

[lxiii] Order of influence on the composite score is determined from a principle components factor analysis, conducted in the HQCA's 2007 *Emergency Department Patient Experience Survey* report. Factor loadings were used to determine the strength of association between each question and its overarching factor. This work can be found on the HQCA website (http://hqca.ca/surveys/emergency-department-patient-experience/).

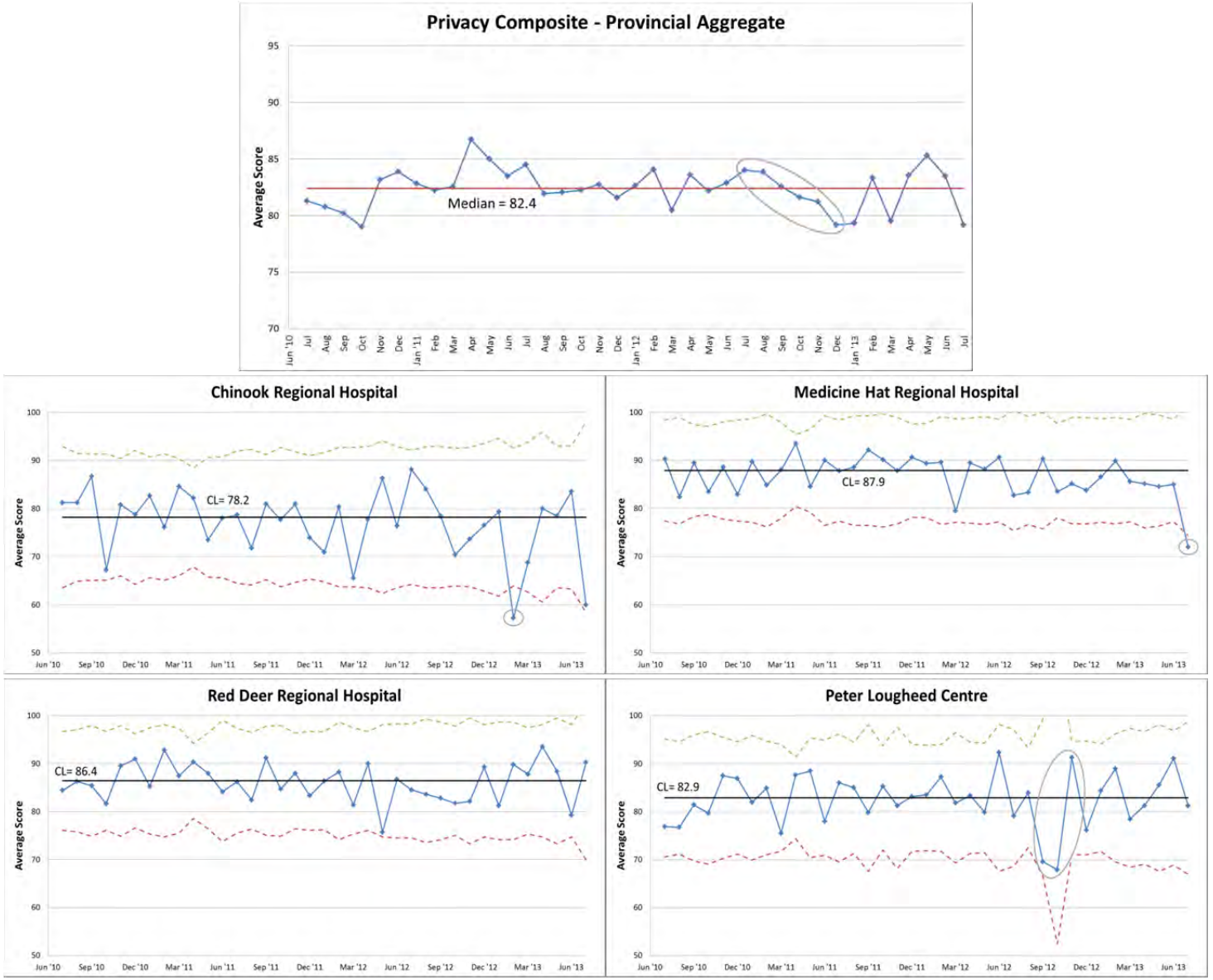
- At Foothills Medical Centre, an unsustained change toward lower average privacy ratings occurred from August 2012 to January 2013. Average privacy ratings consistently decreased during this time period.
- At Sturgeon Community Hospital, four instances of unsustained change occurred. Changes toward lower average privacy ratings occurred during the following months: July 2010, August 2010, October 2010, and November 2010. Results for these months were all substantially lower than expected, had results been stable. Conversely, a change toward higher average privacy ratings occurred from December 2011 to November 2012; results were entirely above the centreline, indicating that average privacy ratings were substantially higher than expected, relative to historical norms.
- At Northern Lights Regional Health Centre, four instances of unsustained change occurred during the study period. From August 2012 to March 2013 a change toward lower average privacy ratings occurred; results were entirely below the centreline, indicating that average privacy ratings were substantially lower than expected, relative to historical norms. Similarly, changes toward lower average privacy ratings occurred in December 2012 and January 2013; during these months, the average privacy ratings were substantially lower than expected had results been stable. Conversely, a change toward higher average privacy ratings occurred from January to June 2013. Average privacy ratings consistently increased during this time period. Viewed together, these four instances of change demonstrate that average privacy ratings decreased and remained substantially lower than expected for a period of time, relative to stable historical norms, before increasing back to where they were at the beginning of the study period and varying randomly around the centreline.
- At Queen Elizabeth II Hospital, an unsustained change toward lower average privacy ratings occurred from November 2012 to July 2013; results were entirely below the centreline, indicating that average privacy ratings were substantially lower than expected, given the otherwise stable results.

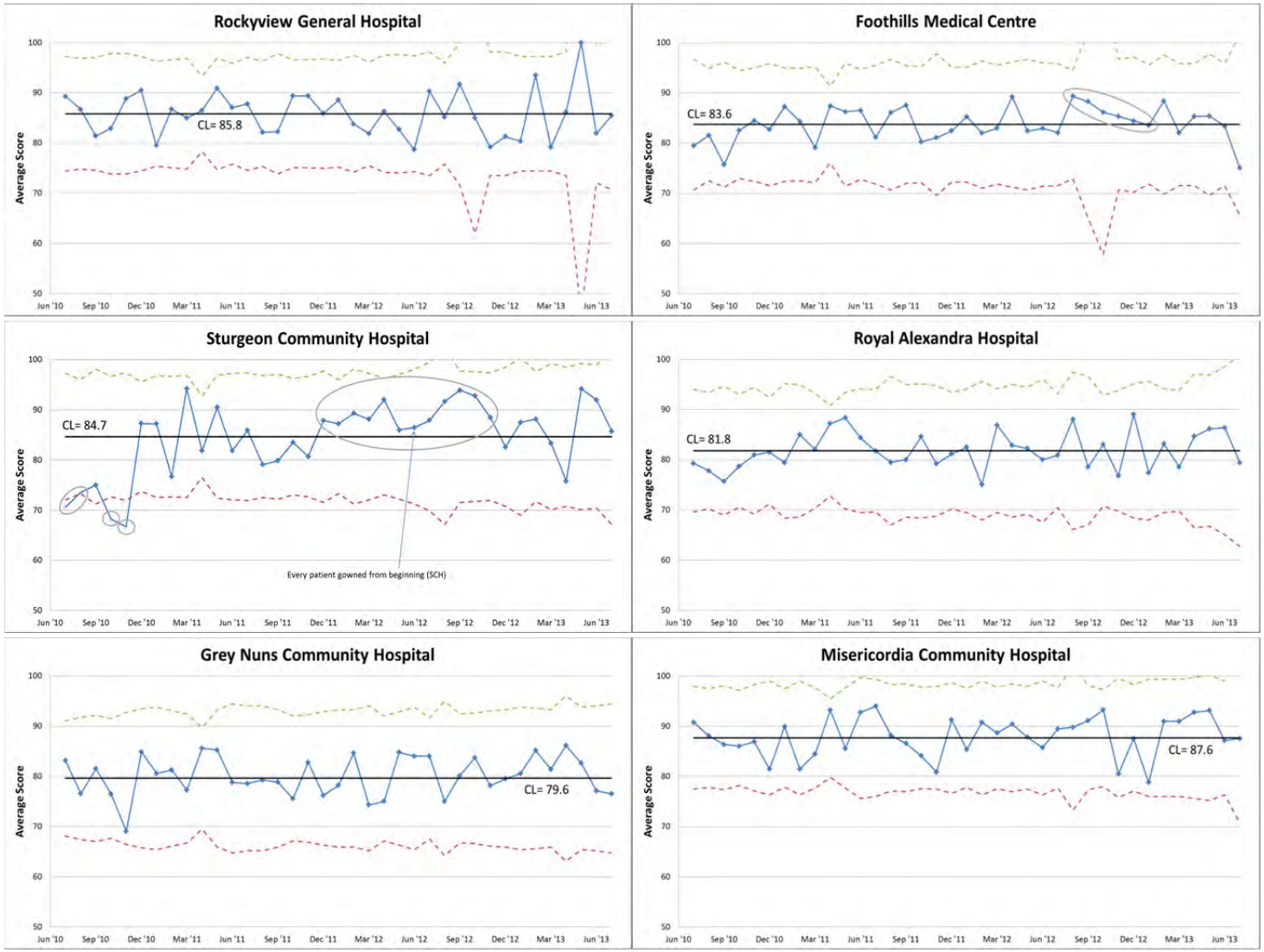
Additionally, by comparing the centrelines (overall averages) of the site-level control charts, it is possible to assess how specific sites are performing, relative to other sites.[lxiv]

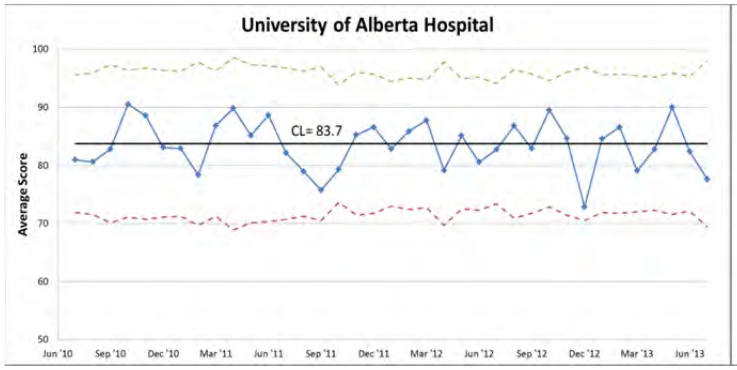
- Over the course of the study period all of the sites exhibit relatively similar overall average ratings of privacy, on average scoring between 77/100 and 88/100.

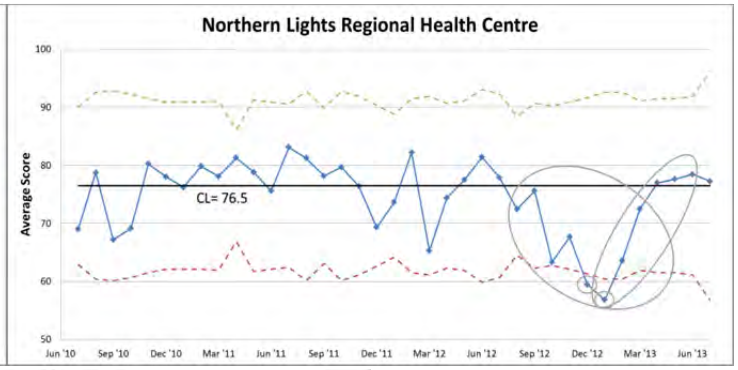
[lxiv] The centreline represents a weighted overall average rating of privacy. The term 'weighted' references the fact that average composite scores for months with larger sample sizes more heavily influence the calculation of the centreline or overall average. For more information on the overall average, see Appendix VIII for control chart calculation formulas.

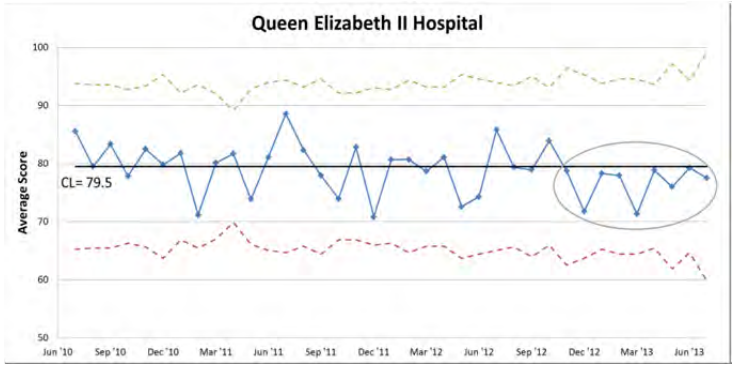
Figure 53: Privacy composite – Provincial aggregate and site-level results




Rockyview General Hospital
CL= 85.8
Foothills Medical Centre
CL= 83.6
Sturgeon Community Hospital
CL= 84.7
Every patient gowned from beginning (SCH)
Royal Alexandra Hospital
CL= 81.8
Grey Nuns Community Hospital
CL= 79.6
Misericordia Community Hospital
CL= 87.6
Average Score
100
90
80
70
60
50
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


University of Alberta Hospital
Average Score
CL= 83.7
100
90
80
70
60
50
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


Northern Lights Regional Health Centre
Average Score
CL= 76.5
100
90
80
70
60
50
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


Queen Elizabeth II Hospital
Average Score
CL= 79.5
100
90
80
70
60
50
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

6.9 Medication communication composite

This section monitors variation, and identifies and explores changes in the medication communication composite over time at both the provincial aggregate and individual site levels.

Table 11: Medication communication composite questions

Core questions included in the calculation
Q49: Did a member of staff explain to you how to take the new medications?
Q50: Did a member of staff tell you about medication side effects to watch for?
Q48: Did a member of staff explain the purpose of the medications you were to take at home in a way you could understand?
Notes:
Core questions included in the calculation of the composite are listed in order of influence on the composite score[lxv]
Composites are scored on a scale from 0 to 100, where 100 is the best possible score
Provincial aggregate data is weighted to adjust for cluster sampling at the site level
Site-level data is unweighted; sample sizes were determined to achieve a representative sample at the site level
2007 Site-level reliability (GRIP macro): 0.81; 2007 Standardized Scale Alpha (Cronbach's): 0.75

Results highlights

The provincial aggregate run chart exhibited random variation throughout the study period, with no evidence of unsustained or sustained changes. At the site level, the medication communication composite results revealed some unsustained periods of non-random variation or change (see Figure 54).

- At Medicine Hat Regional Hospital, an unsustained change toward higher average medication communication ratings occurred from April 2012 to March 2013; results were entirely above the centreline, indicating that average medication communication ratings were substantially higher than expected, given the otherwise stable results.
- At Grey Nuns Community Hospital, an unsustained change toward lower average medication communication ratings occurred in December 2011; during this month, the average medication communication rating was substantially lower than expected, given the otherwise stable results.
- At Misericordia Community Hospital, an unsustained change occurred from November to December 2010. Results in November and December are in the outer one-third of the control limits (November above the centreline, December below the centreline). This is interpreted as a

[lxv] Order of influence on the composite score is determined from a principle components factor analysis, conducted in the HQCA's 2007 *Emergency Department Patient Experience Survey* report. Factor loadings were used to determine the strength of association between each question and its overarching factor. This work can be found on the HQCA website (http://hqca.ca/surveys/emergency-department-patient-experience/).

negative change in that the variability between months is not being controlled effectively, relative to the otherwise stable results.

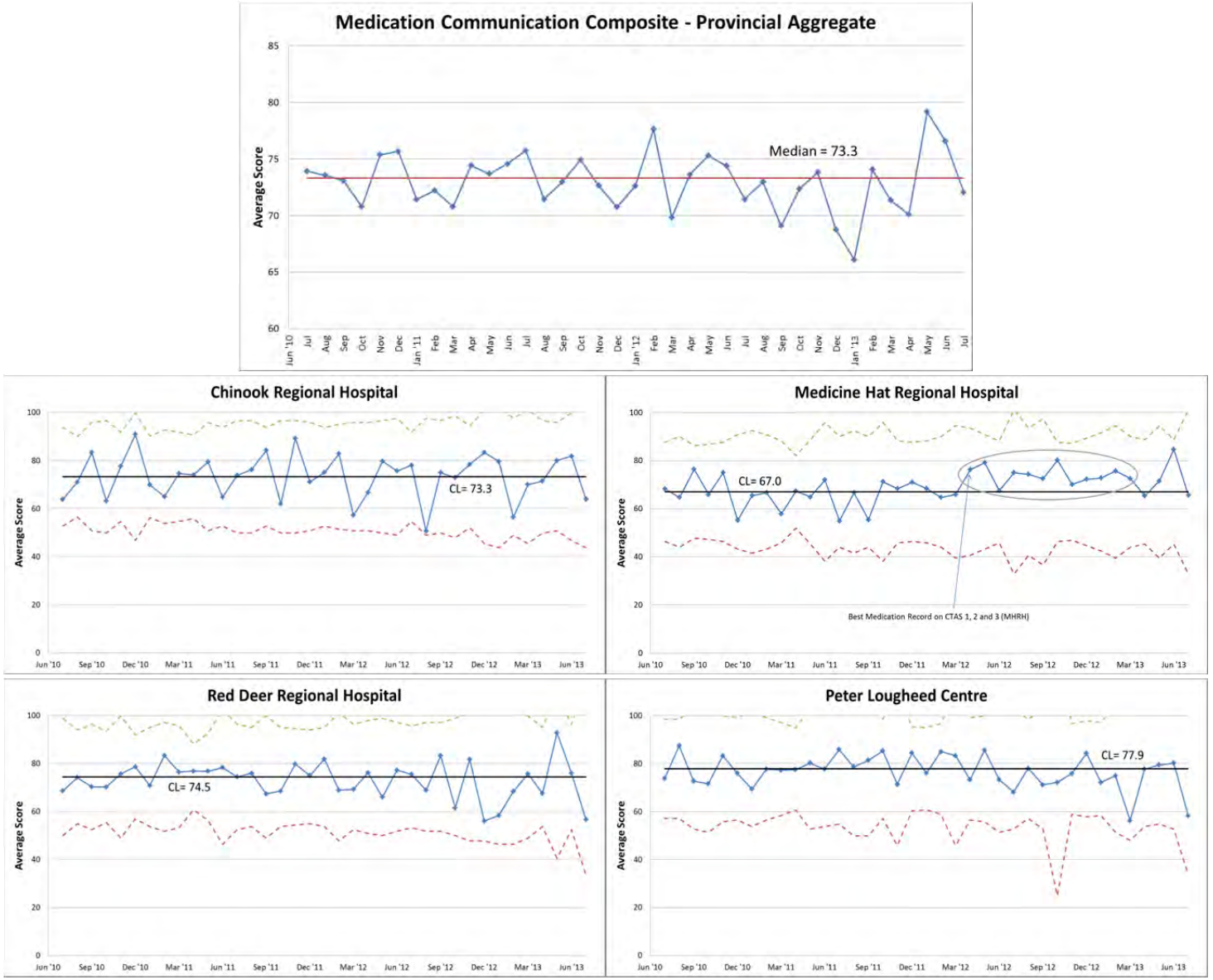
- At the University of Alberta Hospital, an unsustained change toward lower average medication communication ratings occurred from January to February 2013. Results in January and February are in the outer one-third of the control limits below the centreline, indicating that average medication communication ratings are substantially lower than expected, given the otherwise stable results.
- At Queen Elizabeth II Hospital, two instances of unsustained change occurred. From October to December 2011 the first unsustained change occurred. Results in October and December are in the outer one-third of the control limits (October above the centreline, December below the centreline). This is interpreted as a negative change in that the variability between months is not being controlled effectively, relative to historical norms. Also, a change toward lower average medication communication ratings occurred from December 2012 to January 2013. Results in December and January are in the outer one-third of the control limits below the centreline, indicating that average medication communication ratings are substantially lower than expected, relative to historical norms.

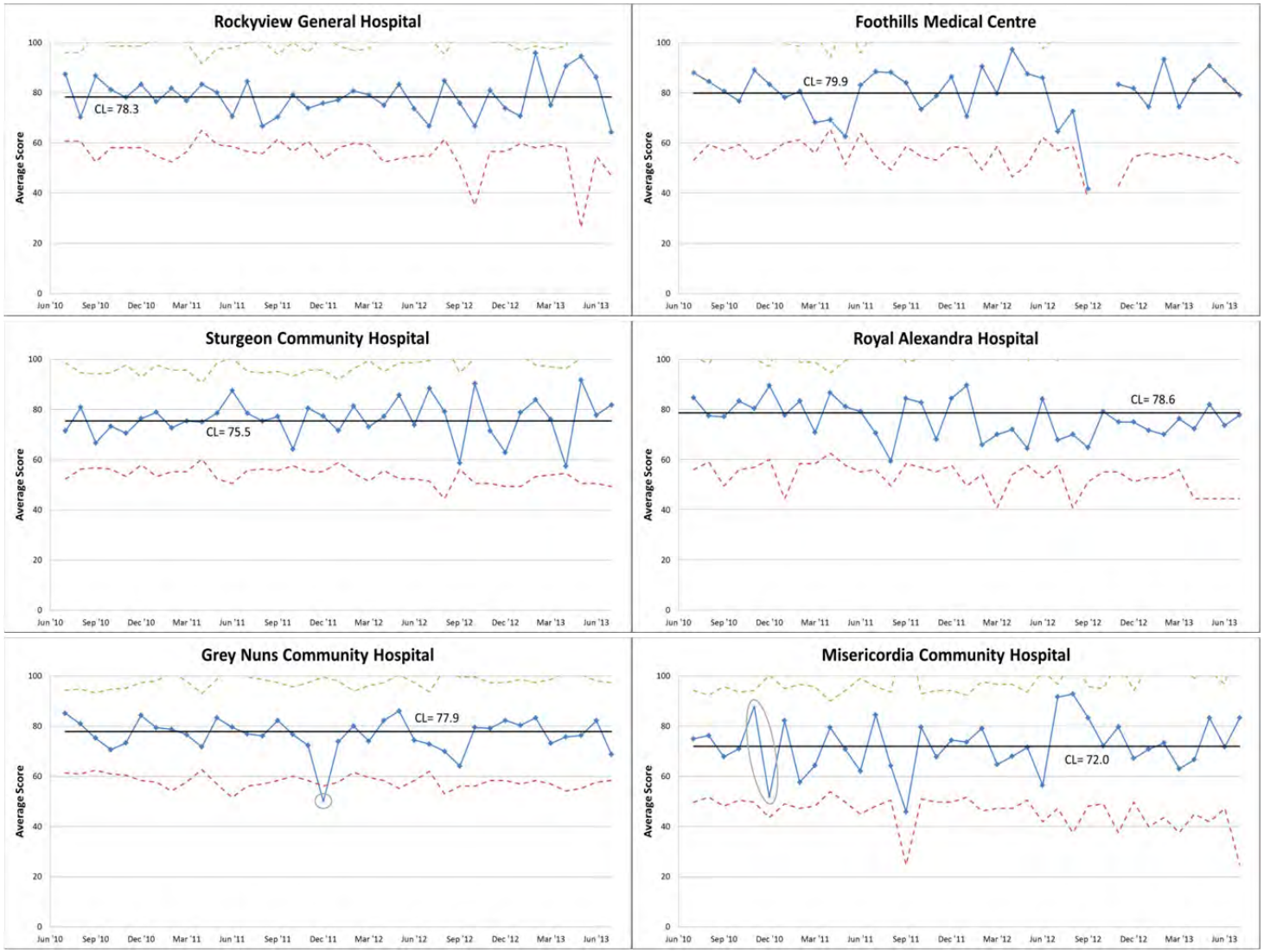
Additionally, by comparing the centrelines (overall averages) of the site-level control charts, it is possible to assess how specific sites are performing, relative to other sites.[lxvi]

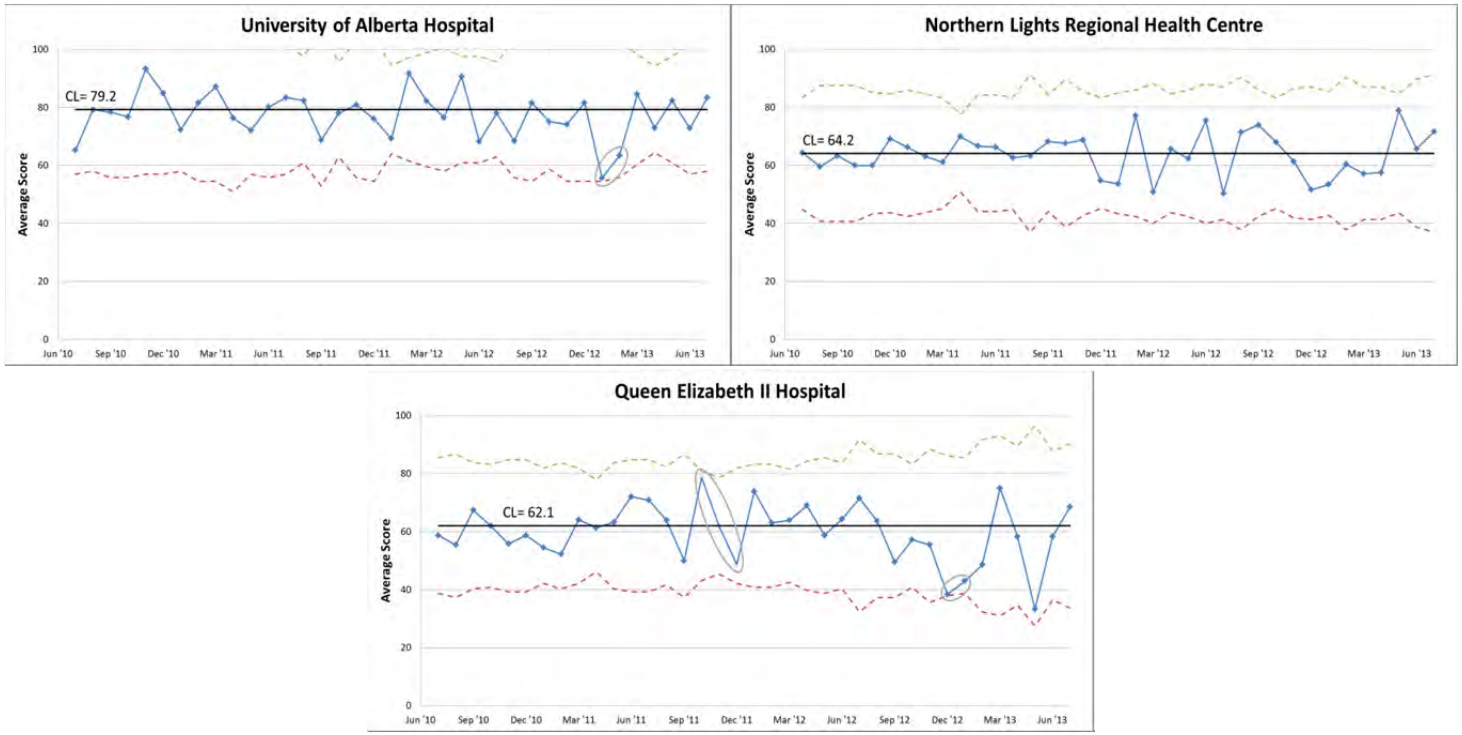
- Over the course of the study period, the Calgary sites (Peter Lougheed Centre, Rockyview General Hospital, and Foothills Medical Centre) exhibited slightly higher overall average ratings of medication communication than sites from the other zones, on average scoring between 78/100 and 80/100.
- The Edmonton sites (Sturgeon Community Hospital, Royal Alexandra Hospital, Grey Nuns Community Hospital, Misericordia Community Hospital, and the University of Alberta Hospital) exhibited slightly lower overall average ratings of medication communication than the Calgary sites, on average scoring between 72/100 and 79/100.
- Chinook Regional Hospital, Medicine Hat Regional Hospital, and Red Deer Regional Hospital scored between 67/100 and 74/100 on their overall average ratings of medication communication over the study period.
- The Northern sites (Queen Elizabeth II Hospital and Northern Lights Regional Health Centre) exhibited the lowest overall average ratings of medication communication over the study period, scoring 62/100 and 64/100, respectively.

[lxvi] The centreline represents a weighted overall average rating of medication communication. The term 'weighted' references the fact that average composite scores for months with larger sample sizes more heavily influence the calculation of the centreline or overall average. For more information on the overall average, see Appendix VIII for control chart calculation formulas.

Figure 54: Medication communication composite – Provincial aggregate and site-level results




Rockyview General Hospital
CL= 78.3
Foothills Medical Centre
CL= 79.9
Sturgeon Community Hospital
CL= 75.5
Royal Alexandra Hospital
CL= 78.6
Grey Nuns Community Hospital
CL= 77.9
Misericordia Community Hospital
CL= 72.0
Average Score
0
20
40
60
80
100
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


University of Alberta Hospital
CL= 79.2
Average Score
100
80
60
40
20
0
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13
Northern Lights Regional Health Centre
CL= 64.2
Queen Elizabeth II Hospital
CL= 62.1

6.10 Discharge communication composite

This section monitors variation, and identifies and explores changes in the discharge communication composite over time at both the provincial aggregate and individual site levels.

Table 12: Discharge communication composite questions

Core questions included in the calculation
Q54_b: Did a member of staff ask about any of the following when you left the emergency department: If you had someone at home to assist you?
Q54_a: Did a member of staff ask about any of the following when you left the emergency department: How you were getting home?
Q54_c: Did a member of staff ask about any of the following when you left the emergency department: If there were any other concerns about your safety and comfort at home?
Q54_d: Did a member of staff ask about any of the following when you left the emergency department: If you knew what to do for follow-up care?
Q53: Did a member of staff tell you what to do if you were worried about your condition or treatment after you left the emergency department?
Q52: Did a member of staff tell you about what danger signals regarding your illness or treatment to watch for after you went home?
Q51: Did a member of staff tell you when you could resume your usual activities, such as when to go back to work or drive a car?
Notes:
Core questions included in the calculation of the composite are listed in order of influence on the composite score[lxvii]
Composites are scored on a scale from 0 to 100, where 100 is the best possible score
Provincial aggregate data is weighted to adjust for cluster sampling at the site level
Site-level data is unweighted; sample sizes were determined to achieve a representative sample at the site level
2007 Site-level reliability (GRIP macro): 0.87; 2007 Standardized Scale Alpha (Cronbach's): 0.87

Results highlights

The provincial aggregate run chart exhibited random variation throughout the study period, with no evidence of unsustained or sustained changes. At the site level, the discharge communication composite results revealed some unsustained periods of non-random variation or change (see Figure 55).

- At Red Deer Regional Hospital, two instances of unsustained change occurred during the study period. From December 2010 to September 2011 a change toward higher average discharge communication ratings occurred; results were entirely above the centreline, indicating that

[lxvii] Order of influence on the composite score is determined from a principle components factor analysis, conducted in the HQCA's 2007 *Emergency Department Patient Experience Survey* report. Factor loadings were used to determine the strength of association between each question and its overarching factor. This work can be found on the HQCA website (http://hqca.ca/surveys/emergency-department-patient-experience/).

average discharge communication ratings were substantially higher than expected had the results been stable. Similarly, a change toward higher average discharge communication ratings occurred from January to February 2011. Results in January and February are in the outer one-third of the control limits above the centreline, indicating that average discharge communication ratings are substantially higher than expected had results been stable.

- At Peter Lougheed Centre, an unsustained change toward higher average discharge communication ratings occurred from September 2010 to February 2011. Average discharge communication ratings consistently increased during this time period.
- At Sturgeon Community Hospital, an unsustained change toward higher average discharge communication ratings occurred in October 2012; during this month, the average discharge communication rating was substantially higher than expected, given the otherwise stable results.
- At Grey Nuns Community Hospital, an unsustained change toward lower average discharge communication ratings occurred from April to September 2012. Average discharge communication ratings consistently decreased during this time period.
- At the University of Alberta Hospital, two instances of unsustained change occurred during the study period. From November 2012 to April 2013 a change toward higher average discharge communication ratings occurred. Average discharge communication ratings consistently increased during this time period. Similarly, a change toward higher average discharge communication ratings occurred from April to May 2013. Results in April and May are in the outer one-third of the control limits above the centreline, indicating that average discharge communication ratings are substantially higher than expected had results been stable.

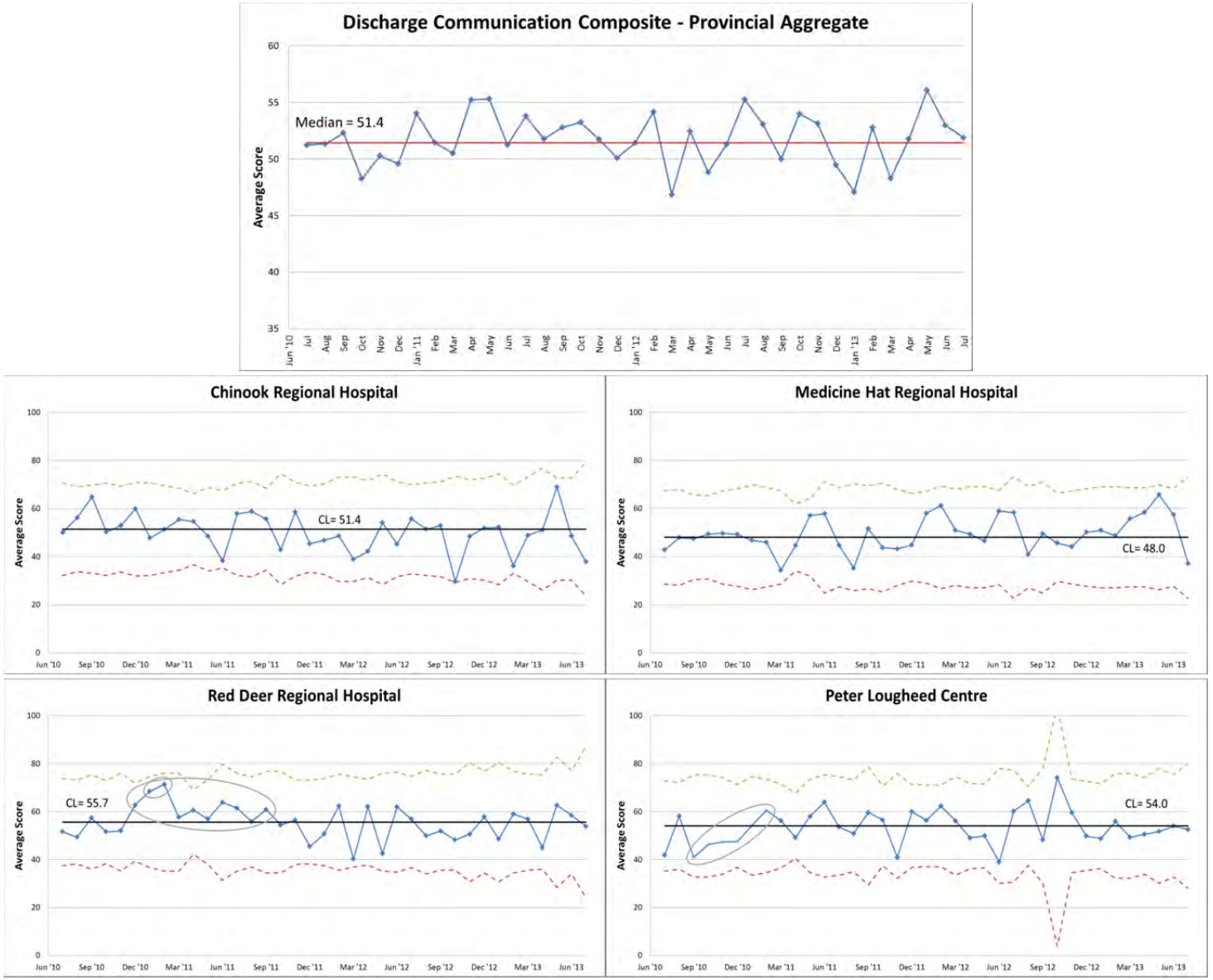
Additionally, by comparing the centrelines (overall averages) of the site-level control charts, it is possible to assess how specific sites are performing, relative to other sites.[lxviii]

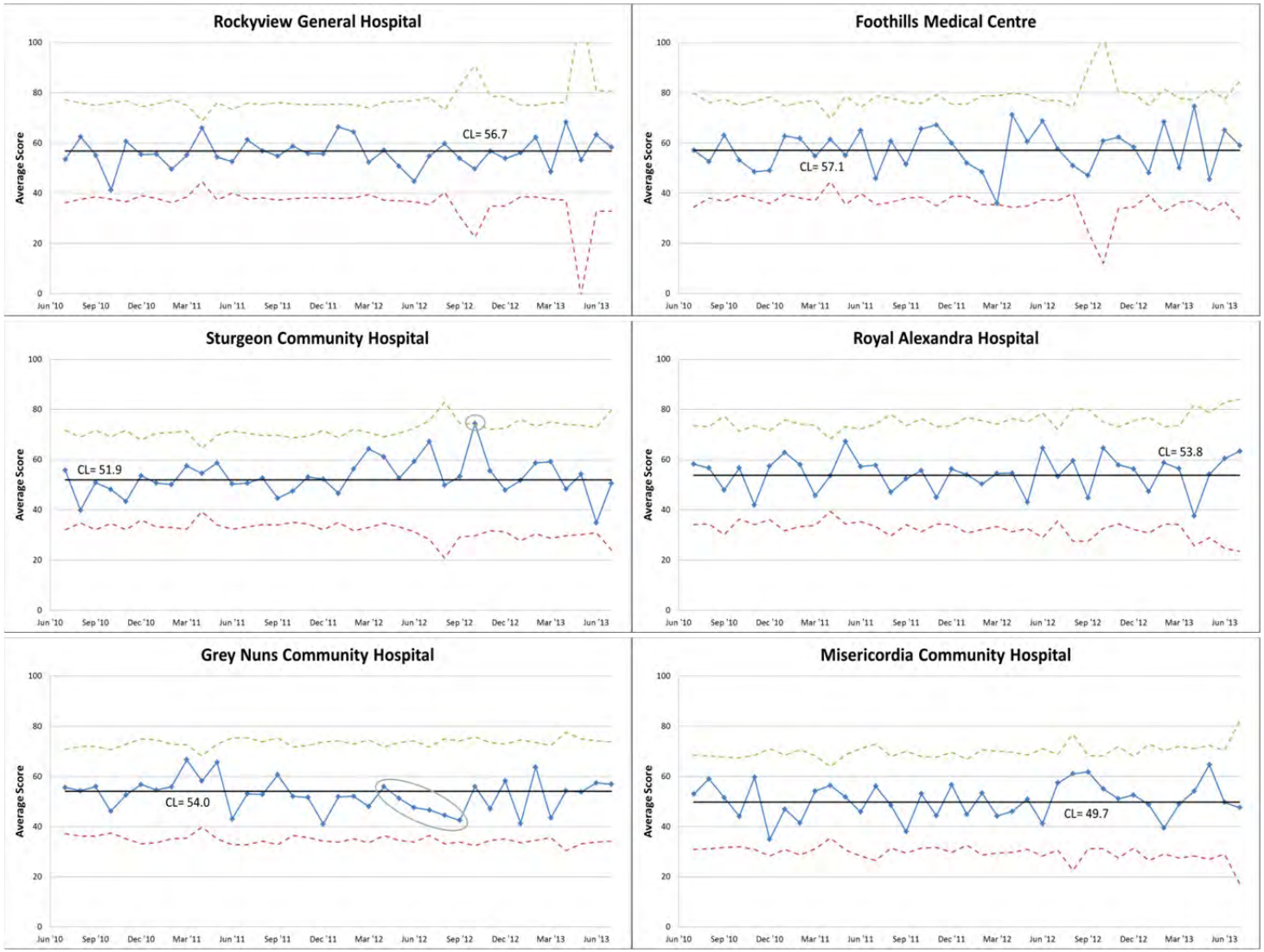
- Over the study period, the Calgary sites (Peter Lougheed Centre, Rockyview General Hospital, and Foothills Medical Centre) and Red Deer Regional Hospital exhibited slightly higher overall average ratings of discharge communication than sites from the other zones, on average scoring between 54/100 and 57/100.
- The Edmonton sites (Sturgeon Community Hospital, Royal Alexandra Hospital, Grey Nuns Community Hospital, Misericordia Community Hospital, and the University of Alberta Hospital) exhibited slightly lower overall average ratings of discharge communication than the Calgary sites, on average scoring between 50/100 and 54/100.

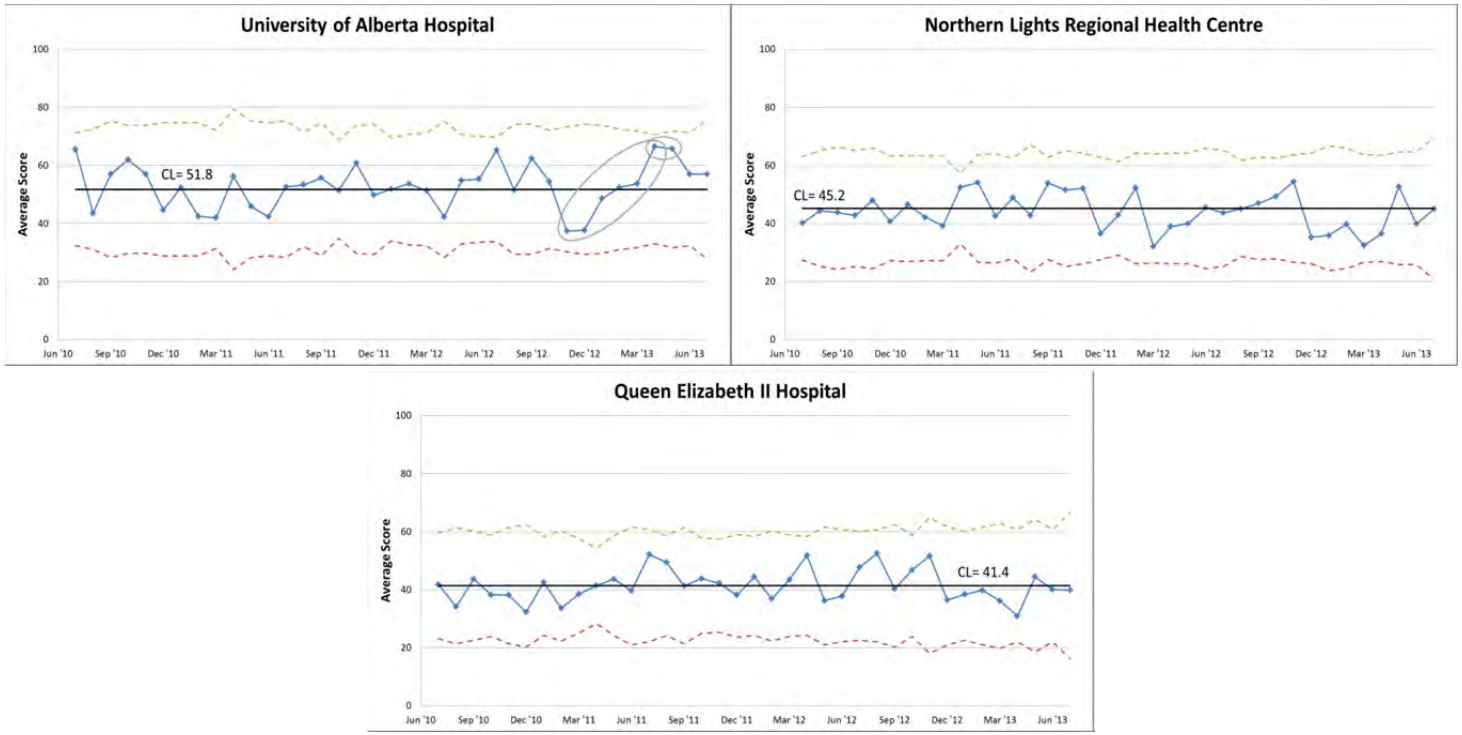
[lxviii] The centreline represents a weighted overall average rating of discharge communication. The term 'weighted' references the fact that average composite scores for months with larger sample sizes more heavily influence the calculation of the centreline or overall average. For more information on the overall average, see Appendix VIII for control chart calculation formulas.

- Medicine Hat Regional Hospital and Chinook Regional Hospital exhibited similar results to the Edmonton sites, on average scoring 48/100 and 51/100 over the course of the study period, respectively.
- The Northern sites (Queen Elizabeth II Hospital and Northern Lights Regional Health Centre) exhibited the lowest overall average ratings of discharge communication over the study period, on average scoring 41/100 and 45/100, respectively.

Figure 55: Discharge communication composite – Provincial aggregate and site-level results




Rockyview General Hospital
CL= 56.7
Foothills Medical Centre
CL= 57.1
Sturgeon Community Hospital
CL= 51.9
Royal Alexandra Hospital
CL= 53.8
Grey Nuns Community Hospital
CL= 54.0
Misericordia Community Hospital
CL= 49.7
Average Score
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


University of Alberta Hospital
Average Score
CL= 51.8
Northern Lights Regional Health Centre
CL= 45.2
Queen Elizabeth II Hospital
CL= 41.4
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

HQCA
Health Quality Council of Alberta

SECTION B: SURVEY SAMPLE DESCRIPTIVE INFORMATION

Promoting and improving patient safety and health service quality across Alberta

7.0 PROFILE OF RESPONDENTS

Patients' visits to emergency departments may be influenced by a number of factors. Some of these factors include patient characteristics and the context of the patient's need (or lack of need) for emergency medical treatment. This section outlines a profile of survey respondents, including a breakdown of demographic characteristics, health characteristics, and healthcare use prior to respondents' emergency department visit. This profile of respondents includes surveyed patients presenting to all of the 13 selected urban and regional emergency department sites over the entire study period. See Appendix VI for a breakdown of the following descriptive statistics at the site level.

7.1 Demographic characteristics

Table 13, displays the demographic characteristics of all survey respondents during the entire study period (June 2010 to July 2013):

- Almost 6 out of 10 respondents (56%) were female.
- Approximately 1 in 2 respondents were under 50 years of age; the average respondent was 51 years old.
- Almost 1 in 2 respondents (45%) had a high school education or less and slightly more than 1 in 4 respondents (27%) reported having completed a post-secondary degree (college or university, not including post-graduate degrees).
- The vast majority, slightly more than 9 in 10 respondents (91%), reported English as their primary language.
- The majority of respondents, almost 7 in 10 (69%), owned their residence, while almost 3 in 10 (27%) rented, and a few (about 1 in 20, or 5%) reported living in a residential facility, senior's lodge, nursing home, or long-term care facility.
- Slightly more than 8 in 10 respondents (83%) were Caucasian.

Table 13: Respondent characteristics

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=19,444)
Gender	
Female	56%
Male	44%
Age *(years)*	
16 to 24	11%
25 to 34	15%
35 to 44	14%
45 to 64	33%
65 to 74	12%
over 75	15%
Mean Age (years)	51.1
Highest level of education	
Less than high school	21%
Completed high school	24%
Technical school	12%
Some university or college	12%
Completed college degree	14%
Complete university degree	13%
Post-graduate degree	4%
Language	
English	91%
Other	9%
Residence	
Own residence	69%
Rents residence	27%
Residential facility/senior's lodge	4%
Nursing home/long-term care home	1%
Ethnicity	
White/Caucasian	83%
Other	17%
Note: These results are not weighted and reflect respondents only	

7.2 Respondents compared to those not surveyed or not included

As shown in the following tables, characteristics of patients who completed a survey are slightly different than those who either did not complete a survey or who were not included in the survey sample (no survey);[lxix] as described by administrative data elements for gender, age, CTAS score,[lxx] and discharge disposition for the entire sample frame of patients. Table 14 shows that the proportion of females in the 'survey' group was greater than that of the 'no survey' group. While the chi-squared test shows that this difference (5%) is statistically significant, the strength of this association is very weak (Phi < 0.15).

Table 14: Gender by sample category

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
Gender	**June 2010-July 2013**	
	No Survey	**Survey**
Female	51%	56%
Male	49%	44%
Count	2,170,234	19,444
	2,189,678	
p value	Chi-Squared = 0.000 Phi = 0.0095	
Note: 'No survey' category includes non-respondents as well as those not included in the sample Data is not weighted		

[lxix] The 'no survey' category includes those who were sent a survey but did not respond, as well as those who were not included in the survey sample (i.e., were not sent a survey). Individuals were not included in the survey sample either because they were not randomly selected to participate or they were excluded. Individuals could be excluded for a number of reasons. See Section 3.1 for exclusion details.

[lxx] Canadian Triage Assessment Score (CTAS): triage priority with 1 being the most urgent and 5 being the least urgent.

Table 15: Mean age by sample category

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
Value	**June 2010-July 2013**	
	No Survey	**Survey**
Mean Age	46 years	51 years
	46 years	
p value	t test = 0.000	

Note: 'No survey' category includes non-respondents as well as those not included in the sample
Data is not weighted

Table 16: Age group by sample category

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
Age Group	**June 2010-July 2013**	
	No Survey	**Survey**
16 to 24	17%	11%
25 to 34	21%	15%
35 to 44	16%	14%
45 to 64	27%	33%
65 to 74	8%	12%
over 75	11%	15%
Count	2,170,235	19,444
	2,189,679	
p value	Chi-squared = 0.000 Cramer's V = 0.0266	

Note: 'No Survey' category includes non-respondents as well as those not included in the sample
Data is not weighted

The proportion of older individuals is greater for survey respondents compared to those not surveyed or not included in the survey sample. As shown in Table 15 (Mean age by sample category) and Table 16 (Age group by sample category), younger patients appear less likely to respond, whereas older patients appear more likely to respond (very weak association; Cramer's V < 0.15). Those who completed a survey were, on average, five years older than those not surveyed or not included in the survey sample. This difference in average age, between those who were surveyed and those who were not surveyed or not included, is significant. Reduced participation of younger patients is often observed in healthcare surveys. When interpreting the results, readers should be aware that older patients are slightly over-represented relative to the entire population.

Table 17: CTAS score by sample category

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
CTAS score	**June 2010-July 2013**	
	No Survey	**Survey**
CTAS 1	1%	0.3%
CTAS 2	18%	17%
CTAS 3	46%	48%
CTAS 4	29%	30%
CTAS 5	6%	5%
Count	2,154,174	19,316
	2,173,490	
p value	Chi-squared = 0.000 Cramer's V = 0.0061	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample Data is not weighted		

Looking at CTAS scores in Table 17, although the chi-squared test suggests that there is a significant difference in CTAS proportions between survey respondents and those not surveyed or not included in the survey sample, the difference appears to be negligible. This is supported by a Cramer's V of 0.0061, indicating a very weak association between CTAS scores and whether an individual was a respondent or not.

Table 18: Discharge status by sample category

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
Discharge Disposition	**June 2010-July 2013**	
	No Survey	**Survey**
Not Admitted	83%	83%
Admitted	17%	17%
Count	2,045,558	19,210
	2,064,768	
p value	Chi-squared = 0.219 Phi = 0.0009	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample Data is not weighted		

Considering discharge disposition (Table 18), there is no significant difference in proportions of admitted patients between survey respondents and those not surveyed or not included in the survey sample (chi-squared = 0.219).[lxxi]

This comparison suggests that the survey sample includes slightly more females and patients of an older age[lxxii] than the remaining population not surveyed. Results have not been weighted or standardized according to population age and gender proportions, as results may be impacted by a number of additional factors not available in administrative data. In considering univariate results, including run and control charts, readers should be aware that females and older patients are slightly over-represented relative to the entire population. Discharge disposition and CTAS are not significantly different between the survey sample and the remainder of the population.

7.3 Self-reported health characteristics

It has been shown that certain patient characteristics, such as health status, can impact patient experience. Additionally, the health status of emergency department patients can impact comparability between different sites and illustrates the characteristics that should be considered when making fair comparisons between sites that might have different patient populations.[lxxiii]

[lxxi] This is supported by both the Phi and Cramer's V statistics. Both Phi and Cramer's V are 0.0009, indicating an extremely weak (essentially no relationship) association between discharge disposition and whether or not an individual was a respondent. Phi is reported because it is preferred when both variables are dichotomous.

[lxxii] Similar findings are frequently reported in the literature.

[lxxiii] See Appendix VI for site-level results of self-reported health characteristics.

Respondents were asked to rate their health during the four weeks preceding their emergency department visit and to report on any disabilities or home care needs they may have had (see Table 19).

- Overall, about 2 in 3 respondents (67%) reported that their health was at least *good* in the past four weeks, including slightly more than 1 in 10 respondents (13%) indicating it was *excellent.*
- Conversely, slightly more than 1 in 10 respondents (11%) reported that their health was *poor* or *very poor* in the past four weeks.

The EQ-5D instrument[lxxiv] was first added to the questionnaire in 2009 and has been retained in subsequent years, including in the 2010-2013 survey. Item specific results for the entire study period, June 2010 to July 2013, are shown in the bottom half of Table 19. In the questionnaire, each scale is comprised of three separate items indicating if patients had no problem, a moderate problem, or an extreme problem with a specific aspect of their health state at the time the survey was completed (see questionnaire in Appendix VII). This instrument is used extensively to measure health related quality of life and also provides a summary measure of health utility. EQ-5D is a more definitive measure of health status than self-rated health status.

- About 3 in 10 respondents (29%) reported having a problem (either moderate or extreme) with mobility at the time the survey was completed.
- Almost 2 in 10 respondents (16%) reported having a problem (either moderate or extreme) with self-care at the time the survey was completed.
- Slightly more than 4 in 10 respondents (42%) reported having a problem (either moderate or extreme) with performing their usual activities at the time the survey was completed.
- Slightly more than 1 in 2 respondents (52%) reported having a problem (either moderate or extreme) with pain or discomfort at the time the survey was completed.
- Almost 1 in 3 respondents (32%) reported having a problem (either moderate or extreme) with anxiety or depression at the time the survey was completed.

[lxxiv] The EQ-5D is a patient-reported outcome measure (PROM) that captures five dimensions of health-related quality of life: mobility, self-care, usual activities, pain/discomfort, and anxiety/depression. See the *Alberta Provincial Norms for EQ-5D-3L* report on the HQCA website (http://hqca.ca/studies-and-reviews/health-outcomes-measurement/).

Table 19: Self-reported health characteristics

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 18,946)		
Health during past four weeks			
Excellent	13%		
Very good	24%		
Good	30%		
Fair	23%		
Poor	9%		
Very poor	2%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=18,747)	70%	28%	1%
Self-care (n=18,775)	83%	14%	2%
Usual activities (n=18,726)	58%	33%	9%
Pain or discomfort (n=18,682)	48%	46%	6%
Anxiety or depression (n=18,550)	69%	28%	4%
Note: Data is weighted for cluster sample at site level			

7.4 Prior use of personal family doctor or emergency department services

Respondents were asked to provide information about their use of selected healthcare services, including their personal family doctor and emergency department services, in the past 12 months.

Almost nine in 10 respondents (88%) reported that they currently have a personal family doctor or specialist whom they see for most of their healthcare needs. Among those respondents with a personal family doctor or specialist, almost all (98%) reported visiting them at least once in the past 12 months, including more than four in 10 (46%) who visited more often (five or more visits in the past 12 months). Slightly more than five in 10 respondents (53%) have visited the emergency department more than once in the past 12 months, and one in 10 (10%) have visited five or more times. Table 20 provides a breakdown of the responses to these questions.

Table 20: Visits to personal family doctor or emergency department services

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs?

Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?

Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?

	June 2010-July 2013
Has a personal family doctor	**(n=19,075)**
Yes	88%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=16,672)**
None	3%
1 time	10%
2 to 4 times	42%
5 to 10 times	29%
More than 10 times	17%
An emergency department	**(n=18,847)**
1 time	47%
2 to 4 times	43%
5 to 10 times	8%
More than 10 times	2%

Note: Data is weighted for cluster sample at site level

** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*

8.0 THE EMERGENCY DEPARTMENT VISIT AND RELATED HEALTH ISSUES

This section examines reasons for survey respondents' visits to the emergency department. It also includes information about their decision to go to the emergency department, their means of getting there, and the urgency of their healthcare problem.

8.1 Decision to go to the emergency department

As Table 21 indicates, respondents' decisions to go to the emergency department were influenced by a variety of factors:

- Slightly less than 4 in 10 respondents (36%) reported that a family member or friend advised them to go to the emergency department.
- Similarly, slightly less than 4 in 10 respondents (36%) decided on their own to present to the emergency department.[lxxv]
- About 1 in 3 respondents were advised to go to the emergency department by a healthcare professional (personal family doctor, Health Link nurse, doctor at a walk-in clinic, or specialist doctor), most often by their personal family doctor (13%) or a Health Link nurse (9%).

Table 21: Who advised respondent to go to emergency department

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=19,038)
Friend or family member	36%
Decided on my own	36%
Personal family doctor	13%
Other	13%
Health Link phone-line nurse	9%
Doctor at walk-in clinic	7%
Specialist doctor	5%
Note: Data is weighted for cluster sample at site level *Respondents could choose more than one answer, so the total sum can be more than 100 per cent*	

While the decision to go to the emergency department was often made in consultation with others, many respondents chose to go to the emergency department instead of somewhere else because they

[lxxv] Responses are not mutually exclusive; it is possible that some of those who say they decided on their own also indicated that others influenced them.

felt they had no other option. According to Table 22, the most common reasons for choosing to go to the emergency department were:

- The emergency department was perceived to be the only choice available at the time for just over 4 in 10 respondents (42%).
- Almost 5 in 10 respondents (48%) believed the emergency department was the best place to go given their medical problem.
- Almost 3 in 10 respondents (26%) reported they were told to go to the emergency department rather than somewhere else.
- Just over 1 in 10 respondents (12%) reported the emergency department was the most convenient place to go to seek health care.

Many respondents indicated that more than one of these reasons was relevant in their decision; however the vast majority believed they had no other option because the emergency department was the only medical service available, their medical condition dictated it, or they were told to go there.

Table 22: Why patients chose the emergency department

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=19,165)**
Emergency department was only choice available at time	42%
Emergency department was the best place for my medical problem	48%
Told to go to the emergency department rather than somewhere else	26%
Emergency department was the most convenient place to go	12%

Note: Data is weighted for cluster sample at site level
Respondents could choose more than one answer, so the total sum can be more than 100 per cent

8.2 Getting to the emergency department

Typically, respondents report that they arrived at the emergency department by car, after a trip that lasted 30 minutes or less. As shown in Table 23:

- Almost 7 in 10 respondents (69%) traveled to the emergency department by car.
- Slightly more than 8 in 10 respondents (83%) traveled to the emergency department in 30 minutes or less.

Table 23: Travelling to the emergency department

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=19,234)
Mode of transportation	
Car	69%
Ambulance	22%
Taxi	4%
Foot	2%
Bus/train	2%
Other	1%
Time to get to emergency department	
Up to 30 minutes	83%
More than 30 minutes, but less than 1 hour	10%
More than 1 hour	7%
Note: Data is weighted for cluster sample at site level *Sample size (n) is reported for mode of transportation (Q4)*	

8.3 Urgency of healthcare problem

Respondents were asked to provide their own assessment of the seriousness of the health problem that brought them to the emergency department.[lxxvi] Table 24 shows that:

- Almost 3 in 10 respondents (27%) believed that the health problem for which they visited the emergency department was *life threatening* or possibly *life threatening*.
- About 3 in 10 respondents (31%) stated that their visit was urgent in nature, that is, they believed there was a risk of permanent damage.
- Just over 4 in 10 respondents (42%) reported that their visit was *somewhat urgent* (needed to be seen today) or *not urgent*.

Table 24: Self-rated urgency

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=19,072)**
Life threatening	6%
Possibly life threatening	21%
Urgent	31%
Somewhat urgent	37%
Not urgent	5%
Note: Data is weighted for cluster sample at site level	

Triage priority is assessed by emergency department staff for patients in most emergency department facilities using the Canadian Triage and Acuity Scale (CTAS). CTAS scores are reported in Table 25.

- About 2 in 10 respondents (19.4%) were identified as CTAS 1 or 2, the two most urgent acuity designations.
- Almost 1 in 2 respondents (48%) were identified as CTAS 3.
- Almost 1 in 3 respondents (32%) were identified as CTAS 4 or 5, the two least urgent acuity designations.

[lxxvi] The self-reported urgency question (Q3) was designed to provide a patient reported "proxy" for CTAS urgency, which is the Canadian Emergency Department Triage and Acuity Scale developed by the Canadian Association of Emergency Physicians (CAEP).

Table 25: CTAS (triage) score

From administrative data	
CTAS Level	**June 2010-July 2013 (n=19,316)**
CTAS 1	0.4%
CTAS 2	19%
CTAS 3	48%
CTAS 4	28%
CTAS 5	4%
Note: Data is weighted for cluster sample at site level *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Comparing self-rated urgency with CTAS scores allows limited evaluation of how accurately patients may have viewed the urgency of their medical problem compared to the CTAS score they were assigned by emergency department staff during triage. The response scale used for self-rated urgency (question 3) was designed to approximate the meaning of the CTAS score. In Table 26, CTAS has been subtracted from self-rated urgency, hence a value of (-2) indicates that CTAS urgency was two degrees less urgent than self-rated urgency was. Likewise, a value of (+2) indicates that CTAS urgency is two degrees higher priority (more urgent) than self-rated urgency.

Table 26: Degree of difference between self-rated urgency (Q3) and administrative CTAS

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=18,949)**
CTAS is less Urgent ↑	-4	0.1%
	-3	1%
	-2	7%
	-1	23%
Identical >	**0**	37%
CTAS is more Urgent ↓	1	26%
	2	6%
	3	0.4%
	4	0%
Kappa (un-weighted)[lxxvii(11)]		0.0953
Note: Data is weighted for cluster sample at site level *Kappa statistic is un-weighted Kappa* *Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient*		

In general there is poor correspondence between CTAS and self-rated urgency, with only 37 per cent of cases agreeing completely. The Kappa statistic supports this conclusion; an un-weighted Kappa of 0.0953 suggests there is only slight correspondence between CTAS and self-rated urgency. Interestingly, similar proportions of patients, about one in four, underestimate (26%) or overestimate (23%) the acuity of their condition by one degree.

Table 27 focuses specifically on patients who are classified as CTAS 1 or 2 (the two most urgent categories) at triage:

- Almost 8 in 10 respondents (77%) rate their acuity in the three most urgent categories (life threatening, possibly life threatening, or urgent).
- More importantly, slightly more than 2 in 10 respondents (23%) rate their acuity as only somewhat urgent or not urgent, substantially underestimating the urgency of their health problem.

[lxxvii] Kappa is a measure of inter-rater reliability; in this case the triage nurse versus the patient. Although the scales are different, self-reported urgency was intended to serve as a "proxy" for CTAS.

Table 27: Self-rated urgency (Q3) for CTAS 1 or 2 respondents

Self-rated urgency	June 2010-July 2013 (n=3,361)
Life-threatening/or possibly life threatening	48%
Urgent, risk of permanent damage	29%
Somewhat urgent, needed to be seen today	21%
Not urgent, but I wanted to be seen today	2%

8.4 Reasons for the emergency department visit

Respondents were asked to indicate if the health problem that brought them to the emergency department was the result of a new injury or illness, or related to previous problems. Table 28 shows the following with respect to reasons for patients' visits:

- More than half of the respondents (58%) stated that the medical problem that brought them to the emergency department was unrelated to a previous illness or injury; it was either a new illness or condition (33%) or a new injury or accident (25%).
- Almost 4 in 10 respondents (39%) said that the medical problem that brought them to the emergency department was due to a previous health problem. This included: worsening of a pre-existing illness or condition (22%), complications or problems following recent medical care (13%), routine care of a pre-existing illness or condition (2%), or follow-up care (2%).

Table 28: The reason for visiting an emergency department

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=19,043)
New illness or injury	
New illness/condition unrelated to previous illness/condition	33%
New injury/accident unrelated to previous injury/accident	25%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	22%
Complications or problems following recent medical care	13%
Routine care of a pre-existing chronic illness/condition	2%
Told to return to the emergency department for follow-up care	2%
Other	3%
Note: Data is weighted for cluster sample at site level	

9.0 PATIENTS WHO CONSIDERED LEAVING BEFORE TREATMENT

Patients leaving before treatment can be an important issue for emergency departments. Included are patients that may leave prior to a diagnosis or prior to receiving recommended treatment. These patients may be putting themselves at risk of potentially suffering adverse events (including death) by leaving before receiving treatment for their health problem. As previous results have demonstrated, patients' assessment of urgency often differs from the acuity score (CTAS) assigned to them by emergency department staff. Although patients who left before treatment were excluded from the survey, to better understand this issue, question 13 asked whether the respondent considered leaving before they had been seen.

Table 29 shows whether respondents considered leaving, stratified by discharge status and CTAS level. In this survey sample, there are a number of patients who were either admitted or were classified as CTAS 1 or 2 (the most urgent triage acuity designations), and considered leaving before they had been seen. For example:

- Slightly more than 1 in 10 respondents (11%), who were ultimately admitted, either definitely considered leaving (5%) or considered leaving to some extent (6%).
- About 1 in 20 respondents (6%) who were classified as CTAS 1 (most urgent) considered leaving. More than 1 in 10 respondents (14%) who were classified as CTAS 2 (second most urgent) considered leaving. Almost 1 in 4 respondents (24%) who were classified as CTAS 3 considered leaving.

The results indicate that respondents who were not admitted were significantly more likely to consider leaving before being seen or treated compared to respondents who were admitted; however, this is a very weak association (Cramer's V < 0.15). Table 29 also indicates that respondents who were classified in the lower-urgency CTAS levels (i.e., CTAS 4 or 5) were significantly more likely to consider leaving before being seen or treated compared to respondents classified as more urgent with respect to acuity at triage (i.e., CTAS 1 or 2); however, this is also a very weak association (Cramer's V < 0.15).

Table 29: Considered leaving before being seen or treated by discharge status and CTAS

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=18,840**		**n=18,942**				
	Yes definitely	5%	10%	2%	6%	10%	12%	12%
	To some extent	6%	16%	4%	8%	14%	18%	16%
	No	89%	74%	94%	86%	76%	70%	72%
p value		Cramer's V = 0.1331		Cramer's V = 0.0930				

Note: Data is weighted for cluster sample at site level
Chi-squared is significant at p = 0.000 where Cramer's V is shown

While it is unclear as to why these respondents ultimately decided to stay, it is reasonable to surmise that they may have been at some risk of harm if they had left. Leaving prior to the completion of assessment or treatment is a risky option for all emergency department patients. Therefore, it is important to learn more about the individuals who contemplate leaving early, and what factors may pre-dispose them to leaving prior to seeing a physician or receiving full treatment.

In order to further explore both the factors that influence patients to leave the emergency department before being assessed or treated and the potential health risks associated with leaving, the HQCA is currently undertaking a focused study of these patients. The HQCA has surveyed a matched sample of patients who left the emergency department prior to completing their visit and patients with similar characteristics that ultimately decided to stay and complete their assessment and treatment. This study will seek to illustrate who the patients leaving the emergency department are (both demographically and in terms of their health characteristics) and how they differ from patients who stayed for assessment and treatment. To the extent possible, the study will assess the emergency department experience of patients who left. This will include an exploration of the factors that led to patients leaving, as well as the factors which might encourage patients to remain in the emergency department to receive treatment.

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SECTION C: APPENDICES

Promoting and improving patient safety and health service quality across Alberta

APPENDIX I: SURVEY METHODOLOGY

Selection of survey tool, validation, and testing

The 2007 working group and the HQCA reviewed the relevant literature, previously developed emergency department survey tools, and survey material from both the public and private domain. As a result, several well validated survey tools were identified as options. It was determined that the HQCA should use a public domain survey tool that could be available to stakeholders without proprietary restrictions. The *British Emergency Department Patient Experience Survey* tool was ultimately selected based on multiple criteria. This survey instrument was developed by Picker Europe (a non-profit organization) for the British National Health Service and the Healthcare Commission. It was used as the core set of questions for the HQCA survey with written permission from the Healthcare Commission.

Building on the British Emergency Department Survey, the HQCA developed additional items to reflect the unique Alberta context. In 2006, these new items and selected original items underwent several rounds of cognitive testing, after which a pilot test involving 480 emergency department patients was conducted. The pilot test conducted by the HQCA involved adults and children who visited an emergency department in one of two Alberta hospitals during December of 2006. The pilot test helped to identify ambiguous survey questions, uncover challenges in conducting the survey, set expectations, and established the survey methodology.

A full survey was run in 2007 and further evaluation of psychometric properties, validity, reliability at both the patient and facility level, and evaluation of structure and validity of possible composite factors were conducted using this data set. A more detailed description of this multi-stage validation process, as well as results from cognitive testing, the pilot test, and validation studies are provided in the 2007 *Emergency Department Patient Experience Survey* technical report.[9] As a result of the findings from the 2007 survey and to accommodate additional questions (i.e., EQ-5D), several items considered to be of lower value[lxxviii] were dropped from the 2009 and 2010-2013 versions of the survey.

In addition, the EQ-5D (a five-item health related quality of life measure) was included with permission of the Euroqol Foundation.

Privacy impact assessment

As a custodian under the *Health Information Act of Alberta*, the HQCA submitted a privacy impact assessment (PIA) to conduct this survey and related data matching and analysis. The PIA was submitted to and was accepted by the Office of the Information and Privacy Commissioner of Alberta in 2007. The survey and data matching process was carried out in 2007, 2009, and 2010-2013. Whereas data from

[lxxviii] This included questions targeting information outside the scope of the current initiative (e.g., the journey of patients prior to ED visit). No core questions were dropped.

2007 and 2009 was extracted at a point in time, data from 2010-2013 was extracted in two-week intervals.

RFP and selection of survey vendor

The HQCA selected and engaged the services of a national research firm, Prairie Research Associates Incorporated (PRA), to conduct the emergency department patient experience survey. PRA conducted the original 2007 survey and to maintain consistency in methods, this firm was selected again for the 2009 and 2010-2013 surveys.

Preparation of data

Substantial assistance was provided by Alberta Health Services personnel in extracting and preparing data files from regional data sets and emergency department information systems. This data provided the basis for sample creation as well as reporting of administrative data measures and parameters. Subsequent cleaning and manipulation of this data was conducted by the HQCA to generate a consolidated sample frame database.

Sample design and selection

The HQCA provided PRA with random samples of patients drawn from each of the 13 sites every two weeks, such that lag time from the actual emergency department visit was controlled between samples. Site-level samples for the 2010-2013 survey were set at the level required to report reliable zone-level results on a quarterly basis, and site-level results annually.

To achieve the desired sample size, patients were selected randomly from the entire population of patients seen in an emergency department during the sample period. Sample sizes were determined by predicted response rates (based on the previous surveys) to achieve a representative sample at the facility level. Sample sizes were proportionately larger for smaller facilities, requiring the calculation of cluster sample weights to adjust for the higher probability of patient selection in low volume sites.[lxxix]

Adult patient samples (16 years of age and up) were generated for the facilities surveyed, and excluded children aged 0 to 15,[lxxx] patients who left before being seen or treated, and patients who died in the context of their emergency department stay. Patients without contact information, and a small number of "privacy" sensitive cases, such as domestic abuse, were also excluded from the sample and were randomly replaced with eligible cases. A rigorous four-stage survey protocol was used to maximize the response rate and quality of the final sample.

[lxxix] Cluster weights are applied to the provincial aggregate results but not site-level results, because samples were selected to be representative at the site level.

[lxxx] Surveys were also conducted with parents of patients at the Alberta Children's Hospital and the Stollery Children's hospital. The survey instrument for this population was separately field-tested along with the adult version and was modified to facilitate responses from a third party rather than the actual patient. Because data from this survey group represents a parent proxy sample, results are not included in this report. This information will be reported in a supplemental report.

Survey methodology

Table 30 shows the timeline of the mailings and follow-up calls.

- ***First survey mailing***: The first mailing included a cover letter, a copy of the questionnaire, and a postage-paid return envelope (Appendix VII). This package of materials was addressed to all the patients included in the HQCA's sample.
- ***Reminder postcard:*** The reminder postcard (Appendix VII) was sent approximately two weeks after the first mailing to those participants who had not returned their completed questionnaire at the time of this mailing. Participants who indicated that they did not want to participate were excluded from this reminder, as were individuals whose initial package had been returned as undeliverable or not at this address.
- ***Telephone reminders and surveys:*** PRA monitored the response rate by facility throughout the data collection period. To increase the response rate, PRA, in consultation with the HQCA, conducted reminder calls with those people who had not returned their questionnaire. The main purpose of the reminder calls was to emphasize to participants the importance of the survey and thus increase the likelihood of participation. If participants preferred, they were given the option to complete the survey over the phone. Telephone calls started approximately three weeks after the initial mailing (just after the reminder postcard was mailed) and ended approximately 10 weeks after the initial mailing.
- ***Second survey mailing:*** The second survey mailing contained the same documents as the first mailing, with slight revisions to the cover letter (Appendix VII). The second mailing was sent approximately two weeks after the reminder postcard and four weeks after the first mailing to those participants who had not yet responded. Again, this excluded those who had indicated that they did not want to participate and those whose correct address information was unavailable.

Table 30: Survey protocol timelines

Timeline	
Two week sample period ends (discharged)	Sunday
Extraction of random samples	Friday (+5 days)
First survey mailing	Monday (+8 days)
Postcard mailing	+22 days
Telephone reminders (and surveys)	+25 days
Second survey mailing	+36 days
Survey cut-off	+75 days

Overall response rate from June 2010 to July 2013

Table 31 shows a breakdown of the outcomes for the survey process over the June 2010 to July 2013 study period.[lxxxi]

Table 31: Summary outcomes – June 2010 to July 2013

Outcome	June 2010-July 2013	
	n	%
Total sample	**53,963**	**100%**
Total completed	**24,181**	**44.8%**
By mail	21,508	39.9%
By phone	2,673	5.0%
Non-respondents (protocol complete)	**23,473**	**43.5%**
Refused	**1,417**	**2.6%**
Refused by mail	161	0.3%
Refused by phone	1,256	2.3%
Returned survey blank	**15**	**<0.1%**
Works for hospital/ED	**8**	**<0.1%**
Language Barrier	**713**	**1.3%**
Unable due to illness	**659**	**1.2%**
Incorrect contact information	**2,788**	**5.2%**
Deceased	**478**	**0.9%**
Denied visiting emergency department	**137**	**0.3%**
Duplicate	**94**	**0.2%**

[lxxxi] Note that Table 31 includes patients aged 0-15, who are excluded from analyses elsewhere in this report, as previously mentioned.

- Of the 53,963 survey packages that were distributed to emergency department patients during the study period 24,181 were completed,[lxxxii] for an overall response rate of 44.8%. Of those who completed a questionnaire, 88.9% completed it by mail and 11.1% completed it by phone.
- 43.5% of the sample received the two mailings and the reminder postcard, but did not complete the survey.
- 5.2% of the sample had incorrect contact information, meaning they did not receive the mailings. Of these, almost all were contacted by phone to complete the survey by telephone.
- 2.6% of the sample refused to participate in the survey.
- 0.9% of the sample was deceased at the time of the survey.[lxxxiii]

[lxxxii] A completed questionnaire is defined as a questionnaire with a valid response to at least one question.

[lxxxiii] While individuals who passed away during their emergency department visit were removed from the sample, it was not feasible to identify individuals who died afterwards.

Response rate by site

Table 32 shows the response rates by site,[lxxxiv] which ranged from 32.8 per cent to 54.4 per cent, with an overall response rate of 44.8 per cent.

Table 32: Response rate by site – June 2010 to July 2013

Facility	Sample size (n)	Completes (n)			Raw Response rate (%)	Refusals (n)	Incorrect contact info (n)	Language barrier or too sick (n)
		Mail	Phone	Total				
Alberta Children's Hospital	2,889	1,440	131	1,571	54.4%	39	47	61
Chinook Regional Hospital	4,357	1,739	216	1,955	44.9%	118	219	106
Foothills Medical Centre	3,018	1,372	152	1,524	50.5%	82	129	100
Grey Nuns/Edmonton General	3,209	1,394	158	1,552	48.4%	75	118	113
Medicine Hat Regional Hospital	3,161	1,363	171	1,534	48.5%	86	171	71
Misericordia Hospital	3,261	1,324	162	1,486	45.6%	101	174	99
Northern Lights Health Centre	4,544	1,206	286	1,492	32.8%	155	309	67
Peter Lougheed Centre	3,572	1,325	193	1,518	42.5%	101	173	154
Queen Elizabeth II Hospital	4,762	1,648	290	1,938	40.7%	159	289	53
Red Deer Regional Hospital	4,305	1,718	218	1,936	45.0%	138	221	93
Rockyview General Hospital	3,198	1,454	153	1,607	50.3%	76	124	92
Royal Alexandra Hospital	3,566	1,256	172	1,428	40.0%	91	327	168
Stollery Children's Hospital	3,389	1,489	108	1,597	47.1%	44	127	27
Sturgeon Community Hospital	3,073	1,356	166	1,522	49.5%	95	111	77
University of Alberta Hospital	3,641	1,424	97	1,521	41.8%	57	249	91
Blank	18	0	0	0	0.0%	0	0	0
TOTAL	**53,963**	**21,508**	**2,673**	**24,181**	**44.8%**	**1,417**	**2,788**	**1,372**

[lxxxiv] Note that Table 32 includes patients aged 0-15, who are excluded from analyses elsewhere in this report.

Definition of compared groups

While the primary goal of this study was to produce actionable information at the site level, results were also analyzed at a provincial aggregate level. This aggregate result should not be interpreted as a true provincial result, given that many smaller rural sites have been excluded. In general, the 13 large urban or regional hospital emergency departments surveyed are faced with different and often more severe challenges than smaller rural emergency departments. This study has focused on sites that routinely deal with the greatest challenges. Based on 2007 results, patient experience for the province as a whole would be more positive if these many smaller and rural sites were included in the aggregate results.

While examination of the results at the provincial aggregate level provides useful insights about emergency department patient experience across similar high volume emergency departments, this type of high-level comparison masks important between-site differences. Provincial-level analyses assume that patients presenting to different sites all enter the same provincial emergency department care delivery system; and this is not the case. Emergency department facilities are diverse regarding the programs and initiatives they implement to improve care. Thus, site-level results are the source of actionable information in terms of improvement opportunities.

Statistical significance and strength of association

> Traditional tests of significance, such as those outlined below, are applied to the descriptive statistics presented in Section B, but not to the data presented over time in run and control charts in Section A. Identifying meaningful changes in run and control charts requires alternative probability-based tests specifically suited for examining data over time.

Statistical significance for the chi-square measure of association is more easily achieved with large sample sizes.[lxxxv] In view of this, the HQCA suggests the standard for designating whether a relationship can be termed statistically significant be raised from the typical significance level of 0.01 to a more stringent 0.001. In addition, Phi or Cramer's V coefficients are sometimes reported to provide a measure of the strength of association.[lxxxvi] While a Phi or Cramer's V of less than 0.15 suggests the strength of association is extremely weak, significantly different proportions may still be important in the context of the study objectives. For mean comparisons using ordinal or continuous data, a t-test is used to measure significance of the observed difference.

[lxxxv] Pearson's chi-squared tests the hypothesis of independence between two nominal (categorical) variables. When chi-squared is significant, the null hypothesis is rejected and the two variables are assumed to be associated beyond what is expected by chance alone.

[lxxxvi] Phi or Cramer's V may be interpreted as the strength of association between two variables – as a percentage of their maximum possible variation. Phi is preferred when both variables are dichotomous; that is, they only have two categories.

Table 33: Tests for statistical significance and strength of association

Test	Value
Pearson's chi square (sig.)	0.001
t-test (sig.)	0.001
Phi or Cramer's V	0.150 or higher

APPENDIX II: MEASUREMENT AND ANALYTICAL METHODOLOGY

In order to provide emergency department stakeholders with data to inform the improvement of patient experience, quality of care, and patient safety, the HQCA collected data every two weeks which supported the monitoring of variation and the detection of meaningful changes[lxxxvii] in emergency department patient experience over time. In comparison, data collected cross-sectionally (at a single point-in-time) offers a very limited ability to detect change over time, and it is impossible to monitor these data for seasonal changes or for the effects of changes made to the delivery of emergency department care on patient experience. The HQCA began reporting on patient experience in emergency departments in 2007, but because of the limitations of cross-sectional data, in 2010 the organization replaced cross-sectional data collection with sampling every two weeks (using smaller samples). This shift in data collection methods necessitated the adoption of different analytical methods to report this data.

Borrowing a term from statistical theory, the 2007 and 2009 emergency department patient experience reports would be classified as *enumerative* because they were cross-sectional and their aim was descriptive.[12,13] For example, they aimed to provide stakeholders and Albertans with an overview of emergency department patient experience in the province by reporting percentage breakdowns of the distribution of patient responses to different questions about their emergency department experience. These types of studies are valuable in terms of increasing understanding of emergency department patient experience at a single point in time. However, they do not allow for the monitoring of variation or detection of change in emergency department patient experience over time; nor do they offer insight as to why changes in emergency department patient experience occur and why patient experience varies over time and across sites.

Sampling patients every two weeks allows for the ability to conduct analytic studies. Unlike enumerative studies, analytic studies accept that systems (producing outputs such as emergency department patient experience) are constantly changing;[12,13] and this requires measuring and reporting on data over time. Analytic studies are better able to monitor variation in emergency department patient experience over time, and can help in assessing why changes may have occurred by relating those changes to concurrent conditions, events, or initiatives. Reflecting this theoretical perspective, this report employs statistical process control (SPC) methods, and in particular both run and control charts, to monitor and detect meaningful changes in different aspects of patient experience over time.

To summarize, by sampling patients who were seen in the 13 urban and regional emergency department sites every two weeks, it is possible to:

[lxxxvii] Used in this context, "meaningful changes" refers to instances of non-random variability in the data over time. These instances of non-random variability are termed "meaningful" because they represent periods of change that can be attributed to an unexpected cause (something that is not inherent to the system and would not normally be expected to influence results).

- *Understand seasonal variation by tracking emergency department patient experience information over the course of a three-year period*. In emergency department measurement activities it is important to understand how repetitive and predictable trends over the course of a year (i.e., seasonal variation) might influence patient experience measures. Many of these seasonal effects fall outside of the influence of care providers, yet may still have either a positive or negative impact on patient experience. Because of seasonal variability, some sites may be predisposed to report higher or lower patient experience simply as a consequence of seasonal influences specific to the site.
- *Detect meaningful changes in emergency department patient experience (i.e., either improving or diminishing patient experience)*. Stakeholders can observe how patient experience results differ (or not) between time points pre- and post-initiative implementation to evaluate an initiative's impact on patient experience. Detecting positive or negative changes in patient experience should be an integral component of evaluating initiatives' effectiveness as well as identifying potential quality and safety issues. When conducted in real time, plotting data using SPC methods becomes a valuable tool for detecting and eliminating causes of undesirable change.
- *Identify consistently higher-performing emergency departments so that stakeholders can learn from best practices*. Despite the fact that there are many differences between sites that influence emergency department patient experience, the HQCA acknowledges that comparing results between sites can be worthwhile. Comparisons aid in the identification of weak or strong aspects of emergency department care delivery. This allows stakeholders to identify which sites tend to achieve higher patient experience scores, and should encourage discussion and shared learning between sites regarding best practices.

Statistical quality control

Statistical quality control (SQC) methods refer to a broad set of statistical tools used to identify quality problems in production processes and the products of these processes.[1] These methods are often further subdivided into the following three very broad categories:

- Descriptive statistics
- Statistical Process Control (SPC)
- Acceptance sampling

This report uses both descriptive statistics and SPC methods to monitor variation and detect changes in emergency department patient experience.

Run charts

The run chart is a widely accepted tool for displaying simple descriptive statistics, such as means (averages), percentages (for categorical or attribute data), and standard deviations, over time. By definition, a run chart is a graphical presentation of data (usually descriptive statistics) in some type of order.[2] For the purpose of this report, run charts plot emergency department patient experience data over time, from June 2010 to July 2013.

Run charts are a valuable tool for assessing and improving the quality of the process for which data is displayed. Importantly, run charts allow for observing the performance of a process (e.g., the delivery of emergency department care) by examining variation in an output of the process (e.g., emergency

department patient experience). A key component of this evaluation involves identifying instances of non-random variation (which represent meaningful changes) in patient experience, and then determining whether these changes represent improving or declining patient experience. Finally, run charts also determine whether or not changes in patient experience have been sustained.

Statistical process control and control charts ($\bar{X}$, *S*, and *P*)

Similar to run charts, SPC methods involve analyzing a random sample of the output of a process, to evaluate the performance of that process. In this report, the process is the delivery of emergency department care, and the output is emergency department patient experience.

The most common application of SPC methods involves the construction of control charts. An added benefit of using control charts instead of run charts is that, in addition to observing the performance and changes of a process over time, control charts provide the ability to use historical data to determine whether the process is functioning within normally expected limits.

In order to decide whether a process is functioning within the normally expected limits, SPC methods measure variation within the data collected (the process output) and identify two different causes of observed variation. *Common* or *random* causes of variation can be described as variation due to causes that are inherent in the system, process, or product, and affect all outcomes of the system.[14] An example of a random cause of variation is differences in symptoms and complexity that patients present to the emergency department with. Meanwhile, *assignable* or *special* causes of variation refer to variation that is not part of the system, process, or product all of the time, and arise because of specific circumstances.[14] Examples of special causes of variation include implementing new strategies for dealing with overcapacity, introducing an initiative to help improve emergency department flow, or adding additional physician shifts to address volume issues. These assignable causes of variation can be identified and eliminated through an intervention in the process,[1] or maintained if the resultant change is desired. Control charts that show only common or random causes of variation in patient experience depict *stable* systems or processes, whereas control charts that have evidence for both random and special causes of variation in patient experience depict *unstable* systems or processes.[2]

Evaluating the performance of an emergency department through the lens of patient experience requires determining the range of expected random variation inherent in the process. The range of expected random variation is defined by control limits; the upper control limit (UCL) is the maximum acceptable variation above the centreline (an overall average) for a process that is in a state of control, and the lower control limit (LCL) is the maximum acceptable variation below the centreline for a process that is in control.[1] These control limits are exceeded when variability in patient experience is large enough that it cannot be random, and therefore must be from a *special* cause. Although the control limits are useful for detecting when the process is out of control, they are not the only tool used to detect special causes of variation in control charts. In total, there are six rules used in this analysis to detect

special causes (adapted from several established control chart guidelines[2,4,5] – see Section 3.2 for a detailed description).

Health system quality characteristics, such as measures of patient experience, can be broadly classified as either variables or attributes, based on how the data for each characteristic is collected, coded, and presented. Control charts employed to monitor information about variables differ from those used to present information about attributes. Variable data, which is continuous and has a measurement scale, is presented by charting means (averages; i.e., $\bar{X}$ charts) and standard deviations (i.e., S charts).[lxxxviii] Both $\bar{X}$ and S charts are generally examined together because a process is considered unstable or 'out of control' if the mean moves too far away from the centreline or there is too much variability.[lxxxix,2,5] These signals do not always occur at the same time. Variable data in this report includes the composites, which are essentially summary scores for the quality characteristics represented by groups of responses from questions with common underlying quality constructs. These composites are presented as a standardized score from zero to 100, where 100 is the best possible score.[xc] See Appendix VIII for $\bar{X}$ and S chart formulas.

Attribute data is presented using percentages (i.e., P charts). Attribute data is discrete (i.e., it can be counted or classified into categories). P charts are used to monitor the percentage of emergency department patients who reported being in one of two categories over time. Many of the emergency department patient experience survey questions provide respondents with categorical response options, which are easily dichotomized for use in P charts. See Appendix VIII for P chart formulas.

[lxxxviii] S (standard deviation) charts used in place of R (range) charts because subsample sizes are large, making the range a poor statistic to summarize dispersion of the subsamples.

[lxxxix] S (standard deviation) charts that accompany $\bar{X}$ (mean) charts are reported in Appendix IX because interpreting the results of S charts is more complex and not as commonly understood as $\bar{X}$ chart interpretations.

[xc] See Section 6.1 for more information regarding composite variables.

APPENDIX III: RUN CHART AND CONTROL CHART INTERPRETATION

In this report, run charts are used to display the provincial aggregate patient experience results, but not the site-level results. In contrast, control charts are used to track emergency department performance with respect to patient experience at the site level, but not at the provincial level. The reasons for this discrepancy are as follows:

- Monthly provincial aggregate results are calculated from a much larger pool of patients than site-level results (30 to 50 per month at the site level versus 400 to 600 at the provincial aggregate level). The large provincial aggregate sample size results in the construction of control limits that are extremely sensitive.[xci] This can inflate the risk of erroneously concluding that meaningful changes to patient experience have occurred, when, in fact, they are the result of random variation.[2]
- An important criterion for using control charts is to have *rational subgroups*, meaning that reported groups are relatively homogeneous.[2] Whereas the data from a single site is relatively homogeneous, different sites are quite diverse, especially with respect to the programs and initiatives they implement to try to improve quality of care and patient experience (see Section 4.2 and Appendix V). Thus, an aggregation of sites should not be presented using control charts. By combining heterogeneous site-level results into monthly provincial aggregate results, important between-site differences get masked and useful actionable information is lost.

Displaying the provincial aggregate results on run charts helps to mitigate the risk of drawing inaccurate conclusions regarding change in patient experience at the provincial level (e.g., speaking about how a highly variable provincial system is functioning). Instead, the provincial aggregate run charts monitor different aspects of patient experience over time at the provincial level and identify when changes occur in aggregate patient experience. Investigating the causes of these changes is incredibly difficult given the inconsistencies with respect to initiative implementation between sites identified in Section 4.2 and Appendix V.

Though the HQCA recognizes the potential value in drilling down to examine emergency department patient experience within specific patient populations (e.g., those who were admitted versus those who were discharged), the current sampling strategy restricts the creation of these kinds of control charts. Specifically, the subgroup sample sizes would not have been sufficient to produce reliable monthly estimates or control limits at the site level. By stratifying the control chart analyses by site and plotting results on a monthly basis, subgroup sizes are sufficiently large (but not too large) to create useful control limits. With this strategy, the data within each subgroup is sufficiently similar, and produces reliable monthly patient experience results at the site level.

[xci] This is a result of the subgroup size, *n*, being in the denominator of the control limit calculations (see Appendix VIII).

Interpretation and evaluation guidelines

The monthly patient experience results are presented in graphical format only. Provincial aggregate run charts and site-level control charts are displayed using a format called *small multiples*. This presentation technique requires that a set of charts are all presented together. Each chart displays data for the same variable, but represents results for a unique population. For this report, results are stratified by site. As much as possible, all charts are presented with the same scale in order to facilitate visual comparison of the sites.[2]

For all charts, the plotted results represent pooled patient-level results, collected for a specific month. For instance, the point corresponding to July 2010 represents the combined patient experience results for a particular site based on all those who presented to that site's emergency department in July 2010.[xcii]

Both run and control charts contain a great deal of information. In this report they are presented similarly and share many of the same characteristics. To facilitate interpretation, note the following chart characteristics:

- Provincial aggregate run chart titles clearly identify the variable being reported.
- Site-level control chart titles clearly identify which site is being reported. Note: Since charts are presented using the small multiples technique, site-level control charts will be presented alongside the provincial aggregate run chart, which clearly identifies the variable being reported.
- The statistic being reported is indicated in the left margin (beside the y axis), e.g., Average Score, Percentage (%), Standard Deviation. Note: The statistic being reported will vary. Composite factors are reported using means (averages) and standard deviations (in Appendix IX), and individual survey questions are reported using percentages.
- The time order is indicated in the lower margin (beneath the x axis), e.g., Aug, Sep, etc. Note: The study period for this report ranges from June 2010 to July 2013.[xciii]
- The blue solid line represents the monthly patient experience results.

Run Charts

Run charts differ from control charts in several important ways:

- A median line is plotted on the run chart to represent the centre of the distribution of monthly patient experience results. The median represents the middle data point in the distribution

[xcii] Data was collected to be representative at the site level; exclusions still apply. Exclusions included patients less than 15 years of age, those who left without being seen or treated, patients who died in the context of their emergency department stay, and privacy sensitive cases such as domestic abuse.

[xciii] Data collection began in late June 2010, however due to very small sample sizes and the fact that patients surveyed in June would only represent a partial month, the HQCA has chosen not to report on June 2010 in the charts.

when the data is organized from smallest to largest. Put another way, it is the value that separates the higher half of the distribution from the lower half.

- Unlike control charts, run charts do not contain upper and lower bounds defining the range of expected random variability for the quality characteristic being measured.

Run charts and control charts also differ in the rules they employ for detecting non-random variation or meaningful changes in the behaviour of the data. The HQCA has adopted the following rules to identify changes in run charts:[2,xciv(3)]

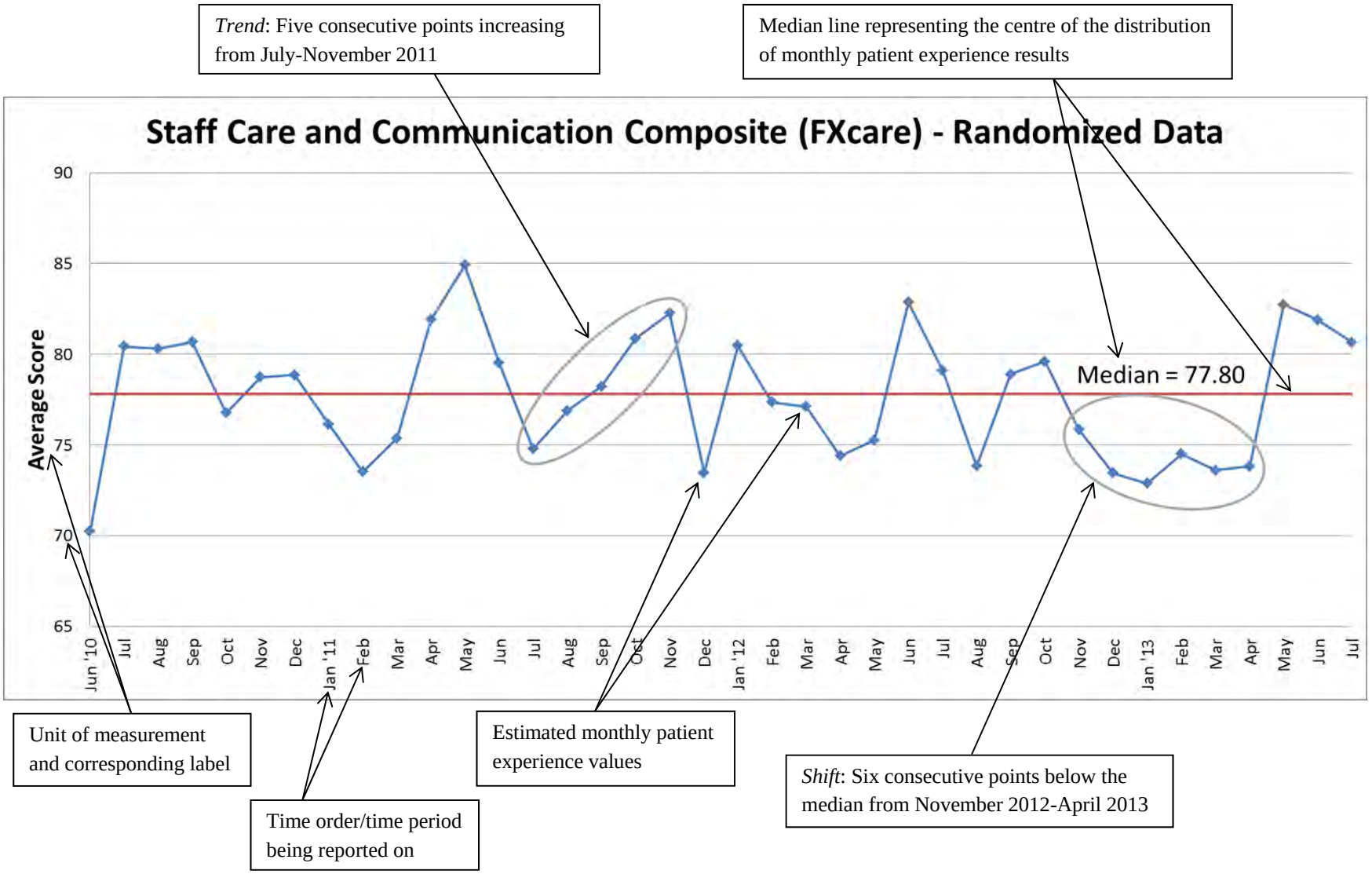
1. *A shift*: Six or more consecutive points above or below the median.
2. *A trend*: Five or more consecutive points increasing or decreasing.
3. *Too many or too few runs*: A run is a series of consecutive points that fall on one side of the median. This rule is based on a complex probability-based test for detecting non-random patterns of data; essentially it tests to see if data clusters above or below the median too often to conclude the data is behaving randomly. The specifics of this probability-based test will not be discussed because of its complexity. However, refer to Appendix IV for a table depicting the minimum and maximum number of runs required to decide if run chart data is varying randomly or not.
4. *An astronomical data point*: A data point that is obviously or blatantly different than the rest of the data; sometimes referred to as an outlier.

Please see the illustration below for a visual depiction of a run chart's characteristics.[xcv] This example represents the charts that are used to display patient experience results at the provincial aggregate level:

[xciv] Rules one and three for run charts are violations of random patterns and are based on a probability of less than a 5% chance ($p<.05$) of occurring just by chance when there is no real change.

[xcv] Note: The data presented in the sample run chart on the next page has been randomized (i.e., these are not actual staff care and communication results for the provincial aggregate sample of emergency department patients; the results have been distorted so that they do not represent true responses from this study's sample of patients).

Figure 56: Run chart characteristics – a visual depiction



Notice that in this sample run chart, two periods of change have been detected using the rules identified above. These are both unsustained changes, because the data reverts back to varying randomly around the median following the change. The staff care and communication variable is a composite variable that is scored on a scale from zero to 100, where 100 is the best possible score. With this in mind, it's concluded that an unsustained change toward higher average ratings of staff care and communication occurred over the period of time from July to November 2011; average staff care and communication ratings consistently increased during these five consecutive months (trend), which would not be expected if the system was behaving randomly. Also, an unsustained change toward lower average ratings of staff care and communication occurred over the period of time from November 2012 to April 2013; six consecutive average staff care and communication ratings were below the median (shift), which would not be expected if the system was behaving randomly.

The remaining two rules for detecting change in a run chart (i.e., too few or too many runs and an astronomical data point) are not represented on this sample run chart. Note, that according to the complex probability-based rule used to define too few or too many runs on a run chart (Table 34 in Appendix IV), the number of runs (i.e., consecutive points falling on one side of the median) falls within the range defining random variation and *does not* signal that a change in patient experience has occurred. Also, there are no data points that appear to be outliers (i.e., astronomically different than the rest). Therefore, with the exception of the detected unsustained changes from July to November 2011 and November 2012 to April 2013, it appears that average staff care and communication ratings vary randomly over most of the study period.

Control Charts

Several characteristics, specific to control charts, should be highlighted as well. These are as follows:

- An overall average of the patient experience measure is calculated and plotted as the centreline of the distribution of monthly results. Note: The calculation of an overall average for the centreline will vary depending on the kind of control chart being produced (see Appendix VIII for centreline calculation formulas).
- A dotted green line represents the upper control limit (UCL), or maximum acceptable variation above the centreline for a system that is stable. A dotted red line represents the lower control limit (LCL), or maximum acceptable variation below the centreline for a system that is stable. These control limits define the range of expected random variability for a given patient experience measure based on historical norms. Note: The calculation of control limits will vary depending on the kind of control chart being produced (see Appendix VIII for control limit calculation formulas).

Please note, the HQCA urges caution when interpreting control limits. Control limits should not be used to determine where patient experience *should be* or what level of satisfaction is achievable, but rather whether emergency department patient experience has clearly changed compared to stable historical data. However, control limits do allow sites and managers to monitor whether patient experience is impacted by changes or initiatives implemented in the emergency department. Achievable performance targets can also be determined through comparison with top performing sites or time periods where higher ratings of patient experience was achieved while taking into consideration the factors which may have contributed to that performance.

Identifying meaningful changes in control charts requires a different set of rules than those used for run charts. Although the control limits define the range of expected variability for a process that is stable or in a state of control, they are not the only tool the HQCA used to detect special causes of variation in control charts. In total, the HQCA has adopted six rules to detect non-random variability or special causes (adapted from several established control chart guidelines):[2,4,5]

1. A single point outside of the control limits.
2. A run of eight or more consecutive points above or below the centreline.
3. Six consecutive points increasing or decreasing.[xcvi(2)]
4. Two out of three consecutive points near, but not outside (outer one-third) the control limits.
5. Fifteen consecutive points close to the centreline (inner one-third).
6. An unusual or non-random pattern of points.[xcvii(2,6,7)]

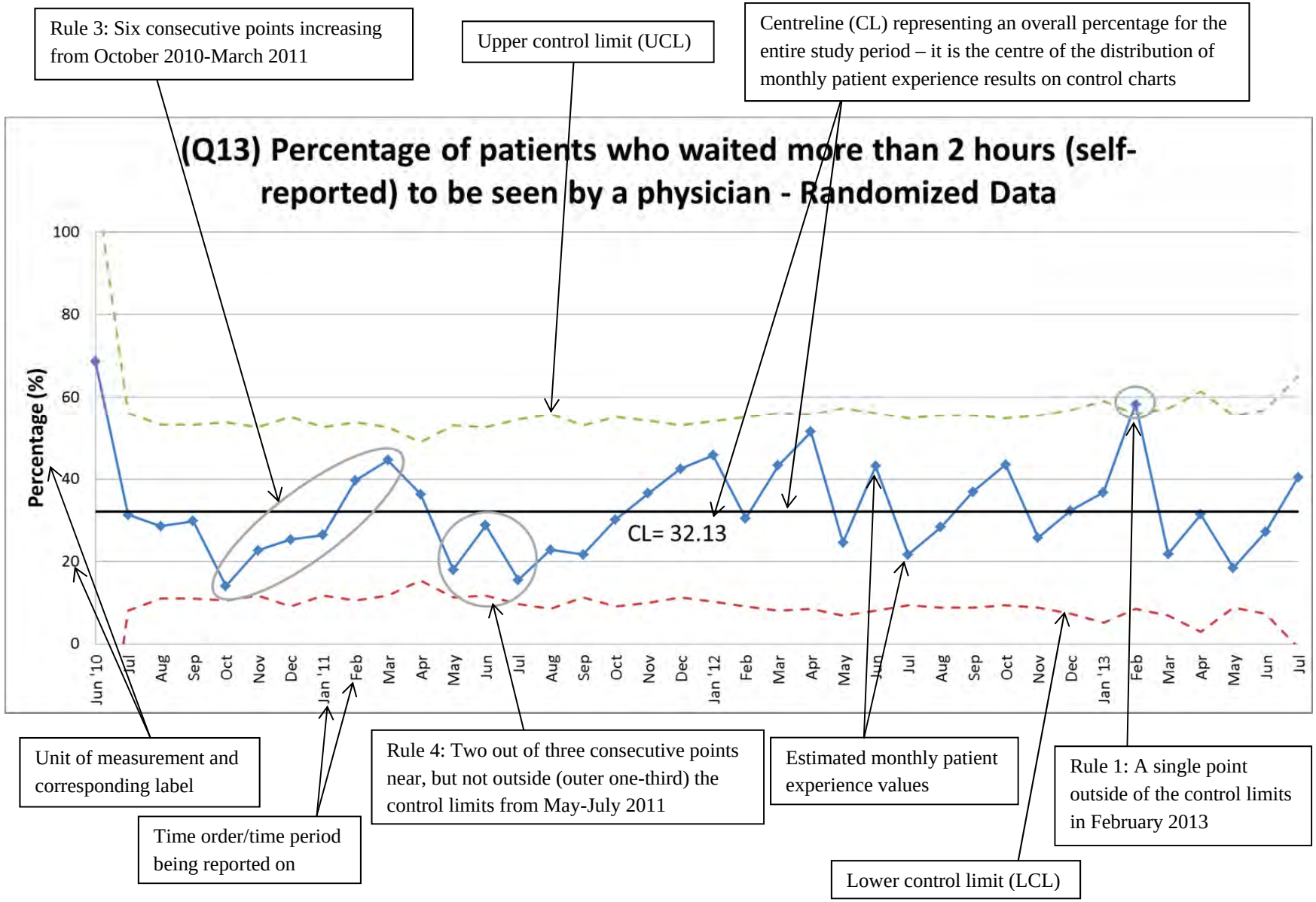
Please see the illustration below for a visual depiction of a control chart's characteristics.[xcviii] This example represents the charts that are used to display patient experience results at the site level:

[xcvi] Because the control charts in this report have variable control limits (due to varying numbers of patients surveyed per month), rule three for control charts should be interpreted with caution. According to strict theory, it is not correct to use this rule; however, in practice this rule is quite useful for identifying meaningful change.

[xcvii] This rule seems to be somewhat subjective, but is included because special circumstances may warrant the use of other tests for non-random variation, such as tests from Nelson (1984) or the Western Electric Handbook (1956).

[xcviii] Note: The data presented in the sample control chart on the next page has been randomized (i.e., these are not actual self-reported wait time to see a physician results for the sample of emergency department patients at a particular site. The results have been distorted so that they do not represent true responses from this study's sample of patients).

Figure 57: Control chart characteristics – a visual depiction



Using the rules for detecting non-random variability in control charts (listed above), the sample control chart indicates that three unsustained meaningful changes occurred during the study period. Recall that this question asked patients to self-report how long they waited to be examined by a doctor, and the chart depicts the percentage of patients who self-reported waiting more than two hours. The control chart indicates that an unsustained change toward lower ratings of perceived wait times occurred over the period of time from October 2010 to March 2011; the percentage of patients self-reporting they waited more than two hours to be examined by a doctor consistently increased during these six consecutive months, which would not be expected if the system was behaving randomly. A second unsustained change, this time toward better perceived wait times, occurred over the period of time from May to July 2011. The points at May and July are both in the outer one-third of the control limits below the centreline, and given the historical behaviour of the system, this indicates that a substantially lower percentage of patients self-reported waiting more than two hours to be examined by a doctor than expected. Lastly, an unsustained change toward lower ratings of perceived wait times occurred in February 2013. During this month, the percentage of patients self-reporting they waited more than two hours to be examined by a doctor was above the upper control limit, substantially higher than expected given the historical behaviour of the system.

The three other rules for identifying meaningful changes and special causes in control charts (i.e., eight or more consecutive points above or below the centreline, 15 consecutive points within the inner one-third of the control limits, and an unusual or non-random pattern of points) are not represented on this sample control chart.

Variation over time

The function of emergency departments and the experience of patients who attend them are impacted by a large number of factors, some of which are not under the direct control of the emergency departments. These factors may be reflected in the variability of patient experience over time at both the provincial aggregate and site levels. In the provincial aggregate run charts, it may be possible to evaluate the impact or influence of such things as seasonal variation or periods of infectious disease (e.g., “flu season”). However, evaluating the impact of factors such as periods of high hospital occupancy or reduced access to primary care on overall emergency department performance as it relates to patient experience is much more complex and requires investigation at the site level.

Similarly, factors that are under the direct control of the emergency departments, such as programs or initiatives meant to impact emergency department patient experience and performance, are highly variable between sites (see Section 4.2 and Appendix V) and will likely only be detectable when analyzing the results at the site level.

Operational definition of improvement

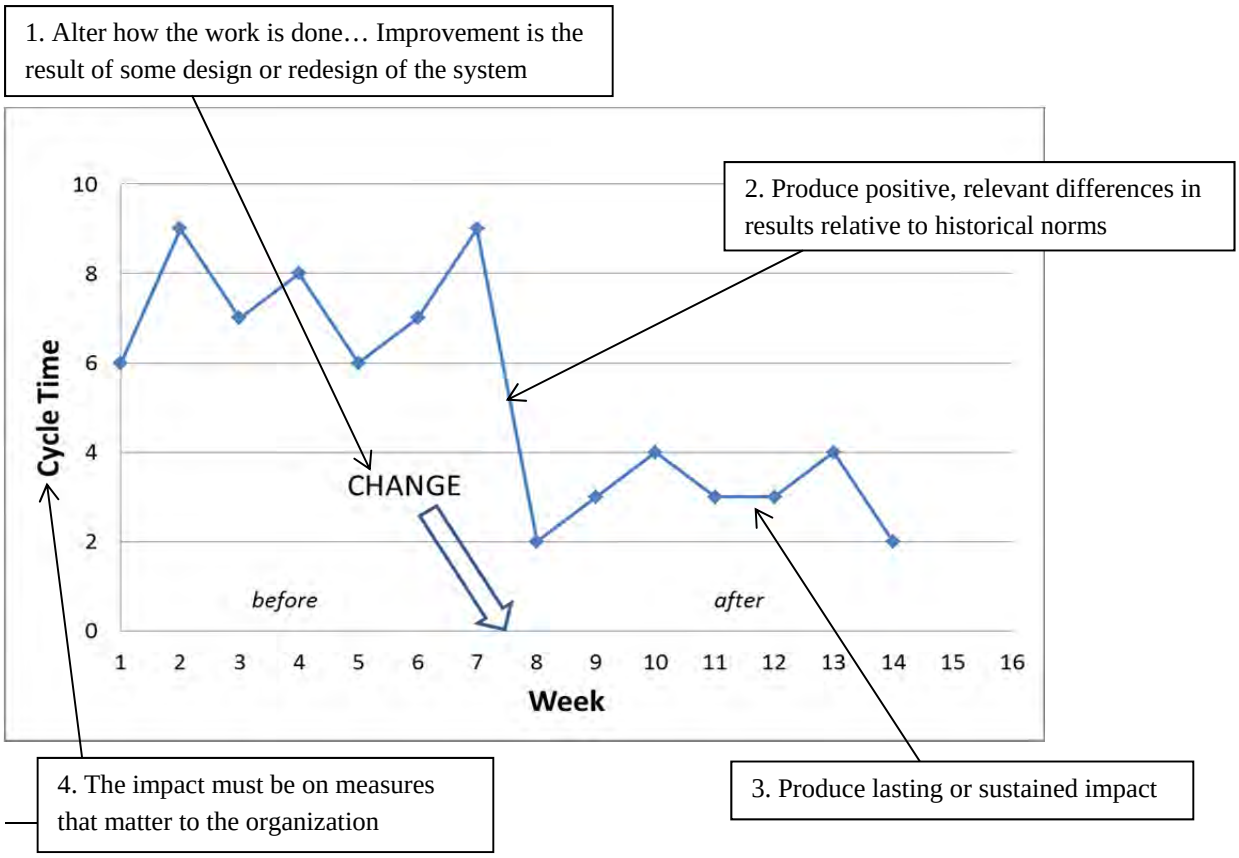
It is important to note that change in emergency department patient experience is directional and can be either postive or negative relative to historical norms. A negative change is one that results in declining patient experience, while a positive change is one that results in an enhanced patient experience. However, not every positive change should be deemed an improvement, nor should every negative change be deemed a regression.

To differentiate improvements from changes, the HQCA has adopted an operational definition of improvement that is well aligned with this report's data collection and analysis methods. According to this operational definition of improvement, four criteria must be fulfilled in order to conclude that an improvement has occurred:[8]

1. Alter how the work is done… Improvement is the result of some design or redesign of the system.[xcix]
2. Produce visible, positive differences in results relative to historical norms (defined by control limits).
3. Produce *lasting* or *sustained* impact.
4. The impact must be on measures *that matter* to the organization.

See the illustration below for a visual depiction of improvement, according to the operational definition the HQCA has adopted:

Figure 58: Operational definition of improvement[8]



[xcix] This first criterion refers to the fact that detected changes using SPC methods are the result of assignable or special causes, and not the result of random variation. Thus, observed changes in patient experience are the result of some change affecting the care delivery process.

APPENDIX IV: TESTING FOR CHANGE ON A RUN CHART – THE RUNS RULE

The runs rule can be described as follows:

"A nonrandom pattern is signaled by too few or too many runs, or crossings of the median line. A run is a series of points in a row on one side of the median. Some points fall right on the median, which makes it hard to decide which run these points belong to. So, an easy way to determine the number of runs is to count the number of times the line connecting the data points crosses the median and add one. The data line must actually cross the median in order to signify that a new run has begun…After counting the number of runs we can determine whether we have a nonrandom signal of change due to too few or too many runs using the table (below)."[2]

The next step is to count the total number of data points that do not fall on the median. As an example, assume that there are ten data points that do not fall on the median. To determine whether there are too few or too many runs, locate the row for ten data points that do not fall on the median. Following the row across to the right, locate the minimum and maximum number of runs the chart can have without indicating a signal of change. For this example, the chart can have a minimum of three runs and a maximum of nine runs. This means that any fewer than three runs indicates a nonrandom pattern or change, and any more than nine runs indicates a nonrandom pattern or change (see Table 34).

Table 34: Checking for too many or too few runs on a run chart[15]

Total number of data points on the run chart that do not fall on the median	Lower limit for the number of runs (< than this number of runs is 'too few')	Upper limit for the number of runs (> than this number of runs is 'too many')	Total number of data points on the run chart that do not fall on the median	Lower limit for the number of runs (< than this number of runs is 'too few')	Upper limit for the number of runs (> than this number of runs is 'too many')
10	3	9	36	13	25
11	3	10	37	13	25
12	3	11	38	14	26
13	4	11	39	14	26
14	4	12	40	15	27
15	5	12	41	15	27
16	5	13	42	16	28
17	5	13	43	16	28
18	6	14	44	17	29
19	6	15	45	17	30
20	6	16	46	17	31
21	7	16	47	18	31
22	7	17	48	18	32
23	7	17	49	19	32
24	8	18	50	19	33
25	8	18	51	20	33
26	9	19	52	20	34
27	10	19	53	21	34
28	10	20	54	21	35
29	10	20	55	22	35
30	11	21	56	22	36
31	11	22	57	23	36
32	11	23	58	23	37
33	12	23	59	24	38
34	12	24	60	24	38
35	12	24			

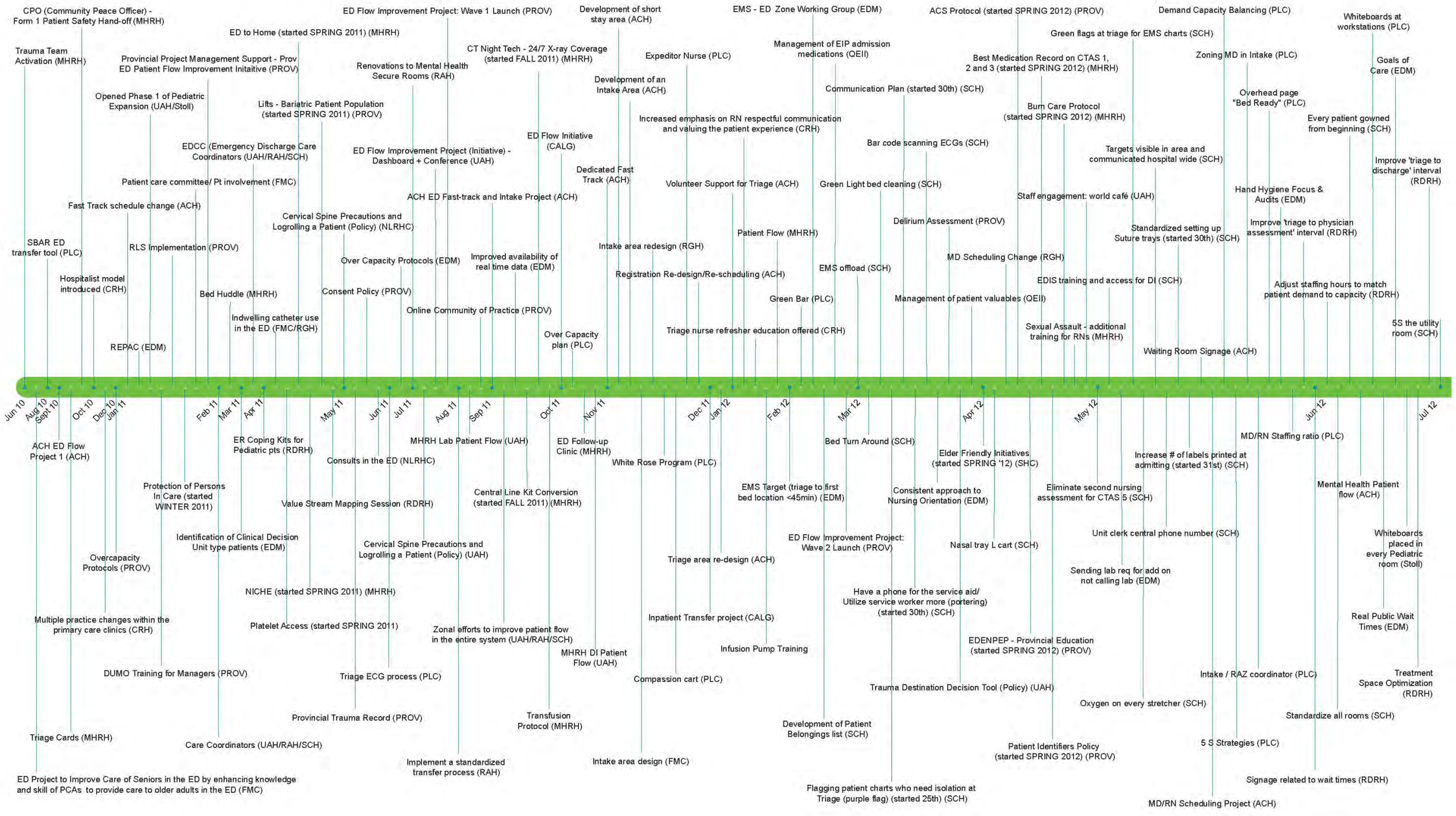
Note: Table is based on a 5% risk of failing the run test for random patterns of data

APPENDIX V: EMERGENCY DEPARTMENT PROGRAMS AND INITIATIVES TIMELINES

As stated in Section 4.2, the provincial aggregate emergency department programs and initiatives timeline presented in the body of this report has been edited to include only those events and initiatives determined to have the most potential impact on patient experience as it is captured by the HQCA's survey questions. See below for the full provincial aggregate timeline, including the complete information the HQCA was able to collect through consulting with emergency department stakeholders at the site, zone, and provincial levels.

Also presented are the site-level emergency department programs and initiatives timelines.

Figure 59: Full provincial aggregate emergency department programs and initiatives timeline



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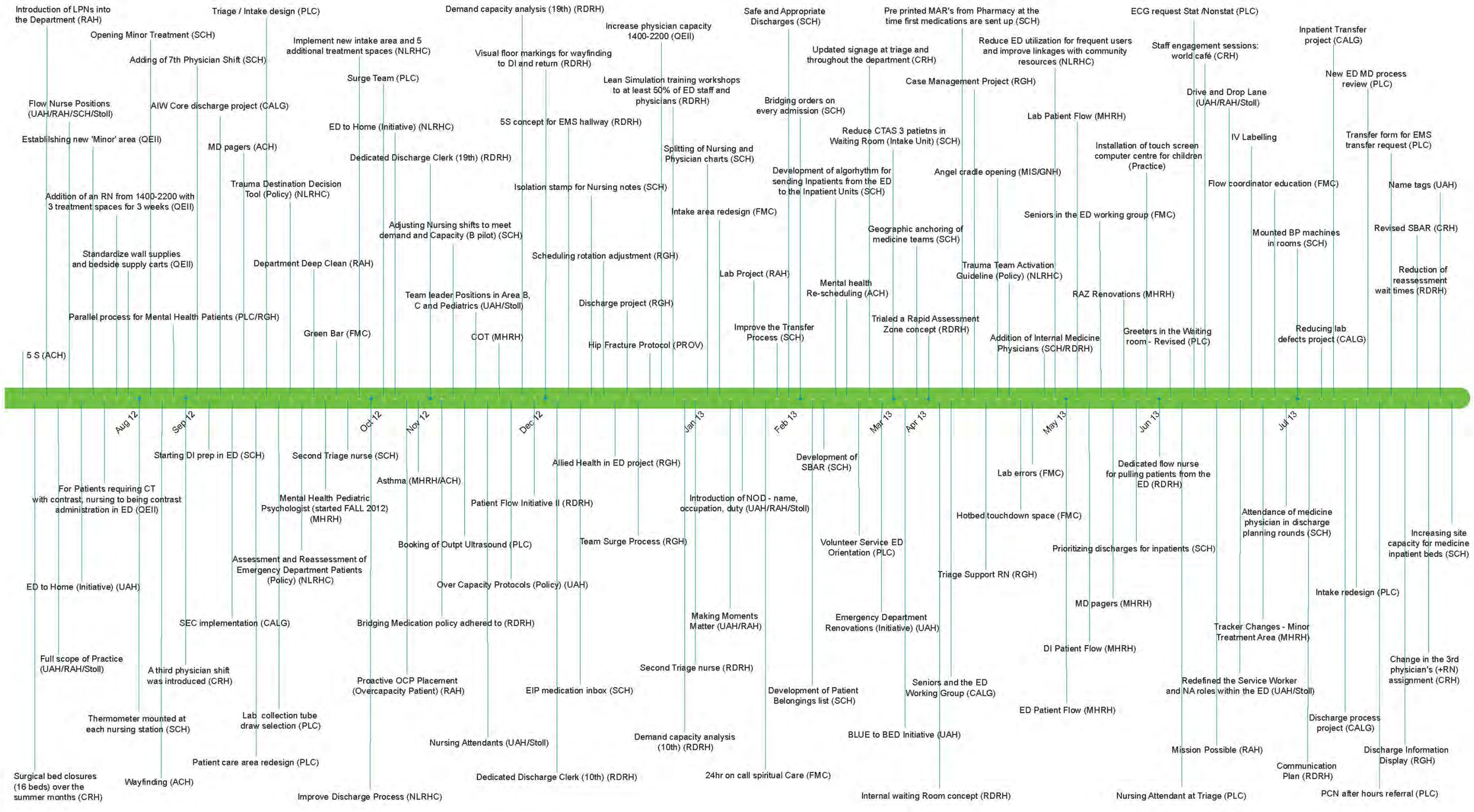


Figure 60: Chinook Regional Hospital emergency department programs and initiatives timeline

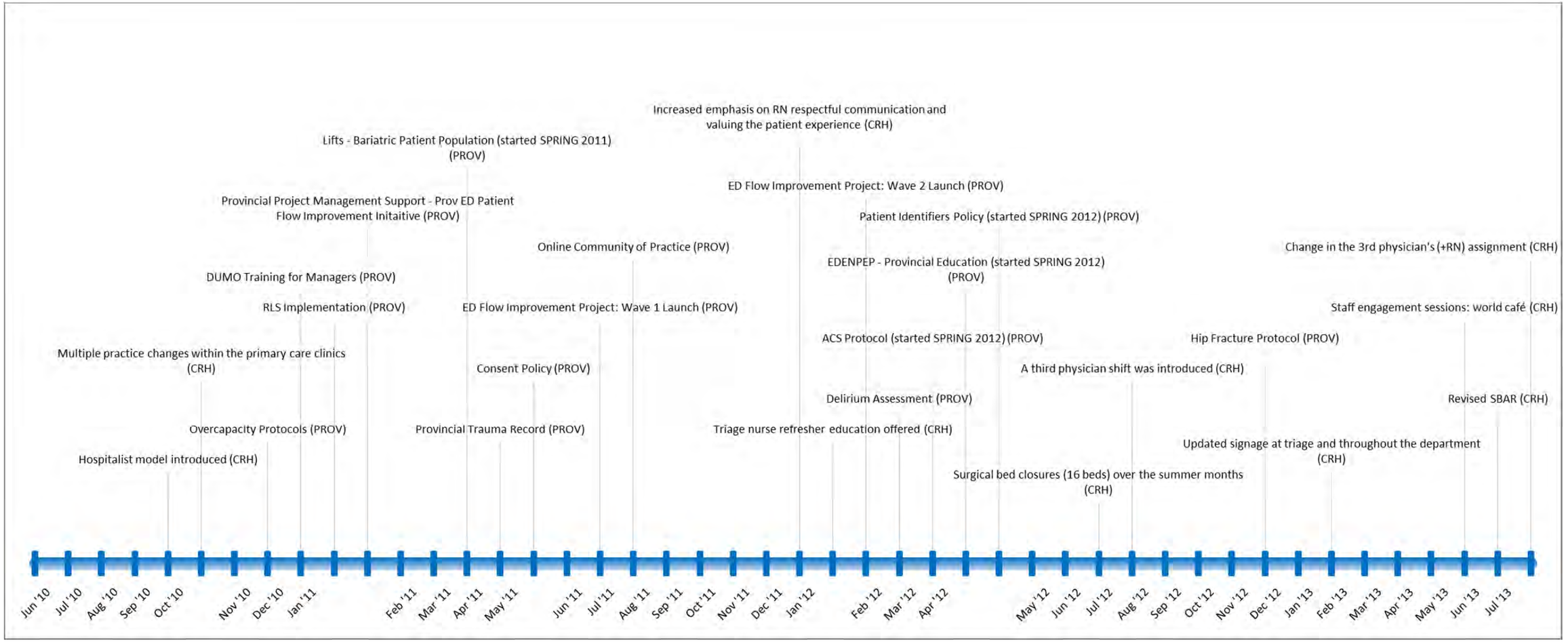


Figure 61: Medicine Hat Regional Hospital emergency department programs and initiatives timeline

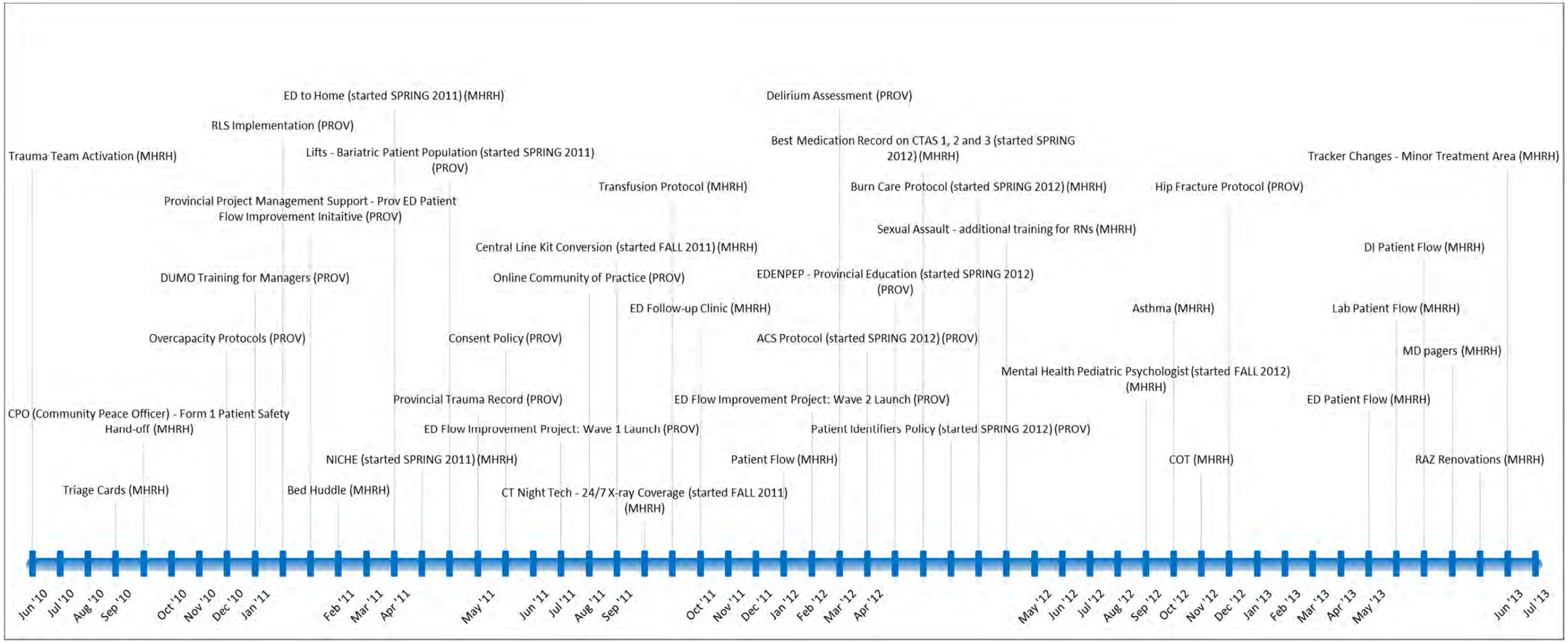


Figure 62: Red Deer Regional Hospital emergency department programs and initiatives timeline

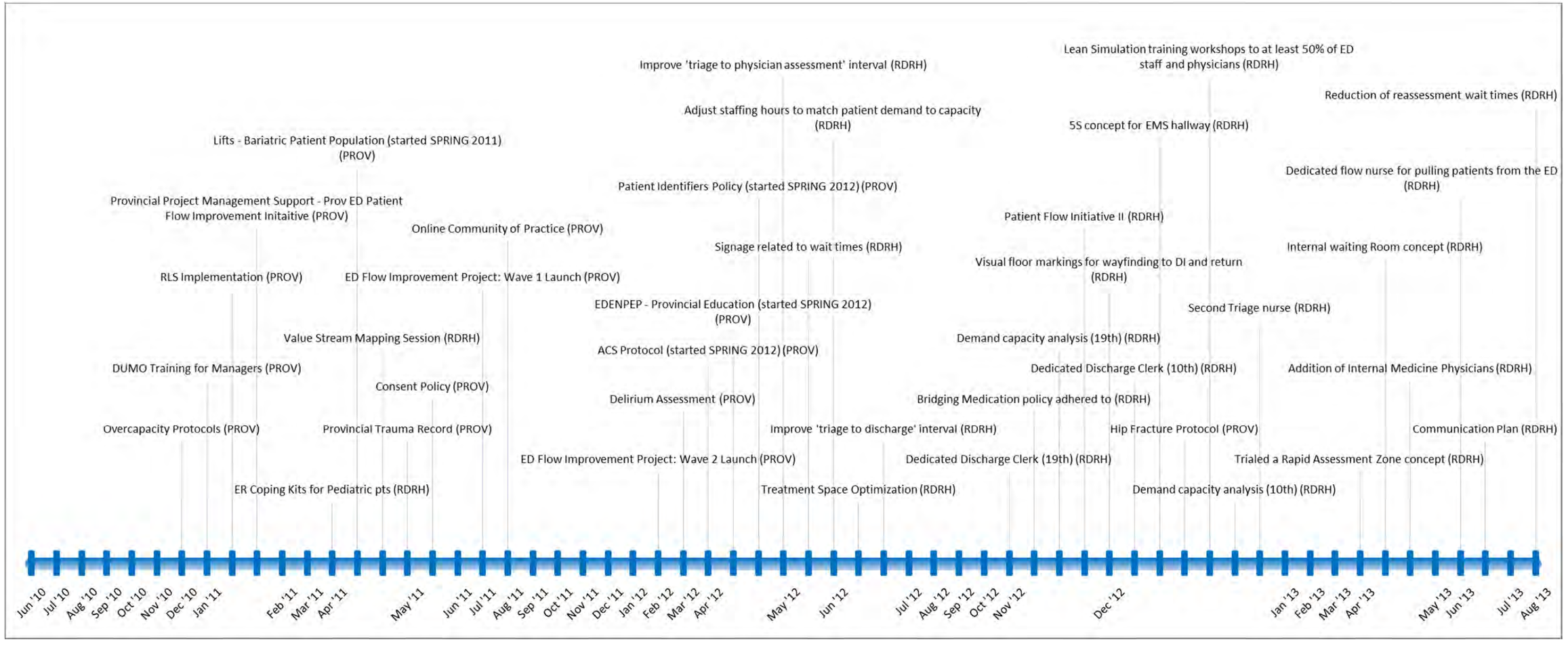


Figure 63: Peter Lougheed Centre emergency department programs and initiatives timeline

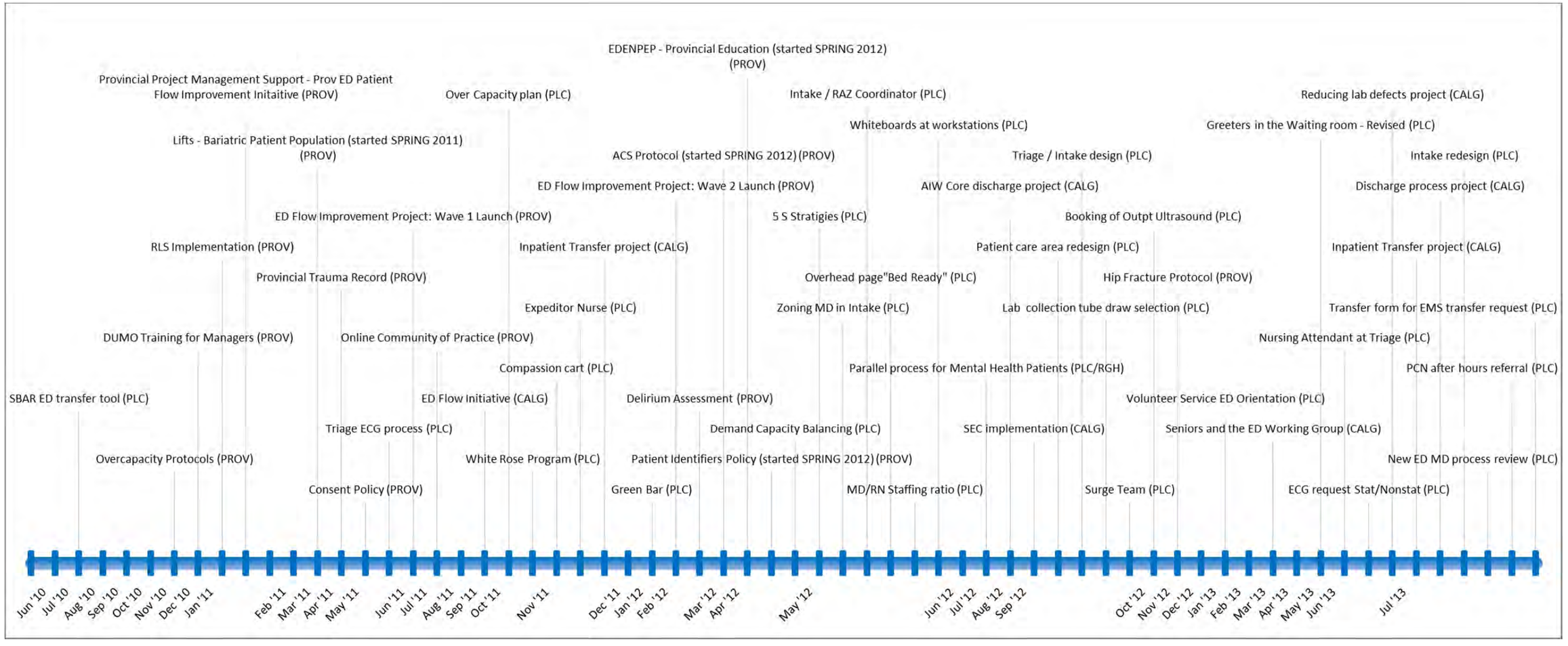


Figure 64: Rockyview General Hospital emergency department programs and initiatives timeline

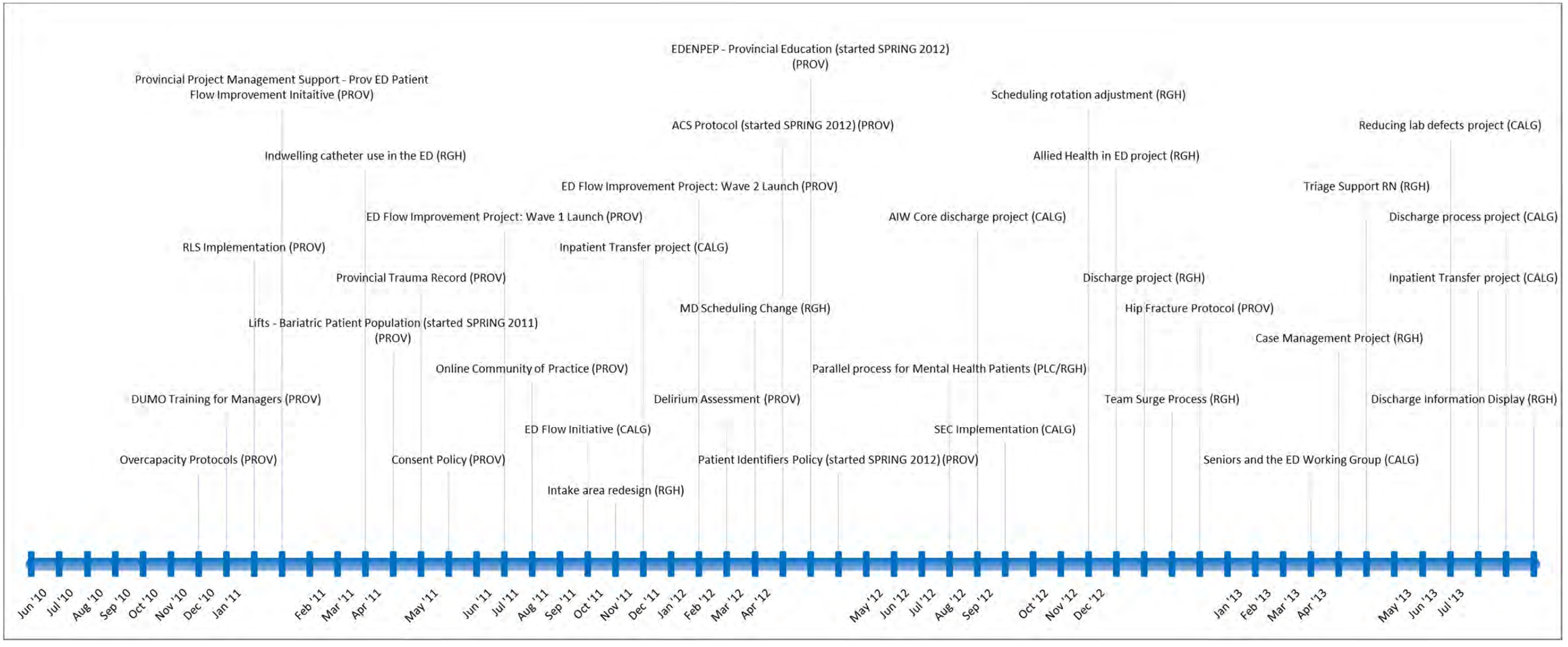


Figure 65: Foothills Medical Centre emergency department programs and initiatives timeline

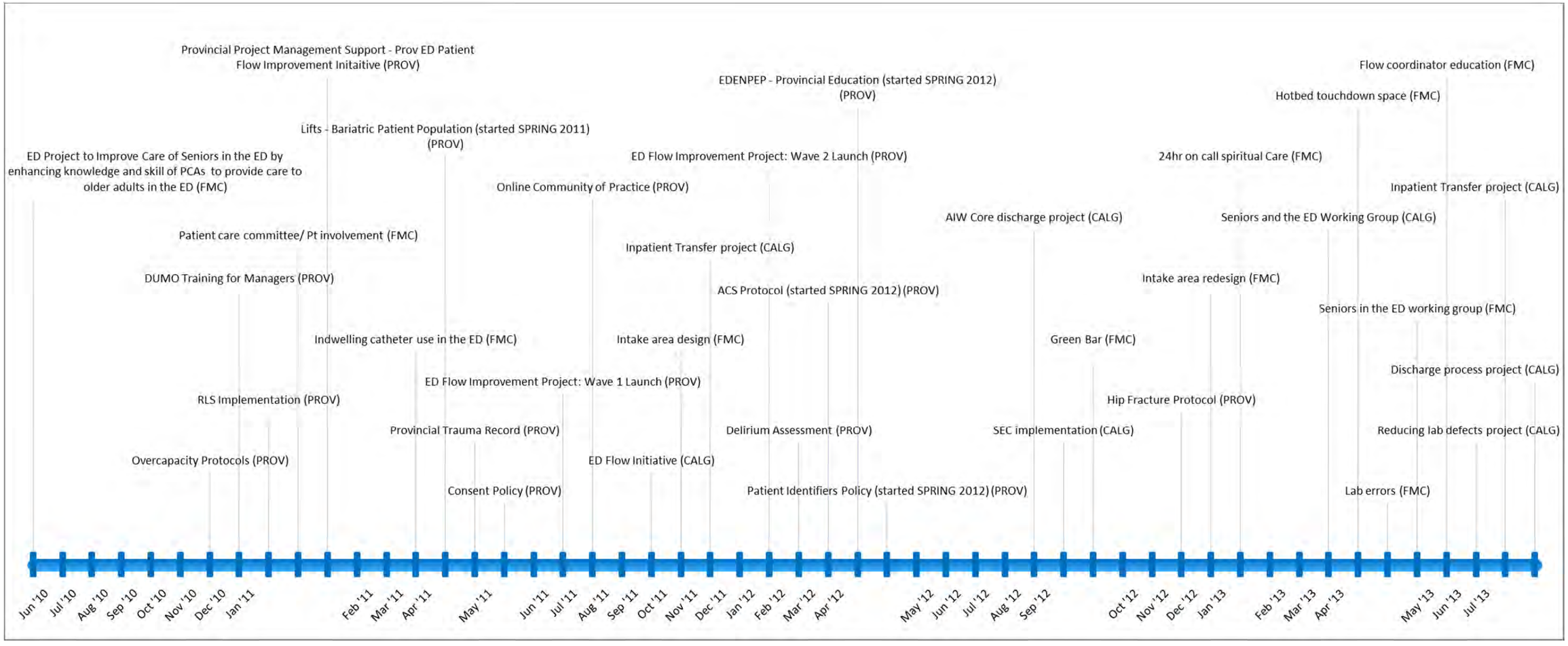


Figure 66: Sturgeon Community Hospital emergency department programs and initiatives timeline

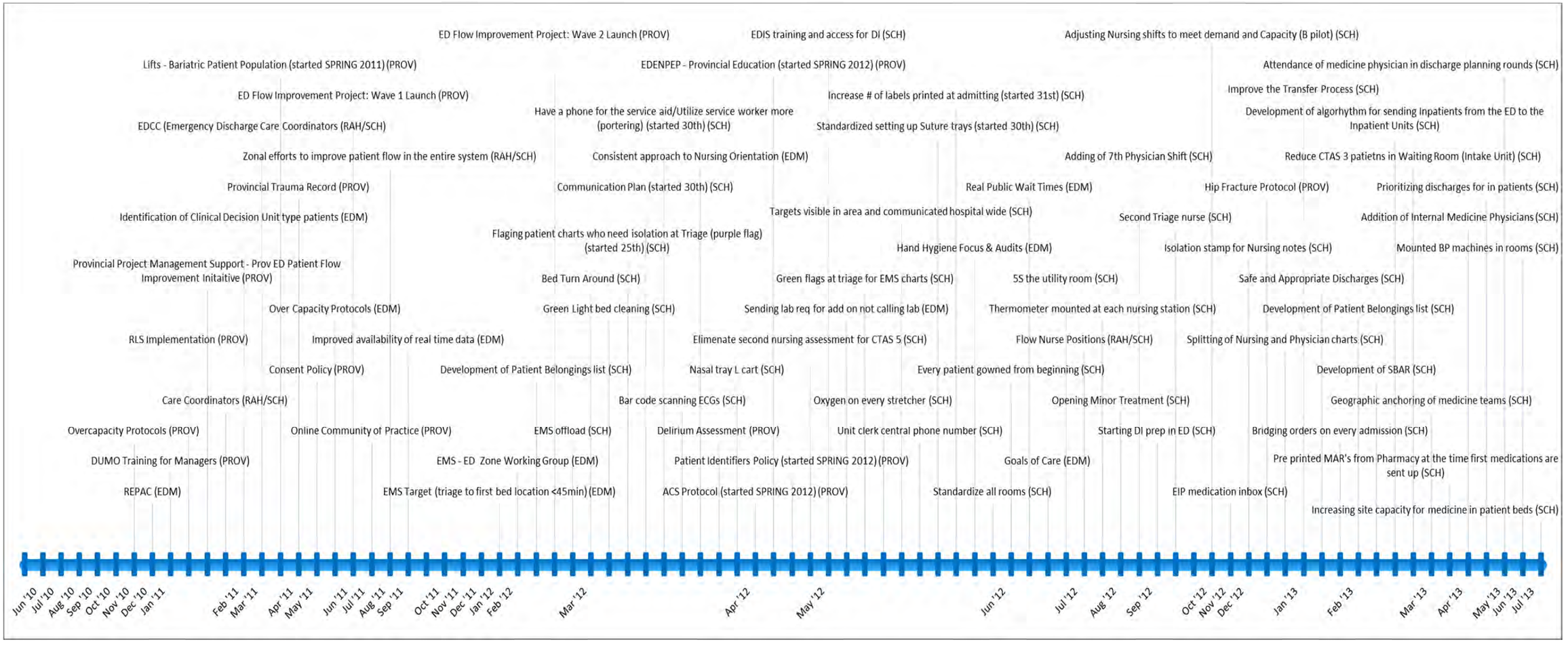


Figure 67: Royal Alexandra Hospital emergency department programs and initiatives timeline

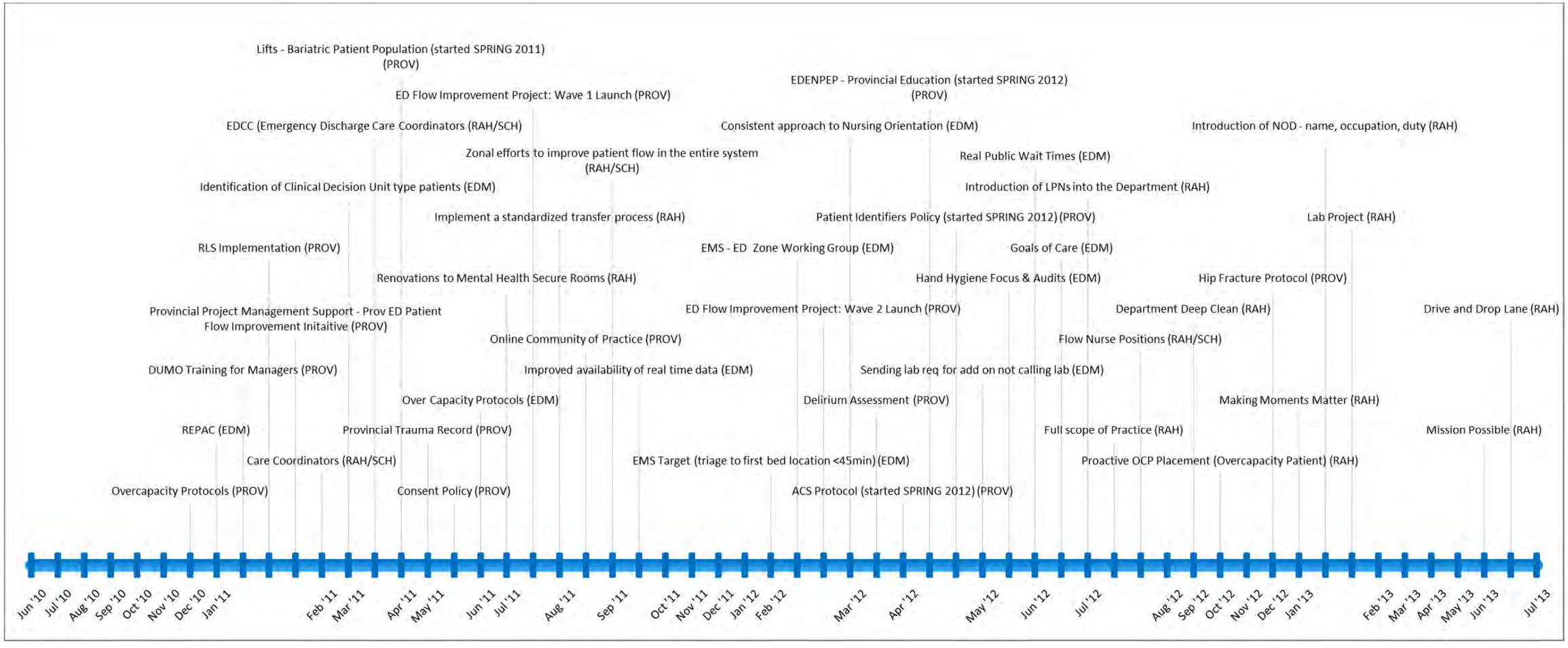


Figure 68: Grey Nuns Community Hospital emergency department programs and initiatives timeline

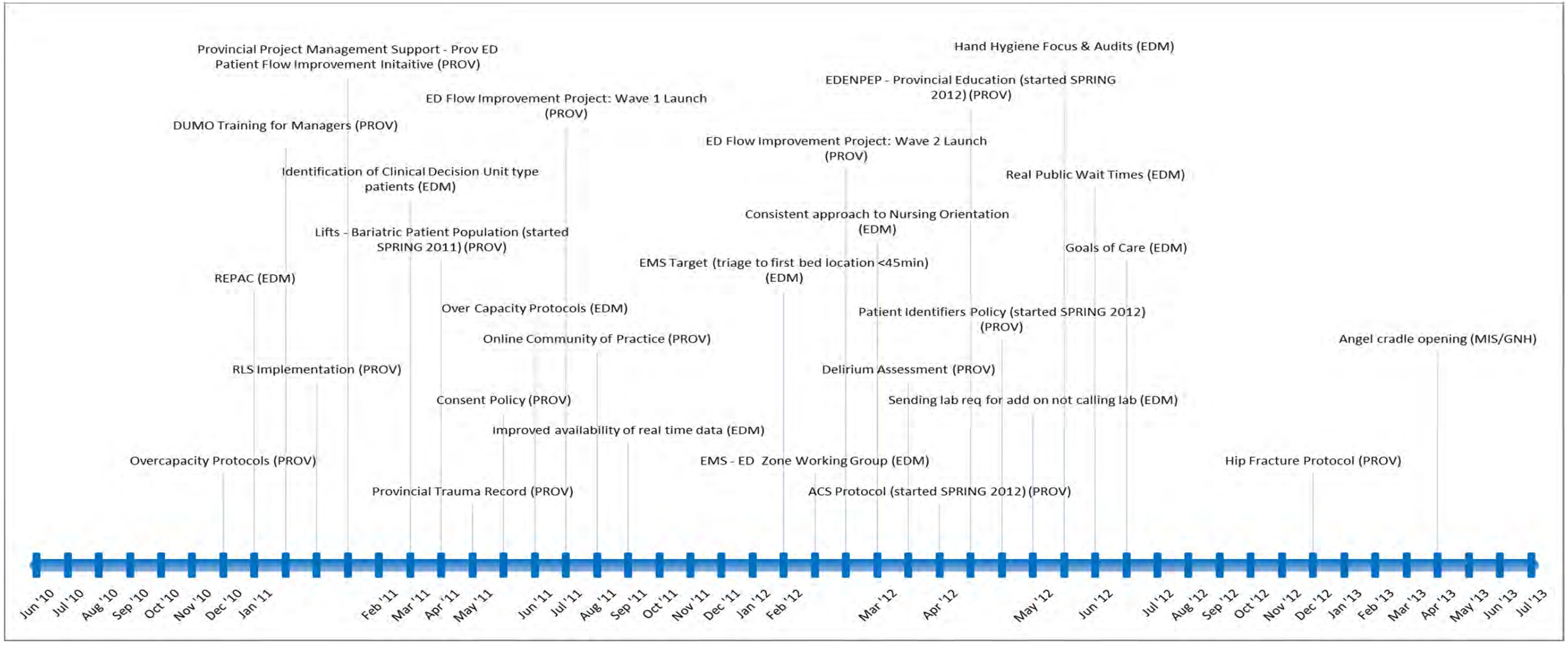


Figure 69: Misericordia Community Hospital emergency department programs and initiatives timeline

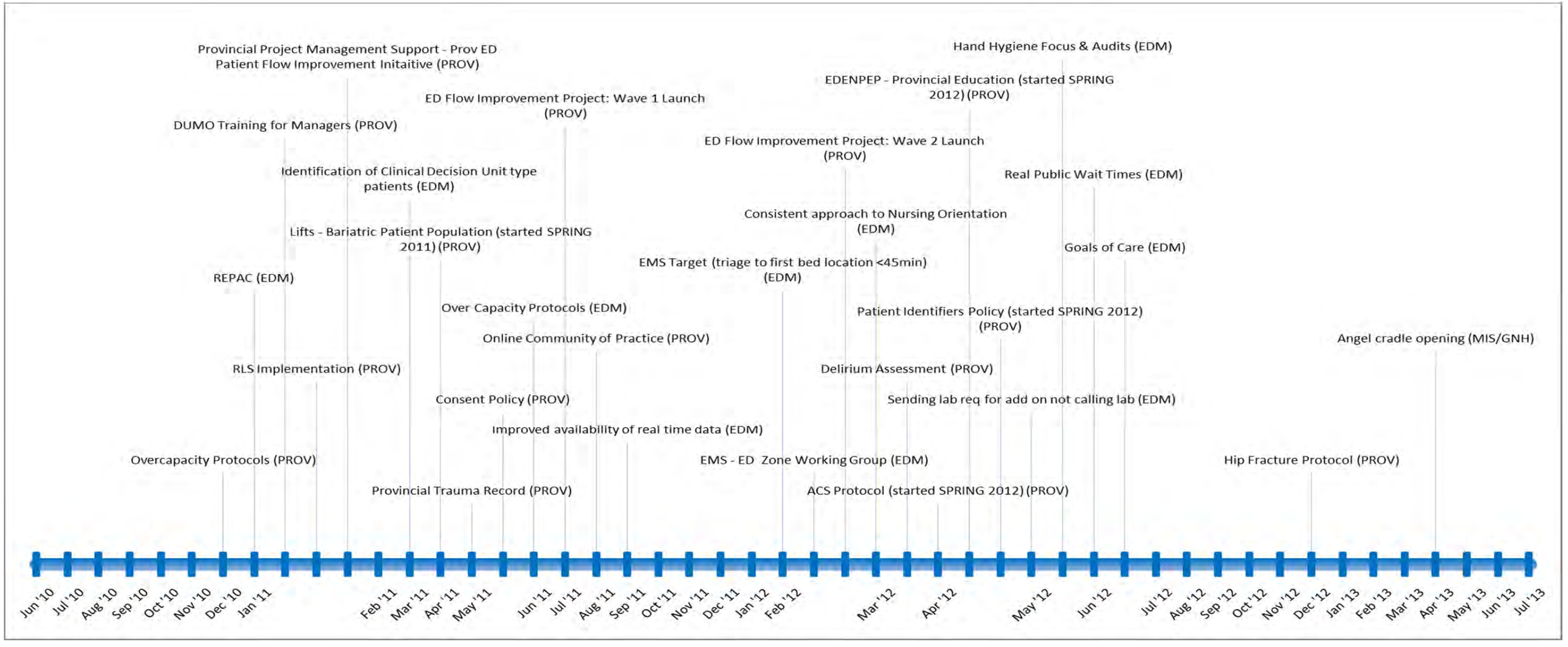


Figure 70: University of Alberta Hospital emergency department programs and initiatives timeline

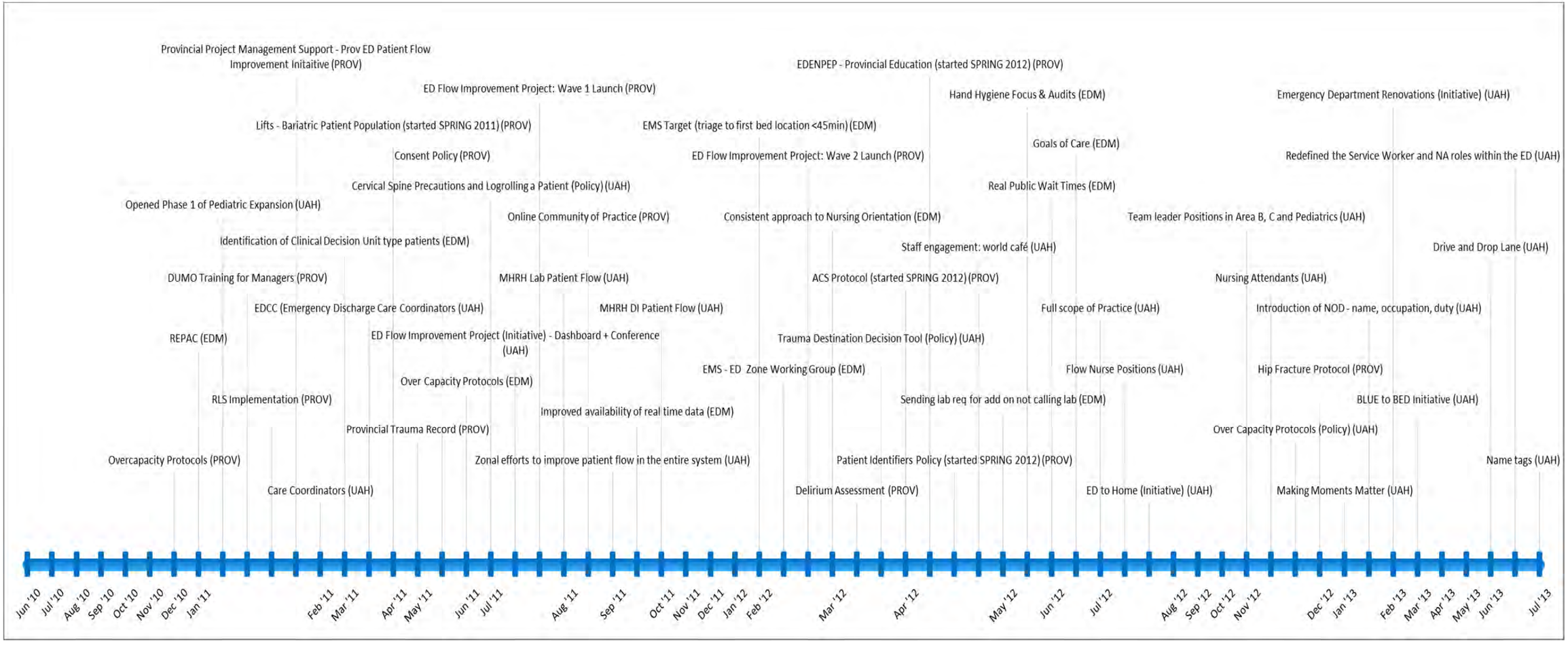


Figure 71: Northern Lights Regional Health Centre emergency department programs and initiatives timeline

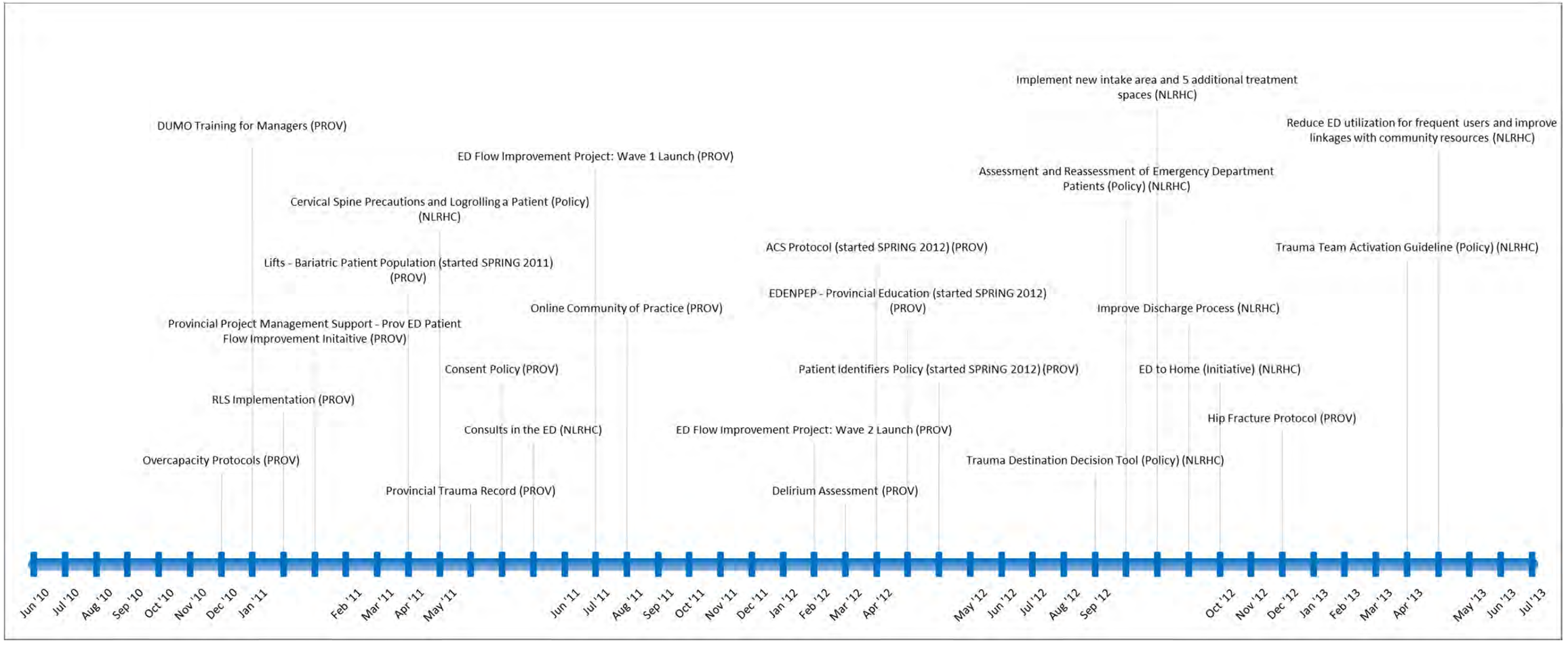
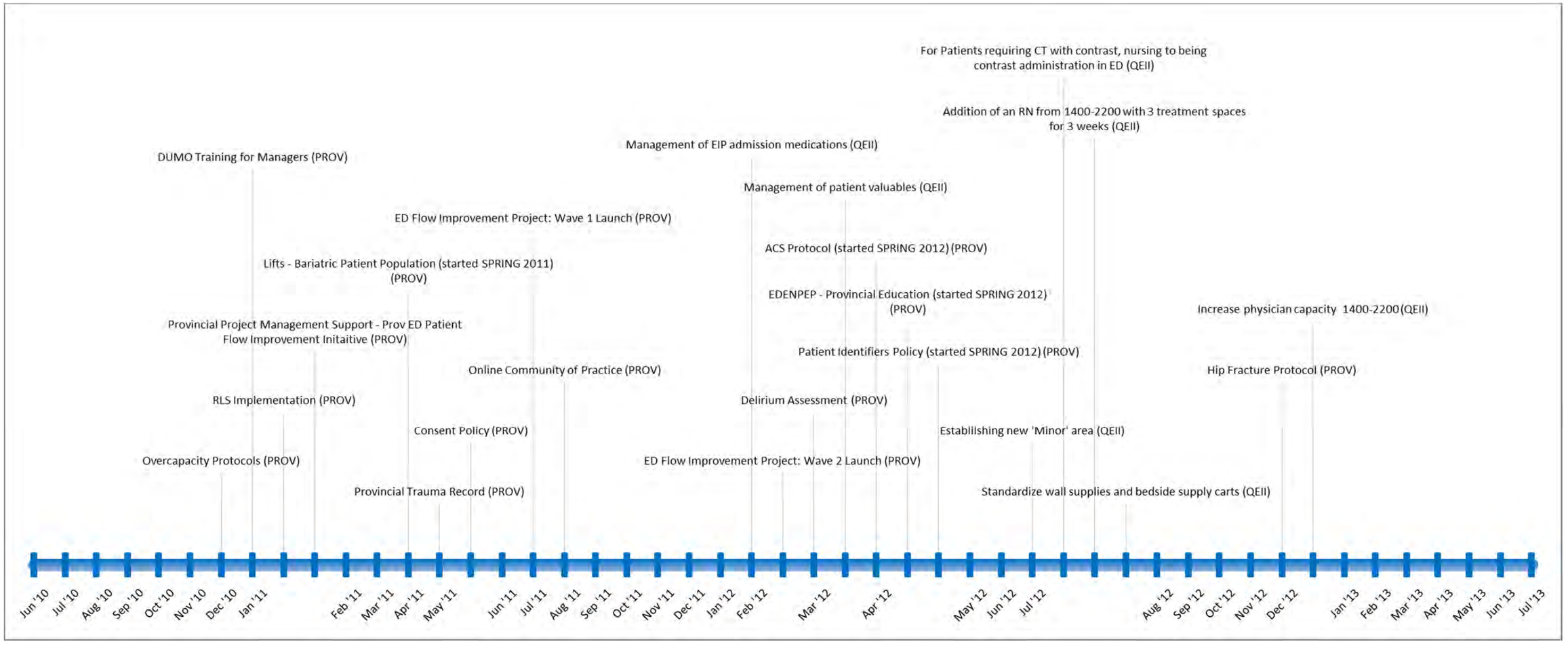


Figure 72: Queen Elizabeth II Hospital emergency department programs and initiatives timeline



APPENDIX VI: DESCRIPTIVE STATISTICS BY SITE

Demographic characteristics

Table 35: Respondent characteristics – Chinook Regional Hospital

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=1,512)
Gender	
Female	58%
Male	42%
Age *(years)*	
16 to 24	15%
25 to 34	13%
35 to 44	10%
45 to 64	32%
65 to 74	14%
over 75	17%
Mean Age (years)	51.9
Highest level of education	
Less than high school	24%
Completed high school	24%
Technical school	10%
Some university or college	15%
Completed college degree	13%
Complete university degree	10%
Post-graduate degree	3%
Language	
English	94%
Other	6%
Residence	
Own residence	69%
Rents residence	25%
Residential facility/senior's lodge	4%
Nursing home/long-term care home	1%
Ethnicity	
White/Caucasian	90%
Other	10%
Note: These results are not weighted and reflect respondents only	

Table 36: Respondent characteristics – Medicine Hat Regional Hospital

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=1,523)
Gender	
Female	56%
Male	44%
Age *(years)*	
16 to 24	11%
25 to 34	13%
35 to 44	12%
45 to 64	32%
65 to 74	15%
over 75	18%
Mean Age (years)	53.3
Highest level of education	
Less than high school	29%
Completed high school	25%
Technical school	11%
Some university or college	11%
Completed college degree	14%
Complete university degree	7%
Post-graduate degree	2%
Language	
English	96%
Other	4%
Residence	
Own residence	72%
Rents residence	24%
Residential facility/senior's lodge	4%
Nursing home/long-term care home	1%
Ethnicity	
White/Caucasian	94%
Other	6%
Note: These results are not weighted and reflect respondents only	

Table 37: Respondent characteristics – Red Deer Regional Hospital

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=1,455)
Gender	
Female	59%
Male	41%
Age *(years)*	
16 to 24	12%
25 to 34	14%
35 to 44	13%
45 to 64	34%
65 to 74	11%
over 75	15%
Mean Age (years)	50.6
Highest level of education	
Less than high school	24%
Completed high school	26%
Technical school	13%
Some university or college	13%
Completed college degree	14%
Complete university degree	9%
Post-graduate degree	2%
Language	
English	96%
Other	5%
Residence	
Own residence	68%
Rents residence	28%
Residential facility/senior's lodge	4%
Nursing home/long-term care home	1%
Ethnicity	
White/Caucasian	90%
Other	10%
Note: These results are not weighted and reflect respondents only	

Table 38: Respondent characteristics – Peter Lougheed Centre

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=1,462)
Gender	
Female	56%
Male	44%
Age *(years)*	
16 to 24	9%
25 to 34	18%
35 to 44	16%
45 to 64	35%
65 to 74	11%
over 75	11%
Mean Age (years)	49.5
Highest level of education	
Less than high school	22%
Completed high school	23%
Technical school	12%
Some university or college	12%
Completed college degree	12%
Complete university degree	14%
Post-graduate degree	5%
Language	
English	81%
Other	19%
Residence	
Own residence	63%
Rents residence	34%
Residential facility/senior's lodge	2%
Nursing home/long-term care home	1%
Ethnicity	
White/Caucasian	65%
Other	35%
Note: These results are not weighted and reflect respondents only	

Table 39: Respondent characteristics – Rockyview General Hospital

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=1,557)
Gender	
Female	55%
Male	45%
Age *(years)*	
16 to 24	8%
25 to 34	16%
35 to 44	14%
45 to 64	32%
65 to 74	12%
over 75	17%
Mean Age (years)	52.3
Highest level of education	
Less than high school	14%
Completed high school	21%
Technical school	12%
Some university or college	12%
Completed college degree	14%
Complete university degree	20%
Post-graduate degree	7%
Language	
English	89%
Other	11%
Residence	
Own residence	72%
Rents residence	24%
Residential facility/senior's lodge	3%
Nursing home/long-term care home	1%
Ethnicity	
White/Caucasian	83%
Other	17%
Note: These results are not weighted and reflect respondents only	

Table 40: Respondent characteristics – Foothills Medical Centre

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=1,479)
Gender	
Female	55%
Male	45%
Age *(years)*	
16 to 24	8%
25 to 34	13%
35 to 44	13%
45 to 64	33%
65 to 74	13%
over 75	21%
Mean Age (years)	54.7
Highest level of education	
Less than high school	15%
Completed high school	19%
Technical school	10%
Some university or college	13%
Completed college degree	13%
Complete university degree	21%
Post-graduate degree	9%
Language	
English	87%
Other	13%
Residence	
Own residence	73%
Rents residence	22%
Residential facility/senior's lodge	4%
Nursing home/long-term care home	1%
Ethnicity	
White/Caucasian	79%
Other	21%
Note: These results are not weighted and reflect respondents only	

Table 41: Respondent characteristics – Sturgeon Community Hospital

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=1,496)
Gender	
Female	59%
Male	41%
Age *(years)*	
16 to 24	11%
25 to 34	13%
35 to 44	13%
45 to 64	33%
65 to 74	13%
over 75	18%
Mean Age (years)	53.0
Highest level of education	
Less than high school	20%
Completed high school	25%
Technical school	13%
Some university or college	11%
Completed college degree	13%
Complete university degree	14%
Post-graduate degree	4%
Language	
English	94%
Other	6%
Residence	
Own residence	75%
Rents residence	18%
Residential facility/senior's lodge	5%
Nursing home/long-term care home	2%
Ethnicity	
White/Caucasian	89%
Other	11%
Note: These results are not weighted and reflect respondents only	

Table 42: Respondent characteristics – Royal Alexandra Hospital

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=1,436)
Gender	
Female	57%
Male	43%
Age *(years)*	
16 to 24	9%
25 to 34	13%
35 to 44	12%
45 to 64	31%
65 to 74	15%
over 75	20%
Mean Age (years)	54.5
Highest level of education	
Less than high school	26%
Completed high school	25%
Technical school	10%
Some university or college	11%
Completed college degree	12%
Complete university degree	10%
Post-graduate degree	5%
Language	
English	89%
Other	11%
Residence	
Own residence	61%
Rents residence	32%
Residential facility/senior's lodge	6%
Nursing home/long-term care home	2%
Ethnicity	
White/Caucasian	79%
Other	21%
Note: These results are not weighted and reflect respondents only	

Table 43: Respondent characteristics – Grey Nuns Community Hospital

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=1,547)
Gender	
Female	56%
Male	44%
Age *(years)*	
16 to 24	12%
25 to 34	17%
35 to 44	13%
45 to 64	30%
65 to 74	13%
over 75	15%
Mean Age (years)	50.8
Highest level of education	
Less than high school	18%
Completed high school	24%
Technical school	14%
Some university or college	13%
Completed college degree	14%
Complete university degree	15%
Post-graduate degree	4%
Language	
English	88%
Other	12%
Residence	
Own residence	71%
Rents residence	25%
Residential facility/senior's lodge	3%
Nursing home/long-term care home	1%
Ethnicity	
White/Caucasian	78%
Other	22%
Note: These results are not weighted and reflect respondents only	

Table 44: Respondent characteristics – Misericordia Community Hospital

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=1,476)
Gender	
Female	58%
Male	42%
Age *(years)*	
16 to 24	10%
25 to 34	14%
35 to 44	13%
45 to 64	31%
65 to 74	12%
over 75	21%
Mean Age (years)	53.9
Highest level of education	
Less than high school	20%
Completed high school	23%
Technical school	13%
Some university or college	11%
Completed college degree	14%
Complete university degree	15%
Post-graduate degree	4%
Language	
English	90%
Other	10%
Residence	
Own residence	65%
Rents residence	29%
Residential facility/senior's lodge	5%
Nursing home/long-term care home	1%
Ethnicity	
White/Caucasian	82%
Other	18%
Note: These results are not weighted and reflect respondents only	

Table 45: Respondent characteristics – University of Alberta Hospital

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=1,517)
Gender	
Female	54%
Male	46%
Age *(years)*	
16 to 24	13%
25 to 34	10%
35 to 44	12%
45 to 64	30%
65 to 74	16%
over 75	19%
Mean Age (years)	53.7
Highest level of education	
Less than high school	20%
Completed high school	22%
Technical school	12%
Some university or college	11%
Completed college degree	12%
Complete university degree	16%
Post-graduate degree	7%
Language	
English	88%
Other	12%
Residence	
Own residence	69%
Rents residence	24%
Residential facility/senior's lodge	5%
Nursing home/long-term care home	1%
Ethnicity	
White/Caucasian	82%
Other	18%
Note: These results are not weighted and reflect respondents only	

Table 46: Respondent characteristics – Northern Lights Regional Health Centre

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=1,518)
Gender	
Female	52%
Male	48%
Age *(years)*	
16 to 24	15%
25 to 34	23%
35 to 44	20%
45 to 64	38%
65 to 74	3%
over 75	1%
Mean Age (years)	41.1
Highest level of education	
Less than high school	14%
Completed high school	26%
Technical school	16%
Some university or college	12%
Completed college degree	19%
Complete university degree	10%
Post-graduate degree	3%
Language	
English	90%
Other	10%
Residence	
Own residence	65%
Rents residence	34%
Residential facility/senior's lodge	1%
Nursing home/long-term care home	0%
Ethnicity	
White/Caucasian	80%
Other	20%
Note: These results are not weighted and reflect respondents only	

Table 47: Respondent characteristics – Queen Elizabeth II Hospital

Male or Female (administrative data) ***Age (administrative data)*** ***Q69: What is the highest level of school that you have completed?*** ***Q71: What language do you mainly speak at home?*** ***Q73: Where do you presently live?*** ***Q70: Would you say you are…?***	
	June 2010-July 2013 (n=1,466)
Gender	
Female	57%
Male	43%
Age *(years)*	
16 to 24	16%
25 to 34	20%
35 to 44	16%
45 to 64	32%
65 to 74	8%
over 75	7%
Mean Age (years)	45.1
Highest level of education	
Less than high school	23%
Completed high school	27%
Technical school	12%
Some university or college	12%
Completed college degree	16%
Complete university degree	8%
Post-graduate degree	2%
Language	
English	95%
Other	5%
Residence	
Own residence	67%
Rents residence	31%
Residential facility/senior's lodge	3%
Nursing home/long-term care home	0.3%
Ethnicity	
White/Caucasian	88%
Other	12%
Note: These results are not weighted and reflect respondents only	

Respondents compared to those not surveyed or not included

Chinook Regional Hospital

Table 48: Gender by sample category – Chinook Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Gender	**No Survey**	**Survey**
Female	52%	58%
Male	48%	42%
	132,867	1,512
Count	134,379	
p value	Chi-squared = 0.000 Phi = 0.0118	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 49: Mean age by sample category – Chinook Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Value	**No Survey**	**Survey**
	47 years	52 years
Mean Age	47 years	
p value	t test = 0.000	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 50: Age group by sample category – Chinook Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Age Group	**No Survey**	**Survey**
16 to 24	19%	15%
25 to 34	19%	13%
35 to 44	14%	10%
45 to 64	26%	32%
65 to 74	8%	14%
over 75	14%	17%
Count	132,867	1,512
	134,379	
p value	Chi-squared = 0.000 Cramer's V = 0.0316	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 51: CTAS score by sample category – Chinook Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
CTAS score	**No Survey**	**Survey**
CTAS 1	0.3%	0%
CTAS 2	3%	4%
CTAS 3	42%	46%
CTAS 4	41%	40%
CTAS 5	14%	11%
Count	132,316	1,509
	133,825	
p value	Chi-squared = 0.000 Cramer's V = 0.0137	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 52: Discharge status by sample category – Chinook Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Discharge Disposition	**No Survey**	**Survey**
Not Admitted	87%	86%
Admitted	13%	14%
	125,007	1,494
Count	126,501	
p value	Chi-squared = 0.068 Phi = 0.0051	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Medicine Hat Regional Hospital

Table 53: Gender by sample category – Medicine Hat Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Gender	**No Survey**	**Survey**
Female	52%	56%
Male	48%	44%
	95,588	1,523
Count	97,111	
p value	Chi-squared = 0.001 Phi = 0.0107	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 54: Mean age by sample category – Medicine Hat Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Value	**No Survey**	**Survey**
	48 years	53 years
Mean Age	48 years	
p value	t test = 0.000	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 55: Age group by sample category – Medicine Hat Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Age Group	**No Survey**	**Survey**
16 to 24	17%	11%
25 to 34	19%	13%
35 to 44	14%	12%
45 to 64	27%	32%
65 to 74	9%	15%
over 75	15%	18%
Count	95,588	1,523
	97,111	
p value	Chi-squared = 0.000 Cramer's V = 0.0385	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 56: CTAS score by sample category – Medicine Hat Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
CTAS score	**No Survey**	**Survey**
CTAS 1	0.2%	0.1%
CTAS 2	9%	11%
CTAS 3	39%	42%
CTAS 4	44%	41%
CTAS 5	7%	6%
Count	95,385	1,520
	96,905	
p value	Chi-squared = 0.001 Cramer's V = 0.0141	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 57: Discharge status by sample category – Medicine Hat Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Discharge Disposition	**No Survey**	**Survey**
Not Admitted	84%	85%
Admitted	16%	15%
Count	92,076	1,506
	93,582	
p value	Chi-squared = 0.954 Phi = 0.0002	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Red Deer Regional Hospital

Table 58: Gender by sample category – Red Deer Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Gender	**No Survey**	**Survey**
Female	53%	59%
Male	47%	41%
	148,877	1,455
Count	150,332	
p value	Chi-squared = 0.000 Phi = 0.0132	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 59: Mean age by sample category – Red Deer Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Value	**No Survey**	**Survey**
	45 years	51 years
Mean Age	45 years	
p value	t test = 0.000	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 60: Age group by sample category – Red Deer Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Age Group	**No Survey**	**Survey**
16 to 24	20%	12%
25 to 34	20%	14%
35 to 44	14%	13%
45 to 64	26%	34%
65 to 74	8%	11%
over 75	11%	15%
Count	148,877	1,455
	150,332	
p value	Chi-squared = 0.000 Cramer's V = 0.0306	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 61: CTAS score by sample category – Red Deer Regional Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
CTAS score	**No Survey**	**Survey**
CTAS 1	0.4%	0.1%
CTAS 2	10%	8%
CTAS 3	45%	50%
CTAS 4	41%	39%
CTAS 5	4%	3%
Count	148,510	1,454
	149,964	
p value	Chi-squared = 0.002 Cramer's V = 0.0106	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 62: Discharge status by sample category – Red Deer Regional Hospital

Survey compared to no survey over entire study period ***June 2010-July 2013 (administrative data)***		
	June 2010-July 2013	
Discharge Disposition	**No Survey**	**Survey**
Not Admitted	84%	83%
Admitted	16%	17%
	141,041	1,437
Count	142,478	
p value	Chi-squared = 0.077 Phi = 0.0047	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Peter Lougheed Centre

Table 63: Gender by sample category – Peter Lougheed Centre

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Gender	**No Survey**	**Survey**
Female	52%	56%
Male	48%	44%
	206,135	1,462
Count	207,597	
p value	Chi-squared = 0.002 Phi = 0.0066	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 64: Mean age by sample category – Peter Lougheed Centre

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Value	**No Survey**	**Survey**
	45 years	49 years
Mean Age	45 years	
p value	t test = 0.000	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 65: Age group by sample category – Peter Lougheed Centre

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Age Group	**No Survey**	**Survey**
16 to 24	16%	9%
25 to 34	23%	18%
35 to 44	17%	16%
45 to 64	28%	35%
65 to 74	7%	11%
over 75	9%	11%
Count	206,135	1,462
	207,597	
p value	Chi-squared = 0.000 Cramer's V = 0.0230	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 66: CTAS score by sample category – Peter Lougheed Centre

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
CTAS score	**No Survey**	**Survey**
CTAS 1	1%	0.3%
CTAS 2	23%	25%
CTAS 3	54%	55%
CTAS 4	19%	18%
CTAS 5	3%	2%
Count	206,122	1,462
	207,584	
p value	Chi-squared = 0.002 Cramer's V = 0.0091	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 67: Discharge status by sample category – Peter Lougheed Centre

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Discharge Disposition	**No Survey**	**Survey**
Not Admitted	82%	81%
Admitted	18%	19%
	193,629	1,448
Count	195,077	
p value	Chi-squared = 0.223 Phi = 0.0028	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Rockyview General Hospital

Table 68: Gender by sample category – Rockyview General Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Gender	**No Survey**	**Survey**
Female	53%	55%
Male	47%	45%
	215,704	1,557
Count	217,261	
p value	Chi-squared = 0.103 Phi = 0.0035	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 69: Mean age by sample category – Rockyview General Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Value	**No Survey**	**Survey**
	49 years	52 years
Mean Age	49 years	
p value	t test = 0.000	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 70: Age group by sample category – Rockyview General Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Age Group	**No Survey**	**Survey**
16 to 24	14%	8%
25 to 34	19%	16%
35 to 44	15%	14%
45 to 64	28%	32%
65 to 74	9%	12%
over 75	16%	17%
Count	215,705	1,557
	217,262	
p value	Chi-squared = 0.000 Cramer's V = 0.0180	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 71: CTAS score by sample category – Rockyview General Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
CTAS score	**No Survey**	**Survey**
CTAS 1	0.5%	0.1%
CTAS 2	35%	36%
CTAS 3	51%	51%
CTAS 4	11%	11%
CTAS 5	2%	2%
Count	215,699	1,557
	217,256	
p value	Chi-squared = 0.268 Cramer's V = 0.0049	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 72: Discharge status by sample category – Rockyview General Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Discharge Disposition	**No Survey**	**Survey**
Not Admitted	80%	79%
Admitted	20%	21%
	209,826	1,543
Count	211,369	
p value	Chi-squared = 0.360 Phi = 0.0020	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Foothills Medical Centre

Table 73: Gender by sample category – Foothills Medical Centre

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Gender	**No Survey**	**Survey**
Female	51%	55%
Male	49%	45%
	221,788	1,479
Count	223,267	
p value	Chi-squared = 0.005 Phi = 0.0060	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 74: Mean age by sample category – Foothills Medical Centre

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Value	**No Survey**	**Survey**
	49 years	55 years
Mean Age	49 years	
p value	t test = 0.000	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 75: Age group by sample category – Foothills Medical Centre

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Age Group	**No Survey**	**Survey**
16 to 24	14%	8%
25 to 34	18%	13%
35 to 44	15%	13%
45 to 64	28%	33%
65 to 74	10%	13%
over 75	15%	21%
Count	221,788	1,479
	223,267	
p value	Chi-squared = 0.000 Cramer's V = 0.0237	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 76: CTAS score by sample category – Foothills Medical Centre

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
CTAS score	**No Survey**	**Survey**
CTAS 1	2%	1%
CTAS 2	31%	33%
CTAS 3	49%	49%
CTAS 4	14%	14%
CTAS 5	3%	2%
Count	221,783	1,479
	223,262	
p value	Chi-squared = 0.114 Cramer's V = 0.0058	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 77: Discharge status by sample category – Foothills Medical Centre

Survey compared to no survey over entire study period ***June 2010-July 2013 (administrative data)***		
	June 2010-July 2013	
Discharge Disposition	**No Survey**	**Survey**
Not Admitted	74%	73%
Admitted	26%	27%
	212,581	1,467
Count	214,048	
p value	Chi-squared = 0.233 Phi = 0.0026	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Sturgeon Community Hospital

Table 78: Gender by sample category – Sturgeon Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Gender	**No Survey**	**Survey**
Female	54%	59%
Male	46%	41%
	115,083	1,496
Count	116,579	
p value	Chi-squared = 0.001 Phi = 0.0093	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 79: Mean age by sample category – Sturgeon Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Value	**No Survey**	**Survey**
	47 years	53 years
Mean Age	47 years	
p value	t test = 0.000	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 80: Age group by sample category – Sturgeon Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Age Group	**No Survey**	**Survey**
16 to 24	17%	11%
25 to 34	19%	13%
35 to 44	15%	13%
45 to 64	27%	33%
65 to 74	9%	13%
over 75	14%	18%
Count	115,083	1,496
	116,579	
p value	Chi-squared = 0.000 Cramer's V = 0.0332	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 81: CTAS score by sample category – Sturgeon Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
CTAS score	**No Survey**	**Survey**
CTAS 1	0.3%	0.2%
CTAS 2	13%	14%
CTAS 3	49%	51%
CTAS 4	27%	26%
CTAS 5	11%	9%
Count	113,650	1,484
	115,134	
p value	Chi-squared = 0.158 Cramer's V = 0.0076	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 82: Discharge status by sample category – Sturgeon Community Hospital

Survey compared to no survey over entire study period ***June 2010-July 2013 (administrative data)***		
	June 2010-July 2013	
Discharge Disposition	**No Survey**	**Survey**
Not Admitted	89%	88%
Admitted	11%	12%
	109,559	1,487
Count	111,046	
p value	Chi-squared = 0.100 Phi = 0.0049	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 83: Gender by sample category – Royal Alexandra Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Gender	**No Survey**	**Survey**
Female	50%	57%
Male	50%	43%
	211,968	1,436
Count	213,404	
p value	Chi-squared = 0.000 Phi = 0.0118	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 84: Mean age by sample category – Royal Alexandra Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Value	**No Survey**	**Survey**
	47 years	54 years
Mean Age	47 years	
p value	t test = 0.000	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 85: Age group by sample category – Royal Alexandra Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Age Group	**No Survey**	**Survey**
16 to 24	15%	9%
25 to 34	20%	13%
35 to 44	16%	12%
45 to 64	29%	31%
65 to 74	8%	15%
over 75	12%	20%
Count	211,968	1,436
	213,404	
p value	Chi-squared = 0.000 Cramer's V = 0.0329	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 86: CTAS score by sample category – Royal Alexandra Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
CTAS score	**No Survey**	**Survey**
CTAS 1	1%	1%
CTAS 2	21%	24%
CTAS 3	52%	55%
CTAS 4	22%	17%
CTAS 5	4%	4%
Count	208,662	1,423
	210,085	
p value	Chi-squared = 0.000 Cramer's V = 0.0102	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 87: Discharge status by sample category – Royal Alexandra Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Discharge Disposition	**No Survey**	**Survey**
Not Admitted	77%	74%
Admitted	23%	26%
	196,310	1,424
Count	197,734	
p value	Chi-squared = 0.011 Phi = 0.0057	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Grey Nuns Community Hospital

Table 88: Gender by sample category – Grey Nuns Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Gender	**No Survey**	**Survey**
Female	54%	56%
Male	46%	44%
	166,806	1,547
Count	168,353	
p value	Chi-squared = 0.142 Phi = 0.0036	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 89: Mean age by sample category – Grey Nuns Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Value	**No Survey**	**Survey**
	46 years	51 years
Mean Age	46 years	
p value	t test = 0.000	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 90: Age group by sample category – Grey Nuns Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Age Group	**No Survey**	**Survey**
16 to 24	16%	12%
25 to 34	22%	17%
35 to 44	16%	13%
45 to 64	27%	30%
65 to 74	8%	13%
over 75	12%	15%
Count	166,806	1,547
	168,353	
p value	Chi-squared = 0.000 Cramer's V = 0.0242	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 91: CTAS score by sample category – Grey Nuns Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
CTAS score	**No Survey**	**Survey**
CTAS 1	0.5%	0.3%
CTAS 2	16%	17%
CTAS 3	50%	50%
CTAS 4	27%	26%
CTAS 5	7%	6%
Count	164,897	1,534
	166,431	
p value	Chi-squared = 0.151 Cramer's V = 0.0064	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 92: Discharge status by sample category – Grey Nuns Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Discharge Disposition	**No Survey**	**Survey**
Not Admitted	87%	86%
Admitted	13%	14%
Count	159,154	1,537
	160,691	
p value	Chi-squared = 0.413 Phi = 0.0020	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Misericordia Community Hospital

Table 93: Gender by sample category – Misericordia Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Gender	**No Survey**	**Survey**
Female Male	54% 46%	58% 42%
Count	135,589	1,476
	137,065	
p value	Chi-squared = 0.009 Phi = 0.0070	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 94: Mean age by sample category – Misericordia Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Value	**No Survey**	**Survey**
Mean Age	47 years	54 years
	47 years	
p value	t test = 0.000	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 95: Age group by sample category – Misericordia Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Age Group	**No Survey**	**Survey**
16 to 24	17%	10%
25 to 34	20%	14%
35 to 44	15%	13%
45 to 64	27%	31%
65 to 74	8%	12%
over 75	14%	21%
Count	135,589	1,476
	137,065	
p value	Chi-squared = 0.000 Cramer's V = 0.0339	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 96: CTAS score by sample category – Misericordia Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
CTAS score	**No Survey**	**Survey**
CTAS 1	0.5%	0.3%
CTAS 2	15%	16%
CTAS 3	54%	55%
CTAS 4	27%	26%
CTAS 5	4%	3%
Count	134,080	1,458
	135,538	
p value	Chi-squared = 0.254 Cramer's V = 0.0063	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 97: Discharge status by sample category – Misericordia Community Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Discharge Disposition	**No Survey**	**Survey**
Not Admitted	86%	85%
Admitted	14%	15%
	127,715	1,453
Count	129,168	
p value	Chi-squared = 0.190 Phi = 0.0036	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

University of Alberta Hospital

Table 98: Gender by sample category – University of Alberta Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Gender	**No Survey**	**Survey**
Female	48%	54%
Male	52%	46%
	191,320	1,517
Count	192,837	
p value	Chi-squared = 0.000 Phi = 0.0092	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 99: Mean age by sample category – University of Alberta Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Value	**No Survey**	**Survey**
	47 years	54 years
Mean Age	47 years	
p value	t test = 0.000	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 100: Age group by sample category – University of Alberta Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Age Group	**No Survey**	**Survey**
16 to 24	19%	13%
25 to 34	18%	10%
35 to 44	13%	12%
45 to 64	27%	30%
65 to 74	9%	16%
over 75	13%	19%
Count	191,320	1,517
	192,837	
p value	Chi-squared = 0.000 Cramer's V = 0.0311	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 101: CTAS score by sample category – University of Alberta Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
CTAS score	**No Survey**	**Survey**
CTAS 1	1%	1%
CTAS 2	22%	23%
CTAS 3	46%	49%
CTAS 4	25%	23%
CTAS 5	6%	5%
Count	188,748	1,507
	190,255	
p value	Chi-squared = 0.044 Cramer's V = 0.0072	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 102: Discharge status by sample category – University of Alberta Hospital

Survey compared to no survey over entire study period ***June 2010-July 2013 (administrative data)***		
	June 2010-July 2013	
Discharge Disposition	**No Survey**	**Survey**
Not Admitted	74%	72%
Admitted	26%	28%
	180,305	1,502
Count	181,807	
p value	Chi-squared = 0.028 Phi = 0.0052	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 103: Gender by sample category – Northern Lights Regional Health Centre

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Gender	**No Survey**	**Survey**
Female	44%	52%
Male	56%	48%
	188,682	1,518
Count	190,200	
p value	Chi-squared = 0.000 Phi = 0.0138	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 104: Mean age by sample category – Northern Lights Regional Health Centre

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Value	**No Survey**	**Survey**
	38 years	41 years
Mean Age	38 years	
p value	t test = 0.000	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 105: Age group by sample category – Northern Lights Regional Health Centre

Survey compared to no survey over entire study period ***June 2010-July 2013 (administrative data)***		
	June 2010-July 2013	
Age Group	**No Survey**	**Survey**
16 to 24	21%	15%
25 to 34	28%	23%
35 to 44	20%	20%
45 to 64	29%	38%
65 to 74	2%	3%
over 75	1%	1%
Count	188,682	1,518
	190,200	
p value	Chi-squared = 0.000 Cramer's V = 0.0205	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 106: CTAS score by sample category – Northern Lights Regional Health Centre

Survey compared to no survey over entire study period ***June 2010-July 2013 (administrative data)***		
	June 2010-July 2013	
CTAS score	**No Survey**	**Survey**
CTAS 1	0.2%	0%
CTAS 2	6%	6%
CTAS 3	34%	36%
CTAS 4	55%	55%
CTAS 5	5%	3%
Count	188,562	1,518
	190,080	
p value	Chi-squared = 0.005 Cramer's V = 0.0089	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 107: Discharge status by sample category – Northern Lights Regional Health Centre

Survey compared to no survey over entire study period ***June 2010-July 2013 (administrative data)***		
	June 2010-July 2013	
Discharge Disposition	**No Survey**	**Survey**
Not Admitted	96%	95%
Admitted	4%	5%
	175,627	1,494
Count	177,121	
p value	Chi-squared = 0.180 Phi = 0.0032	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Queen Elizabeth II Hospital

Table 108: Gender by sample category – Queen Elizabeth II Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Gender	**No Survey**	**Survey**
Female	50%	57%
Male	50%	43%
	139,827	1,466
Count	141,293	
p value	Chi-squared = 0.000 Phi = 0.0138	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 109: Mean age by sample category – Queen Elizabeth II Hospital

Survey compared to no survey over entire study period June 2010-July 2013 (administrative data)		
	June 2010-July 2013	
Value	**No Survey**	**Survey**
	40 years	45 years
Mean Age	40 years	
p value	t test = 0.000	
Note: 'No survey' category includes non-respondents as well as those not included in the sample		

Table 110: Age group by sample category – Queen Elizabeth II Hospital

Survey compared to no survey over entire study period ***June 2010-July 2013 (administrative data)***		
	June 2010-July 2013	
Age Group	**No Survey**	**Survey**
16 to 24	23%	16%
25 to 34	25%	20%
35 to 44	17%	16%
45 to 64	25%	32%
65 to 74	5%	8%
over 75	5%	7%
Count	139,827	1,466
	141,293	
p value	Chi-squared = 0.000 Cramer's V = 0.0307	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 111: CTAS score by sample category – Queen Elizabeth II Hospital

Survey compared to no survey over entire study period ***June 2010-July 2013 (administrative data)***		
	June 2010-July 2013	
CTAS score	**No Survey**	**Survey**
CTAS 1	0.2%	0.1%
CTAS 2	9%	10%
CTAS 3	28%	31%
CTAS 4	52%	52%
CTAS 5	11%	7%
Count	135,760	1,411
	137,171	
p value	Chi-squared = 0.000 Cramer's V = 0.0147	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Table 112: Discharge status by sample category – Queen Elizabeth II Hospital

Survey compared to no survey over entire study period ***June 2010-July 2013 (administrative data)***		
	June 2010-July 2013	
Discharge Disposition	**No Survey**	**Survey**
Not Admitted	97%	96%
Admitted	3%	4%
	122,728	1,418
Count	124,146	
p value	Chi-squared = 0.036 Phi = 0.0060	
Note: 'No Survey' category includes non-respondents as well as those not included in the sample		

Self-reported health characteristics

Table 113: Self-reported health characteristics – Chinook Regional Hospital

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 1,484)		
Health during past four weeks			
Excellent	12%		
Very good	24%		
Good	31%		
Fair	24%		
Poor	9%		
Very poor	2%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=1,463)	68%	31%	1%
Self-care (n=1,465)	82%	15%	3%
Usual activities (n=1,459)	56%	34%	9%
Pain or discomfort (n=1,454)	45%	49%	6%
Anxiety or depression (n=1,442)	66%	30%	4%
Note: Data is not weighted			

Table 114: Self-reported health characteristics – Medicine Hat Regional Hospital

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 1,480)		
Health during past four weeks			
Excellent	12%		
Very good	21%		
Good	31%		
Fair	24%		
Poor	10%		
Very poor	2%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=1,459)	68%	31%	1%
Self-care (n=1,458)	82%	16%	2%
Usual activities (n=1,458)	56%	37%	8%
Pain or discomfort (n=1,451)	42%	52%	6%
Anxiety or depression (n=1,444)	70%	27%	3%
Note: Data is not weighted			

Table 115: Self-reported health characteristics – Red Deer Regional Hospital

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 1,411)		
Health during past four weeks			
Excellent	12%		
Very good	23%		
Good	30%		
Fair	24%		
Poor	10%		
Very poor	2%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=1,407)	70%	29%	1%
Self-care (n=1,410)	84%	13%	3%
Usual activities (n=1,406)	57%	34%	9%
Pain or discomfort (n=1,404)	44%	49%	6%
Anxiety or depression (n=1,389)	69%	28%	3%
Note: Data is not weighted			

Table 116: Self-reported health characteristics – Peter Lougheed Centre

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 1,428)		
Health during past four weeks			
Excellent	11%		
Very good	24%		
Good	30%		
Fair	22%		
Poor	9%		
Very poor	3%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=1,402)	68%	30%	2%
Self-care (n=1,410)	83%	15%	2%
Usual activities (n=1,401)	57%	34%	9%
Pain or discomfort (n=1,396)	45%	47%	8%
Anxiety or depression (n=1,391)	67%	29%	4%
Note: Data is not weighted			

Table 117: Self-reported health characteristics – Rockyview General Hospital

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 1,520)		
Health during past four weeks			
Excellent	14%		
Very good	26%		
Good	29%		
Fair	21%		
Poor	8%		
Very poor	2%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=1,496)	73%	26%	1%
Self-care (n=1,503)	84%	13%	2%
Usual activities (n=1,494)	59%	34%	7%
Pain or discomfort (n=1,490)	52%	43%	5%
Anxiety or depression (n=1,480)	70%	26%	5%
Note: Data is not weighted			

Table 118: Self-reported health characteristics – Foothills Medical Centre

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 1,438)		
Health during past four weeks			
Excellent	10%		
Very good	24%		
Good	30%		
Fair	25%		
Poor	9%		
Very poor	2%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=1,416)	68%	31%	1%
Self-care (n=1,424)	81%	17%	2%
Usual activities (n=1,417)	53%	36%	11%
Pain or discomfort (n=1,421)	48%	48%	5%
Anxiety or depression (n=1,411)	67%	30%	3%
Note: Data is not weighted			

Table 119: Self-reported health characteristics – Sturgeon Community Hospital

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 1,450)		
Health during past four weeks			
Excellent	13%		
Very good	23%		
Good	32%		
Fair	22%		
Poor	8%		
Very poor	2%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=1,446)	72%	27%	1%
Self-care (n=1,452)	84%	14%	2%
Usual activities (n=1,445)	59%	34%	7%
Pain or discomfort (n=1,436)	48%	47%	4%
Anxiety or depression (n=1,429)	71%	26%	3%
Note: Data is not weighted			

Table 120: Self-reported health characteristics – Royal Alexandra Hospital

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 1,392)		
Health during past four weeks			
Excellent	11%		
Very good	19%		
Good	31%		
Fair	25%		
Poor	11%		
Very poor	3%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=1,397)	62%	35%	3%
Self-care (n=1,387)	77%	20%	3%
Usual activities (n=1,389)	51%	38%	11%
Pain or discomfort (n=1,387)	42%	50%	8%
Anxiety or depression (n=1,366)	62%	33%	6%
Note: Data is not weighted			

Table 121: Self-reported health characteristics – Grey Nuns Community Hospital

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 1,506)		
Health during past four weeks			
Excellent	12%		
Very good	25%		
Good	31%		
Fair	22%		
Poor	8%		
Very poor	2%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=1,496)	74%	25%	1%
Self-care (n=1,497)	85%	13%	2%
Usual activities (n=1,496)	60%	32%	8%
Pain or discomfort (n=1,488)	51%	44%	5%
Anxiety or depression (n=1,483)	69%	28%	3%
Note: Data is not weighted			

Table 122: Self-reported health characteristics – Misericordia Community Hospital

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 1,446)		
Health during past four weeks			
Excellent	12%		
Very good	23%		
Good	31%		
Fair	22%		
Poor	9%		
Very poor	2%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=1,430)	69%	30%	1%
Self-care (n=1,432)	82%	16%	2%
Usual activities (n=1,432)	58%	33%	9%
Pain or discomfort (n=1,428)	46%	48%	7%
Anxiety or depression (n=1,418)	68%	27%	4%
Note: Data is not weighted			

Table 123: Self-reported health characteristics – University of Alberta Hospital

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 1,475)		
Health during past four weeks			
Excellent	11%		
Very good	23%		
Good	28%		
Fair	26%		
Poor	10%		
Very poor	3%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=1,461)	63%	34%	2%
Self-care (n=1,461)	78%	19%	3%
Usual activities (n=1,452)	51%	38%	11%
Pain or discomfort (n=1,452)	46%	47%	7%
Anxiety or depression (n=1,437)	64%	32%	4%
Note: Data is not weighted			

Table 124: Self-reported health characteristics – Northern Lights Regional Health Centre

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 1,486)		
Health during past four weeks			
Excellent	21%		
Very good	29%		
Good	27%		
Fair	16%		
Poor	6%		
Very poor	1%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=1,460)	84%	16%	0.4%
Self-care (n=1,468)	94%	6%	1%
Usual activities (n=1,469)	77%	19%	4%
Pain or discomfort (n=1,468)	59%	37%	4%
Anxiety or depression (n=1,466)	77%	21%	2%
Note: Data is not weighted			

Table 125: Self-reported health characteristics – Queen Elizabeth II Hospital

Q63: Overall, how would you rate your health during the past 4 weeks? ***Q58: EQ-5D Mobility*** ***Q59: EQ-5D Self care*** ***Q60: EQ-5D Usual activities*** ***Q61: EQ-5D Pain or discomfort*** ***Q62: EQ-5D Anxiety or depression***			
	June 2010-July 2013 (n = 1,430)		
Health during past four weeks			
Excellent	14%		
Very good	25%		
Good	32%		
Fair	21%		
Poor	6%		
Very poor	2%		
EQ-5D Health related quality of life (collapsed) for June 2010-July 2013			
Scale	**No problem**	**Moderate problem**	**Extreme problem**
Mobility (n=1,414)	76%	23%	1%
Self-care (n=1,408)	89%	10%	2%
Usual activities (n=1,408)	66%	29%	5%
Pain or discomfort (n=1,407)	52%	45%	4%
Anxiety or depression (n=1,394)	74%	23%	3%
Note: Data is not weighted			

Prior use of personal family doctor or emergency department services

Table 126: Visits to personal family doctor or emergency department services – Chinook Regional Hospital

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs? ***Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?*** ***Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?***	
	June 2010-July 2013
Has a personal family doctor	**(n=1,493)**
Yes	93%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=1,370)**
None	2%
1 time	9%
2 to 4 times	42%
5 to 10 times	29%
More than 10 times	18%
An emergency department	**(n=1,469)**
1 time	48%
2 to 4 times	40%
5 to 10 times	9%
More than 10 times	3%

Note: Data is not weighted
** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*

Table 127: Visits to personal family doctor or emergency department services – Medicine Hat Regional Hospital

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs? ***Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?*** ***Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?***	
	June 2010-July 2013
Has a personal family doctor	**(n=1,495)**
Yes	91%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=1,332)**
None	3%
1 time	10%
2 to 4 times	40%
5 to 10 times	30%
More than 10 times	18%
An emergency department	**(n=1,478)**
1 time	44%
2 to 4 times	44%
5 to 10 times	9%
More than 10 times	3%

Note: Data is not weighted
** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*

Table 128: Visits to personal family doctor or emergency department services – Red Deer Regional Hospital

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs? ***Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?*** ***Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?***	
	June 2010-July 2013
Has a personal family doctor	**(n=1,428)**
Yes	89%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=1,252)**
None	3%
1 time	10%
2 to 4 times	41%
5 to 10 times	29%
More than 10 times	17%
An emergency department	**(n=1,413)**
1 time	43%
2 to 4 times	44%
5 to 10 times	9%
More than 10 times	4%

Note: Data is not weighted
** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*

Table 129: Visits to personal family doctor or emergency department services – Peter Lougheed Centre

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs? ***Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?*** ***Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?***	
	June 2010-July 2013
Has a personal family doctor	**(n=1,438)**
Yes	87%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=1,237)**
None	3%
1 time	9%
2 to 4 times	36%
5 to 10 times	32%
More than 10 times	20%
An emergency department	**(n=1,411)**
1 time	52%
2 to 4 times	40%
5 to 10 times	7%
More than 10 times	2%

Note: Data is not weighted
** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*

Table 130: Visits to personal family doctor or emergency department services – Rockyview General Hospital

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs? ***Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?*** ***Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?***	
	June 2010-July 2013
Has a personal family doctor	**(n=1,532)**
Yes	88%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=1,342)**
None	4%
1 time	11%
2 to 4 times	46%
5 to 10 times	26%
More than 10 times	13%
An emergency department	**(n=1,506)**
1 time	51%
2 to 4 times	42%
5 to 10 times	6%
More than 10 times	1%

Note: Data is not weighted
** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*

Table 131: Visits to personal family doctor or emergency department services – Foothills Medical Centre

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs? ***Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?*** ***Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?***	
	June 2010-July 2013
Has a personal family doctor	**(n=1,445)**
Yes	90%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=1,286)**
None	2%
1 time	12%
2 to 4 times	40%
5 to 10 times	29%
More than 10 times	17%
An emergency department	**(n=1,429)**
1 time	52%
2 to 4 times	40%
5 to 10 times	7%
More than 10 times	1%

Note: Data is not weighted
** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*

Table 132: Visits to personal family doctor or emergency department services – Sturgeon Community Hospital

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs? ***Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?*** ***Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?***	
	June 2010-July 2013
Has a personal family doctor	**(n=1,466)**
Yes	91%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=1,309)**
None	3%
1 time	10%
2 to 4 times	46%
5 to 10 times	27%
More than 10 times	15%
An emergency department	**(n=1,454)**
1 time	49%
2 to 4 times	43%
5 to 10 times	6%
More than 10 times	2%

Note: Data is not weighted
** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*

Table 133: Visits to personal family doctor or emergency department services – Royal Alexandra Hospital

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs? ***Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?*** ***Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?***	
	June 2010-July 2013
Has a personal family doctor	**(n=1,398)**
Yes	89%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=1,226)**
None	2%
1 time	7%
2 to 4 times	39%
5 to 10 times	30%
More than 10 times	22%
An emergency department	**(n=1,382)**
1 time	46%
2 to 4 times	44%
5 to 10 times	8%
More than 10 times	3%
Note: Data is not weighted ** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*	

Table 134: Visits to personal family doctor or emergency department services – Grey Nuns Community Hospital

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs? ***Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?*** ***Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?***	
	June 2010-July 2013
Has a personal family doctor	**(n=1,514)**
Yes	88%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=1,323)**
None	3%
1 time	10%
2 to 4 times	42%
5 to 10 times	31%
More than 10 times	14%
An emergency department	**(n=1,498)**
1 time	51%
2 to 4 times	41%
5 to 10 times	7%
More than 10 times	1%

Note: Data is not weighted
** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*

Table 135: Visits to personal family doctor or emergency department services – Misericordia Community Hospital

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs? ***Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?*** ***Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?***	
	June 2010-July 2013
Has a personal family doctor	**(n=1,449)**
Yes	89%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=1,259)**
None	2%
1 time	12%
2 to 4 times	44%
5 to 10 times	28%
More than 10 times	14%
An emergency department	**(n=1,432)**
1 time	50%
2 to 4 times	42%
5 to 10 times	7%
More than 10 times	1%

Note: Data is not weighted
** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*

Table 136: Visits to personal family doctor or emergency department services – University of Alberta Hospital

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs? ***Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?*** ***Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?***	
	June 2010-July 2013
Has a personal family doctor	**(n=1,483)**
Yes	91%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=1,329)**
None	2%
1 time	9%
2 to 4 times	43%
5 to 10 times	29%
More than 10 times	18%
An emergency department	**(n=1,467)**
1 time	49%
2 to 4 times	41%
5 to 10 times	9%
More than 10 times	2%

Note: Data is not weighted
** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*

Table 137: Visits to personal family doctor or emergency department services – Northern Lights Regional Health Centre

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs? ***Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?*** ***Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?***	
	June 2010-July 2013
Has a personal family doctor	**(n=1,499)**
Yes	85%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=1,256)**
None	3%
1 time	10%
2 to 4 times	44%
5 to 10 times	27%
More than 10 times	16%
An emergency department	**(n=1,480)**
1 time	36%
2 to 4 times	48%
5 to 10 times	13%
More than 10 times	4%

Note: Data is not weighted
** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*

Table 138: Visits to personal family doctor or emergency department services – Queen Elizabeth II Hospital

Q64: Do you currently have a personal family doctor or specialist whom you see for most of your health care needs? ***Q65: In the past 12 months, approximately how many times in total have you visited your personal family doctor or your specialist for your own care?*** ***Q66: In the past 12 months, approximately how many times have you visited an emergency department for your own care?***	
	June 2010-July 2013
Has a personal family doctor	**(n=1,435)**
Yes	81%
In the past twelve months, how many times have you visited…	
Your personal family doctor*	**(n=1,151)**
None	5%
1 time	12%
2 to 4 times	42%
5 to 10 times	27%
More than 10 times	13%
An emergency department	**(n=1,428)**
1 time	38%
2 to 4 times	47%
5 to 10 times	11%
More than 10 times	5%

Note: Data is not weighted
** Respondents who indicate that they do not have a personal family doctor (Q64) were not asked this question*

Decision to go to the emergency department

Chinook Regional Hospital

Table 139: Who advised respondent to go to emergency department – Chinook Regional Hospital

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=1,489)
Friend or family member	44%
Decided on my own	36%
Personal family doctor	11%
Other	11%
Health Link phone-line nurse	10%
Doctor at walk-in clinic	5%
Specialist doctor	4%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 140: Why patient chose the emergency department – Chinook Regional Hospital

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=1,500)**
Emergency department was only choice available at time	59%
Emergency department was the best place for my medical problem	42%
Told to go to the emergency department rather than somewhere else	20%
Emergency department was the most convenient place to go	11%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Medicine Hat Regional Hospital

Table 141: Who advised respondent to go to emergency department – Medicine Hat Regional Hospital

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=1,485)
Friend or family member	39%
Decided on my own	40%
Personal family doctor	10%
Other	11%
Health Link phone-line nurse	7%
Doctor at walk-in clinic	7%
Specialist doctor	5%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 142: Why patient chose the emergency department – Medicine Hat Regional Hospital

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=1,499)**
Emergency department was only choice available at time	48%
Emergency department was the best place for my medical problem	48%
Told to go to the emergency department rather than somewhere else	20%
Emergency department was the most convenient place to go	12%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Red Deer Regional Hospital

Table 143: Who advised respondent to go to emergency department – Red Deer Regional Hospital

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=1,429)
Friend or family member	39%
Decided on my own	37%
Personal family doctor	13%
Other	12%
Health Link phone-line nurse	9%
Doctor at walk-in clinic	7%
Specialist doctor	4%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 144: Why patient chose the emergency department – Red Deer Regional Hospital

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=1,431)**
Emergency department was only choice available at time	42%
Emergency department was the best place for my medical problem	51%
Told to go to the emergency department rather than somewhere else	25%
Emergency department was the most convenient place to go	9%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Peter Lougheed Centre

Table 145: Who advised respondent to go to emergency department – Peter Lougheed Centre

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=1,437)
Friend or family member	34%
Decided on my own	34%
Personal family doctor	16%
Other	12%
Health Link phone-line nurse	11%
Doctor at walk-in clinic	10%
Specialist doctor	6%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 146: Why patient chose the emergency department – Peter Lougheed Centre

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=1,433)**
Emergency department was only choice available at time	35%
Emergency department was the best place for my medical problem	50%
Told to go to the emergency department rather than somewhere else	29%
Emergency department was the most convenient place to go	11%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Rockyview General Hospital

Table 147: Who advised respondent to go to emergency department – Rockyview General Hospital

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=1,524)
Friend or family member	36%
Decided on my own	33%
Personal family doctor	13%
Other	13%
Health Link phone-line nurse	12%
Doctor at walk-in clinic	9%
Specialist doctor	6%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 148: Why patient chose the emergency department – Rockyview General Hospital

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=1,541)**
Emergency department was only choice available at time	34%
Emergency department was the best place for my medical problem	53%
Told to go to the emergency department rather than somewhere else	31%
Emergency department was the most convenient place to go	11%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Foothills Medical Centre

Table 149: Who advised respondent to go to emergency department – Foothills Medical Centre

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=1,452)
Friend or family member	35%
Decided on my own	29%
Personal family doctor	14%
Other	15%
Health Link phone-line nurse	12%
Doctor at walk-in clinic	7%
Specialist doctor	8%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 150: Why patient chose the emergency department – Foothills Medical Centre

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=1,458)**
Emergency department was only choice available at time	32%
Emergency department was the best place for my medical problem	53%
Told to go to the emergency department rather than somewhere else	32%
Emergency department was the most convenient place to go	11%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Sturgeon Community Hospital

Table 151: Who advised respondent to go to emergency department – Sturgeon Community Hospital

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=1,477)
Friend or family member	38%
Decided on my own	38%
Personal family doctor	12%
Other	12%
Health Link phone-line nurse	8%
Doctor at walk-in clinic	6%
Specialist doctor	4%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 152: Why patient chose the emergency department – Sturgeon Community Hospital

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=1,480)**
Emergency department was only choice available at time	38%
Emergency department was the best place for my medical problem	53%
Told to go to the emergency department rather than somewhere else	22%
Emergency department was the most convenient place to go	14%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Royal Alexandra Hospital

Table 153: Who advised respondent to go to emergency department – Royal Alexandra Hospital

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=1,403)
Friend or family member	35%
Decided on my own	31%
Personal family doctor	16%
Other	18%
Health Link phone-line nurse	8%
Doctor at walk-in clinic	9%
Specialist doctor	7%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 154: Why patient chose the emergency department – Royal Alexandra Hospital

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=1,411)**
Emergency department was only choice available at time	35%
Emergency department was the best place for my medical problem	49%
Told to go to the emergency department rather than somewhere else	31%
Emergency department was the most convenient place to go	13%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Grey Nuns Community Hospital

Table 155: Who advised respondent to go to emergency department – Grey Nuns Community Hospital

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=1,514)
Friend or family member	36%
Decided on my own	36%
Personal family doctor	15%
Other	10%
Health Link phone-line nurse	10%
Doctor at walk-in clinic	8%
Specialist doctor	5%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 156: Why patient chose the emergency department – Grey Nuns Community Hospital

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=1,527)**
Emergency department was only choice available at time	36%
Emergency department was the best place for my medical problem	53%
Told to go to the emergency department rather than somewhere else	28%
Emergency department was the most convenient place to go	11%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Misericordia Community Hospital

Table 157: Who advised respondent to go to emergency department – Misericordia Community Hospital

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=1,443)
Friend or family member	37%
Decided on my own	37%
Personal family doctor	13%
Other	13%
Health Link phone-line nurse	7%
Doctor at walk-in clinic	7%
Specialist doctor	4%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 158: Why patient chose the emergency department – Misericordia Community Hospital

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=1,445)**
Emergency department was only choice available at time	40%
Emergency department was the best place for my medical problem	49%
Told to go to the emergency department rather than somewhere else	26%
Emergency department was the most convenient place to go	14%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 159: Who advised respondent to go to emergency department – University of Alberta Hospital

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=1,479)
Friend or family member	35%
Decided on my own	33%
Personal family doctor	15%
Other	17%
Health Link phone-line nurse	8%
Doctor at walk-in clinic	6%
Specialist doctor	8%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 160: Why patient chose the emergency department – University of Alberta Hospital

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=1,491)**
Emergency department was only choice available at time	35%
Emergency department was the best place for my medical problem	55%
Told to go to the emergency department rather than somewhere else	29%
Emergency department was the most convenient place to go	11%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Northern Lights Regional Health Centre

Table 161: Who advised respondent to go to emergency department – Northern Lights Regional Health Centre

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=1,475)
Friend or family member	32%
Decided on my own	51%
Personal family doctor	8%
Other	11%
Health Link phone-line nurse	6%
Doctor at walk-in clinic	2%
Specialist doctor	3%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 162: Why patient chose the emergency department – Northern Lights Regional Health Centre

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=1,500)**
Emergency department was only choice available at time	65%
Emergency department was the best place for my medical problem	34%
Told to go to the emergency department rather than somewhere else	13%
Emergency department was the most convenient place to go	15%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Queen Elizabeth II Hospital

Table 163: Who advised respondent to go to emergency department – Queen Elizabeth II Hospital

Q1: Please identify all those who advised you to go to the emergency department.	
	June 2010-July 2013 (n=1,431)
Friend or family member	36%
Decided on my own	43%
Personal family doctor	12%
Other	11%
Health Link phone-line nurse	9%
Doctor at walk-in clinic	5%
Specialist doctor	4%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Table 164: Why patient chose the emergency department – Queen Elizabeth II Hospital

Q2: Why did you choose to go to the emergency department, instead of somewhere else such as a doctor's office?	
Reason	**June 2010-July 2013 (n=1,449)**
Emergency department was only choice available at time	60%
Emergency department was the best place for my medical problem	35%
Told to go to the emergency department rather than somewhere else	17%
Emergency department was the most convenient place to go	15%
Note: Data is not weighted *Respondents could choose more than one answer, so the total sum can be more than 100%*	

Getting to the emergency department

Table 165: Traveling to the emergency department – Chinook Regional Hospital

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=1,505)
Mode of transportation	
Car	77%
Ambulance	18%
Taxi	2%
Foot	2%
Bus/train	1%
Other	1%
Time to get to emergency department	
Up to 30 minutes	87%
More than 30 minutes, but less than 1 hour	8%
More than 1 hour	5%
Note: Data is not weighted *Sample size (n) is reported for mode of transportation (Q4)*	

Table 166: Traveling to the emergency department – Medicine Hat Regional Hospital

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=1,501)
Mode of transportation	
Car	76%
Ambulance	17%
Taxi	3%
Foot	2%
Bus/train	1%
Other	1%
Time to get to emergency department	
Up to 30 minutes	84%
More than 30 minutes, but less than 1 hour	8%
More than 1 hour	8%
Note: Data is not weighted *Sample size (n) is reported for mode of transportation (Q4)*	

Table 167: Traveling to the emergency department – Red Deer Regional Hospital

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=1,441)
Mode of transportation	
Car	76%
Ambulance	17%
Taxi	3%
Foot	2%
Bus/train	1%
Other	1%
Time to get to emergency department	
Up to 30 minutes	82%
More than 30 minutes, but less than 1 hour	11%
More than 1 hour	7%
Note: Data is not weighted *Sample size (n) is reported for mode of transportation (Q4)*	

Table 168: Traveling to the emergency department – Peter Lougheed Centre

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=1,446)
Mode of transportation	
Car	66%
Ambulance	24%
Taxi	5%
Foot	1%
Bus/train	3%
Other	1%
Time to get to emergency department	
Up to 30 minutes	82%
More than 30 minutes, but less than 1 hour	11%
More than 1 hour	8%
Note: Data is not weighted *Sample size (n) is reported for mode of transportation (Q4)*	

Table 169: Traveling to the emergency department – Rockyview General Hospital

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=1,537)
Mode of transportation	
Car	67%
Ambulance	26%
Taxi	3%
Foot	1%
Bus/train	1%
Other	1%
Time to get to emergency department	
Up to 30 minutes	86%
More than 30 minutes, but less than 1 hour	10%
More than 1 hour	4%
Note: Data is not weighted *Sample size (n) is reported for mode of transportation (Q4)*	

Table 170: Traveling to the emergency department – Foothills Medical Centre

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=1,467)
Mode of transportation	
Car	62%
Ambulance	32%
Taxi	3%
Foot	1%
Bus/train	1%
Other	1%
Time to get to emergency department	
Up to 30 minutes	84%
More than 30 minutes, but less than 1 hour	11%
More than 1 hour	5%
Note: Data is not weighted *Sample size (n) is reported for mode of transportation (Q4)*	

Table 171: Traveling to the emergency department – Sturgeon Community Hospital

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=1,484)
Mode of transportation	
Car	80%
Ambulance	16%
Taxi	2%
Foot	1%
Bus/train	0.1%
Other	1%
Time to get to emergency department	
Up to 30 minutes	87%
More than 30 minutes, but less than 1 hour	9%
More than 1 hour	4%
Note: Data is not weighted *Sample size (n) is reported for mode of transportation (Q4)*	

Table 172: Traveling to the emergency department – Royal Alexandra Hospital

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=1,418)
Mode of transportation	
Car	52%
Ambulance	34%
Taxi	6%
Foot	4%
Bus/train	3%
Other	1%
Time to get to emergency department	
Up to 30 minutes	81%
More than 30 minutes, but less than 1 hour	12%
More than 1 hour	7%
Note: Data is not weighted *Sample size (n) is reported for mode of transportation (Q4)*	

Table 173: Traveling to the emergency department – Grey Nuns Community Hospital

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=1,523)
Mode of transportation	
Car	74%
Ambulance	18%
Taxi	4%
Foot	2%
Bus/train	1%
Other	1%
Time to get to emergency department	
Up to 30 minutes	85%
More than 30 minutes, but less than 1 hour	9%
More than 1 hour	5%
Note: Data is not weighted *Sample size (n) is reported for mode of transportation (Q4)*	

Table 174: Traveling to the emergency department – Misericordia Community Hospital

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=1,460)
Mode of transportation	
Car	69%
Ambulance	20%
Taxi	6%
Foot	2%
Bus/train	2%
Other	1%
Time to get to emergency department	
Up to 30 minutes	86%
More than 30 minutes, but less than 1 hour	9%
More than 1 hour	5%
Note: Data is not weighted *Sample size (n) is reported for mode of transportation (Q4)*	

Table 175: Traveling to the emergency department – University of Alberta Hospital

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=1,498)
Mode of transportation	
Car	55%
Ambulance	31%
Taxi	4%
Foot	4%
Bus/train	4%
Other	1%
Time to get to emergency department	
Up to 30 minutes	78%
More than 30 minutes, but less than 1 hour	13%
More than 1 hour	9%
Note: Data is not weighted *Sample size (n) is reported for mode of transportation (Q4)*	

Table 176: Traveling to the emergency department – Northern Lights Regional Health Centre

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=1,501)
Mode of transportation	
Car	82%
Ambulance	7%
Taxi	6%
Foot	2%
Bus/train	2%
Other	1%
Time to get to emergency department	
Up to 30 minutes	77%
More than 30 minutes, but less than 1 hour	11%
More than 1 hour	12%
Note: Data is not weighted *Sample size (n) is reported for mode of transportation (Q4)*	

Table 177: Traveling to the emergency department – Queen Elizabeth II Hospital

Q4: How did you travel to the emergency department? ***Q5: When you went to the emergency department, how long did it take you to get there?***	
	June 2010-July 2013 (n=1,453)
Mode of transportation	
Car	83%
Ambulance	10%
Taxi	3%
Foot	2%
Bus/train	1%
Other	1%
Time to get to emergency department	
Up to 30 minutes	85%
More than 30 minutes, but less than 1 hour	8%
More than 1 hour	7%
Note: Data is not weighted *Sample size (n) is reported for mode of transportation (Q4)*	

Urgency of healthcare problem

Chinook Regional Hospital

Table 178: Self-rated urgency – Chinook Regional Hospital

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=1,492)**
Life threatening	4%
Possibly life threatening	20%
Urgent	31%
Somewhat urgent	40%
Not urgent	5%
Note: Data is not weighted	

Table 179: CTAS (triage) score – Chinook Regional Hospital

From administrative data	
CTAS Level	**June 2010-July 2013 (n=1,509)**
CTAS 1	0%
CTAS 2	4%
CTAS 3	46%
CTAS 4	40%
CTAS 5	11%
Note: Data is not weighted *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Table 180: Degree of difference between self-rated urgency (Q3) and administrative CTAS – Chinook Regional Hospital

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=1,489)**
CTAS is less Urgent ↑	-4	0%
	-3	3%
	-2	14%
	-1	27%
Identical >	**0**	34%
CTAS is more Urgent ↓	1	20%
	2	3%
	3	0%
	4	0%
Kappa (un-weighted)		0.0321

Note: Data is not weighted
Kappa statistic is un-weighted Kappa
Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient

Table 181: Self-rated urgency (Q3) for CTAS 1 or 2 respondents – Chinook Regional Hospital

Self-rated urgency	**June 2010-July 2013 (n=53)**
Life-threatening/or possibly life threatening	45%
Urgent, risk of permanent damage	34%
Somewhat urgent, needed to be seen today	21%
Not urgent, but I wanted to be seen today	0%

Medicine Hat Regional Hospital

Table 182: Self-rated urgency – Medicine Hat Regional Hospital

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=1,491)**
Life threatening	4%
Possibly life threatening	18%
Urgent	32%
Somewhat urgent	41%
Not urgent	5%
Note: Data is not weighted	

Table 183: CTAS (triage) score – Medicine Hat Regional Hospital

From administrative data	
CTAS Level	**June 2010-July 2013 (n=1,520)**
CTAS 1	0.1%
CTAS 2	11%
CTAS 3	42%
CTAS 4	41%
CTAS 5	6%
Note: Data is not weighted *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Table 184: Degree of difference between self-rated urgency (Q3) and administrative CTAS – Medicine Hat Regional Hospital

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=1,488)**
CTAS is less Urgent ↑	-4	0.1%
	-3	2%
	-2	8%
	-1	25%
Identical >	**0**	40%
CTAS is more Urgent ↓	1	21%
	2	4%
	3	0.1%
	4	0%
Kappa (un-weighted)		0.1136

Note: Data is not weighted
Kappa statistic is un-weighted Kappa
Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient

Table 185: Self-rated urgency (Q3) for CTAS 1 or 2 respondents – Medicine Hat Regional Hospital

Self-rated urgency	**June 2010-July 2013 (n=158)**
Life-threatening/or possibly life threatening	55%
Urgent, risk of permanent damage	24%
Somewhat urgent, needed to be seen today	20%
Not urgent, but I wanted to be seen today	1%

Red Deer Regional Hospital

Table 186: Self-rated urgency – Red Deer Regional Hospital

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=1,431)**
Life threatening	5%
Possibly life threatening	20%
Urgent	33%
Somewhat urgent	38%
Not urgent	4%
Note: Data is not weighted	

Table 187: CTAS (triage) score – Red Deer Regional Hospital

From administrative data	
CTAS Level	**June 2010-July 2013 (n=1,454)**
CTAS 1	0.1%
CTAS 2	8%
CTAS 3	50%
CTAS 4	39%
CTAS 5	3%
Note: Data is not weighted *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Table 188: Degree of difference between self-rated urgency (Q3) and administrative CTAS – Red Deer Regional Hospital

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=1,430)**
CTAS is less Urgent ↑	-4	0.1%
	-3	1%
	-2	8%
	-1	29%
Identical >	**0**	37%
CTAS is more Urgent ↓	1	21%
	2	3%
	3	0.1%
	4	0%
Kappa (un-weighted)		0.0572

Note: Data is not weighted
Kappa statistic is un-weighted Kappa
Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient

Table 189: Self-rated urgency (Q3) for CTAS 1 or 2 respondents – Red Deer Regional Hospital

Self-rated urgency	**June 2010-July 2013 (n=121)**
Life-threatening/or possibly life threatening	52%
Urgent, risk of permanent damage	26%
Somewhat urgent, needed to be seen today	20%
Not urgent, but I wanted to be seen today	2%

Peter Lougheed Centre

Table 190: Self-rated urgency – Peter Lougheed Centre

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=1,426)**
Life threatening	6%
Possibly life threatening	21%
Urgent	32%
Somewhat urgent	36%
Not urgent	5%
Note: Data is not weighted	

Table 191: CTAS (triage) score – Peter Lougheed Centre

From administrative data	
CTAS Level	**June 2010-July 2013 (n=1,462)**
CTAS 1	0.3%
CTAS 2	25%
CTAS 3	55%
CTAS 4	18%
CTAS 5	2%
Note: Data is not weighted *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Table 192: Degree of difference between self-rated urgency (Q3) and administrative CTAS – Peter Lougheed Centre

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=1,426)**
CTAS is less Urgent ↑	-4	0.1%
	-3	0.4%
	-2	4%
	-1	21%
Identical >	**0**	36%
CTAS is more Urgent ↓	1	31%
	2	7%
	3	0.5%
	4	0%
Kappa (un-weighted)		0.0927

Note: Data is not weighted
Kappa statistic is un-weighted Kappa
Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient

Table 193: Self-rated urgency (Q3) for CTAS 1 or 2 respondents – Peter Lougheed Centre

Self-rated urgency	**June 2010-July 2013 (n=357)**
Life-threatening/or possibly life threatening	50%
Urgent, risk of permanent damage	29%
Somewhat urgent, needed to be seen today	19%
Not urgent, but I wanted to be seen today	2%

Rockyview General Hospital

Table 194: Self-rated urgency – Rockyview General Hospital

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=1,528)**
Life threatening	5%
Possibly life threatening	24%
Urgent	34%
Somewhat urgent	34%
Not urgent	4%
Note: Data is not weighted	

Table 195: CTAS (triage) score – Rockyview General Hospital

From administrative data	
CTAS Level	**June 2010-July 2013 (n=1,557)**
CTAS 1	0.1%
CTAS 2	36%
CTAS 3	51%
CTAS 4	11%
CTAS 5	2%
Note: Data is not weighted *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Table 196: Degree of difference between self-rated urgency (Q3) and administrative CTAS – Rockyview General Hospital

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=1,528)**
CTAS is less Urgent ↑	-4	0.1%
	-3	1%
	-2	3%
	-1	18%
Identical >	**0**	33%
CTAS is more Urgent ↓	1	33%
	2	11%
	3	1%
	4	0%
Kappa (un-weighted)		0.0460

Note: Data is not weighted
Kappa statistic is un-weighted Kappa
Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient

Table 197: Self-rated urgency (Q3) for CTAS 1 or 2 respondents – Rockyview General Hospital

Self-rated urgency	**June 2010-July 2013 (n=557)**
Life-threatening/or possibly life threatening	40%
Urgent, risk of permanent damage	34%
Somewhat urgent, needed to be seen today	25%
Not urgent, but I wanted to be seen today	2%

Foothills Medical Centre

Table 198: Self-rated urgency – Foothills Medical Centre

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=1,448)**
Life threatening	7%
Possibly life threatening	26%
Urgent	33%
Somewhat urgent	32%
Not urgent	3%
Note: Data is not weighted	

Table 199: CTAS (triage) score – Foothills Medical Centre

From administrative data	
CTAS Level	**June 2010-July 2013 (n=1,479)**
CTAS 1	1%
CTAS 2	33%
CTAS 3	49%
CTAS 4	14%
CTAS 5	2%
Note: Data is not weighted *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Table 200: Degree of difference between self-rated urgency (Q3) and administrative CTAS – Foothills Medical Centre

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=1,448)**
CTAS is less Urgent ↑	-4	0.1%
	-3	1%
	-2	5%
	-1	21%
Identical >	**0**	36%
CTAS is more Urgent ↓	1	29%
	2	8%
	3	0.5%
	4	0%
Kappa (un-weighted)		0.0952

Note: Data is not weighted
Kappa statistic is un-weighted Kappa
Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient

Table 201: Self-rated urgency (Q3) for CTAS 1 or 2 respondents – Foothills Medical Centre

Self-rated urgency	**June 2010-July 2013 (n=491)**
Life-threatening/or possibly life threatening	52%
Urgent, risk of permanent damage	27%
Somewhat urgent, needed to be seen today	20%
Not urgent, but I wanted to be seen today	1%

Sturgeon Community Hospital

Table 202: Self-rated urgency – Sturgeon Community Hospital

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=1,474)**
Life threatening	5%
Possibly life threatening	20%
Urgent	30%
Somewhat urgent	40%
Not urgent	4%
Note: Data is not weighted	

Table 203: CTAS (triage) score – Sturgeon Community Hospital

From administrative data	
CTAS Level	**June 2010-July 2013 (n=1,484)**
CTAS 1	0.2%
CTAS 2	14%
CTAS 3	51%
CTAS 4	26%
CTAS 5	9%
Note: Data is not weighted *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Table 204: Degree of difference between self-rated urgency (Q3) and administrative CTAS – Sturgeon Community Hospital

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=1,463)**
CTAS is less Urgent ↑	-4	0.1%
	-3	2%
	-2	9%
	-1	24%
Identical >	**0**	34%
CTAS is more Urgent ↓	1	26%
	2	5%
	3	0.3%
	4	0%
Kappa (un-weighted)		0.0735

Note: Data is not weighted
Kappa statistic is un-weighted Kappa
Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient

Table 205: Self-rated urgency (Q3) for CTAS 1 or 2 respondents – Sturgeon Community Hospital

Self-rated urgency	**June 2010-July 2013 (n=202)**
Life-threatening/or possibly life threatening	51%
Urgent, risk of permanent damage	23%
Somewhat urgent, needed to be seen today	24%
Not urgent, but I wanted to be seen today	2%

Table 206: Self-rated urgency – Royal Alexandra Hospital

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=1,403)**
Life threatening	9%
Possibly life threatening	24%
Urgent	32%
Somewhat urgent	31%
Not urgent	4%
Note: Data is not weighted	

Table 207: CTAS (triage) score – Royal Alexandra Hospital

From administrative data	
CTAS Level	**June 2010-July 2013 (n=1,423)**
CTAS 1	1%
CTAS 2	24%
CTAS 3	55%
CTAS 4	17%
CTAS 5	4%
Note: Data is not weighted *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Table 208: Degree of difference between self-rated urgency (Q3) and administrative CTAS – Royal Alexandra Hospital

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=1,390)**
CTAS is less Urgent ↑	-4	0%
	-3	2%
	-2	8%
	-1	21%
Identical **>**	**0**	36%
CTAS is more Urgent ↓	1	25%
	2	7%
	3	1%
	4	0%
Kappa (un-weighted)		0.1017

Note: Data is not weighted
Kappa statistic is un-weighted Kappa
Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient

Table 209: Self-rated urgency (Q3) for CTAS 1 or 2 respondents – Royal Alexandra Hospital

Self-rated urgency	**June 2010-July 2013 (n=343)**
Life-threatening/or possibly life threatening	48%
Urgent, risk of permanent damage	29%
Somewhat urgent, needed to be seen today	19%
Not urgent, but I wanted to be seen today	3%

Grey Nuns Community Hospital

Table 210: Self-rated urgency – Grey Nuns Community Hospital

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=1,515)**
Life threatening	5%
Possibly life threatening	21%
Urgent	34%
Somewhat urgent	36%
Not urgent	4%
Note: Data is not weighted	

Table 211: CTAS (triage) score – Grey Nuns Community Hospital

From administrative data	
CTAS Level	**June 2010-July 2013 (n=1,534)**
CTAS 1	0.3%
CTAS 2	17%
CTAS 3	50%
CTAS 4	26%
CTAS 5	6%
Note: Data is not weighted *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Table 212: Degree of difference between self-rated urgency (Q3) and administrative CTAS – Grey Nuns Community Hospital

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=1,503)**
CTAS is less Urgent ↑	-4	0.1%
	-3	1%
	-2	7%
	-1	25%
Identical >	**0**	35%
CTAS is more Urgent ↓	1	26%
	2	5%
	3	0.2%
	4	0%
Kappa (un-weighted)		0.0719

Note: Data is not weighted
Kappa statistic is un-weighted Kappa
Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient

Table 213: Self-rated urgency (Q3) for CTAS 1 or 2 respondents – Grey Nuns Community Hospital

Self-rated urgency	**June 2010-July 2013 (n=269)**
Life-threatening/or possibly life threatening	49%
Urgent, risk of permanent damage	30%
Somewhat urgent, needed to be seen today	20%
Not urgent, but I wanted to be seen today	1%

Misericordia Community Hospital

Table 214: Self-rated urgency – Misericordia Community Hospital

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=1,446)**
Life threatening	4%
Possibly life threatening	20%
Urgent	31%
Somewhat urgent	40%
Not urgent	5%
Note: Data is not weighted	

Table 215: CTAS (triage) score – Misericordia Community Hospital

From administrative data	
CTAS Level	**June 2010-July 2013 (n=1,458)**
CTAS 1	0.3%
CTAS 2	16%
CTAS 3	55%
CTAS 4	26%
CTAS 5	3%
Note: Data is not weighted *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Table 216: Degree of difference between self-rated urgency (Q3) and administrative CTAS – Misericordia Community Hospital

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=1,430)**
CTAS is less Urgent ↑	-4	0.1%
	-3	1%
	-2	6%
	-1	21%
Identical >	**0**	38%
CTAS is more Urgent ↓	1	29%
	2	6%
	3	0.3%
	4	0%
Kappa (un-weighted)		0.1026

Note: Data is not weighted
Kappa statistic is un-weighted Kappa
Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient

Table 217: Self-rated urgency (Q3) for CTAS 1 or 2 respondents – Misericordia Community Hospital

Self-rated urgency	**June 2010-July 2013 (n=227)**
Life-threatening/or possibly life threatening	48%
Urgent, risk of permanent damage	27%
Somewhat urgent, needed to be seen today	23%
Not urgent, but I wanted to be seen today	2%

University of Alberta Hospital

Table 218: Self-rated urgency – University of Alberta Hospital

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=1,483)**
Life threatening	7%
Possibly life threatening	26%
Urgent	31%
Somewhat urgent	33%
Not urgent	3%
Note: Data is not weighted	

Table 219: CTAS (triage) score – University of Alberta Hospital

From administrative data	
CTAS Level	**June 2010-July 2013 (n=1,507)**
CTAS 1	1%
CTAS 2	23%
CTAS 3	49%
CTAS 4	23%
CTAS 5	5%
Note: Data is not weighted *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Table 220: Degree of difference between self-rated urgency (Q3) and administrative CTAS – University of Alberta Hospital

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=1,473)**
CTAS is less Urgent ↑	-4	0.2%
	-3	2%
	-2	7%
	-1	24%
Identical >	**0**	37%
CTAS is more Urgent ↓	1	24%
	2	5%
	3	1%
	4	0%
Kappa (un-weighted)		0.1122

Note: Data is not weighted
Kappa statistic is un-weighted Kappa
Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient

Table 221: Self-rated urgency (Q3) for CTAS 1 or 2 respondents – University of Alberta Hospital

Self-rated urgency	**June 2010-July 2013 (n=352)**
Life-threatening/or possibly life threatening	55%
Urgent, risk of permanent damage	26%
Somewhat urgent, needed to be seen today	17%
Not urgent, but I wanted to be seen today	2%

Northern Lights Regional Health Centre

Table 222: Self-rated urgency – Northern Lights Regional Health Centre

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=1,495)**
Life threatening	3%
Possibly life threatening	14%
Urgent	28%
Somewhat urgent	47%
Not urgent	9%
Note: Data is not weighted	

Table 223: CTAS (triage) score – Northern Lights Regional Health Centre

From administrative data	
CTAS Level	**June 2010-July 2013 (n=1,518)**
CTAS 1	0%
CTAS 2	6%
CTAS 3	36%
CTAS 4	55%
CTAS 5	3%
Note: Data is not weighted *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Table 224: Degree of difference between self-rated urgency (Q3) and administrative CTAS – Northern Lights Regional Health Centre

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=1,495)**
CTAS is less Urgent ↑	-4	0%
	-3	1%
	-2	8%
	-1	23%
Identical >	**0**	42%
CTAS is more Urgent ↓	1	22%
	2	4%
	3	0.3%
	4	0%
Kappa (un-weighted)		0.0862

Note: Data is not weighted
Kappa statistic is un-weighted Kappa
Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient

Table 225: Self-rated urgency (Q3) for CTAS 1 or 2 respondents – Northern Lights Regional Health Centre

Self-rated urgency	**June 2010-July 2013 (n=94)**
Life-threatening/or possibly life threatening	45%
Urgent, risk of permanent damage	24%
Somewhat urgent, needed to be seen today	27%
Not urgent, but I wanted to be seen today	4%

Queen Elizabeth II Hospital

Table 226: Self-rated urgency – Queen Elizabeth II Hospital

Q3: Would you have described your health problem as…?	
Urgency Rating	**June 2010-July 2013 (n=1,440)**
Life threatening	3%
Possibly life threatening	17%
Urgent	28%
Somewhat urgent	44%
Not urgent	8%
Note: Data is not weighted	

Table 227: CTAS (triage) score – Queen Elizabeth II Hospital

From administrative data	
CTAS Level	**June 2010-July 2013 (n=1,411)**
CTAS 1	0.1%
CTAS 2	10%
CTAS 3	31%
CTAS 4	52%
CTAS 5	7%
Note: Data is not weighted *In the CTAS score, 1 is most urgent, and 5 is least urgent*	

Table 228: Degree of difference between self-rated urgency (Q3) and administrative CTAS – Queen Elizabeth II Hospital

CTAS subtracted from Q3 for each respondent		
(Q3) Relative Difference	**Q3 (-) CTAS**	**June 2010-July 2013 (n=1,386)**
CTAS is less Urgent ↑	-4	0.3%
	-3	2%
	-2	8%
	-1	26%
Identical >	**0**	40%
CTAS is more Urgent ↓	1	20%
	2	4%
	3	0.3%
	4	0%
Kappa (un-weighted)		0.0997

Note: Data is not weighted
Kappa statistic is un-weighted Kappa
Kappa is calculated for CTAS score versus self-rated urgency (Q3) within patient

Table 229: Self-rated urgency (Q3) for CTAS 1 or 2 respondents – Queen Elizabeth II Hospital

Self-rated urgency	**June 2010-July 2013 (n=137)**
Life-threatening/or possibly life threatening	48%
Urgent, risk of permanent damage	26%
Somewhat urgent, needed to be seen today	23%
Not urgent, but I wanted to be seen today	3%

Reasons for the emergency department visit

Table 230: The reason for visiting an emergency department – Chinook Regional Hospital

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=1,487)
New illness or injury	
New illness/condition unrelated to previous illness/condition	31%
New injury/accident unrelated to previous injury/accident	26%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	23%
Complications or problems following recent medical care	12%
Routine care of a pre-existing chronic illness/condition	2%
Told to return to the emergency department for follow-up care	2%
Other	3%
Note: Data is not weighted	

Table 231: The reason for visiting an emergency department – Medicine Hat Regional Hospital

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=1,486)
New illness or injury	
New illness/condition unrelated to previous illness/condition	30%
New injury/accident unrelated to previous injury/accident	28%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	22%
Complications or problems following recent medical care	14%
Routine care of a pre-existing chronic illness/condition	2%
Told to return to the emergency department for follow-up care	1%
Other	3%
Note: Data is not weighted	

Table 232: The reason for visiting an emergency department – Red Deer Regional Hospital

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=1,426)
New illness or injury	
New illness/condition unrelated to previous illness/condition	31%
New injury/accident unrelated to previous injury/accident	27%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	22%
Complications or problems following recent medical care	13%
Routine care of a pre-existing chronic illness/condition	2%
Told to return to the emergency department for follow-up care	2%
Other	3%
Note: Data is not weighted	

Table 233: The reason for visiting an emergency department – Peter Lougheed Centre

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=1,426)
New illness or injury	
New illness/condition unrelated to previous illness/condition	31%
New injury/accident unrelated to previous injury/accident	25%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	23%
Complications or problems following recent medical care	13%
Routine care of a pre-existing chronic illness/condition	2%
Told to return to the emergency department for follow-up care	3%
Other	3%
Note: Data is not weighted	

Table 234: The reason for visiting an emergency department – Rockyview General Hospital

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=1,528)
New illness or injury	
New illness/condition unrelated to previous illness/condition	34%
New injury/accident unrelated to previous injury/accident	23%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	22%
Complications or problems following recent medical care	13%
Routine care of a pre-existing chronic illness/condition	2%
Told to return to the emergency department for follow-up care	2%
Other	3%
Note: Data is not weighted	

Table 235: The reason for visiting an emergency department – Foothills Medical Centre

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=1,443)
New illness or injury	
New illness/condition unrelated to previous illness/condition	32%
New injury/accident unrelated to previous injury/accident	24%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	25%
Complications or problems following recent medical care	13%
Routine care of a pre-existing chronic illness/condition	1%
Told to return to the emergency department for follow-up care	2%
Other	3%
Note: Data is not weighted	

Table 236: The reason for visiting an emergency department – Sturgeon Community Hospital

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=1,469)
New illness or injury	
New illness/condition unrelated to previous illness/condition	34%
New injury/accident unrelated to previous injury/accident	27%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	21%
Complications or problems following recent medical care	11%
Routine care of a pre-existing chronic illness/condition	2%
Told to return to the emergency department for follow-up care	2%
Other	3%
Note: Data is not weighted	

Table 237: The reason for visiting an emergency department – Royal Alexandra Hospital

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=1,398)
New illness or injury	
New illness/condition unrelated to previous illness/condition	29%
New injury/accident unrelated to previous injury/accident	23%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	23%
Complications or problems following recent medical care	16%
Routine care of a pre-existing chronic illness/condition	2%
Told to return to the emergency department for follow-up care	3%
Other	4%
Note: Data is not weighted	

Table 238: The reason for visiting an emergency department – Grey Nuns Community Hospital

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=1,518)
New illness or injury	
New illness/condition unrelated to previous illness/condition	34%
New injury/accident unrelated to previous injury/accident	24%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	21%
Complications or problems following recent medical care	14%
Routine care of a pre-existing chronic illness/condition	2%
Told to return to the emergency department for follow-up care	2%
Other	4%
Note: Data is not weighted	

Table 239: The reason for visiting an emergency department – Misericordia Community Hospital

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=1,438)
New illness or injury	
New illness/condition unrelated to previous illness/condition	33%
New injury/accident unrelated to previous injury/accident	27%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	20%
Complications or problems following recent medical care	13%
Routine care of a pre-existing chronic illness/condition	2%
Told to return to the emergency department for follow-up care	2%
Other	3%
Note: Data is not weighted	

Table 240: The reason for visiting an emergency department – University of Alberta Hospital

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=1,486)
New illness or injury	
New illness/condition unrelated to previous illness/condition	29%
New injury/accident unrelated to previous injury/accident	24%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	24%
Complications or problems following recent medical care	15%
Routine care of a pre-existing chronic illness/condition	3%
Told to return to the emergency department for follow-up care	2%
Other	2%
Note: Data is not weighted	

Table 241: The reason for visiting an emergency department – Northern Lights Regional Health Centre

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=1,489)
New illness or injury	
New illness/condition unrelated to previous illness/condition	41%
New injury/accident unrelated to previous injury/accident	25%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	15%
Complications or problems following recent medical care	10%
Routine care of a pre-existing chronic illness/condition	3%
Told to return to the emergency department for follow-up care	3%
Other	3%
Note: Data is not weighted	

Table 242: The reason for visiting an emergency department – Queen Elizabeth II Hospital

Q6: Thinking about the medical problem that brought you to the emergency department, would you say that your problem was…	
	June 2010-July 2013 (n=1,449)
New illness or injury	
New illness/condition unrelated to previous illness/condition	35%
New injury/accident unrelated to previous injury/accident	28%
Related to previous illness or injury	
Worsening of pre-existing chronic illness/condition	18%
Complications or problems following recent medical care	10%
Routine care of a pre-existing chronic illness/condition	3%
Told to return to the emergency department for follow-up care	3%
Other	4%
Note: Data is not weighted	

Overall questions about care

Chinook Regional Hospital

Table 243: Overall care received in the emergency department – Chinook Regional Hospital

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=1,487)**
Excellent	29%
Very good	35%
Good	19%
Fair	10%
Poor	5%
Very poor	2%
Main reason for visit dealt with to satisfaction	**(n=1,485)**
Yes completely	59%
Yes to some extent	29%
No	12%
Overall, treated with respect and dignity	**(n=1,485)**
Yes all of the time	72%
Yes some of the time	22%
No	6%
Note: Data is not weighted	

Table 244: Overall care received in the emergency department (dichotomous) by discharge disposition – Chinook Regional Hospital

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=214)**
Less than Excellent or Very Good	24%
Excellent or Very Good	76%
Discharged	**(n=1,256)**
Less than Excellent or Very Good	38%
Excellent or Very Good	62%
p value	Chi-squared = 0.000 Phi = 0.1005
Note: Data is not weighted	

Medicine Hat Regional Hospital

Table 245: Overall care received in the emergency department – Medicine Hat Regional Hospital

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=1,503)**
Excellent	32%
Very good	36%
Good	19%
Fair	7%
Poor	3%
Very poor	3%
Main reason for visit dealt with to satisfaction	**(n=1,497)**
Yes completely	61%
Yes to some extent	30%
No	10%
Overall, treated with respect and dignity	**(n=1,497)**
Yes all of the time	77%
Yes some of the time	18%
No	5%
Note: Data is not weighted	

Table 246: Overall care received in the emergency department (dichotomous) by discharge disposition – Medicine Hat Regional Hospital

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=229)**
Less than Excellent or Very Good	20%
Excellent or Very Good	80%
Discharged	**(n=1,257)**
Less than Excellent or Very Good	34%
Excellent or Very Good	66%
p value	Chi-squared = 0.000 Phi = 0.1088
Note: Data is not weighted	

Red Deer Regional Hospital

Table 247: Overall care received in the emergency department – Red Deer Regional Hospital

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=1,434)**
Excellent	34%
Very good	34%
Good	19%
Fair	7%
Poor	3%
Very poor	2%
Main reason for visit dealt with to satisfaction	**(n=1,429)**
Yes completely	61%
Yes to some extent	29%
No	10%
Overall, treated with respect and dignity	**(n=1,431)**
Yes all of the time	77%
Yes some of the time	18%
No	5%
Note: Data is not weighted	

Table 248: Overall care received in the emergency department (dichotomous) by discharge disposition – Red Deer Regional Hospital

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=245)**
Less than Excellent or Very Good	24%
Excellent or Very Good	76%
Discharged	**(n=1,172)**
Less than Excellent or Very Good	33%
Excellent or Very Good	67%
p value	Chi-squared = 0.005 Phi = 0.0742
Note: Data is not weighted	

Peter Lougheed Centre

Table 249: Overall care received in the emergency department – Peter Lougheed Centre

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=1,434)**
Excellent	34%
Very good	34%
Good	18%
Fair	9%
Poor	3%
Very poor	2%
Main reason for visit dealt with to satisfaction	**(n=1,423)**
Yes completely	58%
Yes to some extent	31%
No	10%
Overall, treated with respect and dignity	**(n=1,433)**
Yes all of the time	76%
Yes some of the time	19%
No	5%
Note: Data is not weighted	

Table 250: Overall care received in the emergency department (dichotomous) by discharge disposition – Peter Lougheed Centre

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=267)**
Less than Excellent or Very Good	21%
Excellent or Very Good	79%
Discharged	**(n=1,154)**
Less than Excellent or Very Good	35%
Excellent or Very Good	65%
p value	Chi-squared = 0.000 Phi = 0.1139
Note: Data is not weighted	

Rockyview General Hospital

Table 251: Overall care received in the emergency department – Rockyview General Hospital

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=1,529)**
Excellent	39%
Very good	35%
Good	15%
Fair	6%
Poor	3%
Very poor	2%
Main reason for visit dealt with to satisfaction	**(n=1,519)**
Yes completely	64%
Yes to some extent	27%
No	9%
Overall, treated with respect and dignity	**(n=1,524)**
Yes all of the time	79%
Yes some of the time	17%
No	4%
Note: Data is not weighted	

Table 252: Overall care received in the emergency department (dichotomous) by discharge disposition – Rockyview General Hospital

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=321)**
Less than Excellent or Very Good	20%
Excellent or Very Good	80%
Discharged	**(n=1,194)**
Less than Excellent or Very Good	26%
Excellent or Very Good	74%
p value	Chi-squared = 0.012 Phi = 0.0645
Note: Data is not weighted	

Table 253: Overall care received in the emergency department – Foothills Medical Centre

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=1,456)**
Excellent	40%
Very good	35%
Good	15%
Fair	6%
Poor	3%
Very poor	1%
Main reason for visit dealt with to satisfaction	**(n=1,459)**
Yes completely	66%
Yes to some extent	24%
No	10%
Overall, treated with respect and dignity	**(n=1,455)**
Yes all of the time	80%
Yes some of the time	17%
No	3%
Note: Data is not weighted	

Table 254: Overall care received in the emergency department (dichotomous) by discharge disposition – Foothills Medical Centre

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=394)**
Less than Excellent or Very Good	16%
Excellent or Very Good	84%
Discharged	**(n=1,052)**
Less than Excellent or Very Good	28%
Excellent or Very Good	72%
p value	Chi-squared = 0.000 Phi = 0.1261
Note: Data is not weighted	

Sturgeon Community Hospital

Table 255: Overall care received in the emergency department – Sturgeon Community Hospital

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=1,474)**
Excellent	34%
Very good	34%
Good	18%
Fair	8%
Poor	4%
Very poor	2%
Main reason for visit dealt with to satisfaction	**(n=1,473)**
Yes completely	59%
Yes to some extent	31%
No	10%
Overall, treated with respect and dignity	**(n=1,468)**
Yes all of the time	77%
Yes some of the time	19%
No	4%
Note: Data is not weighted	

Table 256: Overall care received in the emergency department (dichotomous) by discharge disposition – Sturgeon Community Hospital

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=178)**
Less than Excellent or Very Good	20%
Excellent or Very Good	80%
Discharged	**(n=1,287)**
Less than Excellent or Very Good	33%
Excellent or Very Good	67%
p value	Chi-squared = 0.001 Phi = 0.0895
Note: Data is not weighted	

Royal Alexandra Hospital

Table 257: Overall care received in the emergency department – Royal Alexandra Hospital

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=1,405)**
Excellent	30%
Very good	36%
Good	19%
Fair	9%
Poor	4%
Very poor	2%
Main reason for visit dealt with to satisfaction	**(n=1,399)**
Yes completely	59%
Yes to some extent	30%
No	12%
Overall, treated with respect and dignity	**(n=1,392)**
Yes all of the time	73%
Yes some of the time	22%
No	5%
Note: Data is not weighted	

Table 258: Overall care received in the emergency department (dichotomous) by discharge disposition – Royal Alexandra Hospital

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=356)**
Less than Excellent or Very Good	26%
Excellent or Very Good	74%
Discharged	**(n=1,038)**
Less than Excellent or Very Good	36%
Excellent or Very Good	64%
p value	Chi-squared = 0.001 Phi = 0.0906
Note: Data is not weighted	

Grey Nuns Community Hospital

Table 259: Overall care received in the emergency department – Grey Nuns Community Hospital

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=1,516)**
Excellent	30%
Very good	35%
Good	20%
Fair	9%
Poor	3%
Very poor	2%
Main reason for visit dealt with to satisfaction	**(n=1,505)**
Yes completely	58%
Yes to some extent	32%
No	10%
Overall, treated with respect and dignity	**(n=1,512)**
Yes all of the time	75%
Yes some of the time	21%
No	4%
Note: Data is not weighted	

Table 260: Overall care received in the emergency department (dichotomous) by discharge disposition – Grey Nuns Community Hospital

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=213)**
Less than Excellent or Very Good	20%
Excellent or Very Good	80%
Discharged	**(n=1,295)**
Less than Excellent or Very Good	36%
Excellent or Very Good	64%
p value	Chi-squared = 0.000 Phi = 0.1184
Note: Data is not weighted	

Misericordia Community Hospital

Table 261: Overall care received in the emergency department – Misericordia Community Hospital

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=1,456)**
Excellent	30%
Very good	35%
Good	19%
Fair	9%
Poor	4%
Very poor	2%
Main reason for visit dealt with to satisfaction	**(n=1,448)**
Yes completely	58%
Yes to some extent	31%
No	11%
Overall, treated with respect and dignity	**(n=1,444)**
Yes all of the time	74%
Yes some of the time	21%
No	5%
Note: Data is not weighted	

Table 262: Overall care received in the emergency department (dichotomous) by discharge disposition – Misericordia Community Hospital

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=212)**
Less than Excellent or Very Good	26%
Excellent or Very Good	74%
Discharged	**(n=1,223)**
Less than Excellent or Very Good	36%
Excellent or Very Good	64%
p value	Chi-squared = 0.006 Phi = 0.0731
Note: Data is not weighted	

University of Alberta Hospital

Table 263: Overall care received in the emergency department – University of Alberta Hospital

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=1,482)**
Excellent	37%
Very good	36%
Good	14%
Fair	8%
Poor	4%
Very poor	2%
Main reason for visit dealt with to satisfaction	**(n=1,477)**
Yes completely	61%
Yes to some extent	28%
No	11%
Overall, treated with respect and dignity	**(n=1,478)**
Yes all of the time	76%
Yes some of the time	19%
No	5%
Note: Data is not weighted	

Table 264: Overall care received in the emergency department (dichotomous) by discharge disposition – University of Alberta Hospital

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=404)**
Less than Excellent or Very Good	19%
Excellent or Very Good	81%
Discharged	**(n=1,065)**
Less than Excellent or Very Good	31%
Excellent or Very Good	69%
p value	Chi-squared = 0.000 Phi = 0.1130
Note: Data is not weighted	

Table 265: Overall care received in the emergency department – Northern Lights Regional Health Centre

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=1,494)**
Excellent	28%
Very good	32%
Good	22%
Fair	11%
Poor	4%
Very poor	2%
Main reason for visit dealt with to satisfaction	**(n=1,490)**
Yes completely	54%
Yes to some extent	34%
No	12%
Overall, treated with respect and dignity	**(n=1,489)**
Yes all of the time	70%
Yes some of the time	25%
No	5%
Note: Data is not weighted	

Table 266: Overall care received in the emergency department (dichotomous) by discharge disposition – Northern Lights Regional Health Centre

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=73)**
Less than Excellent or Very Good	32%
Excellent or Very Good	68%
Discharged	**(n=1,399)**
Less than Excellent or Very Good	41%
Excellent or Very Good	59%
p value	Chi-squared = 0.106 Phi = 0.0421
Note: Data is not weighted	

Queen Elizabeth II Hospital

Table 267: Overall care received in the emergency department – Queen Elizabeth II Hospital

Q57: Overall, how would you rate the care you received in the emergency department? ***Q55: Was the main reason you went to the emergency department dealt with to your satisfaction?*** ***Q56: Overall, did you feel you were treated with respect and dignity while you were in the emergency department?***	
	June 2010-July 2013
Overall rating of care	**(n=1,452)**
Excellent	21%
Very good	31%
Good	24%
Fair	14%
Poor	6%
Very poor	4%
Main reason for visit dealt with to satisfaction	**(n=1,440)**
Yes completely	49%
Yes to some extent	35%
No	16%
Overall, treated with respect and dignity	**(n=1,444)**
Yes all of the time	65%
Yes some of the time	28%
No	7%
Note: Data is not weighted	

Table 268: Overall care received in the emergency department (dichotomous) by discharge disposition – Queen Elizabeth II Hospital

Q57: Overall, how would you rate the care you received in the emergency department?	
Overall rating of care	**June 2010-July 2013**
Admitted	**(n=55)**
Less than Excellent or Very Good	29%
Excellent or Very Good	71%
Discharged	**(n=1,351)**
Less than Excellent or Very Good	49%
Excellent or Very Good	51%
p value	Chi-squared = 0.004 Phi = 0.0764
Note: Data is not weighted	

Patients who considered leaving before treatment

Table 269: Considered leaving before being seen or treated by discharge status and CTAS – Chinook Regional Hospital

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=1,471**		**n=1,486**				
	Yes definitely	7%	9%	0%	6%	8%	10%	11%
	To some extent	6%	15%	0%	8%	11%	17%	16%
	No	87%	75%	0%	87%	80%	72%	74%
p value		Cramer's V = 0.1015		Chi-squared = 0.012				
Note: Data is not weighted *Chi-squared is significant at p = 0.001 where Cramer's V is shown*								

Table 270: Considered leaving before being seen or treated by discharge status and CTAS – Medicine Hat Regional Hospital

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=1,469**		**n=1,483**				
	Yes definitely	4%	9%	0%	3%	7%	12%	10%
	To some extent	4%	15%	0%	4%	12%	17%	12%
	No	92%	76%	100%	94%	81%	70%	78%
p value		Cramer's V = 0.1450		Cramer's V = 0.1263				
Note: Data is not weighted *Chi-squared is significant at p = 0.001 where Cramer's V is shown*								

Table 271: Considered leaving before being seen or treated by discharge status and CTAS – Red Deer Regional Hospital

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=1,415**		**n=1,430**				
	Yes definitely	4%	9%	0%	4%	9%	9%	21%
	To some extent	5%	14%	0%	8%	11%	16%	9%
	No	91%	76%	100%	87%	80%	75%	70%
p value		Cramer's V = 0.1326		Chi-squared = 0.005				
Note: Data is not weighted *Chi-squared is significant at p = 0.001 where Cramer's V is shown*								

Table 272: Considered leaving before being seen or treated by discharge status and CTAS – Peter Lougheed Centre

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=1,413**		**n=1,426**				
	Yes definitely	4%	12%	0%	6%	12%	12%	17%
	To some extent	8%	17%	33%	8%	19%	16%	21%
	No	89%	70%	67%	86%	69%	72%	63%
p value		Cramer's V = 0.1615		Cramer's V = 0.1181				
Note: Data is not weighted *Chi-squared is significant at p = 0.001 where Cramer's V is shown*								

Table 273: Considered leaving before being seen or treated by discharge status and CTAS – Rockyview General Hospital

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=1,519**		**n=1,532**				
	Yes definitely	3%	8%	0%	6%	7%	11%	6%
	To some extent	6%	12%	0%	8%	13%	7%	9%
	No	91%	81%	100%	86%	80%	82%	84%
p value		Cramer's V = 0.1136		Chi-squared = 0.059				
Note: Data is not weighted *Chi-squared is significant at p = 0.001 where Cramer's V is shown*								

Table 274: Considered leaving before being seen or treated by discharge status and CTAS – Foothills Medical Centre

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=1,440**		**n=1,452**				
	Yes definitely	3%	8%	0%	4%	9%	9%	14%
	To some extent	4%	12%	0%	6%	11%	16%	11%
	No	92%	80%	100%	90%	81%	75%	75%
p value		Cramer's V = 0.1489		Cramer's V = 0.1094				
Note: Data is not weighted *Chi-squared is significant at p = 0.001 where Cramer's V is shown*								

Table 275: Considered leaving before being seen or treated by discharge status and CTAS – Sturgeon Community Hospital

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=1,464**		**n=1,462**				
	Yes definitely	4%	10%	0%	5%	11%	9%	11%
	To some extent	11%	16%	0%	9%	16%	19%	14%
	No	85%	74%	100%	86%	73%	72%	74%
p value		Chi-squared = 0.003		Chi-squared = 0.009				
Note: Data is not weighted *Chi-squared is significant at p = 0.001 where Cramer's V is shown*								

Table 276: Considered leaving before being seen or treated by discharge status and CTAS – Royal Alexandra Hospital

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=1,384**		**n=1,382**				
	Yes definitely	7%	9%	0%	7%	9%	9%	16%
	To some extent	8%	15%	10%	9%	15%	15%	22%
	No	85%	76%	90%	85%	76%	76%	61%
p value		Cramer's V = 0.1038		Chi-squared = 0.008				
Note: Data is not weighted *Chi-squared is significant at p = 0.001 where Cramer's V is shown*								

Table 277: Considered leaving before being seen or treated by discharge status and CTAS – Grey Nuns Community Hospital

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=1,511**		**n=1,508**				
	Yes definitely	5%	10%	0%	6%	10%	11%	8%
	To some extent	7%	17%	0%	9%	16%	20%	16%
	No	88%	73%	100%	85%	75%	69%	76%
p value		Cramer's V = 0.1151		Chi-squared = 0.002				
Note: Data is not weighted *Chi-squared is significant at p = 0.001 where Cramer's V is shown*								

Table 278: Considered leaving before being seen or treated by discharge status and CTAS – Misericordia Community Hospital

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=1,431**		**n=1,437**				
	Yes definitely	5%	11%	25%	6%	11%	11%	14%
	To some extent	7%	13%	0%	8%	11%	18%	18%
	No	88%	76%	75%	86%	78%	72%	68%
p value		Cramer's V = 0.1042		Cramer's V = 0.0936				
Note: Data is not weighted *Chi-squared is significant at p = 0.001 where Cramer's V is shown*								

Table 279: Considered leaving before being seen or treated by discharge status and CTAS – University of Alberta Hospital

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=1,459**		**n=1,463**				
	Yes definitely	4%	9%	0%	5%	9%	11%	14%
	To some extent	5%	14%	0%	7%	12%	16%	12%
	No	90%	76%	100%	88%	79%	73%	74%
p value		Cramer's V = 0.1575		Cramer's V = 0.0972				
Note: Data is not weighted *Chi-squared is significant at p = 0.001 where Cramer's V is shown*								

Table 280: Considered leaving before being seen or treated by discharge status and CTAS – Northern Lights Regional Health Centre

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=1,471**		**n=1,494**				
	Yes definitely	10%	12%	0%	10%	11%	14%	2%
	To some extent	14%	21%	0%	15%	20%	21%	30%
	No	76%	67%	0%	75%	70%	65%	68%
p value		Chi-squared = 0.257		Chi-squared = 0.073				
Note: Data is not weighted *Chi-squared is significant at p = 0.001 where Cramer's V is shown*								

Table 281: Considered leaving before being seen or treated by discharge status and CTAS – Queen Elizabeth II Hospital

Q9: During your visit to the emergency department, did you consider leaving before you had been seen and treated?								
		Discharge status		**CTAS level**				
	Considered Leaving	Admitted (column%)	Not admitted	CTAS 1	CTAS 2	CTAS 3	CTAS 4	CTAS 5
June 2010-July 2013		**n=1,393**		**n=1,387**				
	Yes definitely	7%	18%	100%	9%	19%	19%	19%
	To some extent	4%	21%	0%	11%	19%	22%	19%
	No	89%	61%	0%	80%	62%	58%	63%
p value		Cramer's V = 0.1137		Cramer's V = 0.1013				

Note: Data is not weighted
Chi-squared is significant at p = 0.001 where Cramer's V is shown

APPENDIX VII: SURVEY MATERIALS

HQCA
Health Quality Council of Alberta

Emergency Department Questionnaire

Taking part in this survey is voluntary

Who should complete the questionnaire?

We are surveying people who have recently visited an Emergency Department. If you have not recently visited an emergency department, please fill-in this bubble ○ and return the blank questionnaire using the postage-paid envelope.

Completing the questionnaire

For each question, please fill-in one bubble, ● using a black or blue pen. Don't worry if you make a mistake; simply cross out or erase the mistake, and fill-in the correct bubble.

Sometimes you will find the bubble you have filled-in has an instruction to go to another question.
For example: O Yes ➔ Go to 48 *(Question 48)*
By following the instructions, you will only complete questions that apply to you.

Questions or help?

If you have any questions about this survey, please call PRA Inc. at 1-888-877-6744 (toll-free) and ask to speak with the Emergency Department Survey Manager.

Your answers will be confidential.

Your data is protected under the Health Information Act of Alberta and will only be used or disclosed in non-identifying form. The information is collected under the authority of the Health Quality Council of Alberta Regulation, section 7(2)(d) and will be used to identify areas of improvement in emergency departments.

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Please remember, this questionnaire is about your ***most recent*** *visit to the Emergency Department identified in your letter*

BEFORE YOUR ARRIVAL AT THE EMERGENCY DEPARTMENT

1. Please identify **all** those who advised you to go to the Emergency Department:

My personal family doctor	O Yes	O No
My specialist doctor	O Yes	O No
A doctor at a walk-in clinic	O Yes	O No
A friend or family member	O Yes	O No
The *Health Link* phone-line nurse	O Yes	O No
No one, I decided on my own	O Yes	O No

Other (please specify): ☐

2. Why did you choose to go to the Emergency Department, instead of somewhere else such as a doctor's office? FILL-IN ALL THAT APPLY

- O The Emergency Department was the only choice available **at the time**.
- O The Emergency Department was the most convenient place to go.
- O I (we) thought the Emergency Department was the **best place** for my medical problem.
- O I **was told** to go to the Emergency Department rather than somewhere else.
- O Other: ☐

3. Would you have described your health problem as:

- O Life-threatening
- O Possibly life-threatening
- O Urgent, risk of permanent damage
- O Somewhat urgent, needed to be seen today
- O Not urgent, but I wanted to be seen today

4. How did you travel to the Emergency Department?

- O In an ambulance
- O By car
- O By taxi
- O On foot
- O By bus or train
- O Other ☐

5. When you went to the Emergency Department, how long did it take you to get there?

- O Up to 30 minutes
- O More than 30 minutes, but no more than 1 hour
- O More than 1 hour
- O Don't know / Can't remember

6. Thinking about the medical problem that brought you to the Emergency Department; Would you say that your problem was . . .

- O A new injury or accident **not** related to a previous injury or accident
- O A new illness or condition **not** related to a previous illness or condition
- O Complications or problems following recent medical care
- O Worsening of pre-existing chronic illness or condition
- O Routine care of a pre-existing chronic illness or condition
- O I was told to return to the Emergency Department for follow-up care
- O Other ☐

☐

12526

YOUR VISIT

7. How crowded was the Emergency Department waiting room when you first arrived there?
   - O Extremely crowded
   - O Very crowded
   - O Somewhat crowded
   - O Not at all crowded
   - O I did not see the waiting room
   - O Don't know / Can't remember

8. Were you able to find a comfortable place to sit in the waiting area?
   - O Yes, I found a comfortable place to sit
   - O I found somewhere to sit, but it was not comfortable
   - O No, I could not find a place to sit
   - O I did not want or need a place to sit
   - O I did not see the waiting room
   - O Don't know / Can't remember

9. During your visit to the Emergency Department, did you consider leaving before you had been seen and treated?
   - O Yes, definitely
   - O Yes, to some extent
   - O No

In your Emergency Department visit, you probably met a few different staff members.

The "***receptionist***" is the person who checks your health-care card and address, and who gives you a wristband or hospital card. The "***triage nurse***" is a different person - who asks you about your health problem in detail and decides on your priority for treatment.

The next two questions are about the "***triage nurse***."

10. How long did you wait before you FIRST SPOKE to the ***triage nurse***, that is, the person who first asked you about your health problem?
    - O 0 to 15 minutes → Go to 11
    - O 16 to 30 minutes → Go to 11
    - O 31 to 60 minutes → Go to 11
    - O More than 60 minutes → Go to 11
    - O Don't know / Can't remember → Go to 11
    - O I did not see a triage nurse → Go to 13

11. How would you rate the courtesy of the Emergency Department ***triage nurse***, that is, the person who first asked you about your health problem?
    - O Excellent
    - O Very good
    - O Good
    - O Fair
    - O Poor
    - O Very poor

12. When you first arrived at the Emergency Department, did you see the ***triage nurse*** before the ***receptionist***?
    - O Yes
    - O No
    - O Don't know / Can't remember

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WAITING

13. From the time you first arrived at the Emergency Department, how long did you wait BEFORE BEING EXAMINED by a doctor?

- O I did not have to wait
- O 1 to 30 minutes
- O 31 to 60 minutes
- O More than 1 hour but no more than 2 hours
- O More than 2 hours but no more than 4 hours
- O More than 4 hours
- O Don't know / Can't remember
- O I did not see a doctor

14. Were you told **how long** you would have to wait to be examined?

- O Yes, but the wait was **shorter**
- O Yes, and I had to wait as long as I was told
- O Yes, but the wait was **longer**
- O No, I was not told
- O Don't know / Can't remember

15. Were you told WHY YOU HAD TO WAIT to be examined?

- O Yes
- O No, but I would have liked an explanation
- O No, but I did not need an explanation
- O Don't know / Can't remember

16. Overall, did you think the order in which patients were seen was fair?

- O Yes
- O No
- O Can't say / Don't know

17. Did a member of staff check on you while you were waiting?

- O Yes, definitely
- O Yes, but I would have liked them to check more often
- O No, but I would have liked them to check
- O No, but I did not mind
- O Don't know / Can't remember

18. **Overall**, how long did your visit to the Emergency Department last?

- O Up to 1 hour
- O More than 1 hour but no more than 2 hours
- O More than 2 hours but no more than 4 hours
- O More than 4 hours but no more than 8 hours
- O More than 8 hours but no more than 12 hours
- O More than 12 hours but no more than 24 hours
- O More than 24 hours
- O Can't remember

DOCTORS AND NURSES

19. Did the doctors and nurses treating and assessing you introduce themselves?

- O Yes, all of them introduced themselves
- O Some of them introduced themselves
- O Very few or none of them introduced themselves
- O Can't remember

20. Did you have **enough time** to discuss your health or medical problem with the doctor or nurse?

- O Yes, definitely
- O Yes, to some extent
- O No

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21. Did the doctors and nurses listen to what you had to say?

- O Yes, definitely
- O Yes, to some extent
- O No

22. While you were in the Emergency Department, did a doctor or nurse explain your condition and treatment in a way you could understand?

- O Yes, completely
- O Yes, to some extent
- O No
- O I did not need an explanation

23. If you had any anxieties or fears about your condition or treatment, did a doctor or nurse discuss them with you?

- O Yes, completely
- O Yes, to some extent
- O No
- O I did not have anxieties or fears

24. Did you have confidence and trust in the doctors and nurses examining and treating you?

- O Yes, definitely
- O Yes, to some extent
- O No

25. In your opinion, did the doctors and nurses in the Emergency Department know enough about your condition or treatment?

- O All of them knew enough
- O Most of them knew enough
- O Only some of them knew enough
- O None of them knew enough
- O Don't know / Can't say

26. Did doctors or nurses talk in front of you as if you weren't there?

- O Yes, definitely
- O Yes, to some extent
- O No

YOUR CARE AND TREATMENT

27. While you were in the Emergency Department, how much information about your condition or treatment was given to **you**?

- O Not enough
- O Right amount
- O Too much
- O I was not given any information about my treatment or condition

28. Were you given enough privacy when **discussing your condition or treatment**?

- O Yes, definitely
- O Yes, to some extent
- O No

29. Were you given enough privacy when **being examined or treated**?

- O Yes, definitely
- O Yes, to some extent
- O No

30. If you needed attention, were you able to get a member of staff to help you?

- O Yes, always
- O Yes, sometimes
- O No, I could not find a member of staff to help me
- O A member of staff was with me all the time
- O I did not need attention

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31. Sometimes in a hospital, a member of staff will say one thing and another will say something quite different. Did this happen to you in the Emergency Department?

- O Yes, definitely
- O Yes, to some extent
- O No

32. Were you involved as much as you wanted to be in decisions about your care and treatment?

- O Yes, definitely
- O Yes, to some extent
- O No
- O I was not well enough to be involved in decisions about my care

33. Did a family member or friend come with you or join you in the Emergency Department?

- O Yes, someone came with me ➔ Go to 34
- O Yes, someone joined me there ➔ Go to 34
- O Yes, but he / she needed to leave ➔ Go to 34
- O No ➔ Go to 36

34. How much information about your condition or treatment was given to **your family or someone close to you?**

- O Not enough
- O Right amount
- O Too much
- O My family did not want or need information
- O I did not want family or friends to have information

The "treatment area" is the area inside the Emergency Department where patients have a bed and are examined and treated by the doctor.

35. Was your family member or friend **allowed** to join you in the treatment area when **you** wanted?

- O Yes, definitely
- O Yes, to some extent
- O No
- O I did not want them there

TESTS *(e.g., X-rays or scans)*

36. Did you have any tests (such as X-rays, scans, or blood tests) during this visit to the Emergency Department?

- O Yes ➔ Go to 37
- O No ➔ Go to 38

37. Did a member of staff explain **the results of the tests** in a way you could understand?

- O Yes, definitely
- O Yes, to some extent
- O No
- O Not sure / Can't remember
- O I was told the test result would be given to me later
- O I was never told the results of the test

PAIN

38. Were you in any pain while you were in the Emergency Department?

- O Yes ➔ Go to 39
- O No ➔ Go to 43

39. While you were in the Emergency Department, how much of the time were you in pain?

- O All or most of the time
- O Some of the time
- O Occasionally

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40. Did you request pain medicine?

- ○ Yes ➔ Go to 41
- ○ No ➔ Go to 42

41. How many minutes after you requested pain medicine did it take before you got it?

- ○ 0 minutes / right away
- ○ 1 to 5 minutes
- ○ 6 to 10 minutes
- ○ 11 to 15 minutes
- ○ 16 to 30 minutes
- ○ More than 30 mintues
- ○ I asked for pain medicine but wasn't given any

42. Do you think the Emergency Department staff did everything they could to help control your pain?

- ○ Yes, definitely
- ○ Yes, to some extent
- ○ No
- ○ Can't say / Don't know

HOSPITAL ENVIRONMENT AND FACILITIES

43. In your opinion, how clean was the Emergency Department?

- ○ Very clean
- ○ Fairly clean
- ○ Not very clean
- ○ Not at all clean
- ○ Can't say

44. How clean were the toilets in the Emergency Department?

- ○ Very clean
- ○ Fairly clean
- ○ Not very clean
- ○ Not at all clean
- ○ I did not use a toilet

45. While you were in the Emergency Department, did you feel bothered or threatened by other patients?

- ○ Yes, definitely
- ○ Yes, to some extent
- ○ No

LEAVING THE EMERGENCY DEPARTMENT

46. What happened at the end of your visit to the Emergency Department?

- ○ Admitted to the same hospital ➔ Go to 55
- ○ Transferred to a different hospital ➔ Go to 55
- ○ Went home ➔ Go to 47
- ○ Stayed with a relative or friend ➔ Go to 47
- ○ Other [ ] ➔ Go to 47

Medications ***(e.g., medicines, tablets, ointments)***

47. Before you left the Emergency Department, were any **new** medications prescribed or ordered for you?

- ○ Yes ➔ Go to 48
- ○ No ➔ Go to 51

48. Did a member of staff explain **the purpose** of the medications you were to take at home in a way you could understand?

- ○ Yes, completely
- ○ Yes, to some extent
- ○ No
- ○ I did not need an explanation

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49. Did a member of staff explain to you **how to take** the new medications?

- O Yes, completely
- O Yes, to some extent
- O No
- O I did not need an explanation

50. Did a member of staff tell you about **medication side effects** to watch for?

- O Yes, completely
- O Yes, to some extent
- O No
- O I did not need this type of information

Information

51. Did a member of staff tell you when you could **resume your usual activities**, such as when to go back to work or drive a car?

- O Yes, definitely
- O Yes, to some extent
- O No
- O I did not need this type of information

52. Did a member of staff tell you about what **danger signals** regarding your illness or treatment to watch for after you went home?

- O Yes, completely
- O Yes, to some extent
- O No
- O I did not need this type of information

53. Did a member of staff tell you **what to do** if you were worried about your condition or treatment after you left the Emergency Department?

- O Yes, completely
- O Yes, to some extent
- O No
- O Don't know / Don't remember

54. Did a member of staff ask about any of the following when you left the Emergency Department

a) How you were getting home?

O Yes O No O Not needed

b) If you had someone at home to assist you?

O Yes O No O Not needed

c) If there were any other concerns about your safety and comfort at home?

O Yes O No O Not needed

d) If you knew what to do for follow-up care?

O Yes O No O Not needed

OVERALL

55. Was the main reason you went to the Emergency Department dealt with to your satisfaction?

- O Yes, completely
- O Yes, to some extent
- O No

56. Overall, did you feel you were treated with respect and dignity while you were in the Emergency Department?

- O Yes, all of the time
- O Yes, some of the time
- O No

57. Overall, how would you rate the care you received in the Emergency Department?

- O Excellent
- O Very good
- O Good
- O Fair
- O Poor
- O Very poor

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YOUR OWN HEALTH STATE TODAY

Please indicate which statement best describes your **health state <u>today</u>** by filling in one bubble in each group below.

Please mark only 1 bubble in each question

58. Mobility
- O I have no problems in walking about
- O I have some problems in walking about
- O I am confined to bed

59. Self Care
- O I have no problems with self care
- O I have some problems with self care
- O I am unable to wash or dress myself

60. Usual Activities (e.g. work, study, housework, family or leisure activities)
- O I have no problems performing my usual activities
- O I have some problems performing my usual activities
- O I am unable to perform my usual activities

61. Pain / Discomfort
- O I have no pain or discomfort
- O I have moderate pain or discomfort
- O I have extreme pain or discomfort

62. Anxiety / Depression
- O I am not anxious or depressed
- O I am moderately anxious or depressed
- O I am extremely anxious or depressed

63. Overall, how would you rate your health during the **past 4 weeks**?
- O Excellent
- O Very good
- O Good
- O Fair
- O Poor
- O Very poor

64. Do you currently have a personal family doctor or specialist whom you see for most of your health-care needs?
- O Yes ➔ Go to 65
- O No ➔ Go to 66

65. In the past 12 months, how many times in total have you visited your personal family doctor or your specialist FOR YOUR OWN CARE?
- O 0 times
- O 1 time
- O 2 to 4 times
- O 5 to 10 times
- O More than 10 times

66. In the past 12 months, how many times have you visited an Emergency Department FOR YOUR OWN CARE? (please include this visit)
- O 0 times
- O 1 time
- O 2 to 4 times
- O 5 to 10 times
- O More than 10 times

ABOUT YOU

67. Are you male or female?
- O Male
- O Female

68. What was your year of birth?
(Please print in the boxes below)

eg. | 1 | 9 | 3 | 4 |

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69. What is the highest level of school that you have completed?

- O Grade school or some high school
- O Completed high school
- O Post-secondary technical school
- O Some university or college
- O Completed college diploma
- O Completed university degree
- O Post-grad degree (Master's or Ph.D.)

70. Would you say you are ...?

- O White / Caucasian
- O Native Canadian / Aboriginal
- O Chinese
- O Latin American
- O Black
- O Asian (please specify)
- O Other (please specify)

71. What language do you mainly speak at home?

- O English
- O Other

72. Do you receive home-care services at present?

- O Yes
- O No, but I am waiting for home-care services
- O No

73. Where do you presently live?

- O My own house, condominium, or apartment
- O A rented house, condominium, or apartment
- O A residential facility or seniors' lodge
- O A nursing home or long-term care centre

74. Do you have any additional comments, concerns or issues about your Emergency Department visit? If so, please explain.

75. May we contact you if we have additional questions about your experience?

- O Yes
- O No

THANK YOU VERY MUCH FOR YOUR HELP.
Your response will help to improve
Emergency Department Care in Alberta.

Please return using the pre-paid envelope provided to you.

HEALTHLink Alberta

Do you have urgent concerns about your health?
Health Link Alberta
Nurse advice and health service information 24 hours a day
In Calgary (403) 943-LINK (5465) In Edmonton (780) 408-LINK (5465)
OR Toll-Free 1-866-408-5465

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HQCA
Health Quality Council of Alberta

<DATE>

<FIRST NAME> <LAST NAME>
< ADDRESS>
<CITY>, <PROV> <POSTAL CODE>
<SURVEY NUMBER>

Dear <Mr./Ms> <LAST NAME>,

We would like to invite you to take part in a survey about the quality of care in selected Alberta Emergency Departments. This confidential survey is intended to obtain your feedback about your most recent visit to <FACILITY> between <DATE1> and <DATE2>. The important information you and others provide will assist emergency departments to identify areas for improvement. The questionnaire should only take about 15 minutes to complete and a pre-paid return envelope is enclosed for you to return the questionnaire.

The survey is being conducted by the Health Quality Council of Alberta (HQCA) in partnership with Alberta Health Services. The HQCA is an independent organization legislated under the Regional Health Authorities Act. The HQCA monitors and reports on the quality, safety, and performance of the health system and helps health-care providers improve the quality of the care and services they provide. The HQCA is monitoring patient experience in Alberta Emergency Departments on an ongoing basis.

Your participation is entirely voluntary and you need not answer all of the questions. We hope you will participate and provide as much information as possible. We want to give you every opportunity to participate in this study. Your answers will be kept strictly confidential and will be combined with those of others in the final report. Individual survey answers will not be shared with anyone. We would appreciate it if you could take the time now to complete and return your questionnaire. If we do not receive anything from you soon, we may contact you by phone or send a reminder notice.

To manage the survey process and also to ensure confidentiality, we have engaged the services of Prairie Research Associates (PRA) Inc. PRA is an independent, national research firm that is under contract to the HQCA to follow the Alberta health information privacy legislation.

If you would like more information about the survey, or have questions on how to complete the questionnaire, please do not hesitate to call the Emergency Department Survey Manager of PRA at 1-888-877-6744 (toll free) or by e-mail at HQCAsurvey@pra.ca.

Thank you in advance for your participation.

Sincerely,

John Cowell

John Cowell, MD
Chief Executive Officer
Health Quality Council of Alberta

310, 811 - 1st Street NW Calgary, Alberta T2N 2A4 Ph: 403 297 8169 Fx: 403 297 8968 Website: www.hqca.ca

HQCA
Health Quality Council of Alberta

<DATE>

<FIRST NAME> <LAST NAME>
< ADDRESS>
<CITY>, <PROV> <POSTAL CODE>
<SURVEY NUMBER>

Dear <Mr./Ms.> <LAST NAME>,

We recently sent you a survey regarding the quality of care you received from your most recent visit to <FACILITY> between <DATE> and <DATE>.

Your views are very important, and as we have not received your response, we are providing you with a second copy of the questionnaire. The questionnaire should only take about 15 minutes to complete. If you have already replied, please ignore this letter and accept our thanks for your participation.

While your participation in the survey is entirely voluntary, and you need not answer all the questions, we hope you will participate and provide as much information as possible. We want to ensure that you have the opportunity to participate in this study. If we do not receive anything from you within a week or so, a representative from Prairie Research Associates (PRA Inc.), our contracted research firm, may follow up with a phone call to determine your interest and to confirm that you received the survey.

Your answers will be kept in strict confidence and will be combined with those of others in the final report. Individual survey answers will not be shared with anyone.

If you would like more information about the survey, or have questions on how to complete the questionnaire, please do not hesitate to call the Emergency Department Survey Manager of PRA Inc. at 1-888-877-6744 (toll free) or by e-mail at HQCAsurvey@pra.ca.

Sincerely,

John Cowell

John Cowell, MD
Chief Executive Officer
Health Quality Council of Alberta

210, 811 - 1st Street NW Calgary, Alberta T2N 2A4 Ph: 403 297 8163 Fx: 403 297 8958 Website: www.hqca.ca

HQCA
Health Quality Council of Alberta

CANADA POST / POSTES CANADA
Lettermail / Poste-lettre
1011071

<SURVEY NUMBER>
<FIRST NAME> <LAST NAME>
<ADDRESS>
<CITY>, <PROV> <POSTAL CODE>

Recently the Health Quality Council of Alberta sent you a questionnaire. If you have already completed and returned it to us, please accept our sincere thanks. If not, please do so at your earliest convenience.

The survey was sent to only a small group of individuals so it is extremely important that your responses are included. The information collected from this study will assist emergency departments in Alberta to identify areas for improvement.

If, by some chance, you did not receive the questionnaire or it was misplaced, please call the Emergency Department Survey Manager at 1-888-877-6744 and another package will be sent to you.

Sincerely,

John Cowell

John Cowell, MD
Chief Executive Officer
Health Quality Council of Alberta


How was your emergency department experience?
The Health Quality Council of Alberta in partnership with Alberta Health Services and select facilities in Alberta are conducting a survey of the care patients have recieved in the emergency department.
Randomly selected patients will be sent a survey by mail. Participation is voluntary and answers are confidential. Your health information and feedback is protected under the Health Information Act (HIA) of Alberta.
Your survey responses will help to improve and shape emergency care in the future. The full results of all surveys will be posted at www.hqca.ca. If you have any questions about the survey, please contact the HQCA at 403.297.8162 or info@hqca.ca
WE NEED YOUR FEEDBACK
HQCA
Health Quality Council of Alberta
The Health Quality Council of Alberta is an independent organization legislated with a mandate to promote patient safety and health service quality across Alberta.
www.hqca.ca

APPENDIX VIII: CONTROL CHART FORMULAS

In accordance with best practice,[2] centrelines on the control charts presented in Sections 5.2 through 6.10 are calculated for the first two years (24 months) of patient experience data. If the data is stable (i.e., it only exhibited random variability) over this initial two-year period, the centreline is frozen and extended to apply to the final 14 months of data. However, if the data is unstable (i.e., it exhibited evidence for change), the centreline is recalculated without using the data associated with the detected changes and then extended over the rest of the study period.

The reason for doing this is that changes or special causes in the new data being added to the chart (the final 14 months) will be detected more rapidly than it would if the centreline was calculated from all of the data. This is because the new patient experience data does not influence the calculation of the centreline or control limits, and thus is evaluated relative to historical norms defined by the first two years of data.[2]

$\bar{X}$ Chart

Upper control limit (UCL) = $\bar{\bar{x}} + z\sigma_{\bar{x}}$
Centreline = $\bar{\bar{x}}$
Lower control limit = $\bar{\bar{x}} - z\sigma_{\bar{x}}$

Where, because n_i is variable,

$$\bar{\bar{x}} = \frac{\sum_{i=1}^{m}(n_i\bar{x}_i)}{\sum_{i=1}^{m} n_i}$$

and,

z = standard normal variable (3 for 99.74% confidence)
$\sigma_{\bar{x}}$ = standard deviation of the distribution of sample means, computed as $\frac{\sigma}{\sqrt{n_i}}$
σ = population (process) standard deviation
n_i = sample size (number of observations per sample)

The population (process) standard deviation is estimated using $\frac{\bar{s}}{c_4}$ because it is an unbiased estimator of σ (i.e., σ = $\frac{\bar{s}}{c_4}$).

Where, because n_i is variable,

$$\bar{s} = \frac{\sum_{i=1}^{m}(n_i s_i)}{\sum_{i=1}^{m} n_i}$$

Also,

c_4 = gamma function constant that is dependent on n_i

$$= \sqrt{\frac{2}{\pi(2k-1)}}\left(\frac{2^{2k-2}(k-1)!^2}{(2k-2)!}\right) \quad \text{, if } n = 2k$$

$$= \sqrt{\frac{\pi}{k}}\left(\frac{(2k-1)!}{2^{2k-1}(k-1)!^2}\right) \quad \text{, if } n = 2k+1$$

Then, using substitution:

UCL = $\bar{\bar{x}} + \frac{3\bar{s}}{c_4\sqrt{n_i}}$
Centreline = $\bar{\bar{x}}$
LCL = $\bar{\bar{x}} - \frac{3\bar{s}}{c_4\sqrt{n_i}}$

S Chart

The sample standard deviation s is not an unbiased estimator of σ. Assuming the underlying distribution is normal, s estimates $c_4\sigma$ and the standard deviation of s is $\sigma\sqrt{1-c_4^2}$. If the value of σ was known, the three-sigma control limits for S charts would be:

UCL = $c_4\sigma + 3\sigma\sqrt{1-c_4^2}$
Centreline = $c_4\sigma$
LCL = $c_4\sigma - 3\sigma\sqrt{1-c_4^2}$

However, the population (process) standard deviation is not known, so it is estimated with $\frac{\bar{s}}{c_4}$.

Using substitution, the control limits for the S chart become:

UCL = $\bar{s} + 3\frac{\bar{s}}{c_4}\sqrt{1-c_4^2}$
Centreline = $\bar{s}$
LCL = $\bar{s} - 3\frac{\bar{s}}{c_4}\sqrt{1-c_4^2}$

P Chart

UCL = $\bar{p} + z\sigma_p$
Centreline = $\bar{p}$
LCL = $\bar{p} - z\sigma_p$

Where,

$$\bar{p} = \left(\frac{\sum_{i=1}^{m} D_i}{\sum_{i=1}^{m} n_i}\right) \times 100$$

and,

D_i = Nonconforming units in each sample
z = standard normal variable (3 for 99.74% confidence)

$$\sigma_p = \sqrt{\frac{\bar{p}(100 - \bar{p})}{n_i}}$$

Then, using substitution:

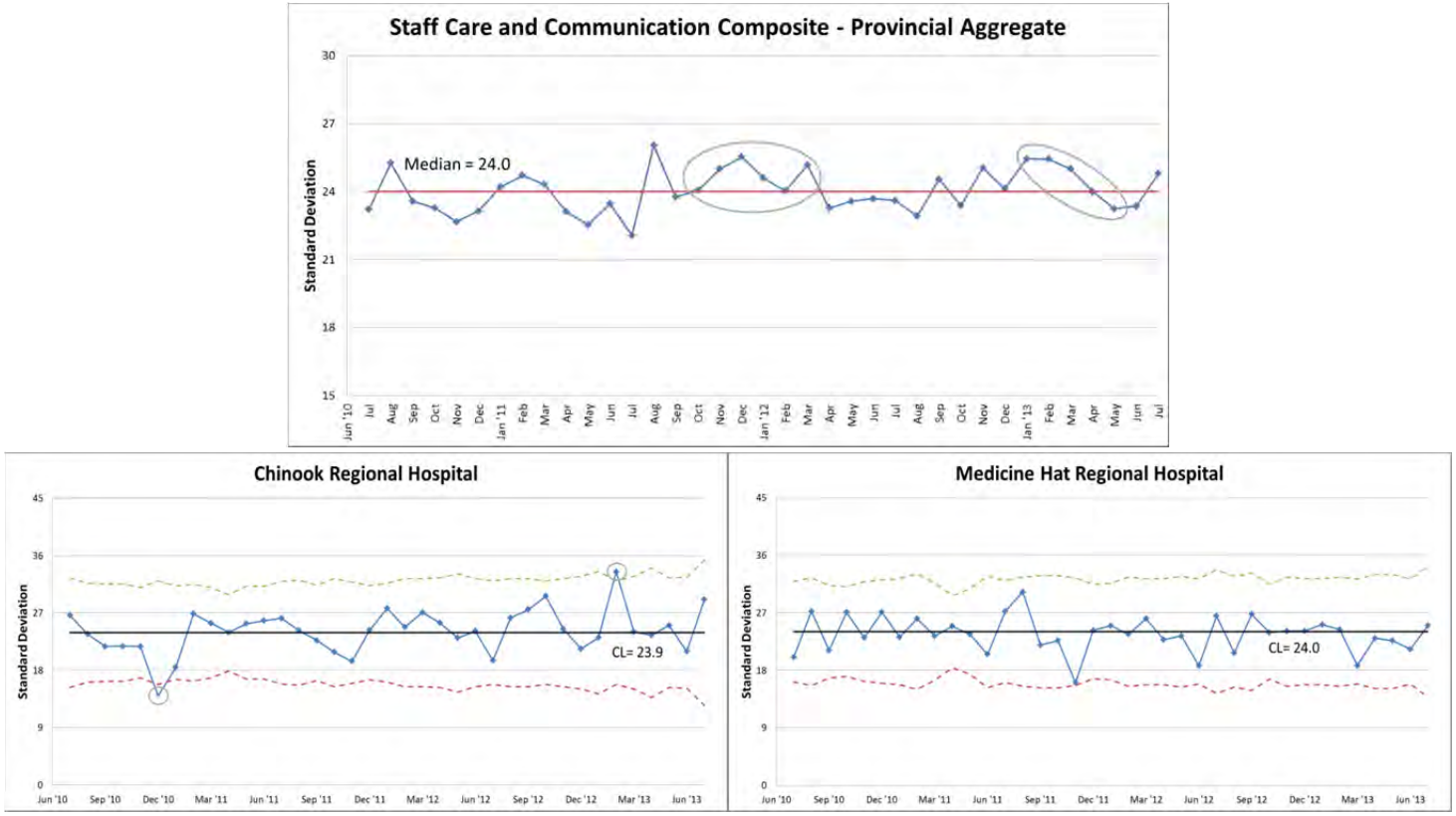
UCL = $\bar{p} + 3\sqrt{\frac{\bar{p}(100-\bar{p})}{n_i}}$

Centreline = $\bar{p}$

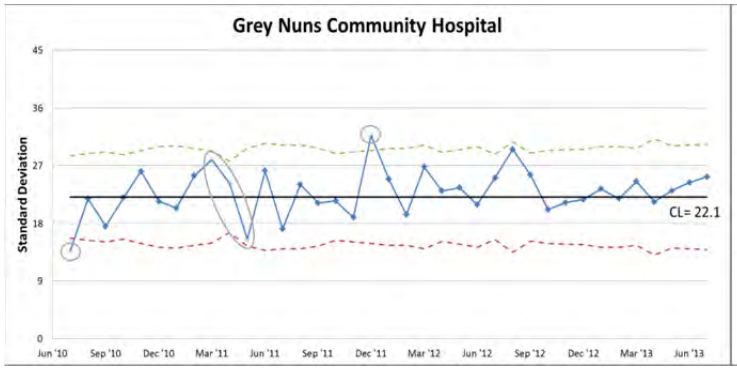
LCL = $\bar{p} - 3\sqrt{\frac{\bar{p}(100-\bar{p})}{n_i}}$

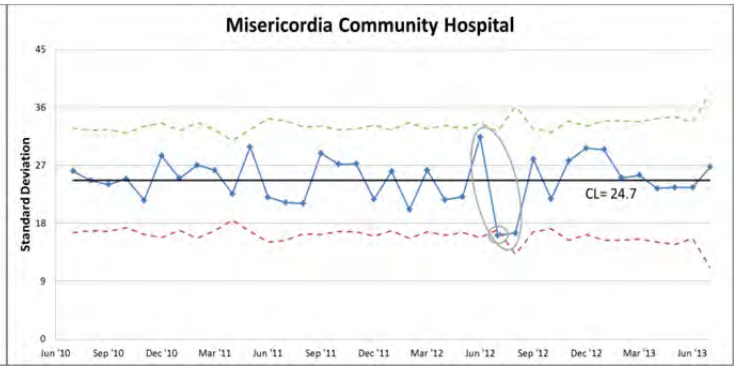
APPENDIX IX: COMPOSITE VARIABLE *S* CHARTS

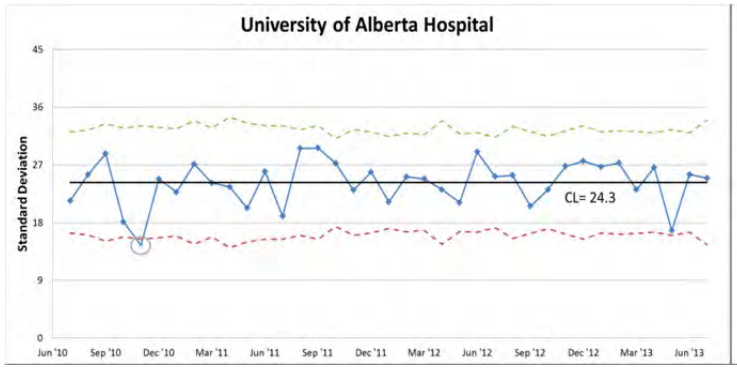
Figure 73: Staff care and communication composite – Provincial aggregate and site-level results (*S* charts)

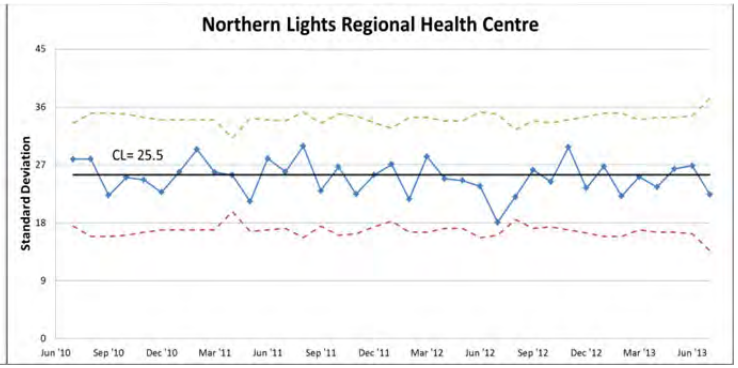



Red Deer Regional Hospital
Standard Deviation
CL= 22.9
Peter Lougheed Centre
CL= 20.7
Rockyview General Hospital
CL= 22.9
Foothills Medical Centre
CL= 21.8
Sturgeon Community Hospital
CL= 23.0
Royal Alexandra Hospital
CL= 24.9
0
9
18
27
36
45
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


Grey Nuns Community Hospital
Standard Deviation
45
36
27
18
9
0
CL= 22.1
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


Misericordia Community Hospital
Standard Deviation
45
36
27
18
9
0
CL= 24.7
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


University of Alberta Hospital
Standard Deviation
45
36
27
18
9
0
CL= 24.3
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


Northern Lights Regional Health Centre
Standard Deviation
45
36
27
18
9
0
CL= 25.5
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

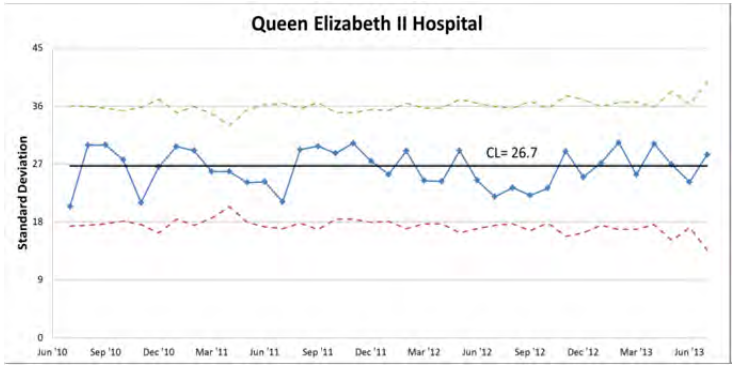
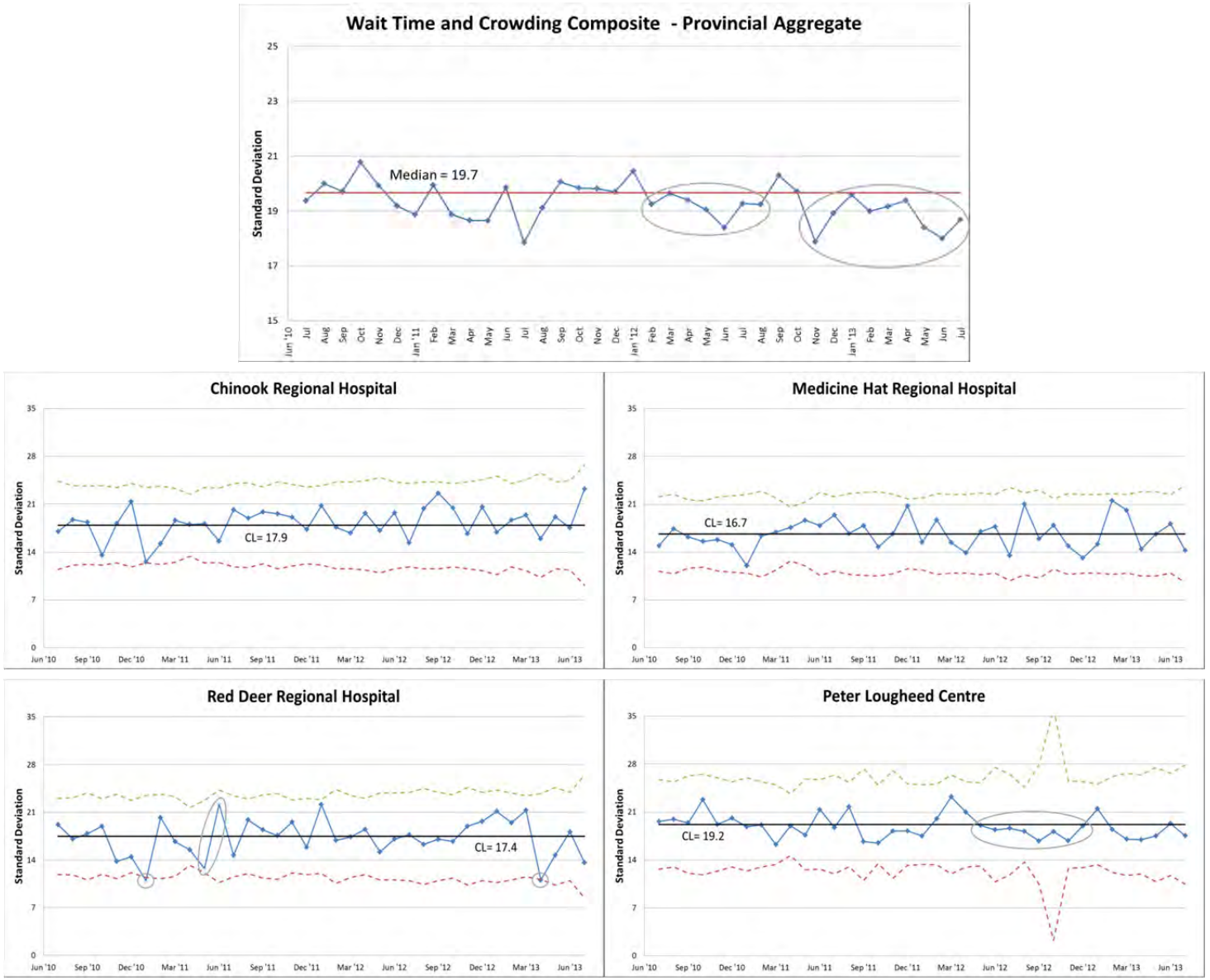
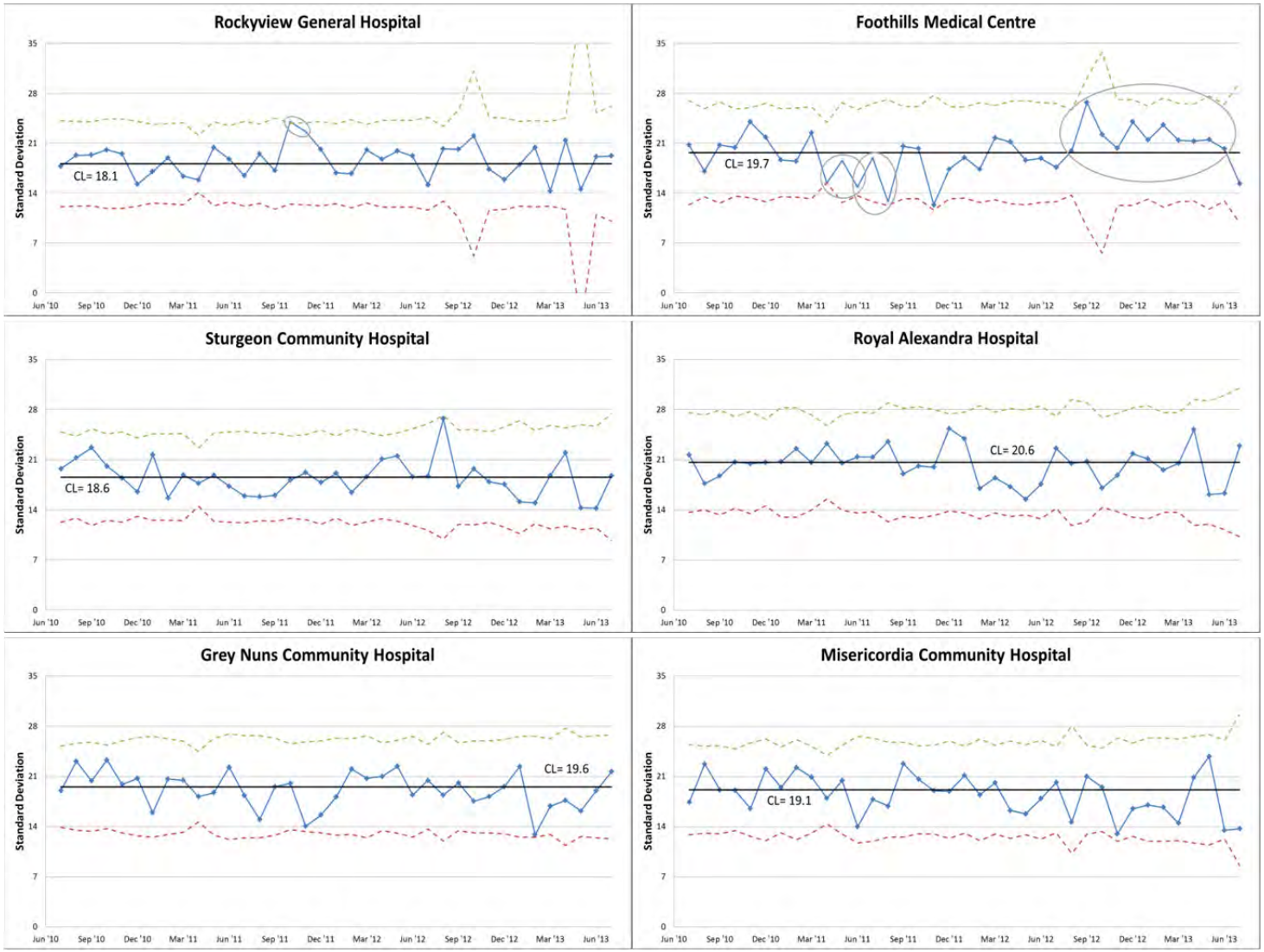

Queen Elizabeth II Hospital
Standard Deviation
45
36
27
18
9
0
CL= 26.7
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

Figure 74: Wait time and crowding composite – Provincial aggregate and site-level results (*S* charts)




Rockyview General Hospital
Standard Deviation
CL= 18.1
Foothills Medical Centre
CL= 19.7
Sturgeon Community Hospital
CL= 18.6
Royal Alexandra Hospital
CL= 20.6
Grey Nuns Community Hospital
CL= 19.6
Misericordia Community Hospital
CL= 19.1
0
7
14
21
28
35
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

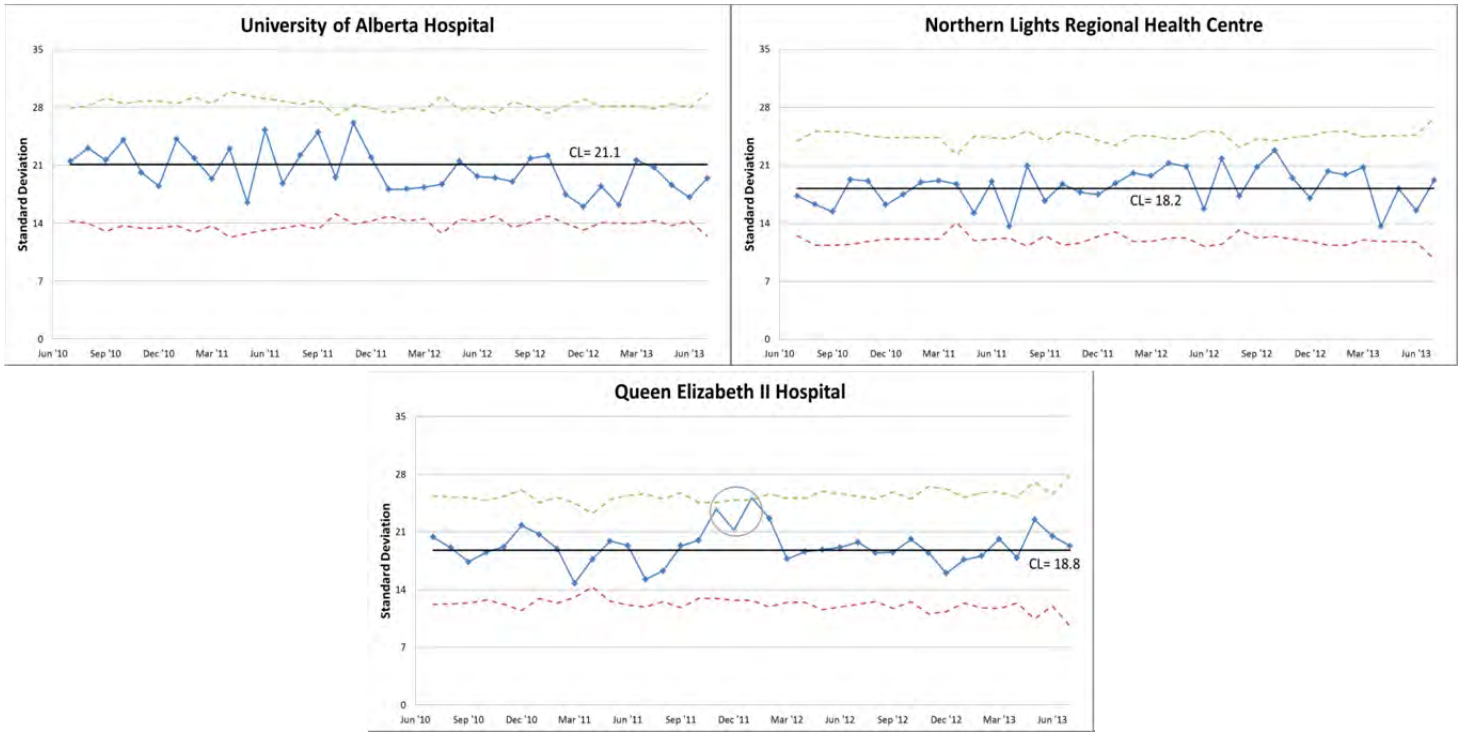
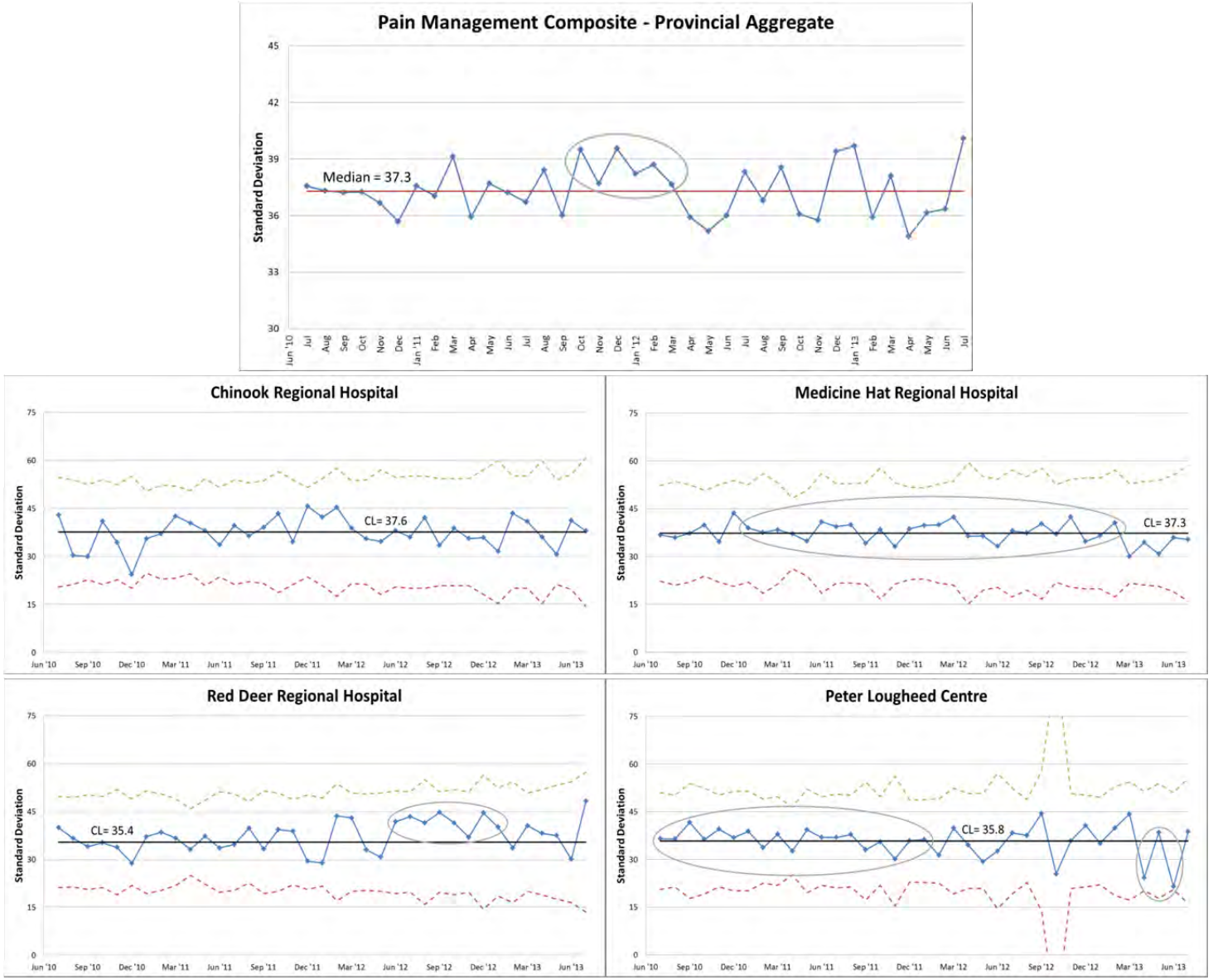
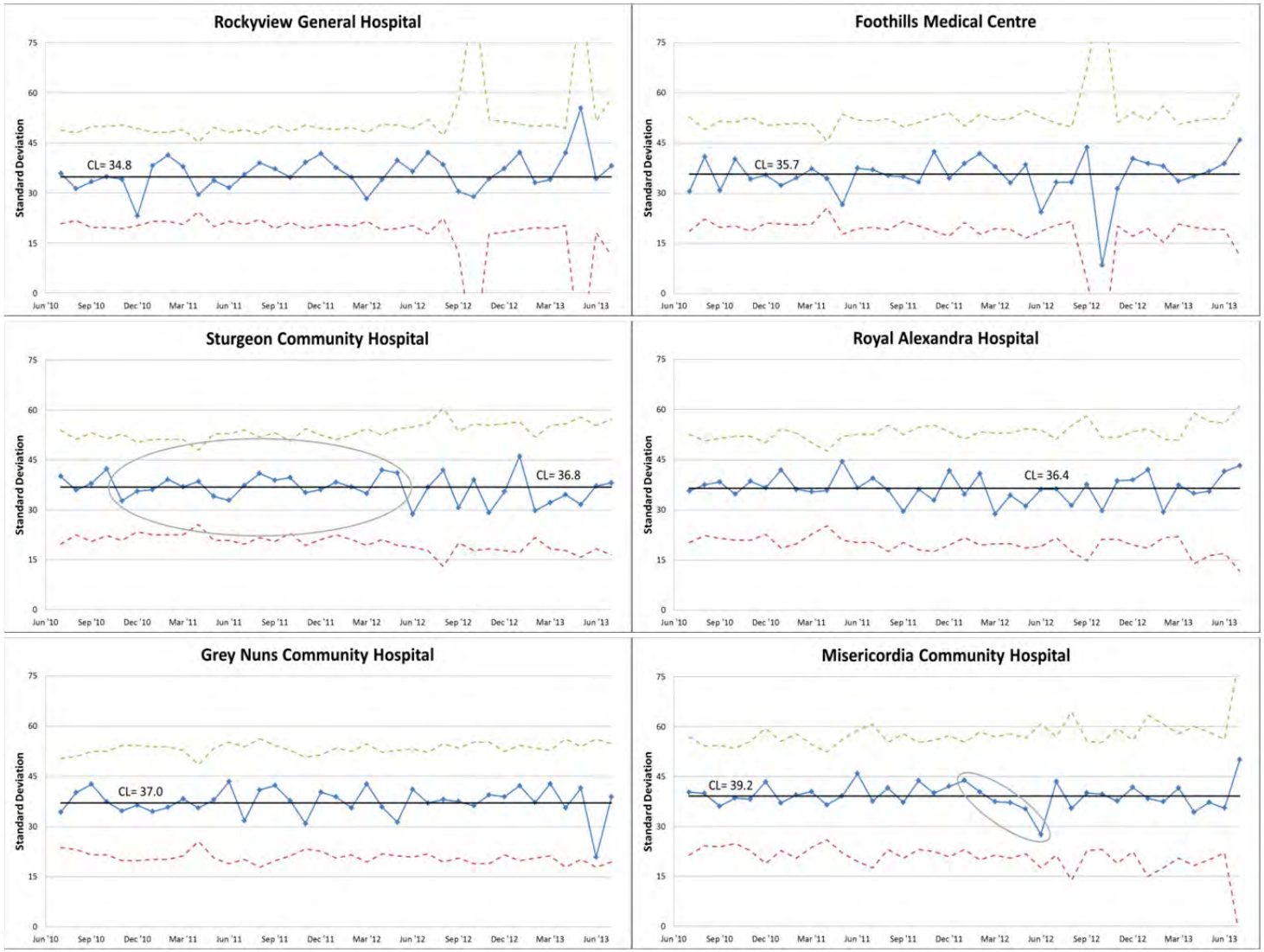

University of Alberta Hospital
Standard Deviation
CL= 21.1
Northern Lights Regional Health Centre
CL= 18.2
Queen Elizabeth II Hospital
CL= 18.8
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

Figure 75: Pain management composite – Provincial aggregate and site-level results (*S* charts)




Rockyview General Hospital
CL= 34.8
Foothills Medical Centre
CL= 35.7
Sturgeon Community Hospital
CL= 36.8
Royal Alexandra Hospital
CL= 36.4
Grey Nuns Community Hospital
CL= 37.0
Misericordia Community Hospital
CL= 39.2
Standard Deviation
0
15
30
45
60
75
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

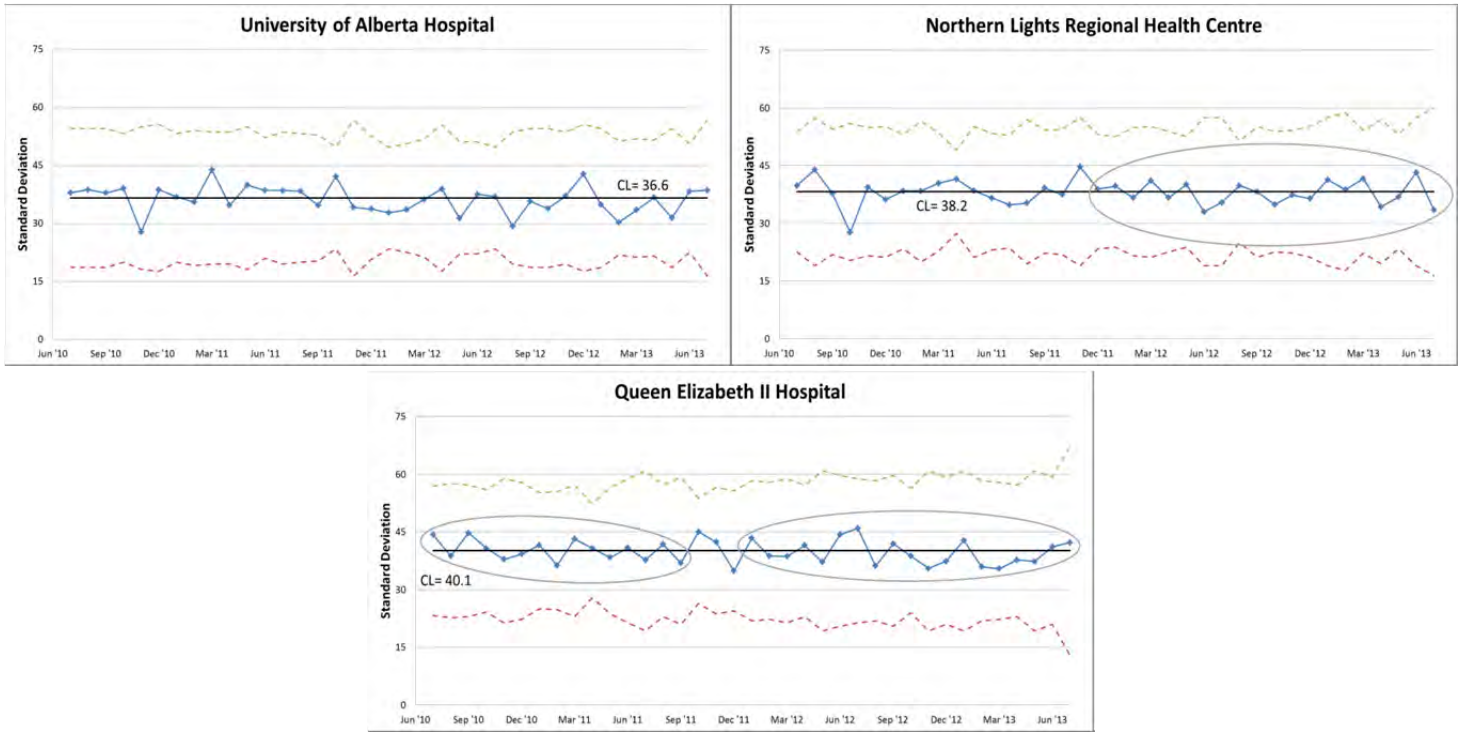
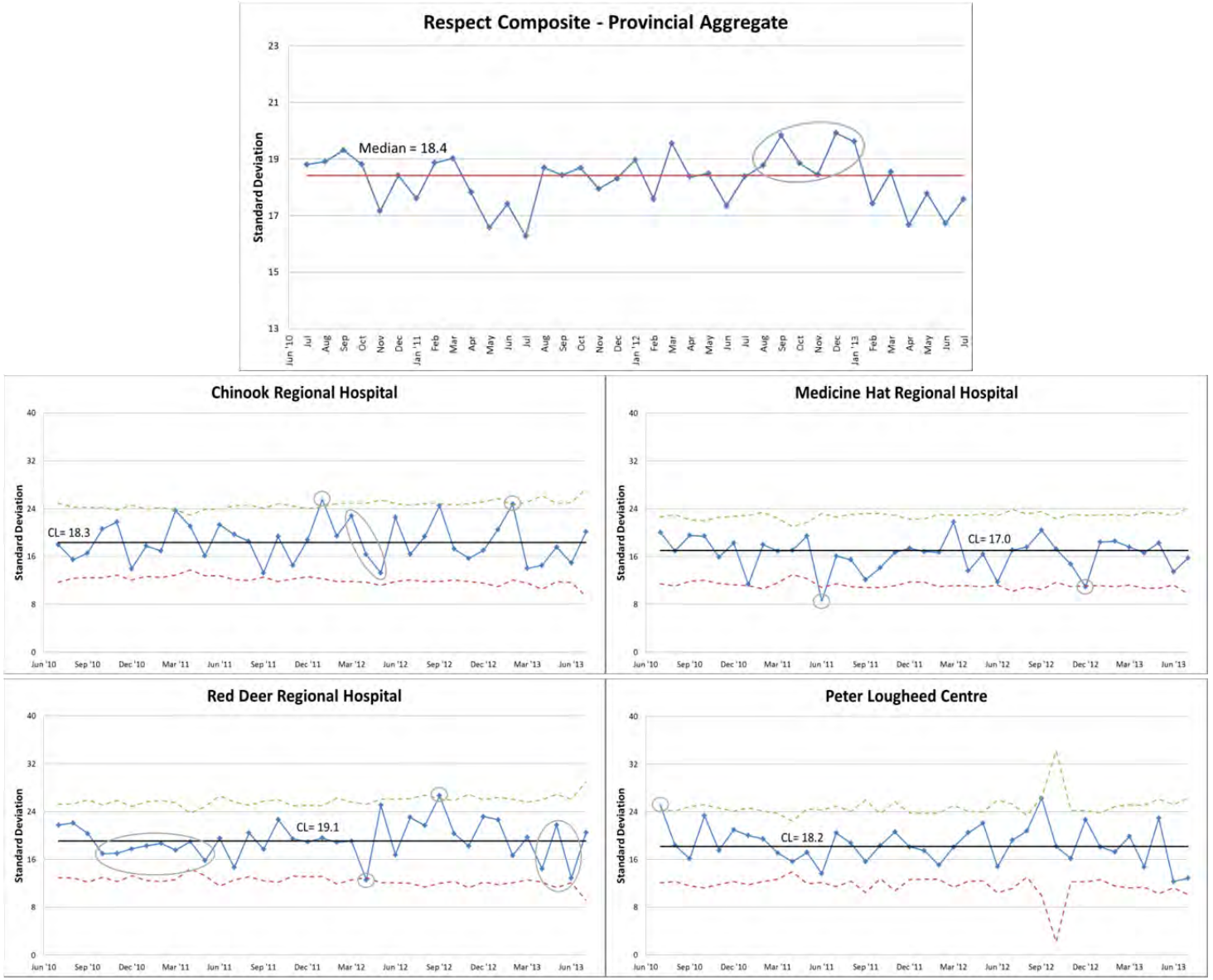
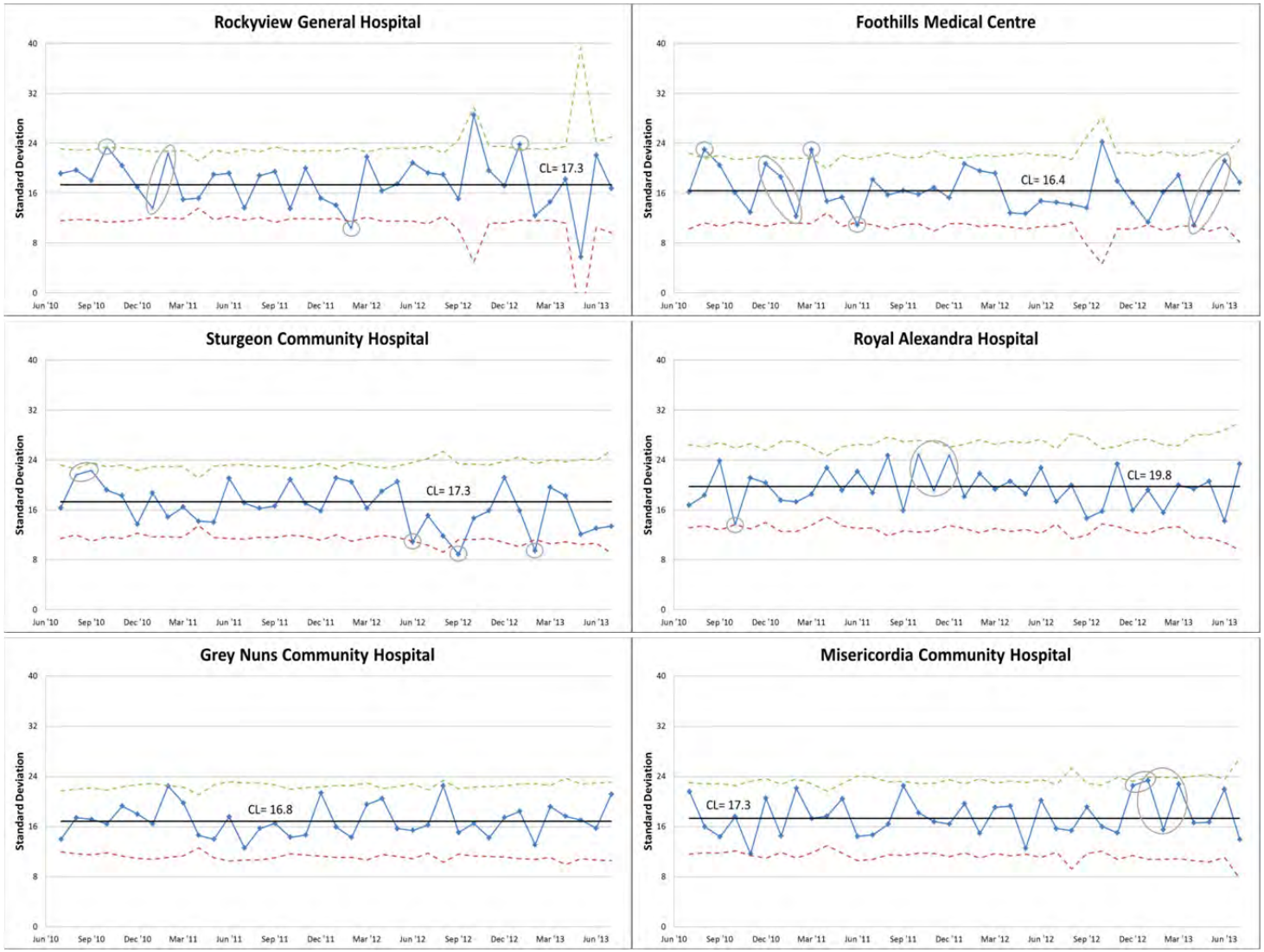
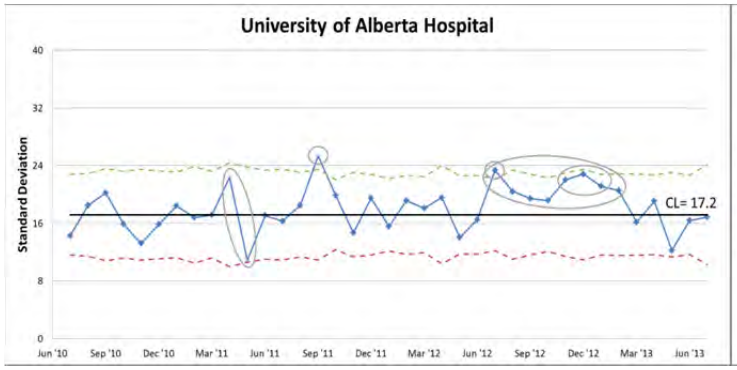
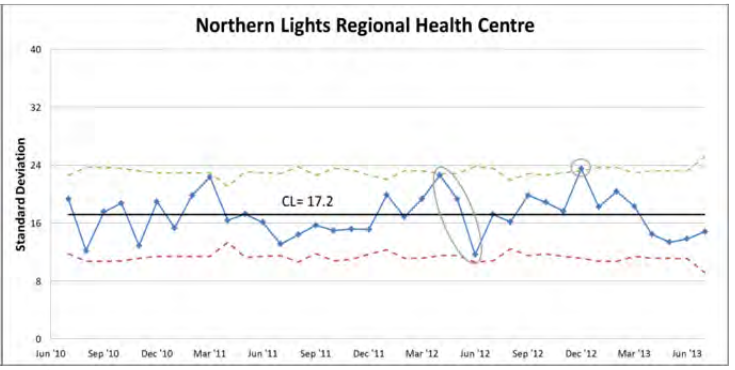

University of Alberta Hospital
Standard Deviation
CL= 36.6
Northern Lights Regional Health Centre
Standard Deviation
CL= 38.2
Queen Elizabeth II Hospital
Standard Deviation
CL= 40.1
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

Figure 76: Respect composite – Provincial aggregate and site-level results (*S* charts)




Rockyview General Hospital
Standard Deviation
CL= 17.3
Foothills Medical Centre
CL= 16.4
Sturgeon Community Hospital
CL= 17.3
Royal Alexandra Hospital
CL= 19.8
Grey Nuns Community Hospital
CL= 16.8
Misericordia Community Hospital
CL= 17.3
0
8
16
24
32
40
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


University of Alberta Hospital
Standard Deviation
40
32
24
16
8
0
CL= 17.2
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


Northern Lights Regional Health Centre
Standard Deviation
40
32
24
16
8
0
CL= 17.2
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

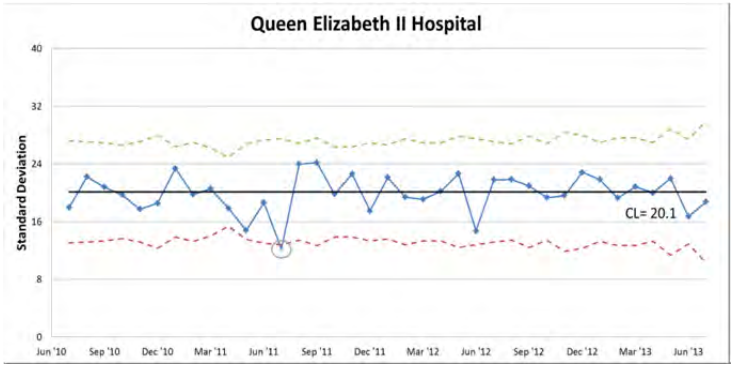
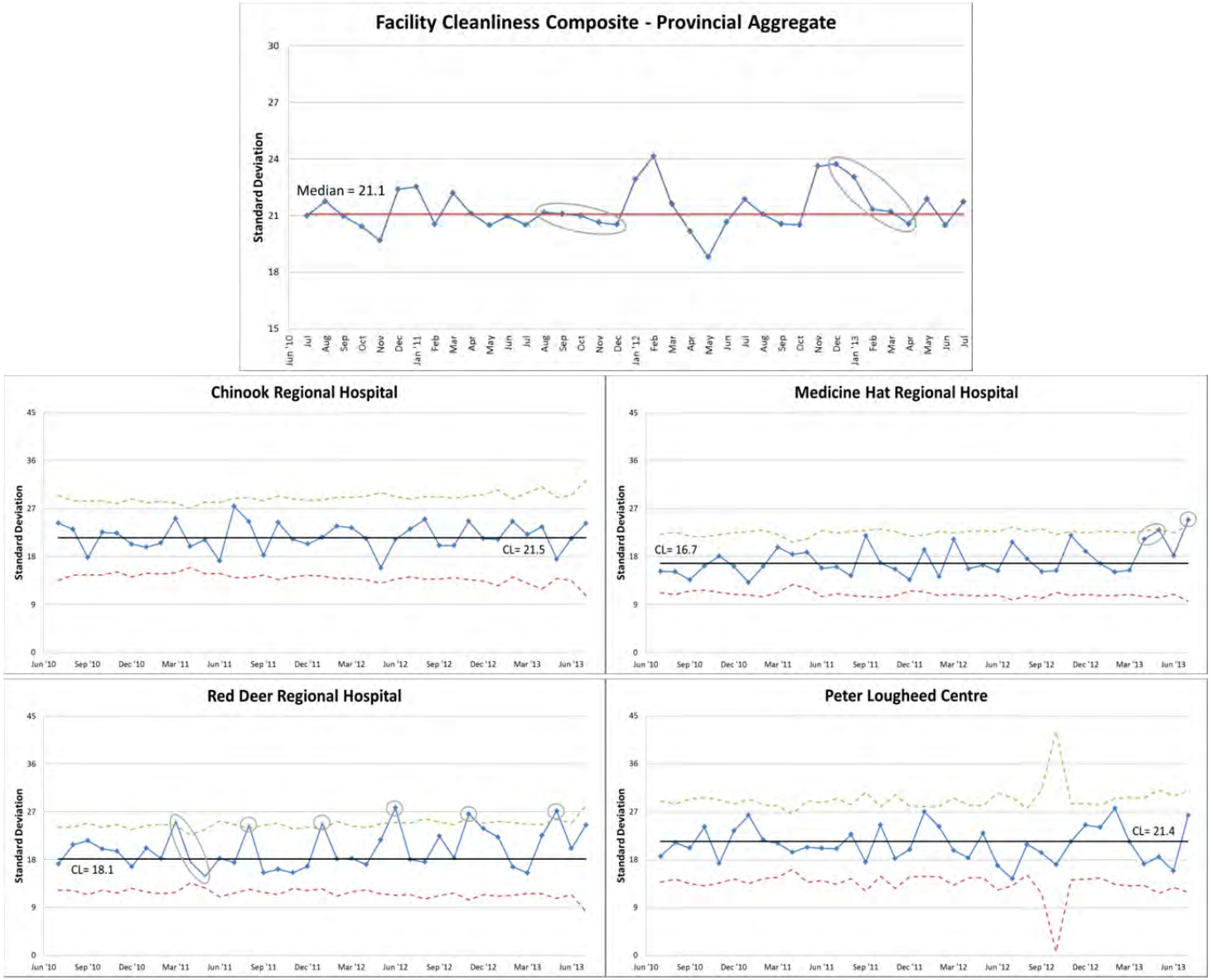
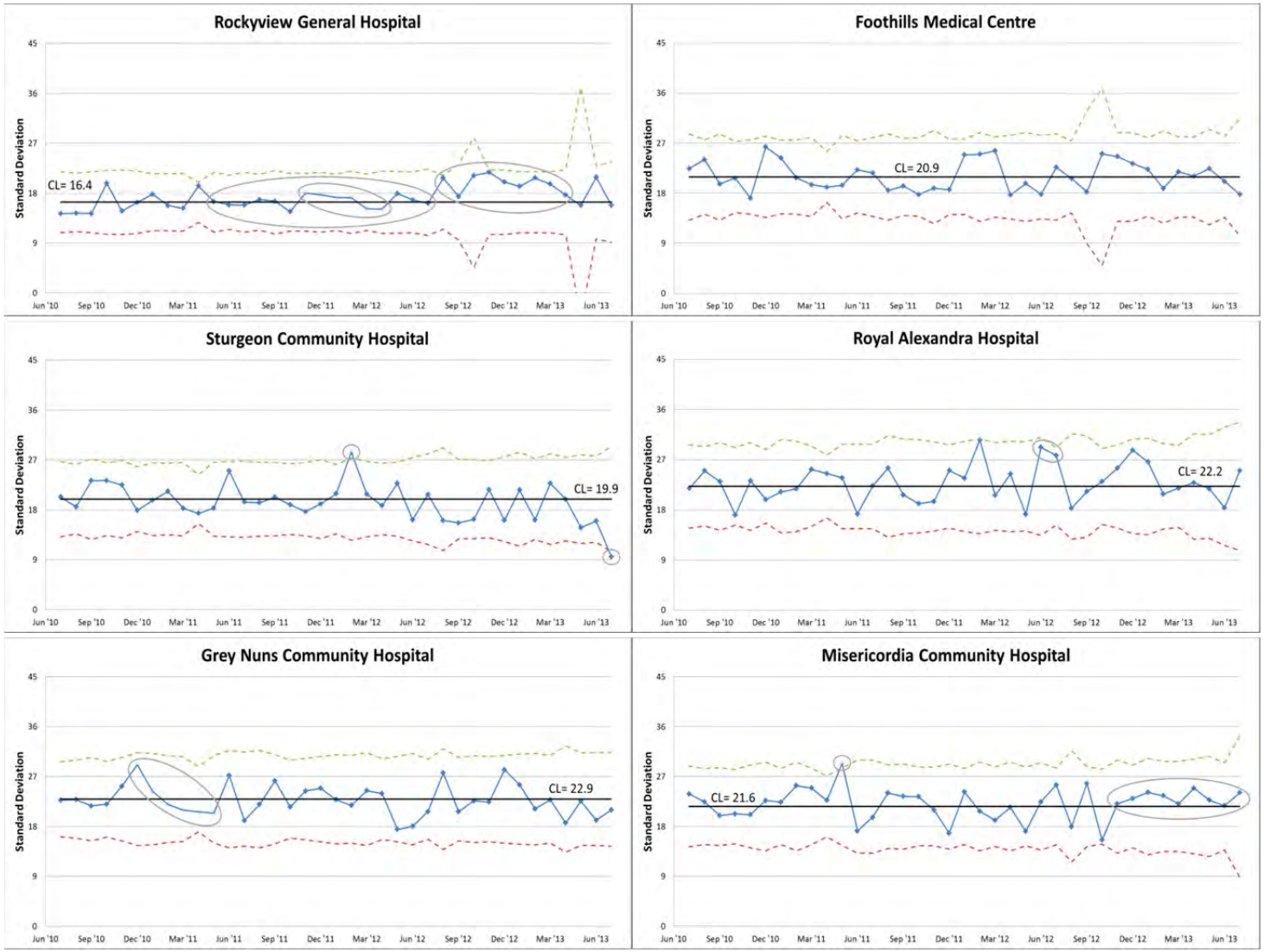

Queen Elizabeth II Hospital
Standard Deviation
40
32
24
16
8
0
CL= 20.1
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

Figure 77: Facility cleanliness composite – Provincial aggregate and site-level results (*S* charts)




Rockyview General Hospital
Standard Deviation
CL= 16.4
Foothills Medical Centre
CL= 20.9
Sturgeon Community Hospital
CL= 19.9
Royal Alexandra Hospital
CL= 22.2
Grey Nuns Community Hospital
CL= 22.9
Misericordia Community Hospital
CL= 21.6
0
9
18
27
36
45
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

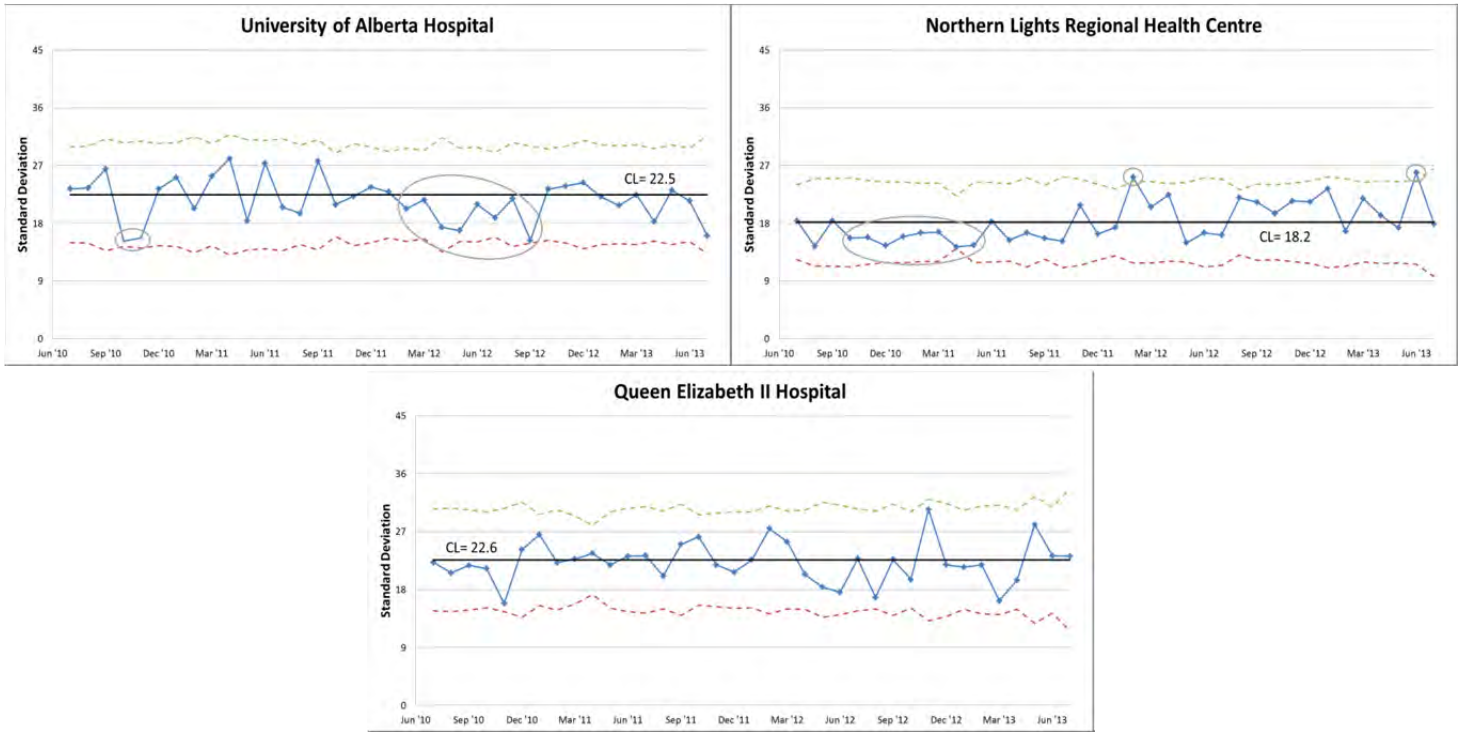
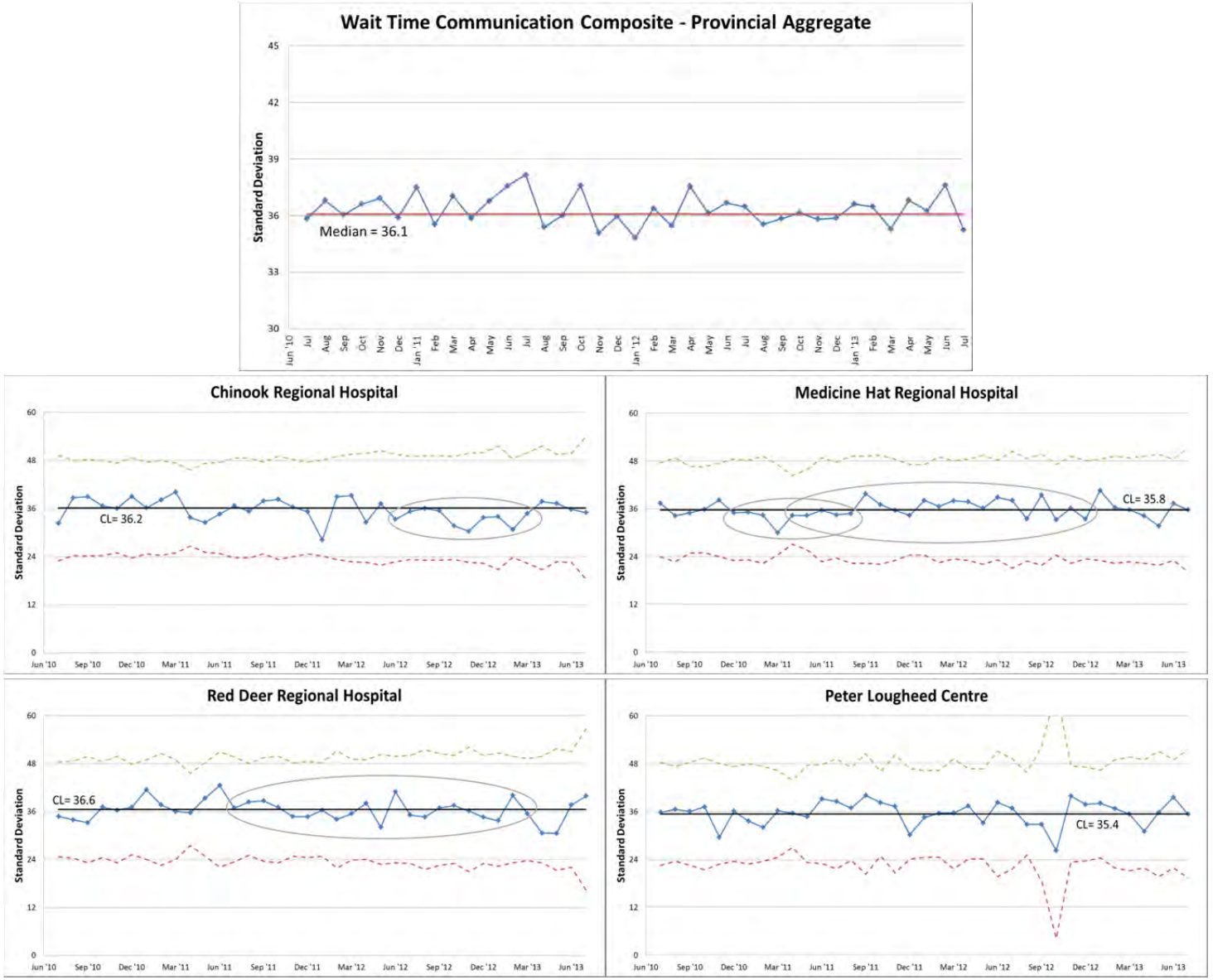
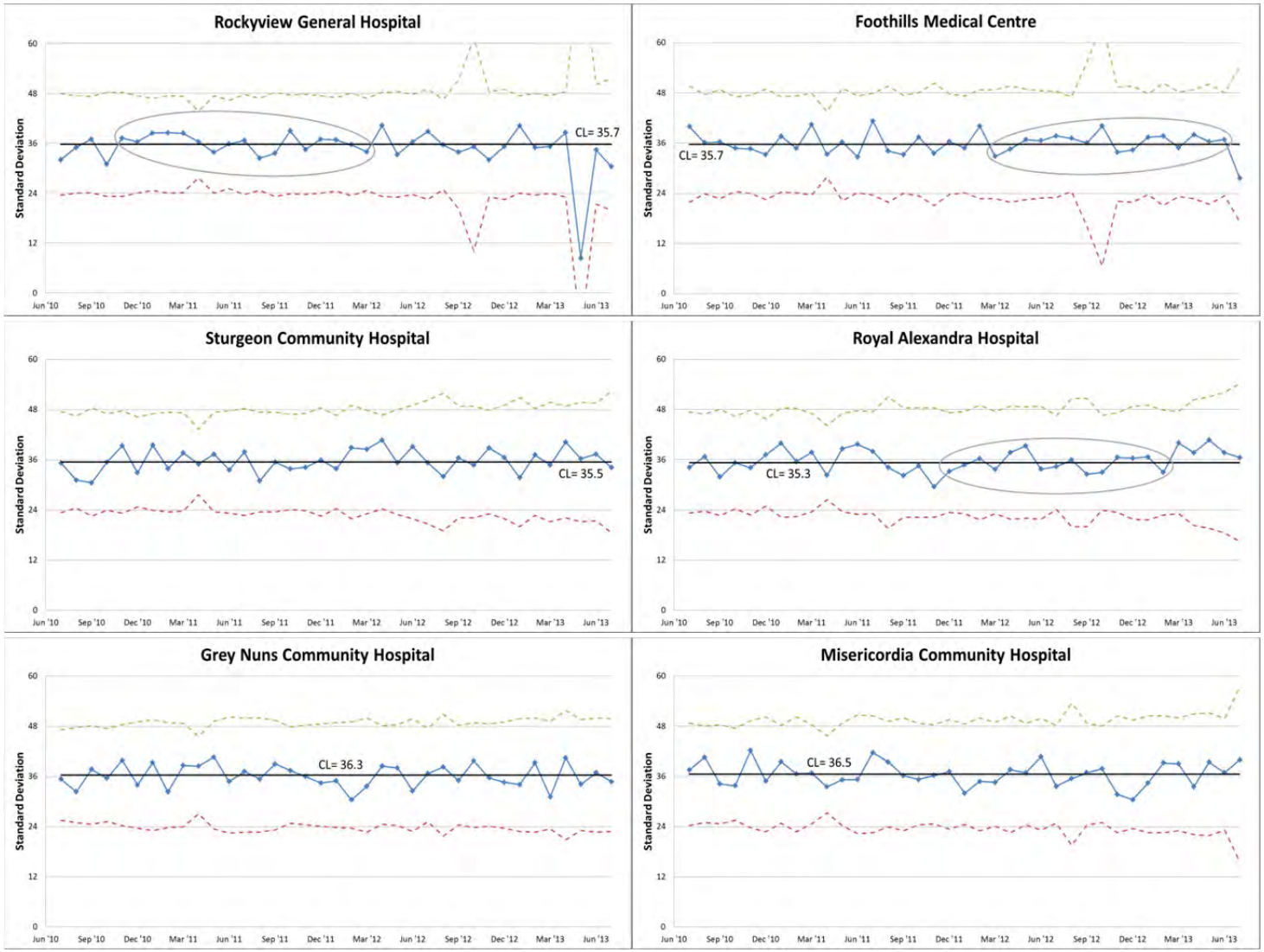

University of Alberta Hospital
Standard Deviation
45
36
27
18
9
0
CL= 22.5
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13
Northern Lights Regional Health Centre
Standard Deviation
45
36
27
18
9
0
CL= 18.2
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13
Queen Elizabeth II Hospital
Standard Deviation
45
36
27
18
9
0
CL= 22.6
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

Figure 78: Wait time communication composite – Provincial aggregate and site-level results (*S* charts)




Rockyview General Hospital
Standard Deviation
CL= 35.7
Foothills Medical Centre
CL= 35.7
Sturgeon Community Hospital
CL= 35.5
Royal Alexandra Hospital
CL= 35.3
Grey Nuns Community Hospital
CL= 36.3
Misericordia Community Hospital
CL= 36.5
0
12
24
36
48
60
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

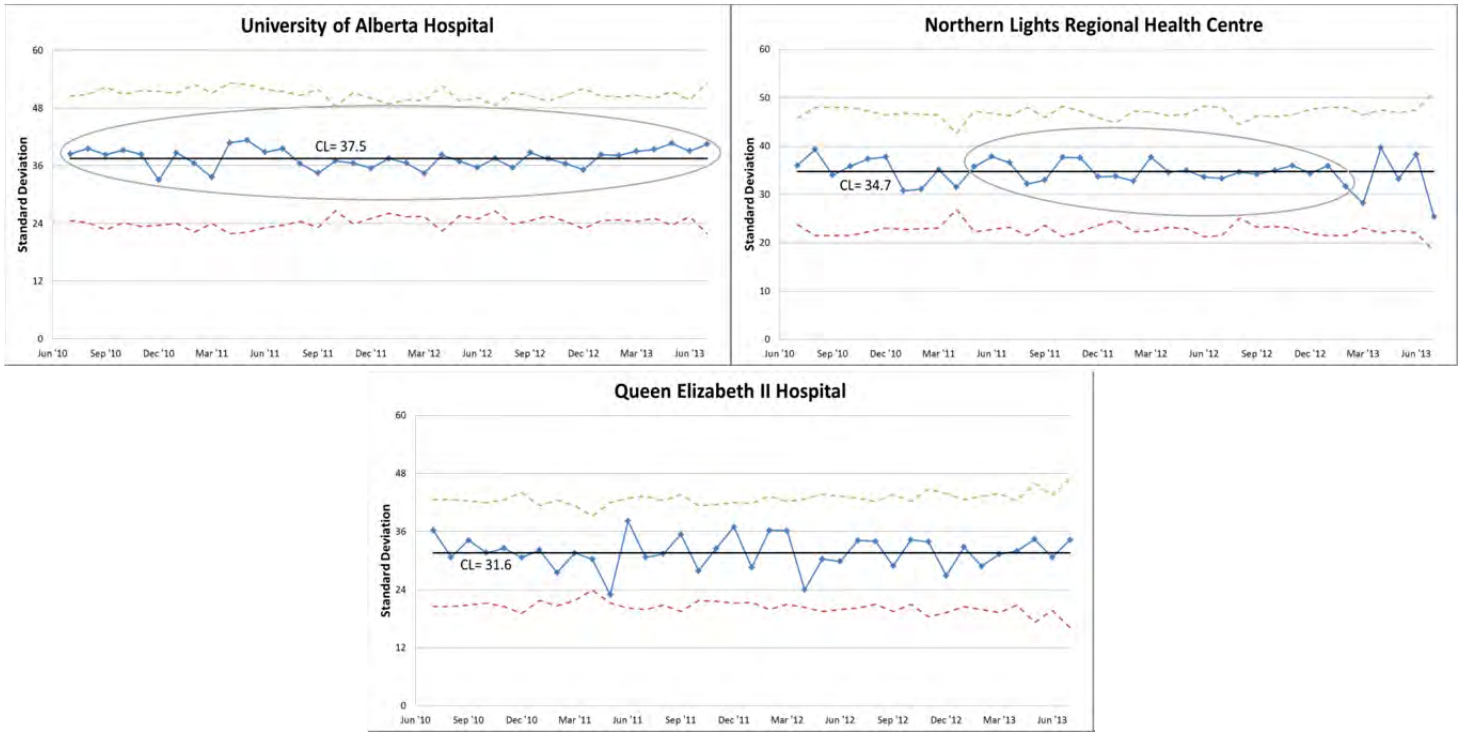
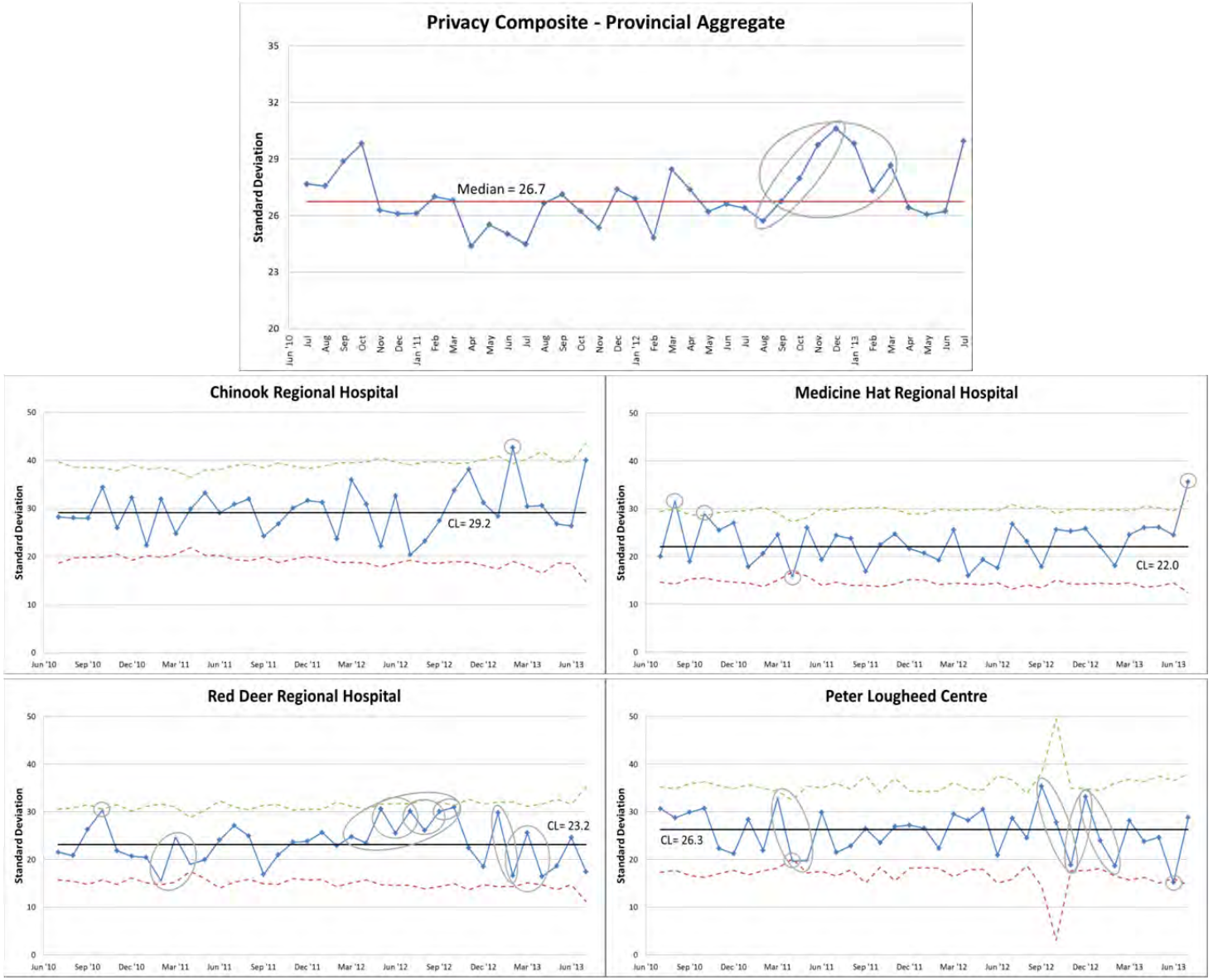
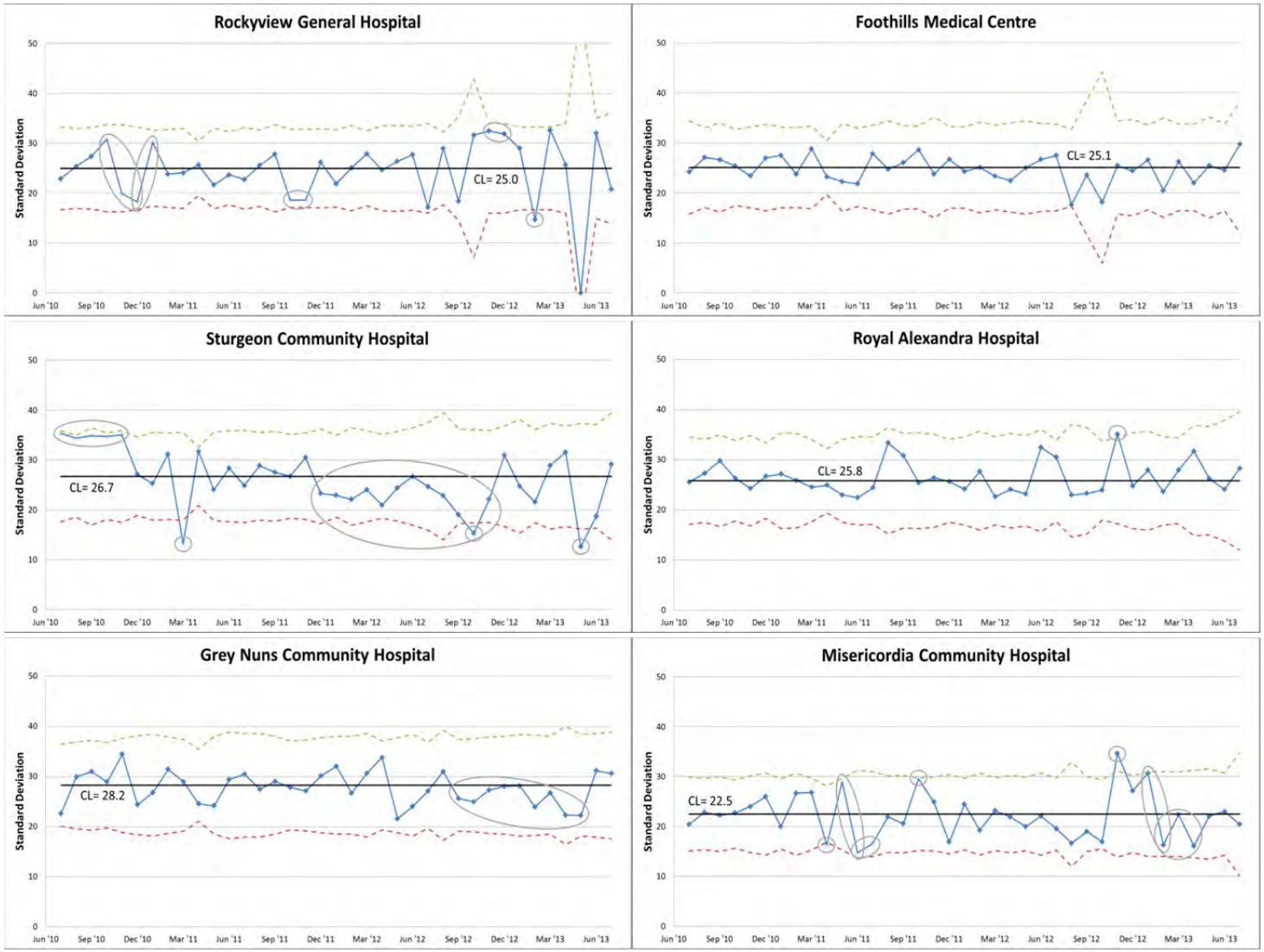
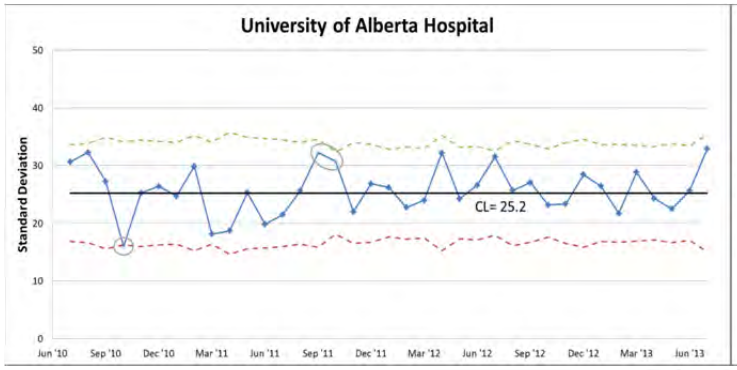
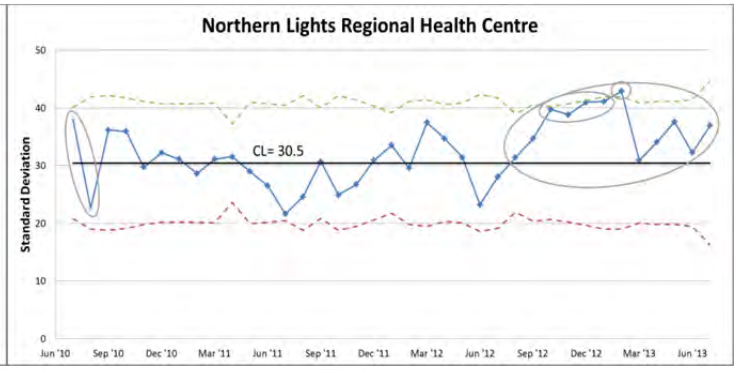

University of Alberta Hospital
Standard Deviation
CL= 37.5
Northern Lights Regional Health Centre
Standard Deviation
CL= 34.7
Queen Elizabeth II Hospital
Standard Deviation
CL= 31.6
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

Figure 79: Privacy composite – Provincial aggregate and site-level results (*S* charts)




Rockyview General Hospital
Standard Deviation
CL= 25.0
Foothills Medical Centre
CL= 25.1
Sturgeon Community Hospital
CL= 26.7
Royal Alexandra Hospital
CL= 25.8
Grey Nuns Community Hospital
CL= 28.2
Misericordia Community Hospital
CL= 22.5
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


University of Alberta Hospital
Standard Deviation
CL= 25.2
0
10
20
30
40
50
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


Northern Lights Regional Health Centre
Standard Deviation
CL= 30.5
0
10
20
30
40
50
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

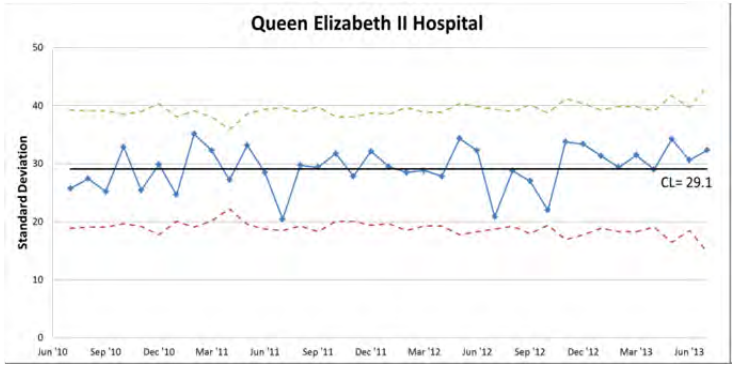
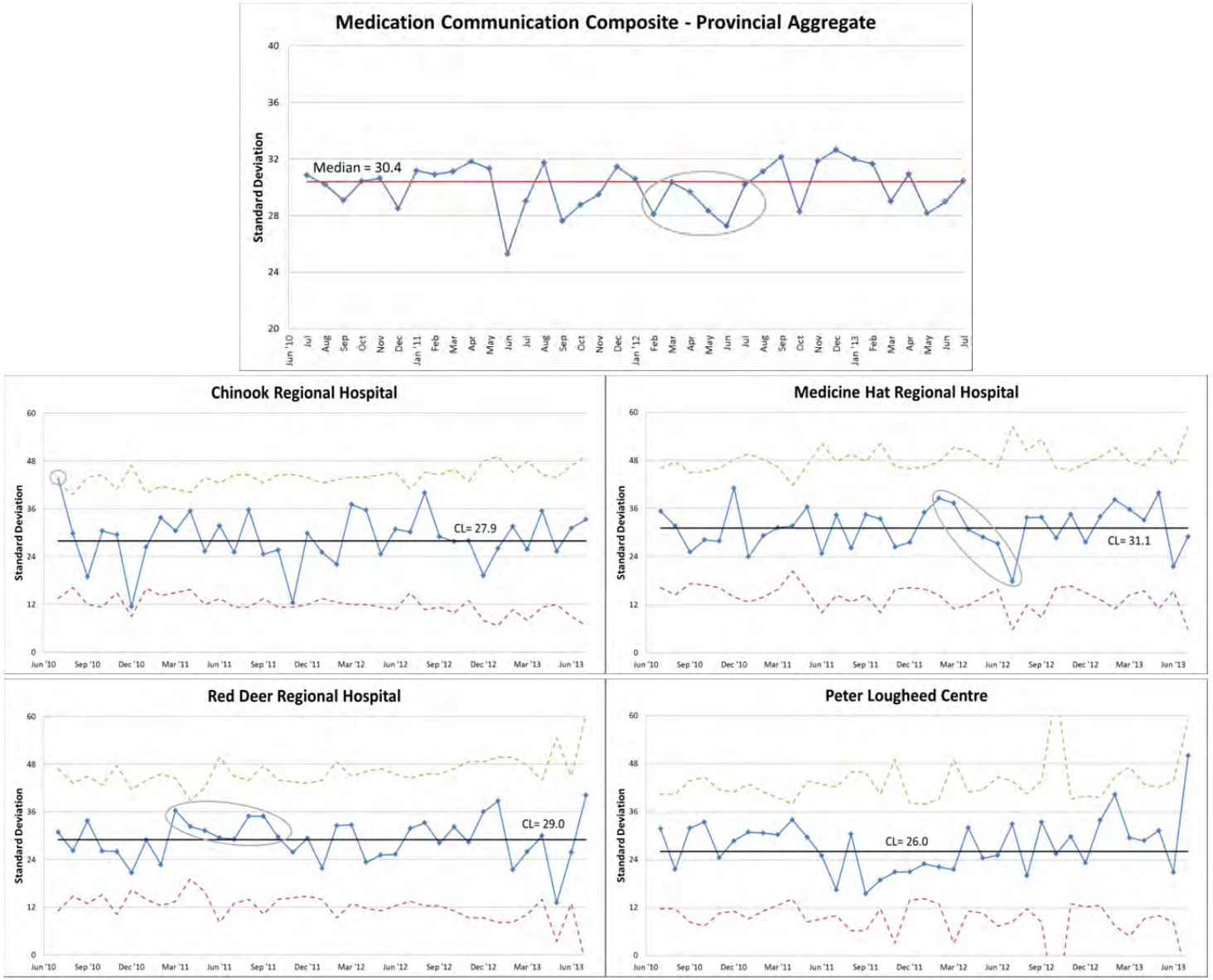
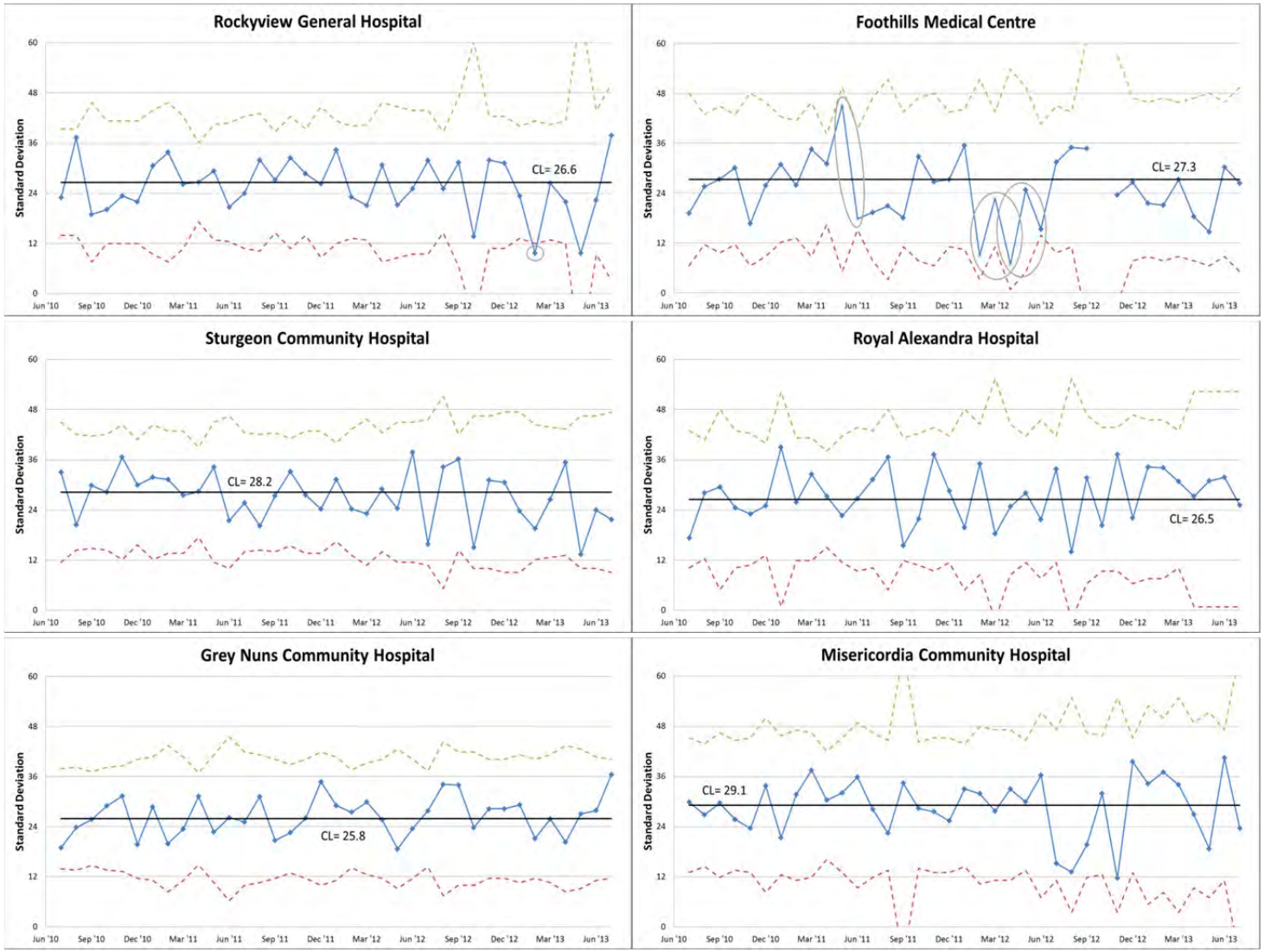

Queen Elizabeth II Hospital
Standard Deviation
CL= 29.1
0
10
20
30
40
50
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

Figure 80: Medication communication composite – Provincial aggregate and site-level results (*S* charts)




Rockyview General Hospital
Standard Deviation
CL= 26.6
Foothills Medical Centre
CL= 27.3
Sturgeon Community Hospital
CL= 28.2
Royal Alexandra Hospital
CL= 26.5
Grey Nuns Community Hospital
CL= 25.8
Misericordia Community Hospital
CL= 29.1
0
12
24
36
48
60
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

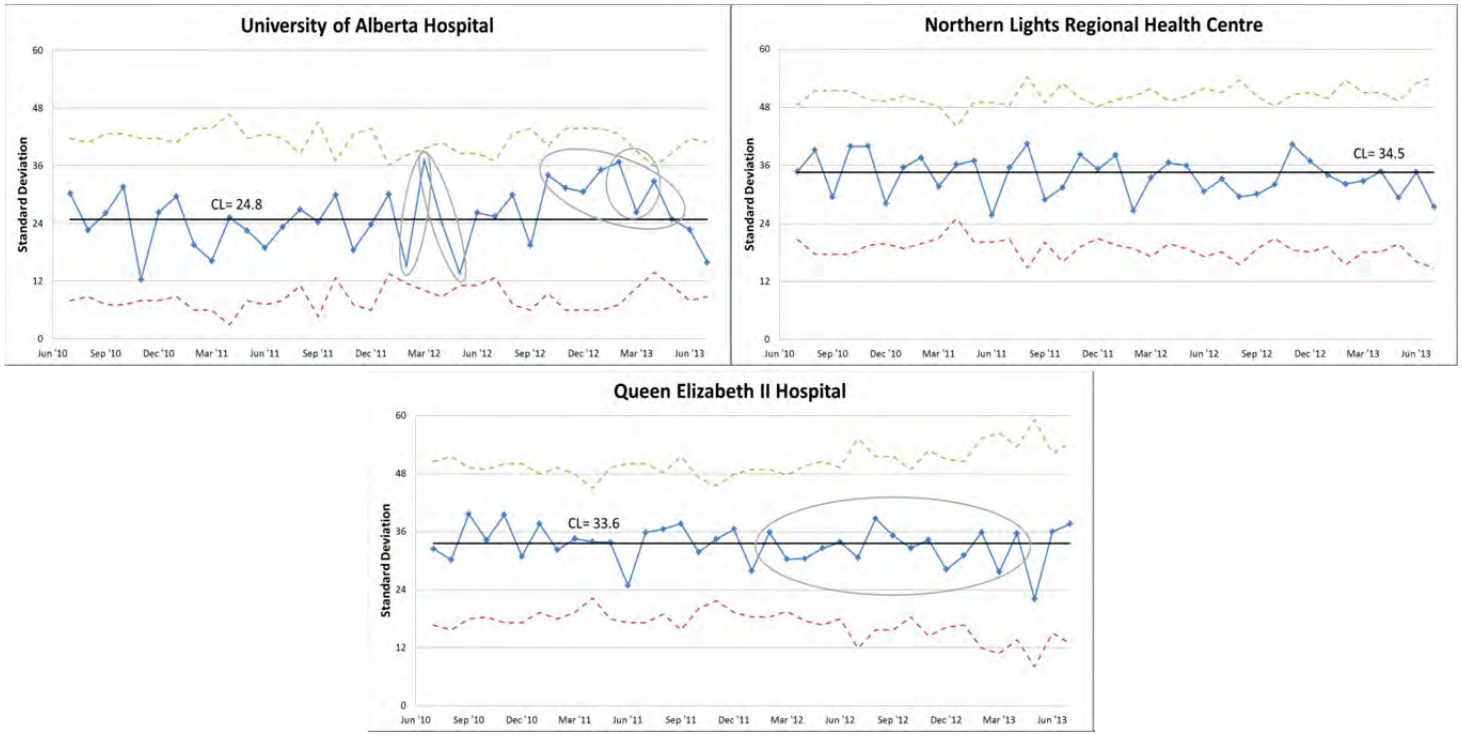
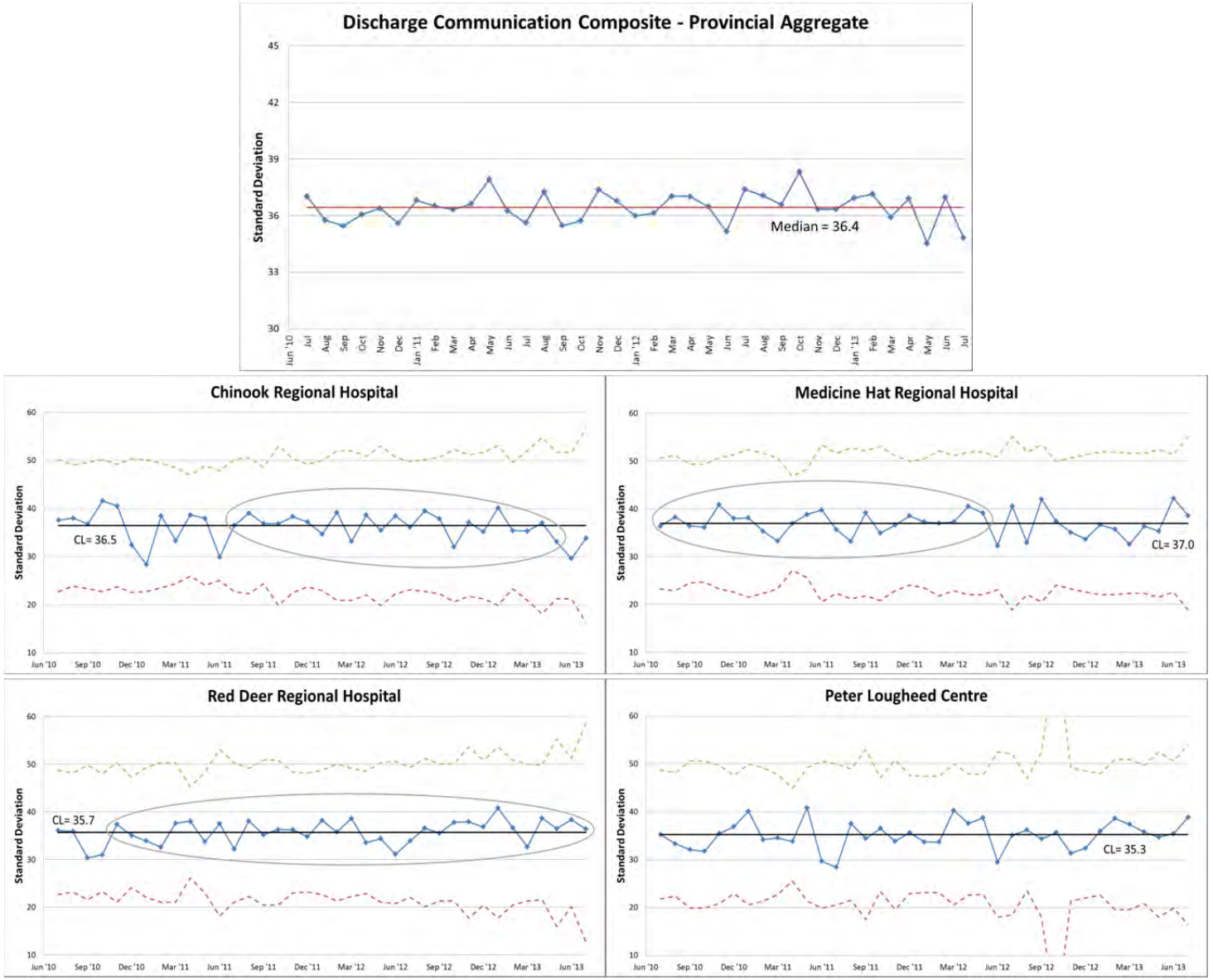
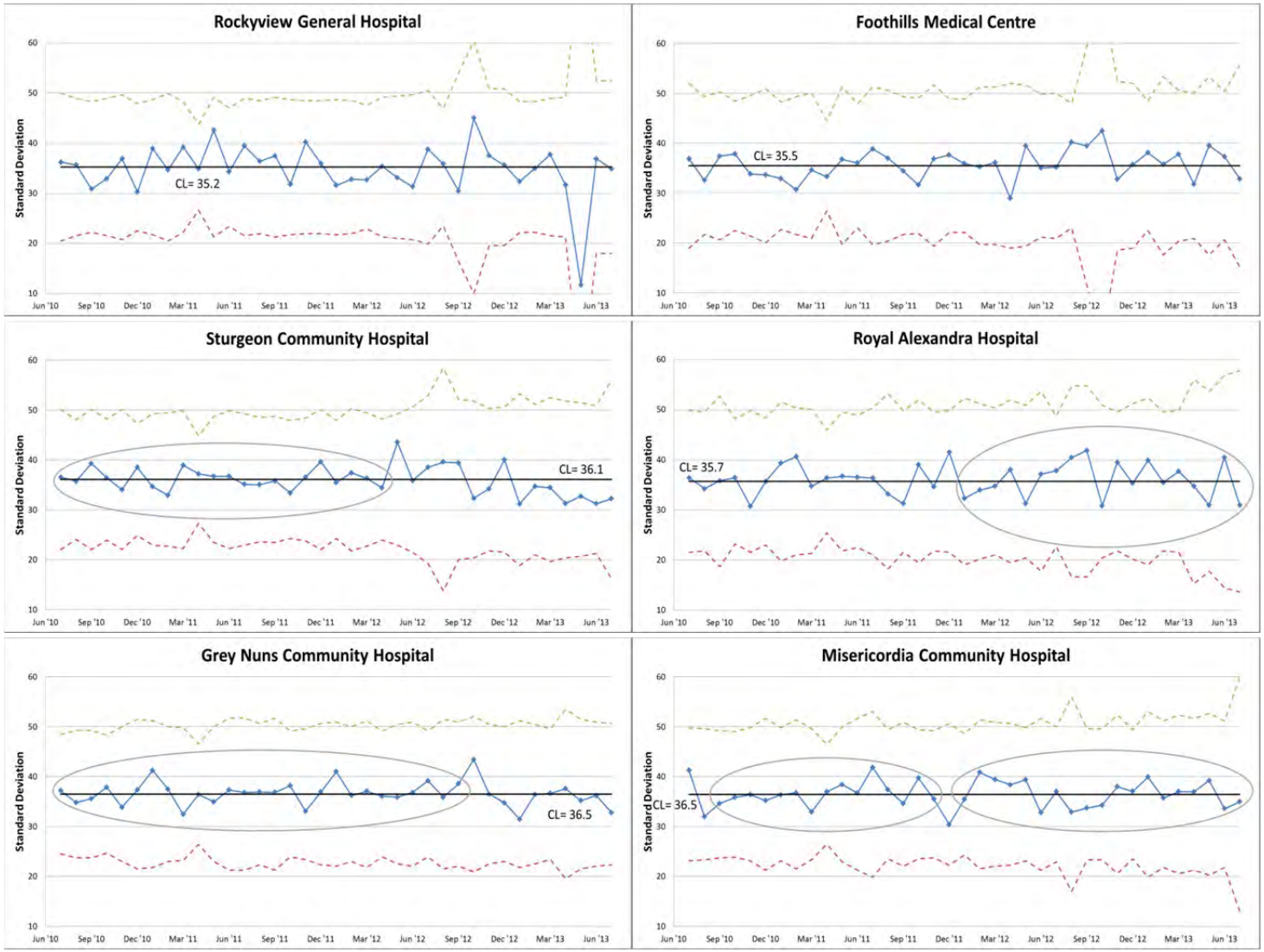
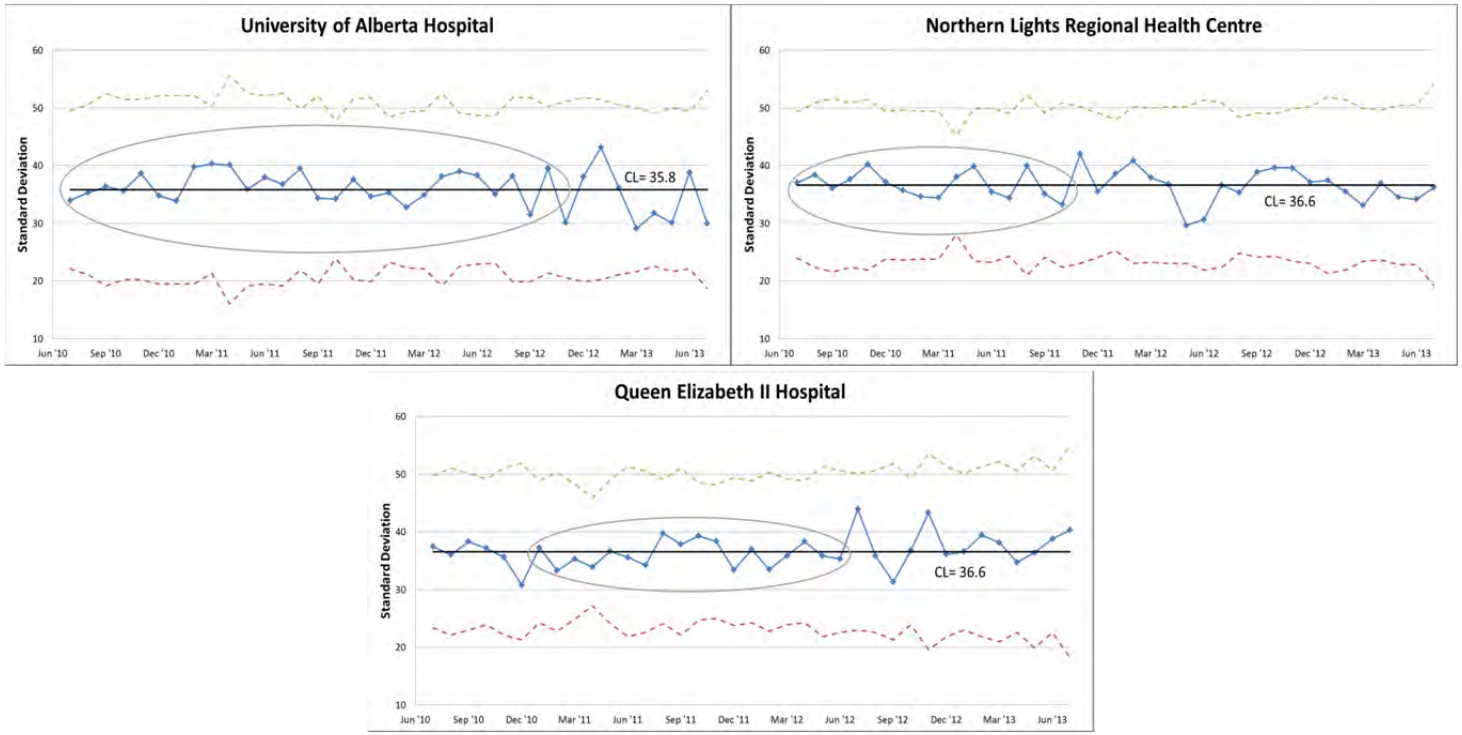

University of Alberta Hospital
Standard Deviation
CL= 24.8
Northern Lights Regional Health Centre
CL= 34.5
Queen Elizabeth II Hospital
CL= 33.6
0
12
24
36
48
60
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

Figure 81: Discharge communication composite – Provincial aggregate and site-level results (*S* charts)




Rockyview General Hospital
Foothills Medical Centre
Sturgeon Community Hospital
Royal Alexandra Hospital
Grey Nuns Community Hospital
Misericordia Community Hospital
Standard Deviation
CL= 35.2
CL= 35.5
CL= 36.1
CL= 35.7
CL= 36.5
CL= 36.5
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13


University of Alberta Hospital
Standard Deviation
CL= 35.8
Northern Lights Regional Health Centre
Standard Deviation
CL= 36.6
Queen Elizabeth II Hospital
Standard Deviation
CL= 36.6
Jun '10
Sep '10
Dec '10
Mar '11
Jun '11
Sep '11
Dec '11
Mar '12
Jun '12
Sep '12
Dec '12
Mar '13
Jun '13

APPENDIX X: VOLUMES, LOS, AND CTAS RUN CHARTS WITH MEDIAN

Section 4.1 employs run charts to present monthly emergency department volumes, average length of stay (LOS), and volumes by CTAS level for the entire population of patients presenting to each of the 13 emergency department sites. Many of these run charts are presented with trend lines instead of the usual median.

The charts in this appendix represent only those run charts that were presented with trend lines in Section 4.1 and displays them with their original median and highlighted signals of change.

Figure 82: Volumes, LOS, and CTAS run charts with median at Chinook Regional Hospital

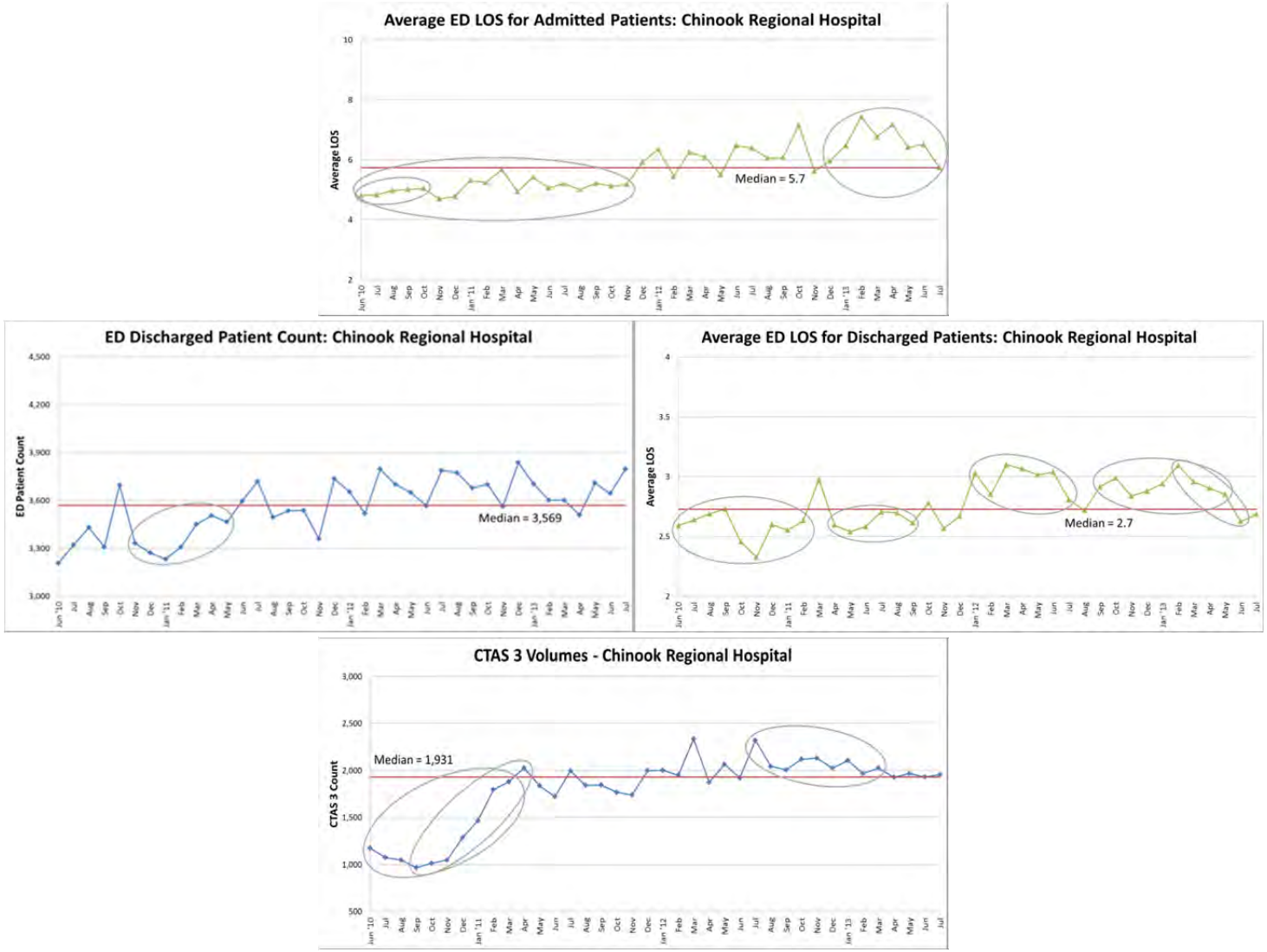


Figure 83: Volumes, LOS, and CTAS run charts with median at Medicine Hat Regional Hospital

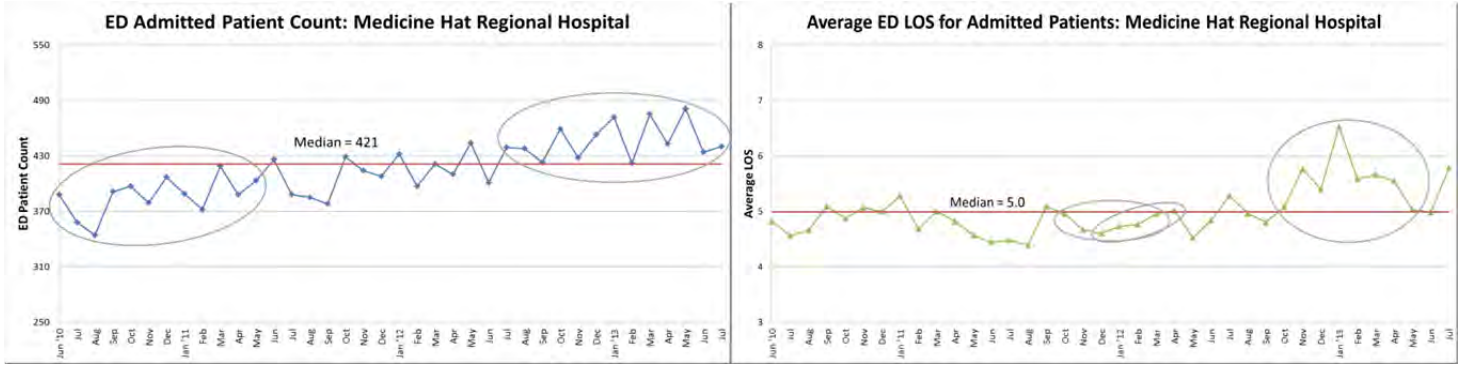


Figure 84: Volumes, LOS, and CTAS run charts with median at Red Deer Regional Hospital

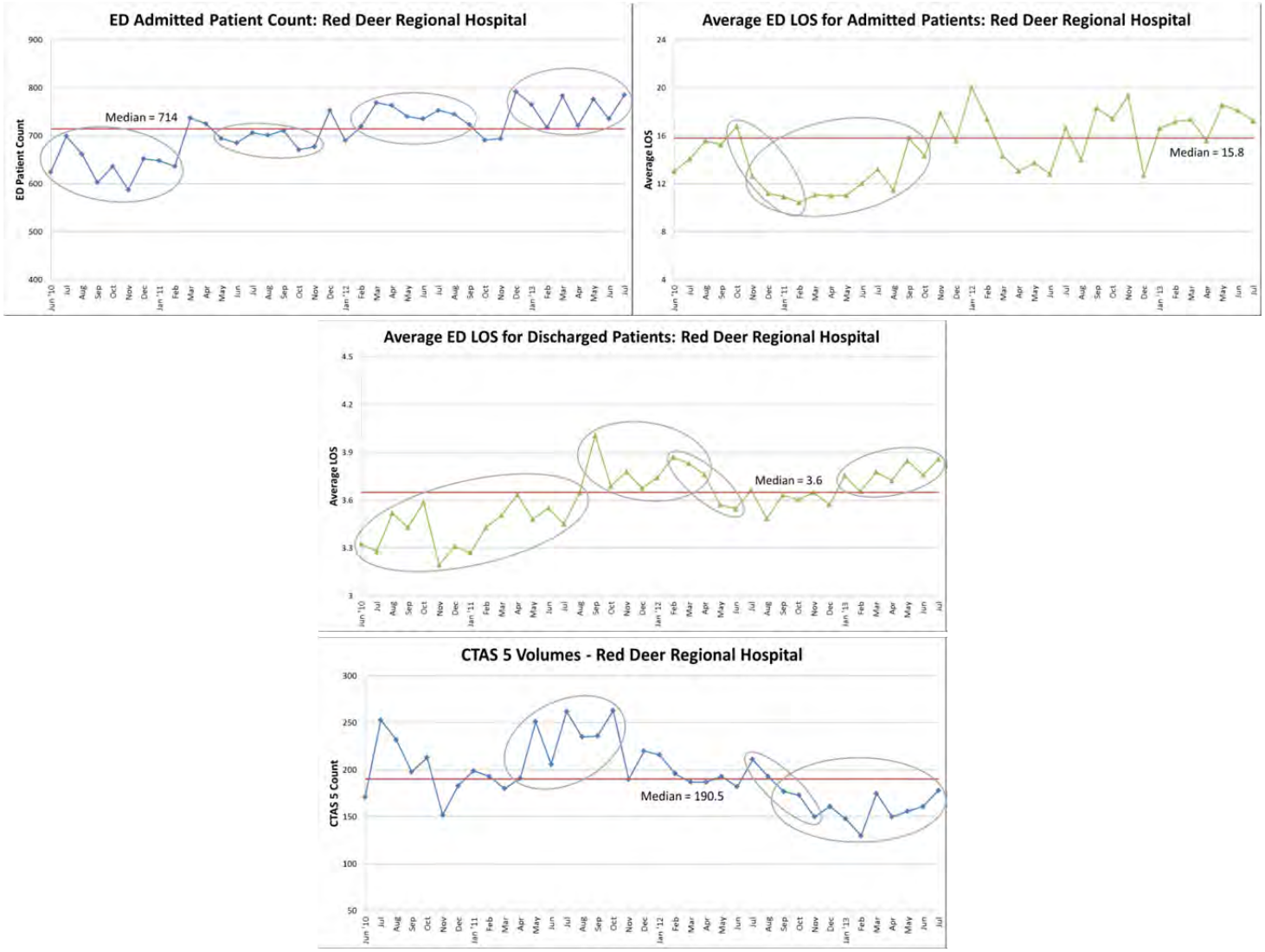
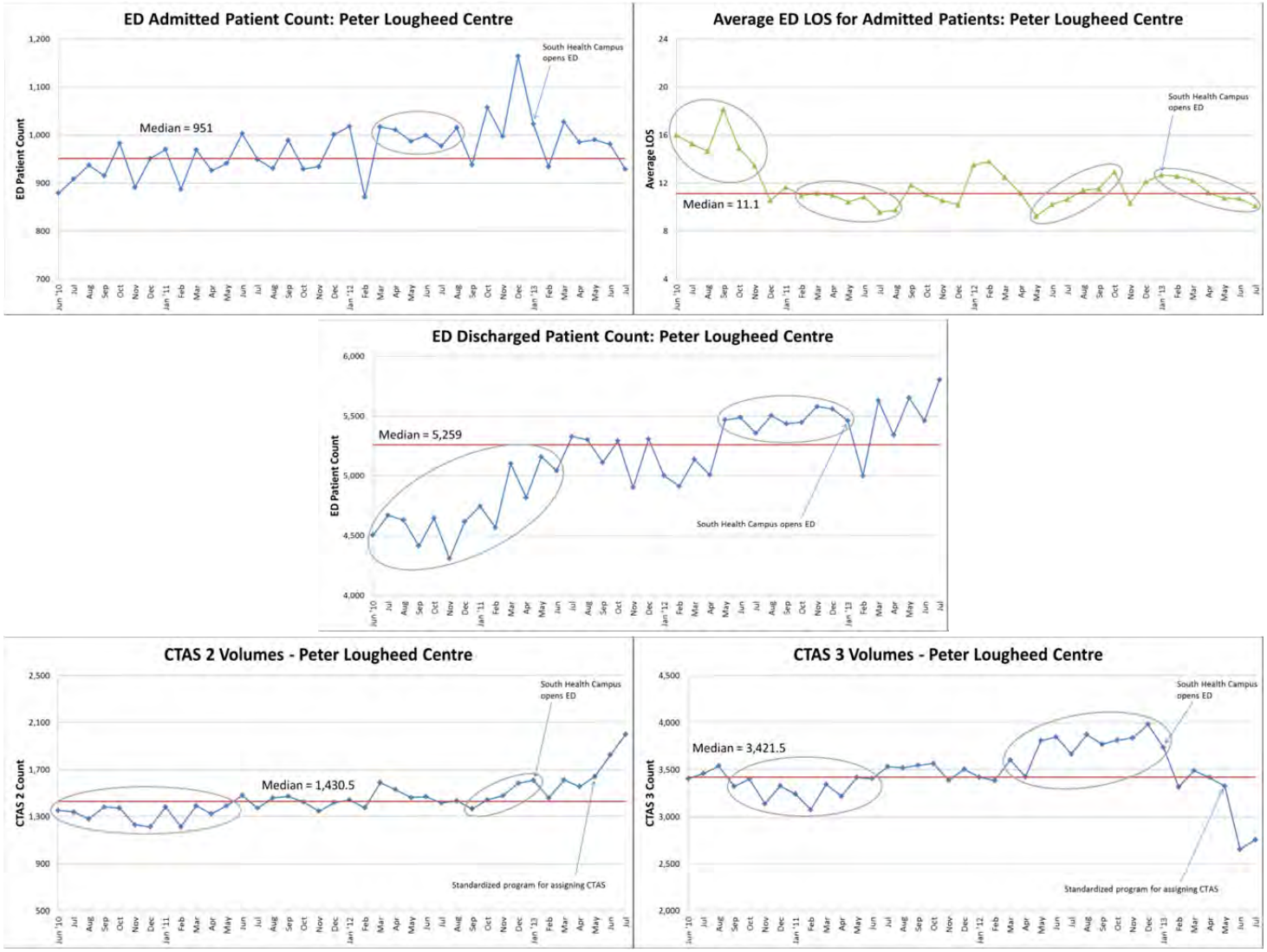
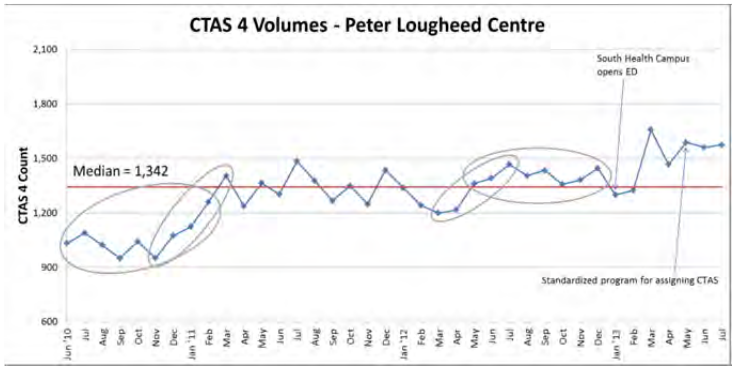


Figure 85: Volumes, LOS, and CTAS run charts with median at Peter Lougheed Centre




CTAS 4 Volumes - Peter Lougheed Centre
CTAS 4 Count
2,100
1,800
1,500
1,200
900
600
Median = 1,342
South Health Campus opens ED
Standardized program for assigning CTAS
Jun '10
Jul
Aug
Sep
Oct
Nov
Dec
Jan '11
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan '12
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Nov
Dec
Jan '13
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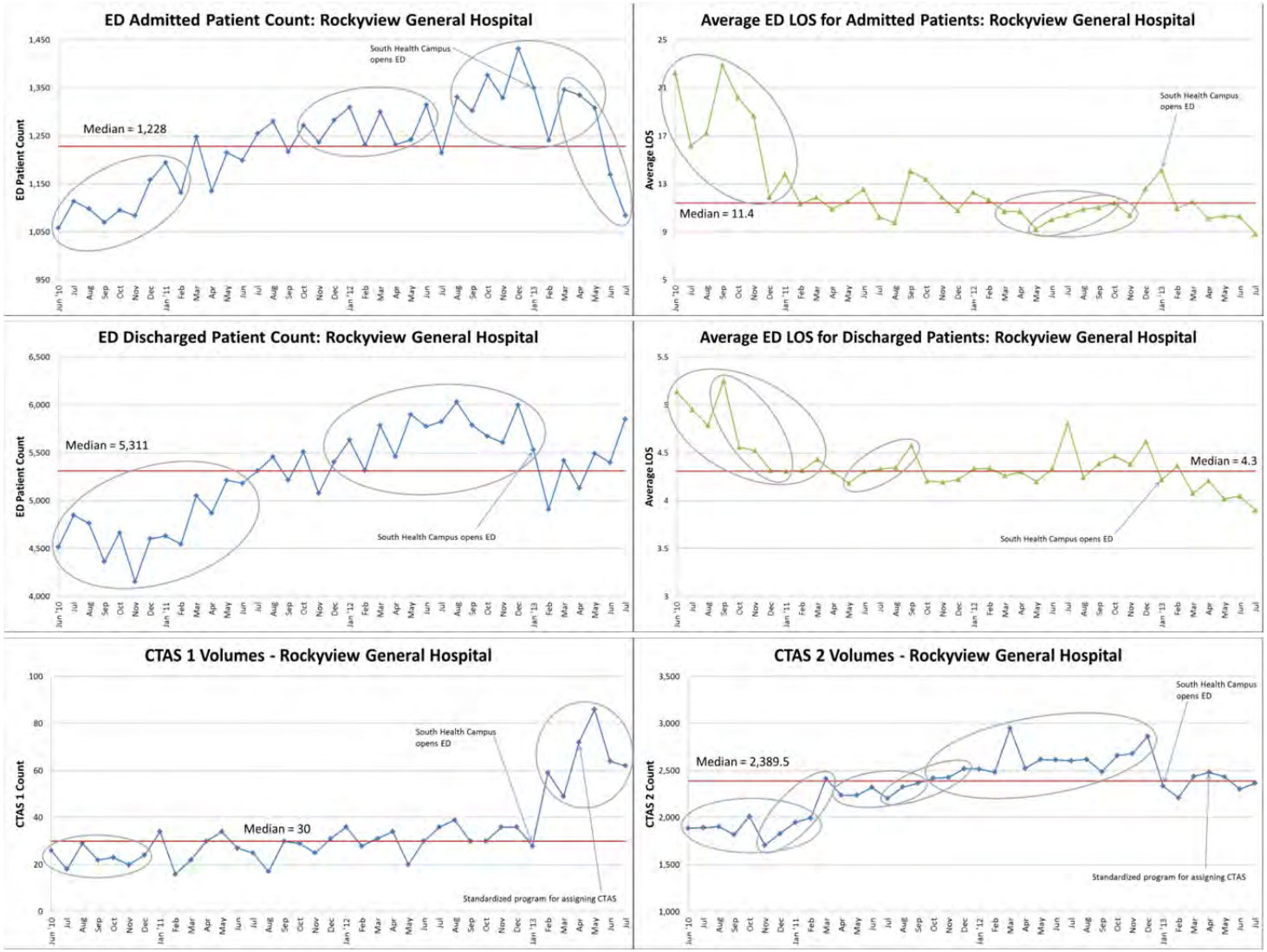
Apr
May
Jun
Jul

Figure 86: Volumes, LOS, and CTAS run charts with median at Rockyview General Hospital



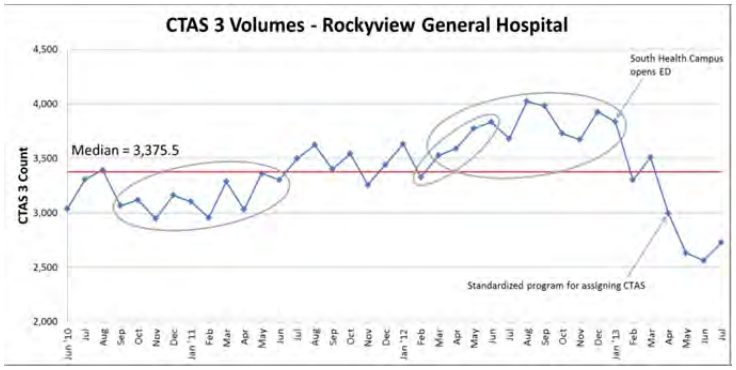
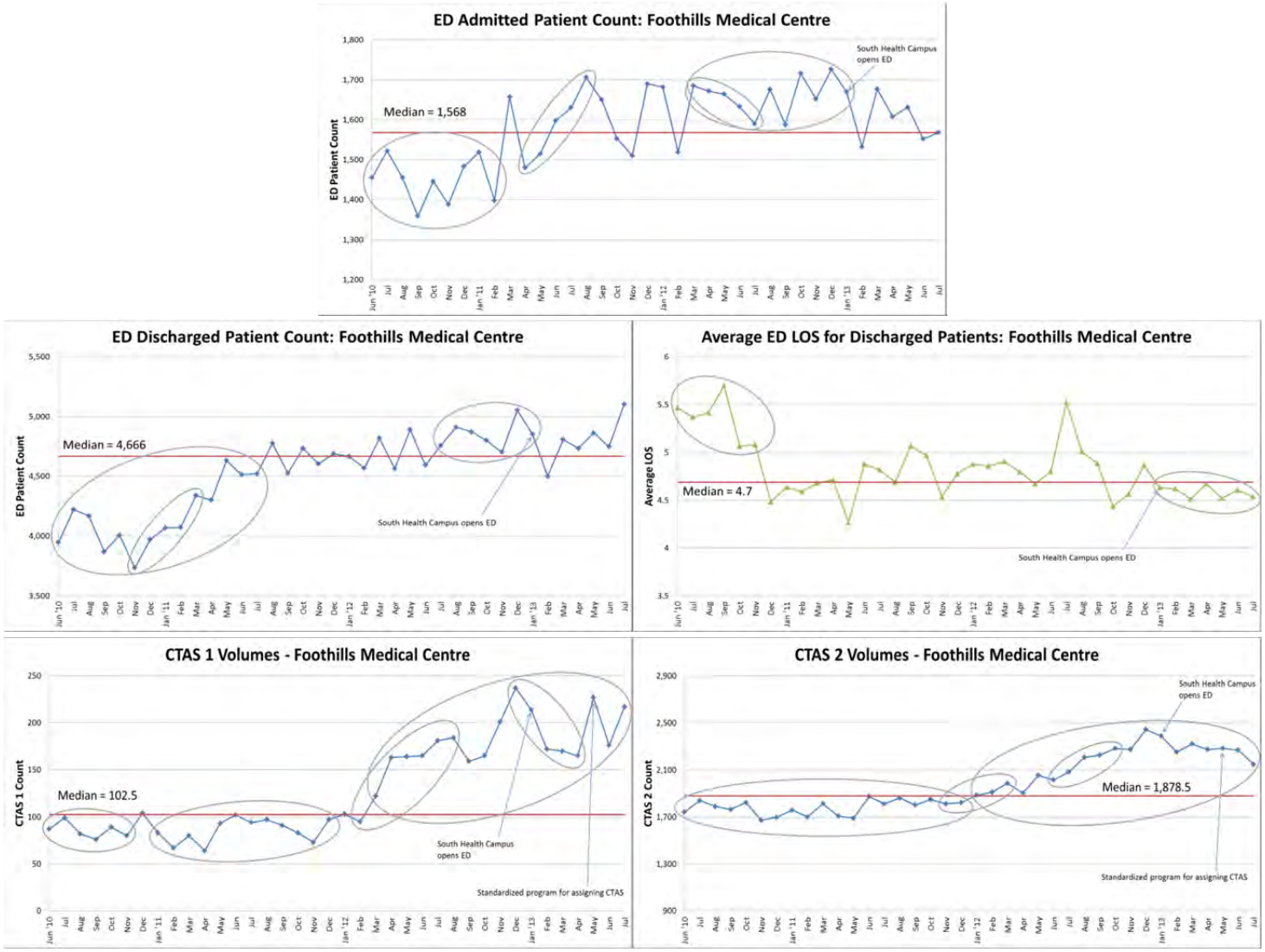

CTAS 3 Volumes - Rockyview General Hospital
CTAS 3 Count
4,500
4,000
3,500
3,000
2,500
2,000
Median = 3,375.5
South Health Campus opens ED
Standardized program for assigning CTAS
Jun '10
Jul
Aug
Sep
Oct
Nov
Dec
Jan '11
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan '12
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan '13
Feb
Mar
Apr
May
Jun
Jul

Figure 87: Volumes, LOS, and CTAS run charts with median at Foothills Medical Centre



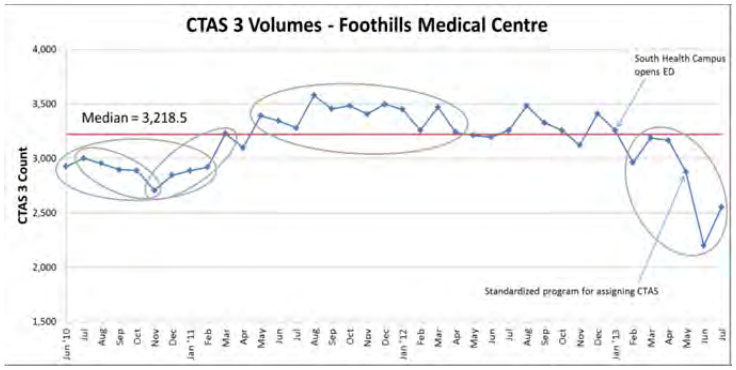
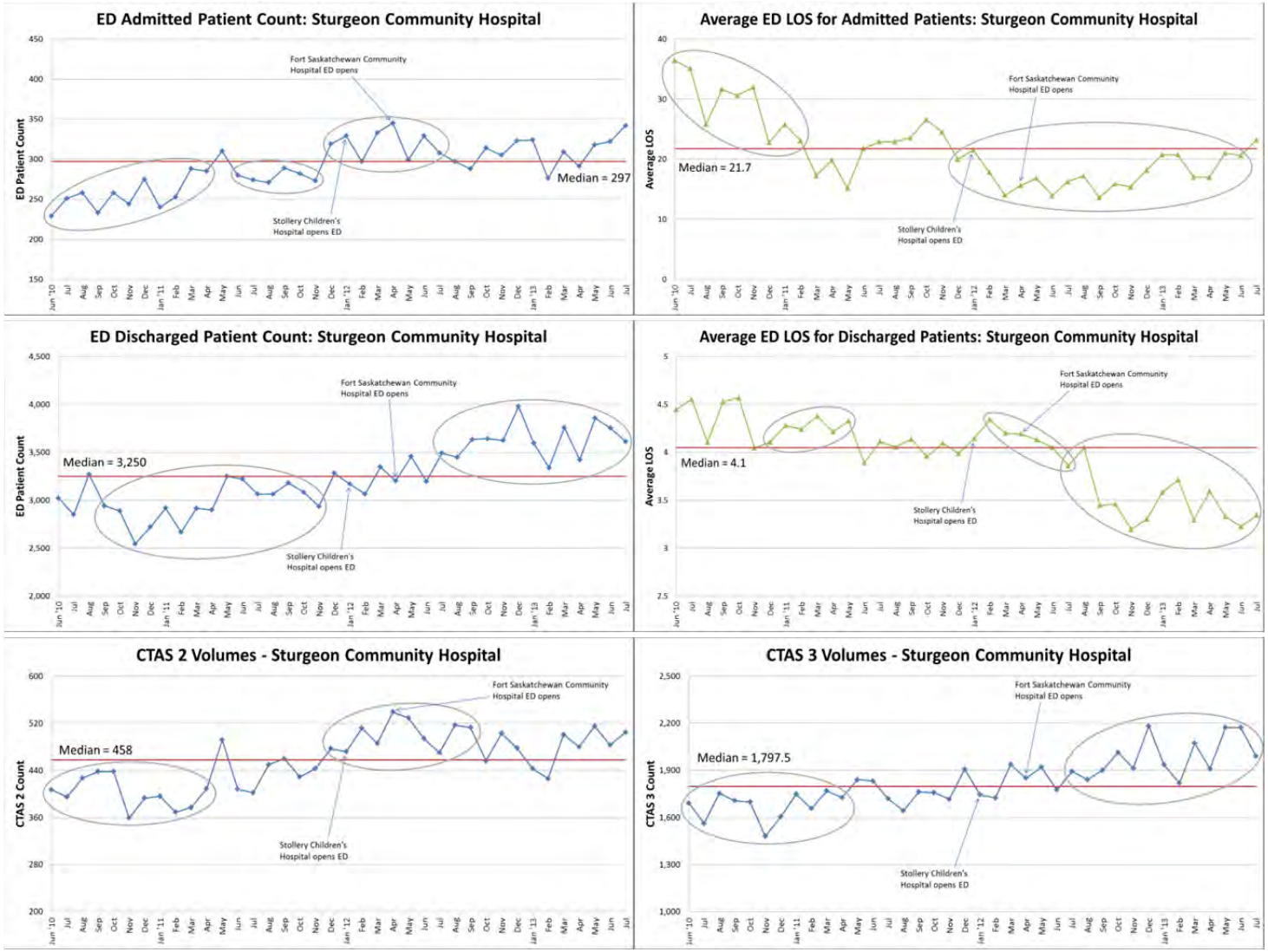

CTAS 3 Volumes - Foothills Medical Centre
CTAS 3 Count
4,000
3,500
3,000
2,500
2,000
1,500
Median = 3,218.5
South Health Campus opens ED
Standardized program for assigning CTAS
Jun '10
Jul
Aug
Sep
Oct
Nov
Dec
Jan '11
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan '12
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan '13
Feb
Mar
Apr
May
Jun
Jul

Figure 88: Volumes, LOS, and CTAS run charts with median at Sturgeon Community Hospital



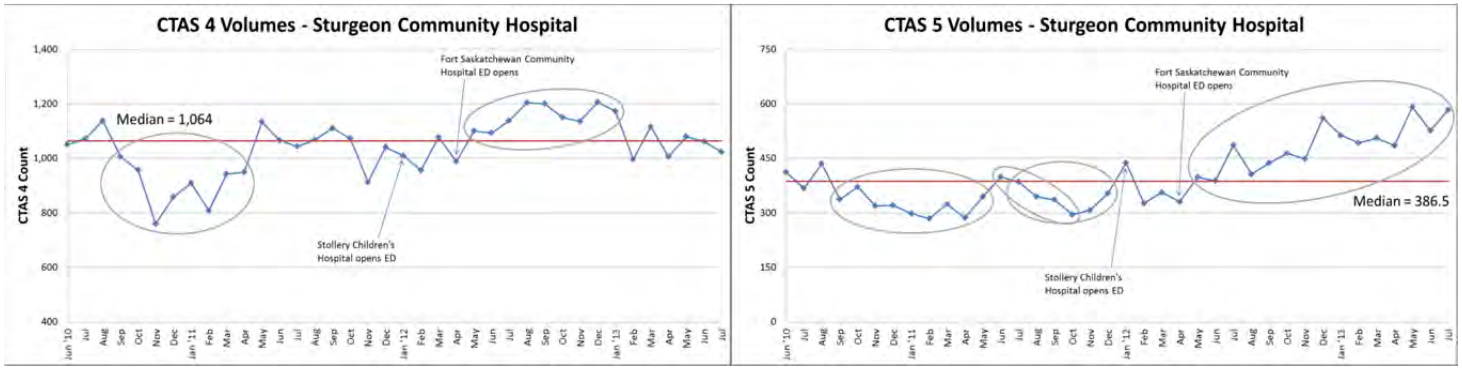
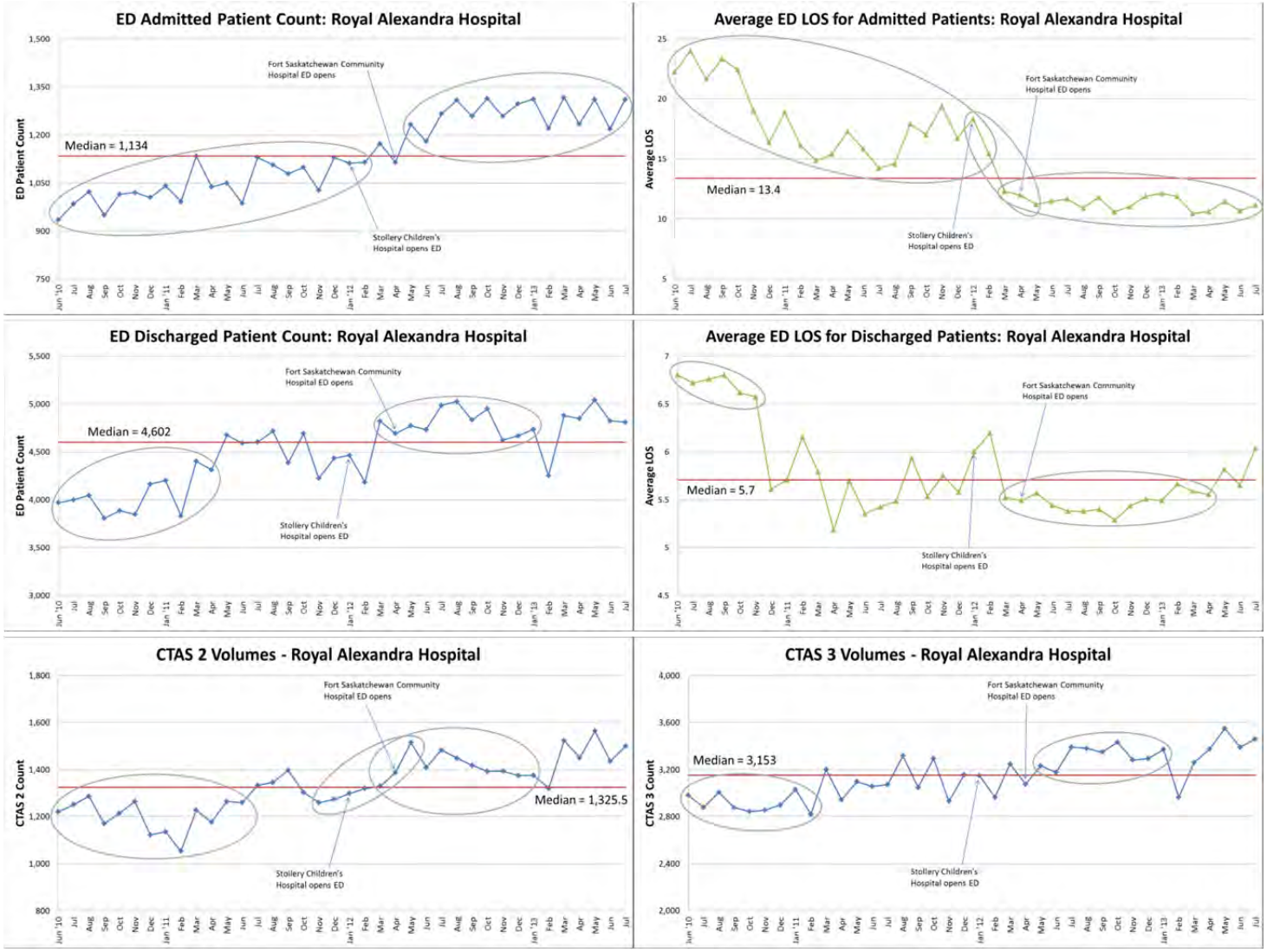
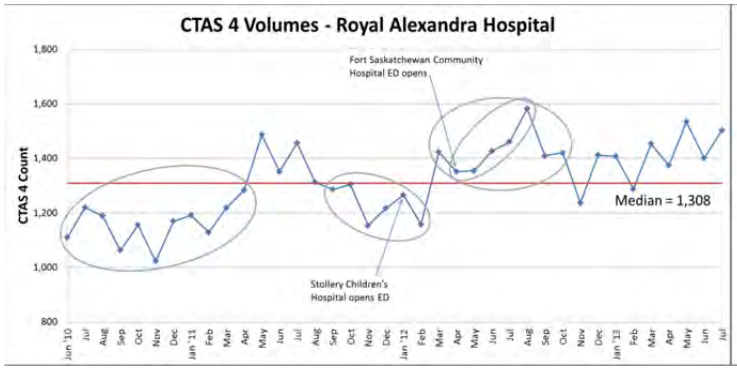

CTAS 4 Volumes - Sturgeon Community Hospital
CTAS 4 Count
Median = 1,064
Fort Saskatchewan Community Hospital ED opens
Stollery Children's Hospital opens ED
CTAS 5 Volumes - Sturgeon Community Hospital
CTAS 5 Count
Median = 386.5
Fort Saskatchewan Community Hospital ED opens
Stollery Children's Hospital opens ED

Figure 89: Volumes, LOS, and CTAS run charts with median at Royal Alexandra Hospital




CTAS 4 Volumes - Royal Alexandra Hospital
CTAS 4 Count
1,800
1,600
1,400
1,200
1,000
800
Fort Saskatchewan Community Hospital ED opens
Stollery Children's Hospital opens ED
Median = 1,308
Jun '10
Jul
Aug
Sep
Oct
Nov
Dec
Jan '11
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan '12
Feb
Mar
Apr
May
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Oct
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Dec
Jan '13
Feb
Mar
Apr
May
Jun
Jul

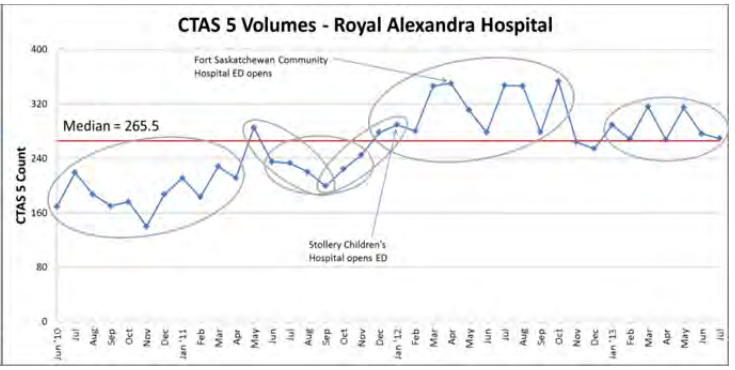
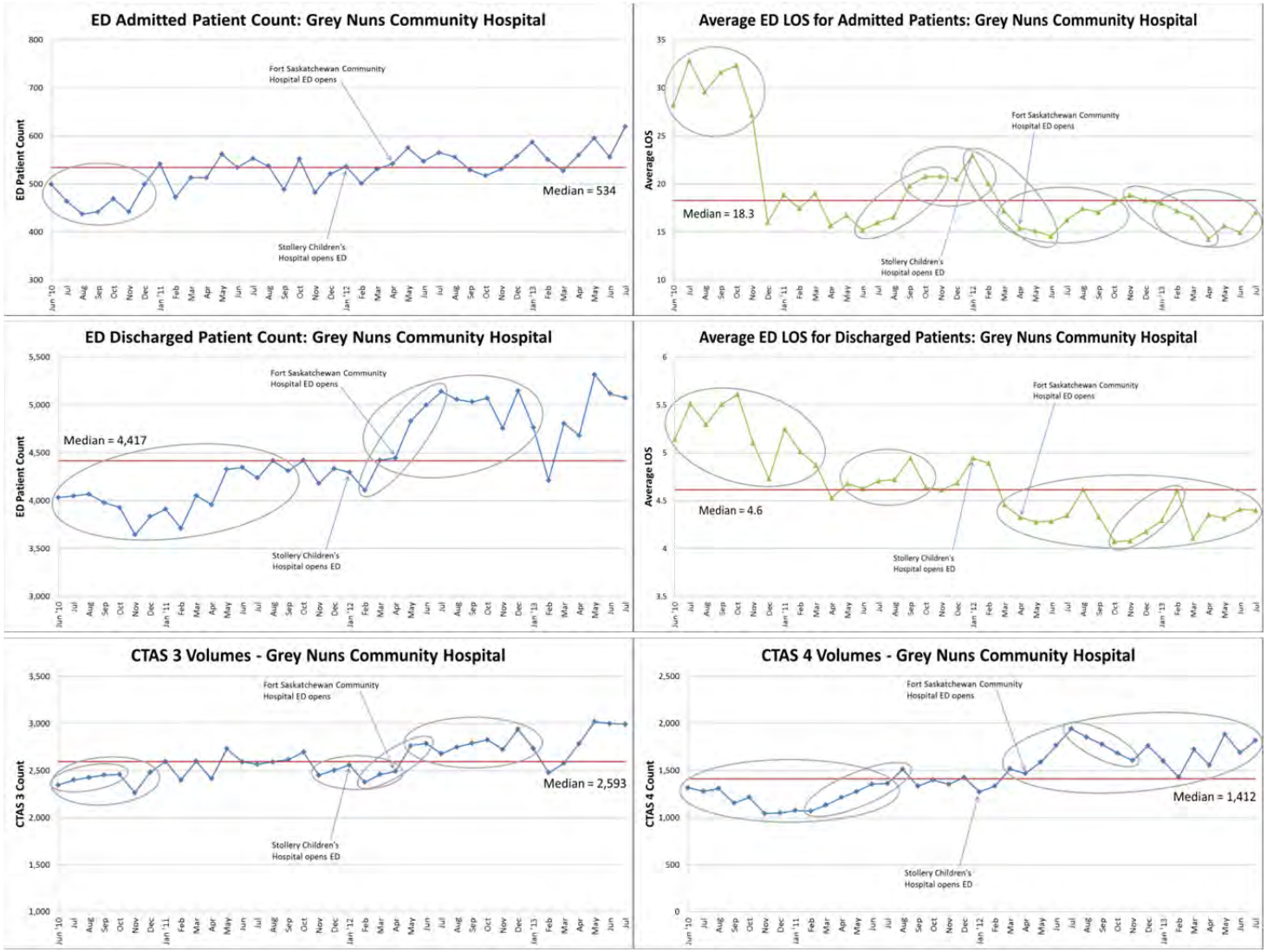
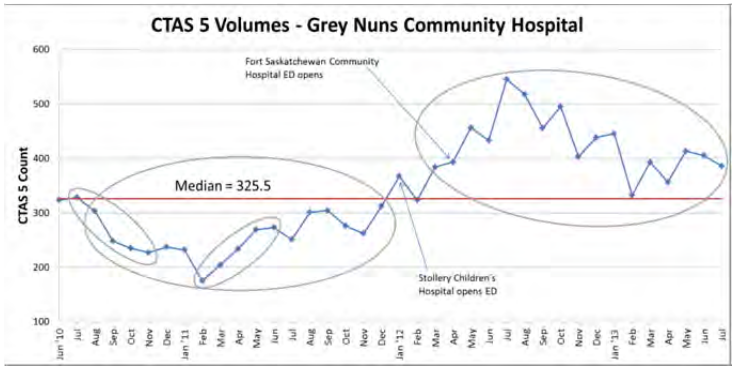

CTAS 5 Volumes - Royal Alexandra Hospital
CTAS 5 Count
400
320
240
160
80
0
Fort Saskatchewan Community Hospital ED opens
Median = 265.5
Stollery Children's Hospital opens ED
Jun '10
Jul
Aug
Sep
Oct
Nov
Dec
Jan '11
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan '12
Feb
Mar
Apr
May
Jun
Jul

Figure 90: Volumes, LOS, and CTAS run charts with median at Grey Nuns Community Hospital




CTAS 5 Volumes - Grey Nuns Community Hospital
CTAS 5 Count
600
500
400
300
200
100
Fort Saskatchewan Community Hospital ED opens
Median = 325.5
Stollery Children's Hospital opens ED
Jun '10
Jul
Aug
Sep
Oct
Nov
Dec
Jan '11
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan '12
Feb
Mar
Apr
May
Jun
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Dec
Jan '13
Feb
Mar
Apr
May
Jun
Jul

Figure 91: Volumes, LOS, and CTAS run charts with median at Misericordia Community Hospital

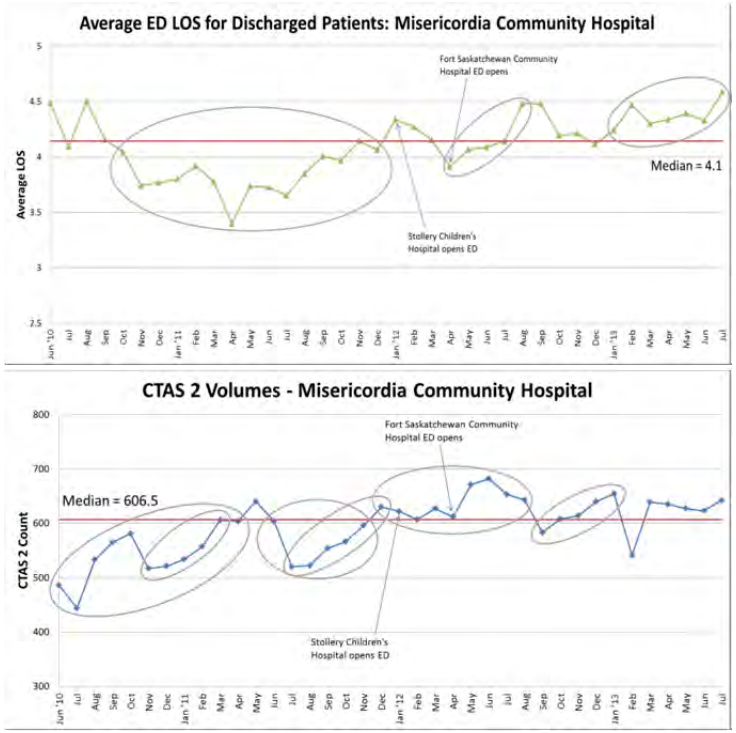
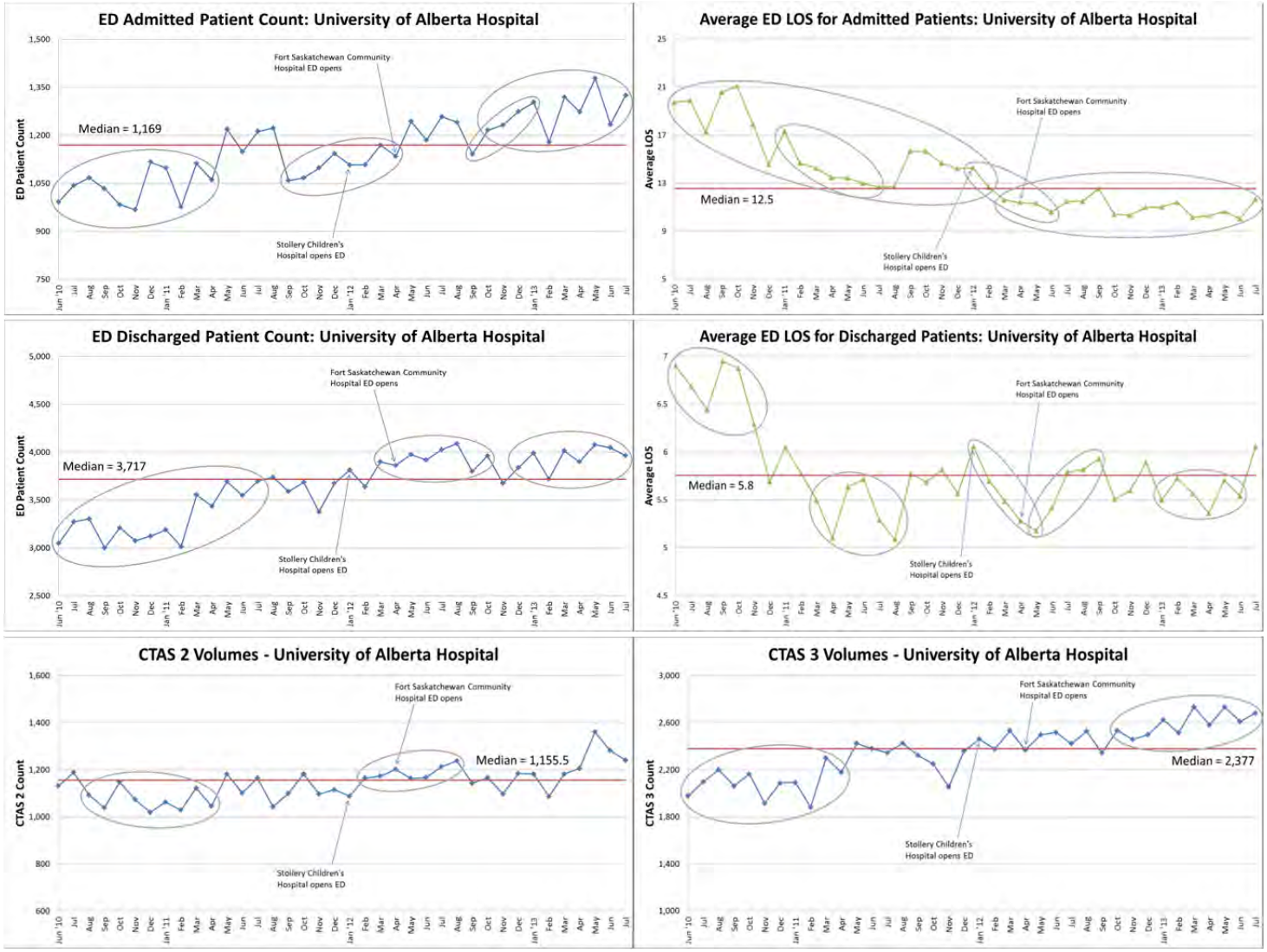


Figure 92: Volumes, LOS, and CTAS run charts with median at University of Alberta Hospital



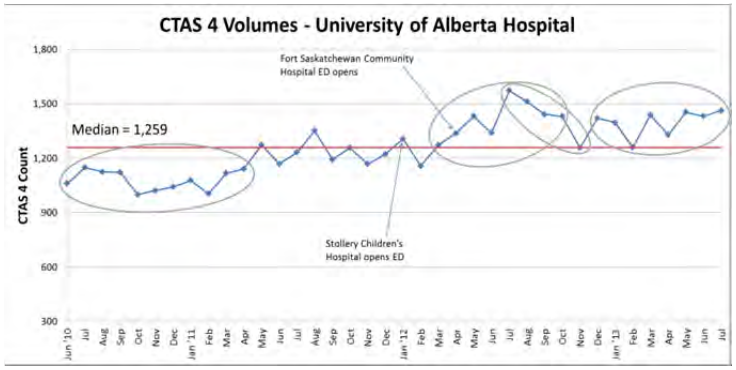
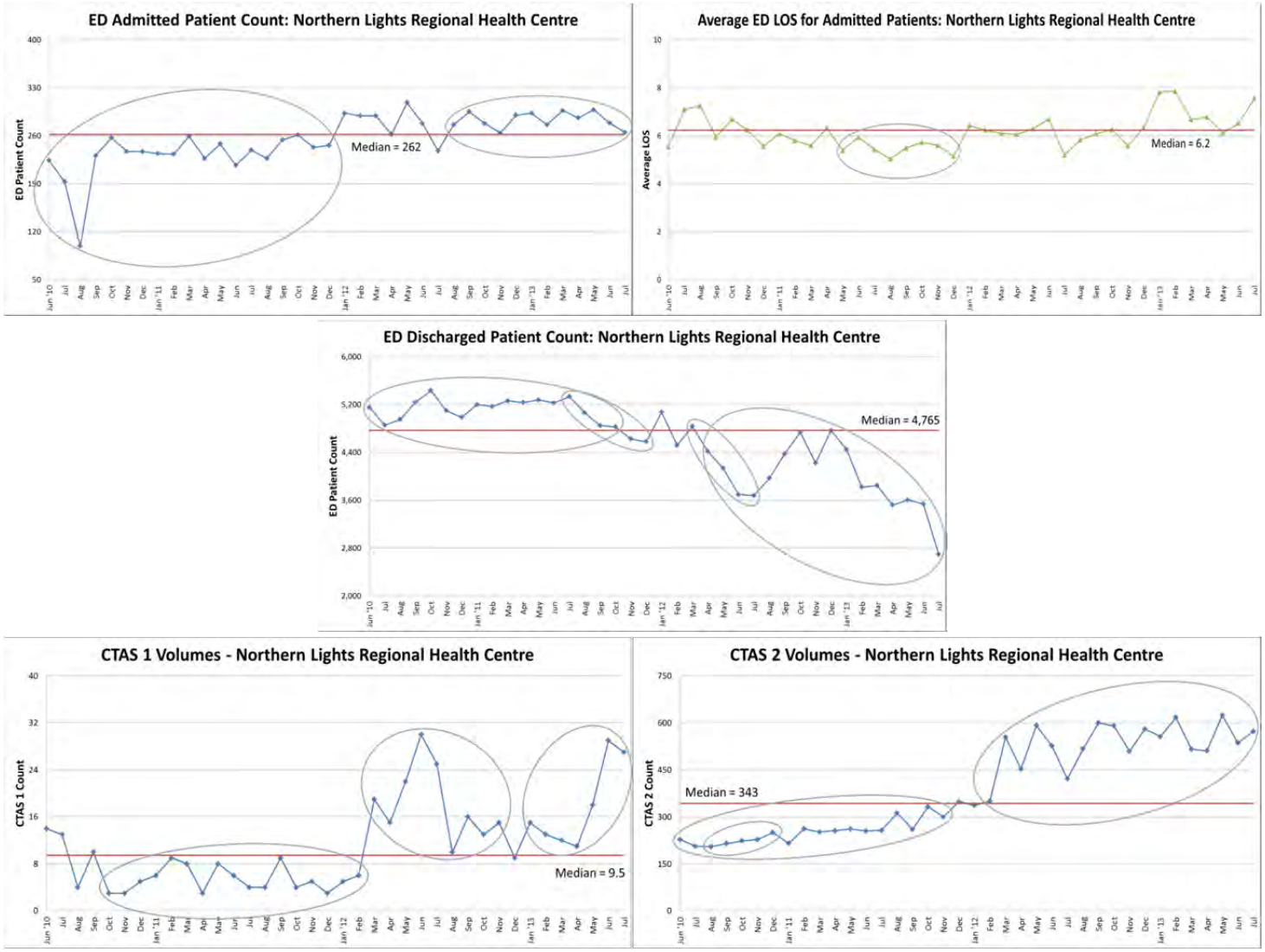

CTAS 4 Volumes - University of Alberta Hospital
CTAS 4 Count
1,800
1,500
1,200
900
600
300
Median = 1,259
Fort Saskatchewan Community Hospital ED opens
Stollery Children's Hospital opens ED
Jun '10
Jul
Aug
Sep
Oct
Nov
Dec
Jan '11
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan '12
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan '13
Feb
Mar
Apr
May
Jun
Jul

Figure 93: Volumes, LOS, and CTAS run charts with median at Northern Lights Regional Health Centre



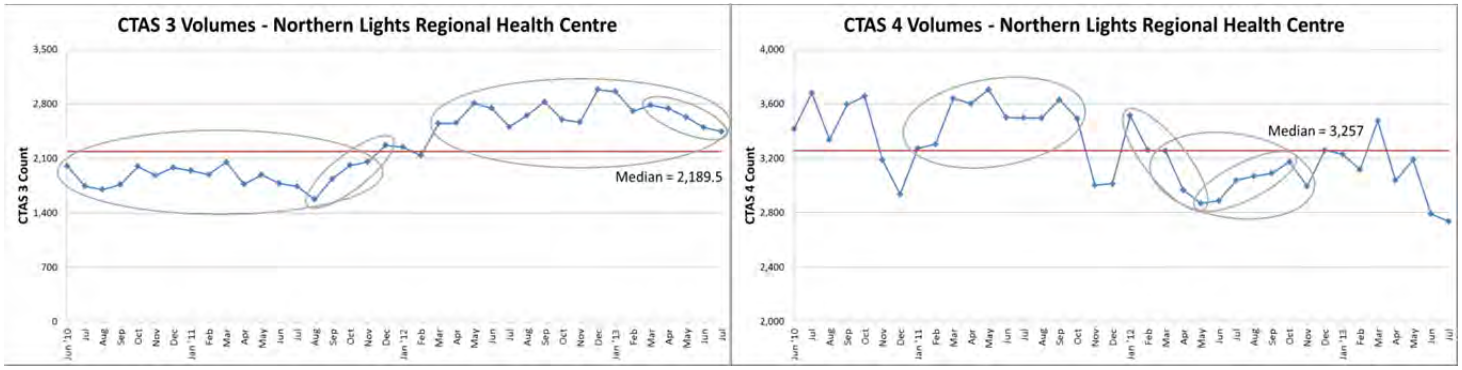
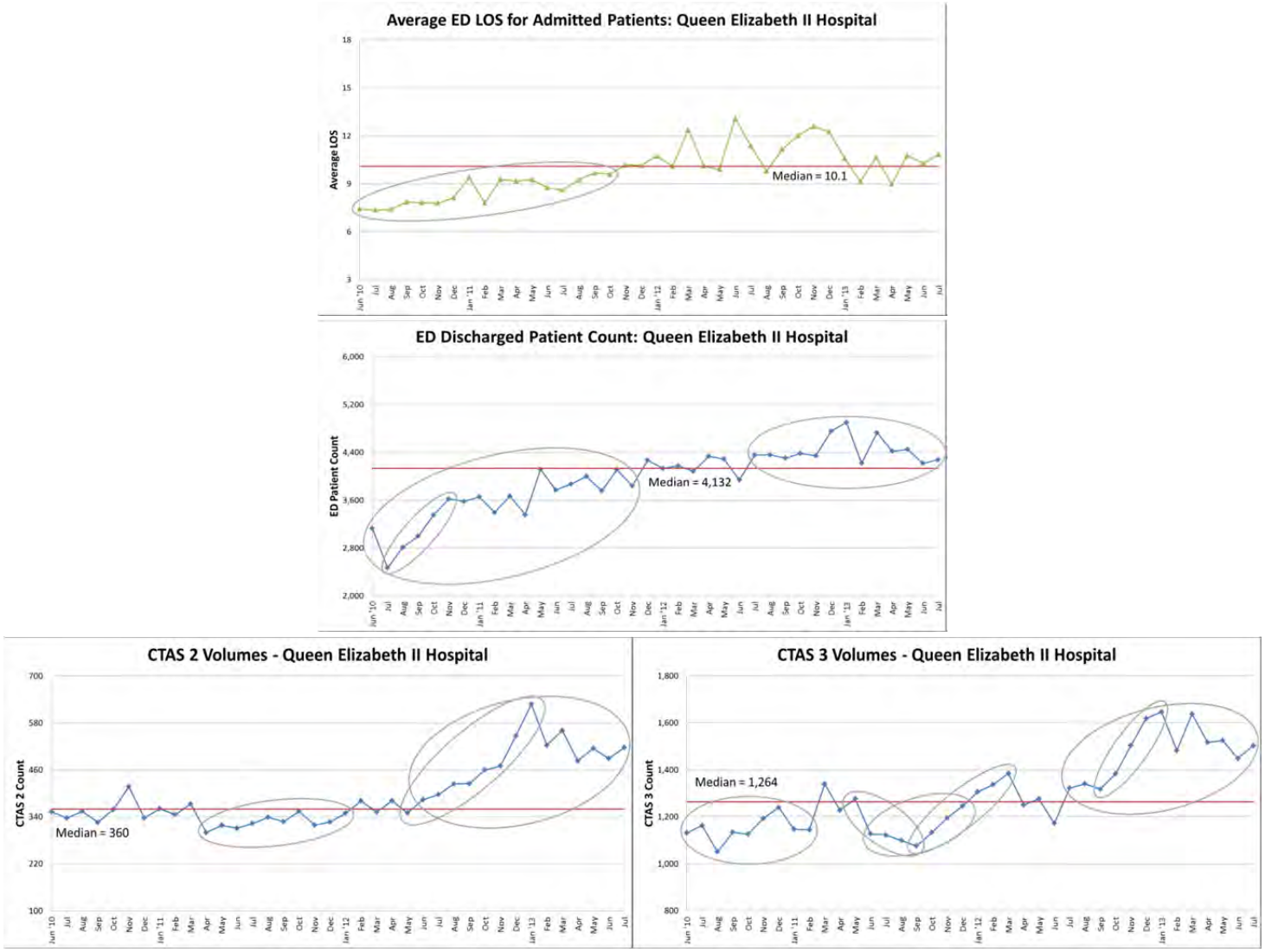
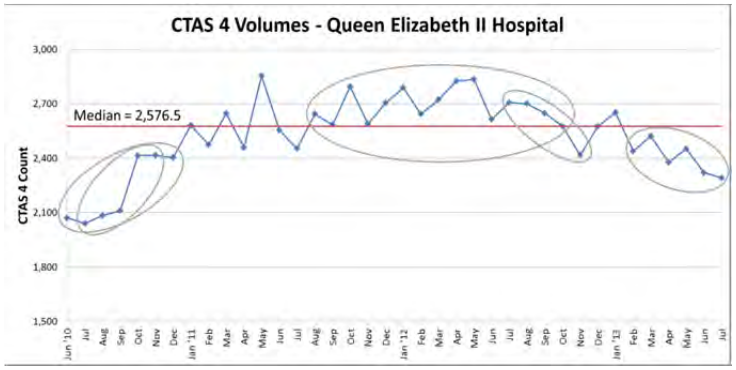

CTAS 3 Volumes - Northern Lights Regional Health Centre
CTAS 3 Count
3,500
2,800
2,100
1,400
700
0
Median = 2,189.5
CTAS 4 Volumes - Northern Lights Regional Health Centre
CTAS 4 Count
4,000
3,600
3,200
2,800
2,400
2,000
Median = 3,257

Figure 94: Volumes, LOS, and CTAS run charts with median at Queen Elizabeth II Hospital




CTAS 4 Volumes - Queen Elizabeth II Hospital
Median = 2,576.5
CTAS 4 Count
3,000
2,700
2,400
2,100
1,800
1,500
Jun '10
Jul
Aug
Sep
Oct
Nov
Dec
Jan '11
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan '12
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Jan '13
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Jun
Jul

APPENDIX XI: RESULTS TABLES

The following tables present the monthly patient experience results that are displayed via provincial aggregate run charts and site-level control charts in Sections 5.2 to 6.10.

Emergency department site names are shown in their abbreviated form, where:

PROV	Provincial aggregate
CRH	Chinook Regional Hospital
MHRH	Medicine Hat Regional Hospital
RDRH	Red Deer Regional Hospital
PLC	Peter Lougheed Centre
RGH	Rockyview General Hospital
FMC	Foothills Medical Centre
SCH	Sturgeon Community Hospital
RAH	Royal Alexandra Hospital
GNCH	Grey Nuns Community Hospital
MCH	Misericordia Community Hospital
UAH	University of Alberta Hospital
NLRHC	Northern Lights Regional Health Centre
QEII	Queen Elizabeth II Hospital

Table 282: (Q57) Overall rating of care – Provincial aggregate and site-specific chart results

Percentage of patients rating their emergency department care as excellent or very good														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	68.3	66.7	59.5	70.5	58.5	69.1	85.3	55.3	68.3	74.6	69.8	72.1	68.1	55.3
August	68.2	63.6	79.0	71.4	70.5	75.6	78.3	56.3	60.0	66.0	73.9	65.9	62.5	59.0
September	68.3	68.2	68.0	63.9	74.3	79.6	73.0	68.6	54.1	58.7	77.8	63.6	72.7	61.0
October	66.7	71.1	66.7	65.2	68.8	79.0	66.0	63.6	66.7	67.3	62.8	71.1	55.9	58.1
November	69.3	74.5	68.2	73.0	71.1	74.4	68.9	65.0	63.2	62.8	79.5	80.0	60.5	60.0
December	68.8	80.0	68.3	79.6	52.3	81.4	79.5	70.4	73.6	73.0	54.3	67.6	61.0	48.4
January '11	65.4	63.3	71.8	74.4	64.9	69.4	82.6	70.5	68.6	69.4	63.0	66.7	46.3	35.4
February	65.6	56.8	66.7	73.0	65.1	72.9	76.1	59.1	68.6	67.5	55.9	63.3	60.0	55.0
March	63.6	60.8	55.6	58.5	62.5	73.9	63.6	81.4	69.6	72.7	65.2	63.2	46.3	52.0
April	70.2	65.3	67.1	69.2	71.1	81.1	82.0	68.4	62.2	69.4	68.5	77.8	60.4	58.8
May	72.4	68.0	71.7	81.6	74.4	77.3	81.6	74.4	75.0	74.4	55.6	81.3	71.8	39.5
June	69.4	66.0	77.1	66.7	78.1	71.7	81.6	65.0	70.0	57.6	71.0	72.2	61.0	54.1
July	70.7	70.7	61.9	82.1	64.7	74.4	75.6	69.2	71.4	76.5	71.9	77.1	60.5	57.1
August	66.0	69.2	62.2	53.2	68.2	72.0	84.9	61.9	60.7	69.7	71.8	72.5	46.9	54.8
September	67.9	68.1	77.1	68.4	80.0	71.1	75.6	57.1	71.4	61.5	53.9	71.9	60.9	52.9
October	70.4	62.2	76.5	80.6	69.2	86.7	81.4	56.3	64.7	60.4	60.0	72.4	72.7	56.3
November	64.1	66.7	78.4	66.7	57.1	73.3	73.3	65.1	52.8	57.8	59.1	71.1	62.9	48.9
December	64.7	60.4	55.1	69.8	79.6	72.7	70.5	55.6	55.6	53.5	84.2	75.0	52.2	40.5
January '12	65.5	47.7	74.5	76.6	57.1	85.4	62.2	63.3	56.4	62.5	50.0	77.4	63.2	69.8
February	67.8	72.2	75.0	60.6	74.0	85.0	75.7	58.8	56.3	73.0	57.1	78.3	57.9	42.9
March	63.1	51.4	65.8	61.5	75.0	70.0	60.0	75.6	67.5	58.8	54.8	64.6	52.6	58.5
April	71.5	58.8	82.1	80.0	65.9	74.4	83.8	67.4	77.1	68.2	70.3	80.0	61.9	51.2
May	65.8	61.3	65.7	64.7	53.3	70.7	79.4	71.4	69.4	57.1	69.8	72.3	60.0	51.6
June	67.2	60.0	75.0	71.4	53.9	70.0	71.1	85.3	74.2	72.2	63.9	65.9	61.3	54.3
July	64.3	60.0	58.6	61.8	60.0	61.8	74.4	75.9	54.4	58.0	65.2	73.6	64.7	68.4
August	67.7	66.7	55.6	72.4	70.2	74.1	69.4	63.6	69.2	51.7	77.3	75.0	68.4	54.8
September	67.3	64.9	71.9	51.5	52.4	80.8	64.7	91.7	73.3	70.2	65.9	78.6	62.8	45.2
October	68.5	57.9	56.5	52.6	66.7	70.0	77.8	88.6	77.6	69.2	76.5	82.0	52.2	52.4
November	69.8	61.1	64.9	60.7	80.5	64.9	85.3	75.0	69.8	70.7	53.1	76.3	63.4	57.1
December	60.0	64.5	64.1	62.9	61.9	72.2	76.7	64.7	61.8	67.5	56.4	57.6	40.0	19.4
January '13	63.4	50.0	65.8	59.4	64.6	69.1	66.7	73.1	67.7	61.1	62.5	74.4	57.6	45.0
February	68.2	52.5	69.4	76.5	80.0	81.0	76.7	83.3	75.0	69.4	60.6	61.9	50.0	44.1
March	63.8	61.8	71.8	70.0	63.3	75.6	64.1	60.0	67.4	67.5	52.9	66.7	46.3	61.8
April	70.6	70.8	70.6	72.2	78.8	67.6	84.6	76.5	58.3	71.4	64.5	81.8	66.7	45.0
May	67.3	75.7	73.5	78.6	65.4	100.0	72.4	76.7	63.0	56.8	65.5	70.0	62.2	48.0
June	70.2	68.6	67.5	71.4	84.4	76.7	64.1	73.3	73.9	71.4	65.7	77.8	61.1	47.2
July	62.2	40.0	65.4	55.6	66.7	58.3	83.3	66.7	58.8	61.8	50.0	75.0	63.6	50.0

Table 283: Staff care and communication composite – **Average scores** ($\bar{X}$ chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	77.4	79.4	79.1	74.6	67.7	81.1	83.6	82.2	73.3	84.7	76.3	79.9	71.3	76.4
August	75.3	79.5	75.6	74.2	77.8	79.7	79.5	76.4	69.5	79.2	78.0	70.8	71.6	64.6
September	78.7	82.5	80.9	79.6	80.4	84.9	81.4	73.5	72.8	83.7	76.9	78.2	75.1	70.2
October	76.8	78.5	75.9	75.4	73.9	78.2	79.0	82.2	79.0	77.8	71.3	84.4	68.5	73.4
November	78.7	79.9	81.3	80.1	81.6	78.5	81.0	80.5	73.0	75.6	81.6	83.0	75.0	74.5
December	77.9	88.1	75.0	86.0	75.8	77.9	79.9	82.1	77.2	80.6	70.8	75.5	77.9	66.6
January '11	78.1	79.8	76.5	78.7	75.6	79.4	85.1	84.5	74.4	82.2	77.1	80.9	73.9	67.3
February	77.5	71.3	76.8	84.8	83.2	78.3	84.3	74.7	82.3	73.8	70.1	73.9	75.2	69.3
March	76.4	77.9	74.5	72.7	79.2	80.3	75.0	83.1	78.9	79.6	76.2	77.2	67.9	70.0
April	79.9	77.6	79.5	81.6	83.0	81.0	85.6	82.3	74.3	81.0	80.0	81.2	75.3	74.5
May	79.9	74.9	81.2	81.7	86.1	84.9	81.9	80.8	79.9	84.9	71.2	79.9	75.7	69.3
June	77.5	76.7	81.8	76.6	81.5	81.5	81.1	73.6	80.1	71.3	77.4	78.0	68.4	75.6
July	78.8	76.4	73.3	84.3	85.8	79.3	76.9	78.7	76.2	85.5	77.4	82.3	66.7	78.9
August	75.9	80.4	68.1	73.1	81.1	77.0	82.5	77.0	65.6	79.2	80.1	74.7	71.3	74.3
September	77.2	78.7	82.2	82.2	84.5	75.6	80.9	80.4	74.9	75.9	72.2	71.8	79.1	63.3
October	78.9	76.8	81.1	81.3	83.2	85.0	84.4	74.7	77.3	78.2	77.5	76.3	73.9	68.4
November	77.3	82.8	84.0	78.3	75.9	76.7	80.8	81.2	66.7	80.6	77.3	79.8	77.9	67.2
December	75.5	74.9	79.1	77.0	83.8	80.8	76.7	78.1	68.8	69.5	78.7	76.6	70.0	65.0
January '12	77.5	70.0	79.0	76.0	84.9	83.1	78.3	78.6	71.9	76.3	76.8	81.6	70.6	76.3
February	78.4	77.2	79.5	79.3	81.8	83.9	72.5	81.1	72.5	80.7	81.9	78.3	81.0	69.8
March	75.1	71.7	74.3	74.4	76.5	76.8	76.5	83.3	79.3	73.1	74.9	77.6	68.2	67.1
April	79.4	74.1	79.6	85.5	82.6	76.2	83.6	83.9	75.9	79.6	80.5	79.2	75.4	77.4
May	76.3	78.9	74.4	72.1	72.6	78.3	82.0	76.4	77.4	76.0	81.2	80.1	71.3	66.1
June	77.9	79.5	83.0	81.0	78.1	74.9	85.4	82.4	74.1	79.5	71.1	75.7	76.5	73.0
July	78.1	81.0	79.2	80.2	75.6	71.8	84.0	84.4	72.8	74.2	83.0	78.5	79.5	78.4
August	78.8	79.0	75.8	78.6	79.6	84.2	76.7	78.1	79.8	70.6	86.9	79.6	77.3	76.6
September	76.9	77.7	78.5	69.5	72.3	86.7	79.8	84.6	79.1	73.0	79.8	77.0	75.9	69.5
October	77.6	67.8	78.3	74.1	83.1	69.3	78.7	82.4	77.9	81.4	81.5	79.9	77.9	75.9
November	77.8	77.4	77.8	76.5	90.4	75.4	82.0	76.4	72.9	78.7	73.3	76.3	73.9	73.6
December	76.4	80.7	76.3	74.3	78.0	79.5	83.9	77.4	79.2	80.1	68.6	68.4	71.1	70.6
January '13	75.9	79.7	79.3	74.0	80.4	77.6	77.6	83.0	71.3	80.2	73.3	75.5	70.5	66.1
February	77.5	65.4	74.8	78.8	83.4	85.1	79.5	86.4	76.8	80.4	74.4	75.0	73.2	69.1
March	75.6	80.1	83.3	79.9	75.6	73.9	78.7	76.3	77.1	72.9	76.0	78.8	66.7	68.6
April	78.8	81.1	78.0	81.6	80.3	79.4	85.4	79.2	73.8	81.0	80.4	81.6	74.0	68.2
May	80.7	85.1	81.3	82.8	76.0	88.0	81.2	86.9	78.8	79.0	81.0	84.6	80.3	72.6
June	78.9	81.6	82.3	78.8	84.8	76.5	78.1	81.1	84.0	79.6	77.0	78.0	72.2	71.6
July	75.7	62.8	73.1	72.8	81.9	73.4	75.7	74.1	85.1	78.1	71.5	76.6	78.1	71.4

Table 284: Staff care and communication composite – **Standard deviations** (*S* chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	23.2	26.6	20.0	25.9	27.0	20.1	20.7	16.9	23.5	13.7	26.1	21.4	27.9	20.4
August	25.2	23.7	27.2	26.3	24.2	22.5	24.0	26.1	24.9	21.8	24.6	25.5	27.9	29.9
September	23.6	21.7	21.1	22.7	20.8	17.3	22.8	28.5	26.4	17.6	24.0	28.7	22.3	29.9
October	23.3	21.8	27.1	22.0	23.5	23.9	23.4	19.3	21.6	22.0	24.9	18.1	25.1	27.6
November	22.7	21.7	23.1	20.6	23.6	27.8	17.6	20.7	26.4	26.1	21.6	14.4	24.7	21.0
December	23.1	14.0	27.1	16.9	22.5	23.4	20.3	20.7	24.6	21.4	28.5	24.8	22.7	26.5
January '11	24.2	18.4	23.2	25.0	26.2	23.2	19.4	20.7	27.9	20.4	25.0	22.7	25.9	29.7
February	24.7	26.8	26.0	19.0	19.5	26.7	18.8	23.4	19.6	25.4	27.0	27.1	29.4	29.1
March	24.3	25.4	23.4	21.5	23.2	25.7	23.6	20.9	20.2	27.9	26.3	24.2	25.9	25.8
April	23.1	24.0	24.9	21.1	17.4	23.1	17.6	21.5	27.6	24.3	22.6	23.6	25.4	25.8
May	22.5	25.3	23.6	21.3	17.3	20.9	20.8	26.7	24.1	15.5	29.9	20.2	21.3	24.1
June	23.5	25.8	20.5	22.5	19.5	21.1	21.2	26.6	21.1	26.2	22.1	26.0	28.0	24.2
July	22.1	26.2	27.2	15.6	14.5	21.3	23.4	23.5	25.1	17.1	21.2	19.0	25.9	21.1
August	26.0	24.2	30.2	27.6	18.9	21.5	21.7	25.5	31.7	24.0	21.1	29.6	29.9	29.2
September	23.8	22.7	21.9	17.0	16.7	26.2	21.1	19.3	23.8	21.2	28.9	29.6	23.0	29.7
October	24.0	20.8	22.6	21.2	20.2	21.6	23.8	24.4	23.7	21.5	27.2	27.2	26.7	28.6
November	25.0	19.4	16.0	24.6	26.0	29.0	22.2	22.3	30.1	18.9	27.2	23.1	22.4	30.2
December	25.5	24.3	24.3	22.8	20.1	22.5	25.9	23.5	29.6	31.7	21.7	25.9	25.4	27.5
January '12	24.6	27.7	25.0	27.1	18.3	21.1	25.6	25.7	24.4	24.9	26.1	21.2	27.1	25.4
February	24.0	24.7	23.6	28.3	19.0	18.5	27.1	24.7	28.0	19.3	20.1	25.1	21.7	29.0
March	25.2	27.1	26.1	27.0	27.9	21.7	23.8	20.3	22.5	26.8	26.2	24.8	28.3	24.4
April	23.3	25.4	22.8	19.5	20.2	25.1	21.2	23.6	26.2	23.1	21.6	23.1	24.8	24.3
May	23.6	23.1	23.4	24.5	26.3	23.3	21.4	24.5	19.3	23.5	22.1	21.1	24.6	29.1
June	23.7	24.2	18.7	20.4	21.6	24.9	18.7	19.8	24.8	20.9	31.4	29.0	23.7	24.4
July	23.6	19.5	26.5	25.5	27.3	27.1	18.6	22.1	25.8	25.1	16.1	25.2	18.1	21.9
August	22.9	26.2	20.7	22.3	24.0	18.6	23.2	19.7	23.4	29.5	16.5	25.3	22.0	23.3
September	24.5	27.5	26.8	30.1	28.9	14.4	25.1	18.0	20.2	25.6	28.0	20.6	26.2	22.1
October	23.4	29.6	23.9	27.6	22.5	23.0	21.5	20.0	21.7	20.2	21.8	23.2	24.4	23.2
November	25.0	24.4	24.1	24.2	13.4	26.8	24.0	25.3	26.0	21.2	27.7	26.8	29.8	29.0
December	24.1	21.3	24.1	27.8	25.5	23.2	17.3	25.4	20.9	21.7	29.7	27.6	23.4	24.9
January '13	25.4	23.1	25.1	24.1	20.7	27.7	27.3	17.5	25.7	23.4	29.4	26.7	26.7	27.1
February	25.4	33.4	24.3	28.0	20.6	23.5	26.1	15.1	25.5	21.9	25.0	27.3	22.1	30.3
March	25.0	24.0	18.7	26.1	24.7	27.4	26.0	24.9	24.6	24.5	25.5	23.1	25.1	25.3
April	24.0	23.5	23.0	21.1	21.3	23.5	19.7	24.3	27.5	21.4	23.4	26.6	23.6	30.1
May	23.2	25.0	22.6	20.0	24.9	13.9	25.4	16.8	25.3	23.1	23.6	16.8	26.4	26.9
June	23.3	21.0	21.3	20.8	19.5	29.0	24.1	18.1	18.2	24.4	23.6	25.5	26.9	24.2
July	24.8	29.1	25.0	27.9	20.4	24.0	28.9	23.6	15.2	25.3	26.8	24.9	22.4	28.5

Table 285: (Q30) If needed, could you get staff to help you? – Provincial aggregate and site-specific chart results

Percentage of patients who, if needed, could not always get staff to help														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	47.7	46.2	60.0	51.5	50.0	32.4	37.9	56.7	36.7	57.5	58.6	47.1	54.1	56.7
August	49.1	46.4	42.4	50.0	42.9	51.3	32.5	50.0	63.6	59.0	55.3	39.4	50.0	65.5
September	42.1	31.3	36.8	39.1	39.3	34.3	28.1	62.5	39.4	51.4	53.3	44.0	53.9	43.3
October	50.5	28.6	53.7	50.0	60.0	46.2	43.2	51.9	61.5	55.3	45.2	41.4	63.0	51.6
November	39.7	46.2	38.7	22.2	36.4	34.4	33.3	44.8	50.0	50.0	40.0	38.5	46.4	40.7
December	42.4	30.4	51.7	38.5	44.4	44.4	21.2	57.9	39.1	43.3	45.8	56.7	37.0	57.1
January '11	43.7	55.0	50.0	27.6	48.4	35.7	40.5	41.2	51.7	48.4	42.4	36.7	50.0	41.2
February	46.6	50.0	56.0	26.7	44.4	44.4	34.2	54.1	40.7	53.1	61.5	45.8	50.0	70.4
March	48.6	52.5	55.9	35.5	51.4	43.6	48.4	36.1	59.5	42.9	50.0	42.9	58.1	55.6
April	38.0	50.9	47.4	33.9	28.4	32.1	32.2	46.4	40.7	34.5	47.5	34.8	40.9	46.6
May	40.1	56.3	46.8	30.6	33.3	36.1	44.1	35.7	42.5	26.9	47.1	37.0	34.5	60.7
June	43.0	48.5	39.3	32.0	42.1	41.5	30.0	52.8	38.2	55.6	54.2	44.8	46.7	46.2
July	41.9	48.4	50.0	28.6	44.4	32.4	38.7	50.0	38.2	50.0	34.8	41.4	51.6	52.2
August	43.3	46.4	45.8	56.4	40.5	43.9	25.0	51.6	38.5	42.9	38.7	58.1	39.1	51.5
September	46.5	46.9	40.0	43.3	47.4	50.0	26.5	51.9	48.4	51.7	66.7	50.0	37.1	55.6
October	40.2	57.1	36.4	40.6	29.3	37.1	26.5	59.5	35.7	45.7	50.0	37.8	40.9	51.4
November	48.5	46.9	34.5	40.5	63.2	45.2	44.4	48.5	62.5	58.8	60.0	35.3	41.9	52.9
December	44.4	60.0	40.5	38.2	35.0	39.4	34.4	46.2	43.2	57.1	26.9	45.2	67.7	55.6
January '12	44.1	56.3	35.5	33.3	40.9	38.9	36.1	55.6	63.6	36.7	41.7	46.7	50.0	34.6
February	44.2	44.4	41.2	40.0	44.4	26.7	48.3	43.3	62.5	41.9	40.9	34.2	40.0	68.0
March	47.6	46.7	53.3	50.0	44.8	37.2	48.4	31.3	39.4	50.0	51.7	59.0	56.5	64.0
April	42.3	62.5	27.6	33.3	32.4	33.3	38.7	35.3	51.5	37.1	46.2	52.6	54.6	44.4
May	46.4	52.0	36.0	67.7	50.0	26.7	26.9	56.7	41.9	55.9	53.1	38.1	54.8	65.2
June	42.0	50.0	32.0	33.3	28.6	38.9	48.2	46.4	38.5	37.9	57.7	40.5	46.2	60.0
July	49.4	54.8	47.6	38.5	40.0	62.1	39.4	43.5	47.5	59.5	54.6	43.6	69.6	41.7
August	48.1	64.0	56.5	54.2	42.2	34.2	45.7	47.4	50.0	50.0	62.5	46.7	44.7	51.5
September	42.9	51.9	47.8	35.7	61.1	21.7	29.4	37.0	41.7	41.2	47.1	35.3	50.0	68.2
October	45.5	63.0	57.1	44.4	50.0	62.5	57.1	36.7	46.3	37.5	47.1	26.2	46.2	37.9
November	44.6	55.6	61.5	39.1	36.4	48.5	36.7	45.8	47.1	46.7	43.5	43.8	46.9	47.6
December	50.1	50.0	58.3	51.7	55.6	43.3	42.3	54.6	42.9	30.3	44.8	46.7	78.3	72.7
January '13	42.6	38.9	32.1	35.7	41.0	42.4	50.0	50.0	50.0	34.5	52.4	36.1	45.0	40.9
February	45.1	64.5	44.4	44.8	29.6	26.5	36.0	28.6	56.3	48.2	27.3	56.8	59.3	62.5
March	48.1	42.3	27.6	50.0	40.7	31.6	55.9	40.9	51.4	56.0	36.0	52.9	74.2	51.9
April	44.8	46.7	42.3	38.5	52.2	48.3	40.0	57.1	39.1	45.5	53.9	35.1	43.5	48.4
May	40.3	38.5	41.7	25.9	42.3	25.0	42.3	43.5	37.5	38.5	45.5	33.3	56.7	45.0
June	43.5	55.2	41.4	40.0	28.6	36.0	56.7	50.0	33.3	39.3	60.0	37.1	45.8	60.0
July	51.2	78.6	65.0	50.0	47.4	50.0	29.4	50.0	41.7	62.5	63.6	41.7	66.7	53.9

Table 286: Wait time and crowding composite – **Average scores** ($\bar{X}$ chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	63.2	68.8	67.3	64.7	59.1	62.9	60.9	57.3	57.0	63.3	65.8	63.8	67.7	67.2
August	63.0	68.8	74.5	67.0	60.8	63.5	64.5	57.7	56.2	56.2	62.2	56.8	70.9	65.0
September	61.2	70.6	71.8	67.0	60.8	56.0	59.5	56.4	56.3	58.8	62.9	52.1	66.8	63.9
October	61.2	70.4	73.2	63.0	59.8	61.6	59.2	59.6	55.1	51.8	61.7	54.8	65.2	68.4
November	65.7	71.5	73.7	77.7	67.7	66.7	57.5	66.3	59.7	67.0	69.8	61.9	65.9	58.5
December	68.0	72.2	72.4	74.3	65.2	69.7	67.2	69.2	67.8	64.0	67.5	67.4	68.9	61.1
January '11	65.6	67.3	75.1	77.4	59.7	64.9	68.4	60.6	61.7	66.7	69.1	60.4	67.9	58.9
February	64.6	69.8	72.2	68.9	60.7	64.1	67.9	67.7	59.3	64.6	57.7	57.6	72.7	60.7
March	63.9	61.7	69.2	67.7	63.6	66.5	61.6	65.8	62.2	66.5	68.4	58.8	64.5	58.3
April	66.9	67.4	69.2	69.8	67.1	70.8	66.5	64.9	64.1	67.5	69.3	59.5	68.1	66.0
May	66.9	70.0	71.6	76.1	62.6	65.7	69.8	70.1	65.1	68.6	63.9	64.5	68.2	57.3
June	64.7	70.7	70.6	67.7	63.6	65.8	66.3	66.4	62.2	58.3	73.4	56.5	61.4	65.2
July	66.6	65.2	72.7	68.3	66.2	67.0	66.5	65.6	64.1	63.6	67.1	63.4	72.4	66.0
August	64.9	69.6	73.5	63.9	59.7	64.9	68.5	62.5	60.3	64.9	68.0	63.7	65.2	64.6
September	63.9	72.5	70.9	70.7	63.7	64.9	63.0	59.7	53.6	69.3	64.2	57.1	71.7	53.4
October	65.1	68.6	74.1	67.0	65.4	67.3	69.2	63.8	56.2	61.9	63.9	64.1	66.9	61.3
November	62.8	62.6	74.0	65.8	59.5	64.3	67.6	64.2	56.3	65.7	63.1	55.9	65.8	56.9
December	64.4	65.9	72.0	69.1	66.8	68.3	67.6	63.5	55.8	62.7	67.1	58.7	64.8	57.6
January '12	62.8	61.6	75.1	60.7	64.6	68.8	66.9	66.7	50.4	61.8	64.7	58.1	64.7	56.8
February	63.2	68.1	73.0	65.5	59.7	69.3	63.8	67.6	52.0	58.9	68.5	63.8	61.6	57.6
March	62.9	62.3	68.3	63.2	58.3	68.3	61.0	65.0	60.8	62.2	64.0	67.9	58.9	59.6
April	65.1	61.0	71.9	68.3	63.0	68.9	59.1	65.5	65.5	61.3	66.3	68.3	66.0	63.7
May	65.0	70.6	67.1	63.5	60.7	64.4	67.8	63.6	66.9	57.9	68.5	67.6	62.6	65.2
June	66.4	66.4	71.1	63.3	70.7	67.1	61.4	70.5	61.5	65.4	66.1	68.8	68.0	67.1
July	65.3	70.4	75.8	67.6	64.0	64.8	67.5	67.3	58.8	58.8	65.0	67.4	64.8	68.8
August	65.3	68.9	64.6	64.3	66.1	69.7	61.3	62.0	65.6	62.3	70.0	65.0	63.1	65.2
September	62.4	62.8	71.5	63.2	61.5	65.4	66.3	69.7	58.6	59.2	60.8	62.7	60.7	57.6
October	65.2	61.9	66.6	67.9	71.8	68.9	67.4	68.5	62.1	64.4	66.9	63.1	64.1	64.3
November	65.8	68.5	66.2	65.8	65.5	64.9	65.7	73.8	66.2	64.1	66.1	66.5	59.0	66.0
December	63.4	67.4	68.8	65.8	57.7	66.6	62.5	71.0	58.7	61.9	68.2	62.5	60.8	61.3
January '13	64.6	67.1	72.1	58.4	63.8	70.1	65.3	69.7	63.3	63.4	63.9	64.2	59.7	61.6
February	64.4	61.6	63.1	69.7	59.7	67.1	69.2	67.4	60.1	67.0	66.9	64.6	61.8	59.8
March	64.6	64.4	71.0	61.5	62.6	71.5	63.8	70.3	64.0	64.0	62.9	62.6	61.9	61.2
April	67.0	74.1	71.1	74.7	64.2	62.8	70.6	62.4	65.3	66.3	61.9	64.6	73.6	58.4
May	67.3	72.1	66.5	66.7	65.0	71.7	69.3	75.1	65.4	63.4	68.0	65.3	70.1	62.4
June	67.4	70.6	69.1	67.2	63.6	67.0	66.6	73.8	64.2	65.8	64.5	67.2	75.3	63.6
July	64.5	61.7	70.3	60.5	63.3	62.5	67.6	70.6	60.6	62.2	68.8	61.6	65.2	68.8

Table 287: Wait time and crowding composite – **Standard deviations** (*S* chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	19.4	17.0	14.9	19.2	19.6	17.8	20.8	19.7	21.7	19.0	17.4	21.5	17.3	20.4
August	20.0	18.7	17.4	17.1	19.9	19.3	17.1	21.3	17.7	23.1	22.7	23.1	16.3	19.1
September	19.7	18.4	16.2	17.8	19.4	19.3	20.7	22.7	18.7	20.4	19.1	21.6	15.4	17.4
October	20.8	13.5	15.6	18.9	22.8	20.1	20.4	20.1	20.7	23.3	19.1	24.1	19.3	18.5
November	19.9	18.2	15.8	13.8	19.2	19.5	24.0	18.4	20.4	19.9	16.5	20.1	19.1	19.2
December	19.2	21.4	15.1	14.5	20.1	15.2	21.8	16.5	20.6	20.7	22.0	18.5	16.3	21.8
January '11	18.9	12.6	12.0	10.9	18.9	17.0	18.6	21.7	20.7	15.9	19.5	24.1	17.5	20.7
February	19.9	15.2	16.4	20.2	19.1	19.0	18.5	15.6	22.5	20.6	22.2	21.8	19.0	18.9
March	18.9	18.6	16.9	16.7	16.3	16.4	22.4	18.8	20.6	20.5	20.9	19.4	19.2	14.8
April	18.7	18.0	17.6	15.5	19.0	15.9	15.4	17.7	23.3	18.2	17.9	23.0	18.8	17.7
May	18.6	18.2	18.7	12.7	17.7	20.4	18.6	18.8	20.5	18.7	20.4	16.5	15.3	19.9
June	19.9	15.6	17.9	22.2	21.4	18.8	14.9	17.3	21.4	22.3	14.0	25.2	19.1	19.3
July	17.8	20.2	19.4	14.7	18.7	16.4	19.0	15.9	21.4	18.3	17.8	18.8	13.7	15.2
August	19.1	18.9	16.7	19.9	21.8	19.5	12.8	15.8	23.5	15.0	16.9	22.3	20.9	16.3
September	20.1	19.9	17.9	18.4	16.7	17.2	20.6	16.0	19.0	19.6	22.8	25.0	16.7	19.3
October	19.8	19.6	14.8	17.6	16.5	24.0	20.2	18.1	20.1	20.0	20.6	19.5	18.7	20.0
November	19.8	19.1	16.7	19.5	18.2	22.7	12.4	19.2	20.0	14.0	19.0	26.1	17.8	23.8
December	19.7	17.3	20.8	15.9	18.2	20.1	17.4	17.8	25.4	15.6	18.9	21.9	17.5	21.2
January '12	20.5	20.8	15.4	22.1	17.5	16.9	19.0	19.1	23.9	18.1	21.1	18.1	18.8	25.2
February	19.2	17.6	18.7	16.9	20.0	16.7	17.3	16.4	17.0	22.0	18.4	18.1	20.1	22.6
March	19.6	16.8	15.4	17.4	23.2	20.1	21.8	18.6	18.5	20.7	20.1	18.3	19.7	17.7
April	19.4	19.7	13.9	18.5	21.0	18.8	21.2	21.1	17.2	21.0	16.2	18.7	21.3	18.6
May	19.0	17.1	17.0	15.2	19.0	19.9	18.6	21.5	15.5	22.4	15.8	21.5	20.9	18.8
June	18.4	19.7	17.7	17.1	18.4	19.2	18.9	18.6	17.6	18.4	17.9	19.6	15.8	19.1
July	19.3	15.4	13.5	17.7	18.6	15.2	17.6	18.7	22.6	20.5	20.2	19.5	21.8	19.8
August	19.2	20.4	21.0	16.3	18.2	20.2	19.9	26.7	20.5	18.4	14.6	19.0	17.3	18.5
September	20.3	22.6	16.0	17.0	16.8	20.2	26.7	17.3	20.7	20.1	21.0	21.8	20.8	18.5
October	19.7	20.5	17.9	16.7	18.2	22.0	22.2	19.7	17.1	17.5	19.5	22.1	22.8	20.1
November	17.9	16.7	14.9	19.0	16.8	17.4	20.3	17.9	18.8	18.2	13.0	17.5	19.5	18.5
December	18.9	20.6	13.2	19.6	19.0	15.9	24.0	17.5	21.8	19.6	16.5	16.0	17.1	16.0
January '13	19.6	16.9	15.2	21.1	21.5	18.0	21.5	15.1	21.1	22.4	17.0	18.4	20.3	17.6
February	19.0	18.7	21.6	19.5	18.5	20.4	23.6	15.0	19.6	12.9	16.7	16.2	19.9	18.1
March	19.2	19.4	20.1	21.3	17.0	14.3	21.4	18.8	20.5	16.9	14.5	21.6	20.8	20.1
April	19.4	16.0	14.4	11.0	17.0	21.4	21.3	22.0	25.2	17.7	20.8	20.7	13.6	17.9
May	18.4	19.1	16.6	14.7	17.5	14.5	21.5	14.3	16.1	16.2	23.8	18.6	18.2	22.5
June	18.0	17.5	18.1	18.1	19.3	19.1	20.2	14.2	16.3	19.0	13.5	17.1	15.6	20.5
July	18.7	23.2	14.3	13.6	17.5	19.2	15.3	18.7	22.9	21.7	13.7	19.4	19.2	19.3

Table 288: (Q13) How long did you wait to be examined by a doctor? – Provincial aggregate and site-specific chart results

Percentage of patients who reported they waited more than two hours to be examined by a doctor														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	37.7	32.4	34.2	28.9	59.0	47.6	22.6	56.4	46.2	38.9	32.6	34.2	25.5	28.6
August	37.9	29.6	22.2	31.7	43.2	37.2	37.2	45.8	45.2	47.9	43.2	44.1	21.2	40.5
September	40.8	31.8	19.2	32.4	50.0	48.7	34.5	46.9	45.5	46.7	44.2	54.8	25.0	41.0
October	40.7	19.1	10.4	29.3	51.9	44.7	46.3	51.2	37.0	61.2	48.9	51.5	33.3	30.2
November	34.6	27.7	26.2	14.3	22.2	35.3	36.6	40.5	44.7	39.5	28.2	35.3	40.5	54.1
December	28.7	24.3	27.0	12.5	38.1	21.4	29.4	30.0	18.4	37.1	32.4	35.5	27.5	41.4
January '11	28.8	23.4	7.9	0.0	32.4	22.0	28.3	46.5	27.3	38.2	25.6	32.4	30.0	58.7
February	33.9	35.7	24.2	17.7	40.5	32.6	21.7	33.3	50.0	45.0	38.7	34.5	26.8	37.8
March	39.1	42.6	31.1	21.6	45.8	28.6	48.7	34.2	30.0	33.3	41.9	41.7	46.3	58.7
April	29.4	34.3	34.2	23.4	28.2	23.1	25.8	41.9	26.4	33.3	23.2	34.6	32.2	30.8
May	27.5	20.0	21.1	18.8	32.4	22.7	14.7	30.8	31.7	34.2	35.7	21.4	26.3	53.9
June	31.1	29.8	22.9	27.6	39.5	34.6	23.9	41.0	29.7	37.5	13.3	36.7	29.3	35.3
July	28.9	35.9	17.1	33.3	28.1	29.3	25.0	44.4	26.8	27.3	28.1	25.7	23.8	38.2
August	35.7	22.9	34.3	30.4	42.5	34.1	21.2	56.1	48.0	38.2	33.3	35.1	43.3	29.3
September	37.5	26.7	31.4	26.3	38.5	41.7	40.0	45.0	41.2	35.3	27.8	39.4	33.3	58.1
October	34.3	35.1	34.4	28.1	26.9	28.6	22.5	42.9	32.3	50.0	46.3	27.8	37.5	50.0
November	34.7	37.5	22.2	28.9	33.3	30.0	33.3	40.9	42.4	27.9	27.9	44.1	33.3	46.8
December	36.3	44.4	22.9	33.3	31.8	35.9	26.8	40.5	57.5	25.6	26.5	40.0	37.8	45.2
January '12	38.6	48.8	14.3	40.9	43.8	15.2	39.5	29.8	55.6	33.3	33.3	49.0	44.4	44.2
February	38.6	32.4	33.3	33.3	50.0	20.0	32.4	33.3	45.2	54.1	30.3	41.9	44.4	51.5
March	38.0	38.2	33.3	33.3	43.3	36.2	41.7	36.8	35.1	33.3	32.5	32.6	44.7	48.7
April	31.0	51.4	18.9	26.7	30.0	15.0	30.3	31.1	36.4	25.0	34.4	24.1	42.5	44.7
May	36.0	22.6	37.1	38.2	45.5	35.1	38.7	41.0	36.1	40.5	31.0	27.9	38.5	32.3
June	32.8	44.1	26.3	20.6	40.9	34.2	39.4	30.0	38.7	25.7	27.3	25.6	22.6	48.5
July	37.7	23.7	23.1	28.1	36.7	44.1	33.3	40.0	44.4	42.9	40.0	40.0	32.4	46.0
August	32.4	33.3	33.3	46.4	26.0	26.9	39.1	40.0	23.8	35.5	22.7	37.1	25.9	35.0
September	37.8	38.9	31.0	22.6	50.0	26.9	46.7	22.9	46.2	29.3	43.6	31.6	48.8	48.4
October	27.0	39.5	37.8	32.4	28.6	20.0	12.5	18.2	24.4	21.4	23.3	30.6	30.2	32.5
November	29.8	27.8	36.1	21.4	31.7	30.6	27.6	27.0	22.9	30.0	32.1	27.0	41.5	34.6
December	35.3	34.4	32.4	30.3	41.9	38.2	32.1	26.7	41.2	28.2	34.3	28.1	33.3	51.7
January '13	30.6	40.7	10.8	29.0	26.1	29.3	30.8	37.5	31.0	30.3	24.1	24.4	42.4	34.2
February	35.4	54.3	34.3	29.4	51.6	27.5	18.5	35.1	38.9	27.3	40.6	17.5	50.0	41.2
March	35.0	25.8	20.0	30.8	46.4	19.5	33.3	23.3	42.1	32.4	42.4	43.2	43.6	40.0
April	34.0	30.4	38.2	20.0	42.4	29.4	26.5	27.6	30.4	51.9	43.3	31.7	22.9	46.0
May	28.0	19.4	43.8	23.1	34.8	0.0	27.6	27.6	20.0	36.4	26.9	35.3	24.3	30.4
June	28.7	28.1	19.4	18.2	34.5	26.9	36.1	29.0	30.4	32.4	41.2	21.4	17.7	33.3
July	36.7	44.4	30.8	37.5	34.8	41.7	35.3	15.8	41.2	29.4	50.0	42.3	45.5	20.0

Table 289: Pain management composite – **Average scores** ($\bar{X}$ chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	62.5	66.0	55.4	61.8	58.0	60.7	74.6	60.2	70.5	66.9	53.3	65.9	58.0	53.1
August	59.6	63.0	66.0	67.8	62.7	63.7	60.4	51.3	54.0	58.3	60.7	54.2	58.3	50.3
September	61.3	74.7	64.9	69.7	53.5	68.6	64.2	49.6	64.6	46.9	61.3	60.4	60.9	51.0
October	62.1	51.7	64.6	56.6	59.1	64.4	60.7	60.0	76.9	56.8	54.1	61.6	74.3	58.6
November	59.0	65.8	68.4	63.6	58.4	70.5	68.3	56.0	46.5	50.8	48.4	77.6	49.0	48.5
December	63.3	80.3	62.5	69.3	56.7	76.8	64.0	63.3	64.9	56.5	46.8	57.9	68.1	50.7
January '11	63.2	68.0	66.7	63.8	58.3	66.4	77.2	54.3	59.6	68.8	56.8	66.7	60.2	51.5
February	63.2	57.8	59.6	75.9	63.2	59.1	66.0	60.0	72.5	57.7	48.4	69.8	57.9	63.0
March	57.1	53.6	53.2	61.2	44.4	55.7	51.9	66.1	66.2	67.3	68.9	59.5	51.7	44.9
April	68.5	66.0	68.9	74.1	75.0	72.8	75.4	59.3	66.3	66.3	64.5	71.2	60.4	59.3
May	63.6	67.4	71.5	65.7	68.5	67.0	77.2	70.7	58.3	69.4	50.7	53.6	61.8	47.3
June	61.4	60.8	62.3	64.9	65.3	63.3	77.5	64.3	61.5	56.3	52.2	57.7	54.2	54.9
July	62.8	55.0	54.0	64.7	65.2	71.7	55.5	64.0	69.4	74.6	62.0	54.2	58.4	59.3
August	61.5	64.6	64.2	61.8	68.4	56.4	75.0	46.1	52.8	55.5	56.9	62.0	66.7	59.9
September	62.4	66.0	68.0	52.5	55.6	66.0	68.3	50.3	72.2	56.1	44.5	68.0	67.6	60.7
October	59.8	60.1	66.7	54.3	71.5	72.8	75.7	47.5	42.6	57.4	41.1	58.1	60.3	55.6
November	58.6	71.7	72.8	58.8	55.0	51.8	67.1	56.4	53.3	65.7	46.2	67.7	51.8	40.2
December	57.3	51.5	55.4	76.9	72.9	59.2	58.4	52.5	48.5	44.1	68.6	72.3	43.3	38.7
January '12	63.3	38.2	63.0	71.8	70.7	74.4	59.8	57.5	58.4	57.6	58.4	73.1	66.7	55.5
February	61.5	60.3	64.8	52.8	71.6	79.2	49.2	60.0	47.3	62.0	48.4	69.5	70.3	47.6
March	61.8	66.0	50.4	62.7	58.8	73.2	62.3	72.2	73.9	50.8	57.6	62.1	51.4	51.9
April	63.7	70.3	69.6	73.4	72.8	59.1	68.9	58.0	62.0	55.9	52.8	62.5	62.2	59.6
May	65.1	70.8	67.5	56.3	58.9	64.3	65.2	70.6	75.9	71.5	60.1	73.1	52.8	66.7
June	65.5	69.9	79.4	52.2	83.9	68.5	67.1	70.4	65.9	61.3	56.8	63.6	64.0	47.1
July	58.4	59.1	57.4	56.3	59.1	48.3	72.1	56.5	50.9	59.6	61.6	65.9	50.4	57.6
August	62.0	59.5	60.3	63.0	58.3	70.0	66.7	52.0	69.0	55.2	59.7	66.3	52.3	60.2
September	59.0	65.3	47.4	46.2	53.8	81.3	63.1	70.6	59.5	54.9	54.3	65.0	57.3	58.0
October	64.9	59.4	69.0	54.2	77.8	16.7	50.0	68.5	77.2	65.4	59.5	67.5	69.1	64.1
November	65.2	67.7	59.4	60.4	73.1	66.7	71.7	74.1	56.8	57.1	65.3	59.9	61.8	67.1
December	56.3	52.3	56.4	45.3	50.3	73.0	59.7	75.9	62.5	61.1	50.0	45.8	50.0	42.5
January '13	60.0	72.0	69.0	58.8	73.2	50.0	54.4	55.4	57.9	54.5	45.5	71.3	60.1	58.8
February	59.8	44.7	52.4	68.1	65.1	61.3	64.4	59.5	72.1	57.6	46.8	67.0	43.1	56.2
March	61.0	62.9	75.0	65.0	58.8	69.1	71.6	62.3	64.4	49.7	42.5	63.0	54.0	51.4
April	65.0	70.8	65.0	63.6	76.7	59.3	68.4	72.6	51.3	62.1	60.8	66.9	67.5	52.8
May	69.5	69.0	83.7	70.6	57.0	63.8	72.3	65.6	71.9	65.2	69.6	80.0	72.9	61.6
June	64.9	61.1	69.2	70.1	80.1	67.9	62.9	56.1	63.2	85.7	59.0	53.1	60.1	46.8
July	56.4	54.5	73.3	50.7	63.0	44.7	53.8	66.6	49.3	69.5	51.7	52.6	62.2	40.9

Table 290: Pain management composite – **Standard deviations** (*S* chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	37.6	43.0	36.8	39.9	36.5	35.9	30.5	40.1	35.7	34.2	40.3	37.9	39.8	44.3
August	37.3	30.4	36.0	36.6	36.4	31.3	40.9	35.9	37.5	40.2	40.0	38.7	43.9	38.7
September	37.2	30.0	37.3	34.0	41.7	33.4	30.9	37.9	38.4	42.6	36.1	37.8	37.8	44.7
October	37.2	41.0	39.9	35.2	36.3	34.9	40.2	42.3	34.8	37.4	38.6	39.0	27.6	40.7
November	36.7	34.3	34.6	33.8	39.6	34.1	34.2	32.7	38.6	34.7	38.2	27.8	39.4	37.8
December	35.7	24.3	43.7	28.8	36.9	23.1	35.4	35.6	36.7	36.4	43.4	38.7	36.2	39.2
January '11	37.6	35.6	39.0	37.1	38.9	38.2	32.3	36.0	41.9	34.5	37.1	36.8	38.4	41.5
February	37.0	37.1	37.6	38.5	33.7	41.3	34.5	39.1	36.2	35.7	39.5	35.5	38.4	36.3
March	39.1	42.6	38.4	36.6	38.0	37.9	37.3	36.9	35.4	38.3	40.5	43.9	40.4	43.1
April	35.9	40.5	37.1	33.1	32.7	29.5	34.4	38.5	35.8	35.6	36.5	34.7	41.5	40.7
May	37.7	38.1	34.9	37.3	39.4	33.8	26.6	34.0	44.5	37.9	39.1	39.9	38.5	38.4
June	37.2	33.7	40.9	33.6	37.0	31.6	37.5	32.9	36.6	43.4	45.9	38.6	36.6	40.9
July	36.7	39.7	39.4	34.7	37.0	35.5	37.0	37.3	39.5	31.7	37.6	38.5	34.8	37.7
August	38.4	36.5	40.0	39.8	37.8	39.0	35.2	41.0	35.9	40.9	41.6	38.4	35.2	41.8
September	36.0	39.1	34.2	33.3	33.0	37.2	34.9	38.9	29.5	42.3	37.3	34.6	39.2	36.9
October	39.5	43.3	38.5	39.4	35.6	34.7	33.3	39.6	36.2	37.7	43.8	42.1	37.4	45.0
November	37.7	34.6	33.1	38.8	30.2	39.1	42.4	35.1	32.9	30.9	40.1	34.1	44.7	42.4
December	39.5	45.8	38.7	29.4	35.9	41.8	34.5	36.1	41.7	40.2	42.1	33.7	38.9	34.9
January '12	38.2	42.3	39.8	28.9	36.3	37.6	38.9	38.3	34.7	38.8	43.9	32.8	39.7	43.3
February	38.7	45.3	40.0	43.6	31.4	34.7	41.9	36.9	40.8	35.6	40.4	33.6	36.6	38.7
March	37.6	38.8	42.4	43.0	39.9	28.3	37.9	34.9	28.8	42.7	37.4	36.2	41.1	38.7
April	35.9	35.5	36.5	33.0	34.5	34.1	33.1	42.0	34.4	35.8	37.2	38.9	36.7	41.5
May	35.2	34.7	36.5	30.7	29.3	39.7	38.4	41.0	31.1	31.3	35.3	31.3	40.1	37.1
June	36.0	38.1	33.2	41.8	32.7	36.5	24.4	28.7	36.2	41.1	27.6	37.5	33.0	44.3
July	38.3	36.1	38.1	43.4	38.4	42.1	33.2	36.8	36.2	37.0	43.5	37.0	35.4	45.9
August	36.8	42.1	37.5	41.5	37.6	38.5	33.3	41.9	31.3	38.0	35.5	29.3	39.8	36.1
September	38.6	33.5	40.3	44.7	44.5	30.4	43.7	30.7	37.6	37.5	40.0	35.7	38.1	41.9
October	36.1	38.9	37.1	41.5	25.5	28.9	8.5	39.0	29.7	36.2	39.7	33.9	34.9	38.7
November	35.8	35.6	42.3	37.0	35.9	34.3	31.4	29.1	38.7	39.5	37.6	37.1	37.3	35.5
December	39.4	35.9	34.8	44.6	40.7	37.3	40.3	35.4	39.0	38.9	41.7	42.8	36.5	37.4
January '13	39.7	31.6	36.6	40.1	35.1	42.2	38.9	46.1	42.0	42.2	38.4	34.9	41.3	42.8
February	35.9	43.4	40.6	33.6	39.9	33.0	38.1	29.7	29.4	37.2	37.5	30.3	38.8	36.0
March	38.1	40.9	30.1	40.6	44.3	34.0	33.6	32.2	37.4	42.8	41.6	33.4	41.6	35.5
April	34.9	36.1	34.4	38.2	24.3	42.0	35.1	34.5	34.9	35.6	34.3	36.7	34.3	37.7
May	36.1	30.6	30.9	37.5	38.5	55.4	36.6	31.6	35.6	41.5	37.3	31.4	36.9	37.3
June	36.3	41.2	35.9	30.0	21.5	34.2	38.9	37.1	41.5	20.8	35.5	38.3	43.2	41.1
July	40.1	38.0	35.4	48.2	38.8	38.1	46.0	38.1	43.2	38.8	50.1	38.6	33.5	42.2

Table 291: (Q42) Did staff do everything they could to help control your pain? – Provincial aggregate and site-specific chart results

Percentage of patients who did not believe staff did everything they could to help control their pain														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	47.2	34.8	62.1	44.8	57.7	48.3	42.9	57.1	29.2	41.7	54.6	50.0	46.4	55.6
August	49.9	54.2	52.0	40.0	46.4	42.4	42.4	67.7	60.0	48.5	46.9	60.0	47.4	58.3
September	50.3	36.7	42.9	44.4	52.6	48.0	58.3	58.3	42.9	53.9	53.3	55.0	50.0	57.7
October	45.9	56.0	44.4	58.6	40.0	48.0	48.0	43.3	30.8	59.3	57.6	40.9	33.3	46.7
November	54.3	53.3	42.9	52.4	50.0	39.1	52.4	62.5	65.4	63.6	66.7	38.9	60.0	60.0
December	47.1	27.3	45.8	43.8	64.0	44.4	37.0	42.9	42.4	50.0	61.1	44.4	41.7	66.7
January '11	46.4	37.5	40.7	47.8	52.0	41.9	25.9	63.3	45.0	43.5	63.0	43.5	51.6	57.6
February	46.5	61.3	50.0	24.0	46.9	48.4	48.0	48.4	30.4	56.5	57.1	38.1	55.0	53.1
March	50.8	53.1	56.0	50.0	74.2	48.2	66.7	35.5	31.3	34.6	34.5	42.9	62.1	61.5
April	39.3	43.6	33.3	34.0	32.7	39.2	27.6	56.0	36.7	41.7	39.0	42.9	45.6	51.0
May	44.5	39.1	34.3	44.1	40.9	44.0	26.3	32.0	46.2	34.8	60.0	52.6	50.0	67.9
June	50.0	58.8	47.4	50.0	35.5	56.3	21.7	52.0	52.2	55.0	52.6	52.0	60.0	63.6
July	48.5	56.0	55.6	46.2	46.4	35.7	54.6	45.0	37.5	39.1	50.0	57.1	58.1	61.1
August	47.6	46.4	42.3	44.4	39.3	54.3	33.3	63.0	58.8	47.1	53.6	47.8	45.0	50.0
September	48.7	42.3	42.3	68.2	61.1	50.0	27.6	62.5	34.8	47.6	70.0	47.8	44.4	57.1
October	50.3	47.4	43.8	64.0	32.3	37.9	32.0	60.6	79.0	50.0	60.7	48.6	53.9	52.5
November	52.6	32.0	30.8	51.5	73.3	66.7	31.6	47.6	64.7	50.0	72.0	43.8	47.4	70.4
December	52.6	54.6	61.3	37.0	30.6	48.2	58.8	61.5	50.0	70.0	40.9	36.0	71.0	75.9
January '12	45.3	70.8	50.0	30.0	38.2	29.6	51.7	50.0	53.6	56.5	48.2	30.6	41.9	56.5
February	46.1	47.1	40.7	52.9	44.1	20.0	52.6	46.2	54.6	51.9	63.2	46.9	32.0	65.2
March	45.7	46.2	60.0	40.0	50.0	31.3	52.2	23.8	34.8	47.6	52.4	44.0	58.3	61.9
April	46.6	44.0	35.7	30.8	30.8	54.6	30.0	48.0	54.6	66.7	61.9	44.4	51.9	52.0
May	45.8	38.9	38.1	70.8	59.3	41.7	41.2	28.6	30.0	42.3	54.2	36.7	54.6	50.0
June	45.1	43.5	21.7	59.1	14.3	44.4	42.9	40.0	42.9	50.0	68.8	46.2	52.6	65.0
July	51.8	52.4	52.9	41.7	54.6	65.0	46.2	55.6	62.1	46.4	45.5	40.0	68.4	40.9
August	47.5	54.6	52.4	50.0	50.0	34.3	43.3	50.0	33.3	57.1	58.3	47.6	60.5	45.5
September	50.0	43.5	60.0	60.9	54.6	16.7	42.9	45.5	46.2	58.3	55.6	50.0	52.2	50.0
October	44.2	52.2	40.7	54.6	33.3	100.0	100.0	35.3	25.9	42.1	46.2	45.0	39.3	42.9
November	43.7	39.1	52.2	41.7	30.8	42.1	37.5	22.2	55.6	55.0	47.1	55.0	48.0	47.1
December	53.7	66.7	63.6	61.5	57.1	28.6	46.7	33.3	50.0	42.3	61.5	61.1	66.7	75.0
January '13	47.2	35.7	40.9	47.6	38.7	54.6	60.9	43.8	42.1	50.0	61.5	35.0	47.4	55.6
February	50.7	59.1	64.7	47.1	33.3	56.0	46.7	48.2	37.9	47.8	68.8	42.3	70.6	60.9
March	49.1	45.0	33.3	44.0	50.0	34.8	33.3	50.0	50.0	61.5	61.9	52.0	59.3	65.2
April	46.3	35.7	52.0	45.5	36.0	41.7	43.5	33.3	45.5	55.6	58.8	42.9	50.0	65.4
May	35.6	44.0	20.8	36.8	50.0	33.3	36.4	35.7	18.8	43.5	35.0	21.1	29.0	55.6
June	43.3	45.0	40.0	41.2	38.5	30.0	36.4	57.9	47.1	16.7	52.0	56.3	47.4	65.0
July	51.8	61.5	40.0	53.9	50.0	63.6	45.5	43.8	40.0	42.9	40.0	62.5	53.3	72.7

Table 292: Respect composite – **Average scores** ($\bar{X}$ chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	84.0	85.1	83.0	81.7	77.9	86.1	87.5	82.1	83.0	88.2	82.4	86.3	82.6	84.8
August	83.5	85.7	88.6	79.0	81.7	84.2	81.0	84.1	83.2	82.9	86.6	83.4	88.3	80.1
September	83.3	87.3	88.0	77.9	85.3	85.6	81.8	82.0	75.7	87.1	86.6	79.9	85.1	83.6
October	84.7	79.9	83.8	83.0	82.5	82.7	85.9	83.9	91.5	84.9	82.6	88.9	86.4	82.1
November	85.2	81.7	88.1	84.2	83.9	82.1	86.1	85.5	83.9	83.7	88.7	86.6	88.6	86.4
December	85.1	89.9	85.2	88.9	82.0	83.7	83.3	87.9	82.4	85.5	84.0	85.5	88.6	83.0
January '11	85.6	84.5	92.6	86.9	82.7	88.0	88.9	84.8	81.7	87.1	86.6	85.1	86.2	80.1
February	84.2	84.3	86.1	87.1	79.7	81.6	90.2	85.3	82.9	81.9	83.7	87.7	85.8	78.8
March	83.9	80.9	85.6	84.0	84.2	85.1	83.8	86.6	86.1	86.4	85.4	84.1	79.4	79.5
April	86.8	85.2	87.1	84.5	86.9	87.5	90.0	88.7	81.7	86.5	87.5	88.0	88.2	85.9
May	86.4	83.0	87.2	86.1	85.3	86.9	87.1	86.2	88.7	89.0	83.1	90.4	83.6	83.7
June	85.6	81.9	92.2	80.8	85.9	87.5	90.8	83.4	85.0	83.2	84.8	85.1	86.1	84.0
July	86.0	82.3	83.5	85.0	84.8	88.4	82.9	83.4	87.1	88.4	86.6	86.1	87.4	91.0
August	84.2	83.8	87.6	77.6	84.4	85.3	87.0	84.9	80.7	85.8	86.9	84.6	86.5	79.0
September	84.5	88.6	89.6	84.7	80.0	81.4	88.1	85.1	87.5	88.0	80.8	79.9	89.1	77.6
October	84.7	84.5	90.5	80.1	85.1	88.0	88.9	82.0	76.2	86.4	85.6	81.9	88.7	83.5
November	84.4	86.8	87.5	79.0	80.5	84.4	87.3	88.1	81.5	86.4	86.4	85.6	87.8	78.1
December	84.3	80.6	85.9	81.0	85.2	84.5	88.9	84.2	79.4	82.6	87.3	84.5	87.5	83.2
January '12	84.7	77.1	88.4	82.5	87.0	87.9	82.0	85.5	83.1	89.3	86.6	86.3	82.4	83.5
February	85.2	84.4	87.1	82.8	88.4	90.7	85.2	83.5	79.9	84.3	85.4	85.0	86.4	82.3
March	83.3	76.7	82.3	78.6	87.1	81.9	81.3	87.4	86.1	83.2	81.3	84.3	85.7	85.0
April	84.6	84.9	87.9	89.8	84.1	85.6	88.0	85.8	81.6	83.0	84.8	81.1	80.2	86.2
May	84.2	88.9	84.7	75.1	75.6	85.0	92.3	85.8	84.3	86.8	89.8	82.0	82.2	83.0
June	85.5	78.2	91.9	84.4	86.9	81.6	89.2	91.6	80.4	86.8	83.1	86.8	89.1	84.7
July	84.1	86.8	84.7	79.5	81.9	82.9	87.8	86.9	81.0	84.7	84.8	83.6	86.2	84.6
August	84.8	85.8	84.7	83.4	82.5	87.9	85.9	88.2	85.2	80.8	87.4	84.5	84.0	82.3
September	84.7	81.9	83.5	76.4	79.2	89.8	89.4	93.4	88.4	87.4	85.4	85.9	85.5	74.0
October	84.3	81.1	87.4	83.4	79.4	74.0	80.7	88.8	86.7	87.0	87.4	88.0	83.4	80.0
November	83.8	85.7	86.8	82.9	87.1	80.2	85.9	88.9	81.4	88.8	83.4	82.5	80.8	76.1
December	83.3	84.2	87.3	80.9	78.9	86.6	89.3	82.4	88.8	85.7	81.0	79.6	78.5	77.6
January '13	83.8	80.3	87.9	82.7	81.2	81.0	91.1	88.7	82.2	84.1	80.9	84.5	84.7	81.1
February	85.4	77.2	87.0	86.0	85.1	90.8	85.3	90.1	85.6	89.4	87.6	81.7	82.1	82.7
March	83.8	86.7	86.7	83.3	81.4	87.7	84.9	84.4	82.3	82.5	78.8	84.3	84.2	82.7
April	85.8	85.4	85.5	88.9	86.8	85.5	91.3	83.8	83.5	87.7	87.1	83.0	86.8	77.3
May	86.4	87.0	84.7	84.5	80.8	95.0	88.8	90.8	85.4	83.1	88.3	89.8	90.5	80.5
June	85.4	81.9	90.2	84.8	89.2	82.1	82.6	85.8	89.0	88.5	79.7	86.3	86.2	83.6
July	84.3	80.6	84.5	80.7	88.9	85.4	82.8	89.8	80.5	82.6	83.1	84.5	86.3	86.1

Table 293: Respect composite – **Standard deviations** (*S* chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	18.8	18.0	20.1	21.8	25.2	19.2	16.2	16.3	16.7	14.0	21.6	14.3	19.3	17.9
August	18.9	15.5	16.9	22.1	18.4	19.7	23.0	21.6	18.3	17.4	16.0	18.5	12.2	22.2
September	19.3	16.6	19.5	20.3	16.1	18.0	20.5	22.3	23.8	17.1	14.4	20.2	17.6	20.8
October	18.8	20.6	19.4	17.0	23.3	23.4	16.1	19.2	13.6	16.4	17.6	15.9	18.8	19.7
November	17.2	21.8	15.9	17.0	17.5	20.4	12.9	18.3	21.1	19.3	11.6	13.2	12.9	17.7
December	18.4	13.9	18.3	17.8	21.0	16.9	20.7	13.7	20.3	18.0	20.5	15.9	19.0	18.6
January '11	17.6	17.8	11.4	18.3	20.0	13.6	18.6	18.7	17.5	16.4	14.5	18.4	15.4	23.4
February	18.9	17.0	18.0	18.7	19.5	22.5	12.3	14.9	17.3	22.5	22.1	16.8	19.9	19.8
March	19.0	23.7	16.9	17.6	17.1	15.0	22.9	16.4	18.5	19.7	17.3	17.1	22.4	20.6
April	17.8	21.1	17.0	19.0	15.6	15.2	14.7	14.2	22.7	14.6	17.7	22.4	16.4	17.8
May	16.6	16.1	19.5	15.8	17.2	19.0	15.3	14.0	19.1	14.0	20.4	10.9	17.3	14.8
June	17.4	21.3	8.5	19.5	13.6	19.2	11.0	21.0	22.1	17.6	14.4	17.1	16.1	18.6
July	16.3	19.7	16.1	14.7	20.4	13.6	18.2	17.1	18.7	12.6	14.7	16.3	13.1	12.2
August	18.7	18.6	15.5	20.4	18.8	18.8	15.7	16.2	24.7	15.7	16.4	18.5	14.4	24.0
September	18.4	13.3	12.1	17.7	15.6	19.5	16.4	16.6	15.9	16.5	22.5	25.4	15.7	24.2
October	18.7	19.4	14.1	22.6	18.3	13.5	15.8	20.9	25.0	14.3	18.2	19.9	15.0	19.8
November	17.9	14.6	16.7	19.4	20.6	20.0	16.9	17.0	19.0	14.7	16.8	14.7	15.2	22.6
December	18.3	18.8	17.4	18.9	18.1	15.2	15.2	15.8	24.8	21.3	16.4	19.5	15.1	17.5
January '12	19.0	25.6	16.8	19.6	17.5	14.0	20.7	21.1	18.1	15.9	19.7	15.6	19.9	22.1
February	17.6	19.4	16.7	18.8	15.1	10.4	19.6	20.5	21.8	14.3	14.9	19.1	16.9	19.4
March	19.6	22.8	21.8	19.1	18.1	21.8	19.2	16.2	19.3	19.5	19.1	18.1	19.4	19.1
April	18.4	16.3	13.6	12.6	20.5	16.4	12.8	19.0	20.6	20.5	19.3	19.6	22.6	20.2
May	18.5	13.3	16.4	25.1	22.1	17.5	12.7	20.5	18.6	15.7	12.5	14.0	19.3	22.6
June	17.3	22.5	11.7	16.8	14.8	20.9	14.7	10.8	22.7	15.4	20.2	16.5	11.7	14.7
July	18.4	16.4	17.1	23.0	19.2	19.2	14.5	15.0	17.3	16.2	15.7	23.3	17.2	21.8
August	18.8	19.4	17.6	21.7	20.8	19.0	14.2	11.8	19.9	22.5	15.3	20.4	16.2	21.9
September	19.8	24.5	20.4	26.6	26.3	15.1	13.6	8.8	14.7	15.0	19.1	19.4	19.9	20.9
October	18.8	17.3	17.2	20.3	18.2	28.5	24.2	14.6	15.8	16.5	16.0	19.2	18.9	19.3
November	18.4	15.7	14.7	18.2	16.2	19.6	17.9	15.9	23.4	14.2	15.0	22.0	17.6	19.6
December	19.9	17.0	10.9	23.2	22.7	17.2	14.4	21.2	15.9	17.4	22.5	22.8	23.5	22.8
January '13	19.6	20.5	18.4	22.6	18.1	23.8	11.3	15.9	19.2	18.4	23.4	21.2	18.3	21.8
February	17.4	24.8	18.6	16.7	17.3	12.4	16.2	9.5	15.6	13.1	15.5	20.5	20.4	19.3
March	18.5	14.0	17.6	19.7	19.9	14.6	18.9	19.6	19.9	19.2	22.8	16.1	18.3	20.8
April	16.7	14.5	16.6	14.4	14.8	18.2	10.9	18.2	19.4	17.6	16.6	19.1	14.5	20.0
May	17.8	17.6	18.3	21.7	22.9	5.8	16.0	12.1	20.6	17.0	16.7	12.3	13.4	22.0
June	16.7	14.9	13.4	12.9	12.3	22.1	21.2	13.0	14.2	15.7	21.9	16.4	13.8	16.7
July	17.6	20.1	15.8	20.5	12.9	16.8	17.7	13.4	23.4	21.2	13.9	16.9	14.8	18.8

Table 294: (Q19) Did doctors and nurses introduce themselves? – Provincial aggregate and site-specific chart results

Percentage of patients who reported that none or only some of the doctors and nurses introduced themselves														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	39.3	48.6	52.6	38.6	25.6	35.7	27.3	30.8	30.6	32.7	45.0	43.9	65.2	46.0
August	37.1	44.2	52.8	34.2	31.7	27.9	28.3	36.7	34.2	31.3	34.8	39.5	40.6	69.4
September	38.0	34.9	49.0	38.2	31.4	22.7	24.3	34.3	45.5	34.1	38.1	29.0	66.7	56.4
October	36.4	47.6	44.9	45.7	30.0	31.6	26.5	27.3	28.3	30.4	35.3	22.2	60.0	56.1
November	35.0	38.3	48.8	37.8	33.3	25.7	14.0	38.5	40.5	26.2	36.8	20.6	57.1	54.1
December	34.7	28.2	56.8	32.7	33.3	30.0	22.2	34.0	17.7	25.0	37.5	33.3	55.0	63.3
January '11	38.4	44.7	59.5	18.0	41.7	30.6	17.8	33.3	43.3	50.0	44.2	23.7	57.9	54.4
February	36.4	34.9	59.4	25.0	30.2	22.2	16.3	35.7	38.2	42.1	50.0	17.2	62.5	64.9
March	37.1	38.0	43.5	27.0	37.5	21.4	27.5	26.2	38.6	38.1	41.5	30.6	61.0	57.5
April	29.6	27.9	51.9	32.9	16.9	22.6	18.6	30.1	32.9	23.5	23.6	20.0	50.6	51.3
May	33.7	38.8	42.4	29.6	30.8	31.8	24.3	28.2	23.3	18.4	46.3	29.0	52.6	57.1
June	32.0	30.6	43.8	24.1	25.0	25.0	16.3	32.5	38.9	31.3	32.3	16.7	63.2	54.3
July	37.3	35.9	45.0	35.1	31.3	27.5	30.0	29.7	44.7	35.3	40.6	28.6	62.2	50.0
August	35.6	43.2	68.8	34.9	23.8	34.0	18.2	43.9	26.9	37.1	31.4	26.3	58.1	47.5
September	34.6	29.8	45.5	20.0	11.5	31.4	31.7	35.0	24.2	44.4	28.6	40.6	59.1	67.7
October	32.7	41.7	28.1	25.7	13.5	25.0	31.0	30.4	43.8	37.0	28.6	35.1	37.5	54.2
November	33.1	39.0	39.5	31.9	25.9	28.6	24.1	43.6	28.1	31.0	41.9	18.9	37.1	63.8
December	36.8	50.0	44.2	39.0	8.9	25.0	26.2	33.3	46.3	46.2	44.7	23.3	62.2	53.9
January '12	38.2	41.9	30.2	35.6	22.0	34.0	31.0	32.6	36.8	30.0	55.8	34.6	56.4	66.7
February	29.8	36.1	29.0	17.9	18.0	22.5	30.3	32.3	18.8	25.6	29.4	33.3	46.0	55.9
March	36.2	40.0	56.8	44.4	31.3	28.6	33.3	30.8	32.5	31.4	37.8	11.9	47.2	68.4
April	30.0	39.4	35.9	21.4	15.9	34.2	21.9	24.4	23.5	28.6	24.2	23.3	50.0	58.3
May	36.3	35.7	55.9	45.2	36.4	35.9	24.2	33.3	47.1	35.9	25.6	23.9	35.0	53.6
June	35.2	35.3	35.9	43.8	29.2	26.8	16.7	21.9	32.3	46.0	51.4	29.3	46.7	57.6
July	37.5	44.7	40.7	39.4	35.5	38.2	26.3	44.4	54.6	28.6	31.8	16.7	43.8	57.1
August	34.3	55.6	38.2	44.8	37.0	27.3	37.0	22.7	20.0	32.1	5.0	22.9	51.8	37.5
September	29.8	32.4	44.8	25.0	27.3	19.2	18.8	20.6	25.9	27.9	22.0	9.8	53.9	63.3
October	33.0	47.5	40.9	36.1	33.3	44.4	25.0	17.1	23.9	31.0	18.8	23.5	59.0	47.5
November	29.7	40.5	45.7	33.3	14.6	19.4	21.9	30.0	33.3	40.0	34.4	18.9	48.7	40.0
December	38.3	40.6	50.0	25.8	35.9	23.5	38.7	29.0	31.3	27.0	37.1	34.4	72.2	59.3
January '13	37.9	42.3	46.2	48.4	24.4	27.5	30.0	44.0	26.7	37.1	60.0	33.3	43.3	59.0
February	34.4	48.7	48.4	30.3	36.4	20.5	8.3	31.6	27.5	40.0	26.7	33.3	54.8	51.6
March	31.1	21.9	36.1	30.8	31.0	31.0	21.6	32.1	14.3	37.1	32.3	26.3	47.4	53.1
April	37.1	37.5	35.3	37.1	40.6	22.9	26.3	25.0	34.8	30.8	38.7	34.9	52.8	59.0
May	33.9	11.8	27.3	18.5	39.1	33.3	32.1	24.1	38.5	50.0	30.8	19.4	42.9	63.6
June	34.5	38.2	48.7	33.3	16.7	24.1	27.0	46.7	25.0	32.4	29.4	31.0	52.9	71.0
July	37.1	50.0	48.0	26.7	33.3	30.4	33.3	35.0	31.3	26.5	53.3	33.3	52.4	42.1

Table 295: Facility cleanliness composite – **Average scores** ($\bar{X}$ chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	81.0	77.1	87.3	87.6	79.0	90.3	82.4	74.7	78.2	76.2	74.5	75.1	87.1	78.2
August	79.5	75.5	90.0	81.9	81.5	91.2	76.0	78.9	74.9	67.5	75.8	76.9	88.0	73.1
September	80.1	83.8	88.9	78.1	75.6	90.3	83.5	73.0	76.7	70.3	82.6	75.4	81.5	83.0
October	79.7	76.6	88.0	80.8	78.0	85.6	75.7	73.0	80.6	75.1	73.8	84.4	87.6	73.8
November	80.5	79.0	85.7	86.6	78.7	89.7	80.5	70.8	71.7	74.6	76.2	84.5	83.5	83.0
December	80.3	81.4	86.9	87.2	75.3	89.4	81.3	84.7	78.7	70.1	78.5	77.1	90.3	65.1
January '11	80.3	76.7	90.2	84.3	76.1	89.1	84.2	83.8	75.4	73.3	78.7	78.3	86.0	68.6
February	80.6	77.3	88.0	85.8	80.4	87.0	81.6	84.6	77.3	73.9	76.6	78.9	83.5	72.8
March	79.1	77.8	84.6	83.0	75.3	89.2	76.8	89.4	75.9	74.3	80.5	75.3	81.5	67.8
April	83.9	84.9	89.4	87.5	83.2	87.9	85.2	86.1	79.0	77.5	79.9	80.4	92.1	77.7
May	82.8	79.5	88.5	89.4	77.5	89.2	80.2	88.3	80.9	79.2	74.6	83.4	90.7	75.2
June	79.0	79.7	85.9	80.2	77.2	85.7	77.2	78.9	78.5	71.5	80.8	74.8	85.1	71.3
July	80.7	77.1	83.9	86.6	78.9	88.1	73.5	86.4	74.3	80.0	79.2	76.0	89.4	79.6
August	81.0	77.8	89.9	76.6	79.3	87.8	80.5	83.5	75.1	79.3	77.3	80.0	88.6	78.6
September	81.5	84.2	85.4	89.1	82.8	86.1	83.8	79.9	79.3	74.2	76.2	73.6	89.2	71.0
October	80.8	82.0	87.6	85.4	80.1	90.7	81.8	80.1	74.4	69.2	69.9	81.6	89.9	75.1
November	79.9	83.5	88.1	89.7	77.6	86.7	80.6	81.5	79.8	66.0	70.0	78.1	85.4	71.6
December	79.5	75.0	88.9	83.9	84.8	84.2	80.8	81.7	71.7	70.5	80.8	75.1	84.2	72.4
January '12	78.3	72.0	86.3	83.4	76.6	87.2	72.1	80.6	74.4	75.6	76.2	76.6	84.9	71.8
February	78.5	76.3	89.0	82.4	80.3	89.0	76.7	77.5	64.6	73.2	71.7	81.9	84.7	71.7
March	78.5	76.2	84.3	78.1	81.4	84.9	76.6	83.8	74.1	67.3	73.2	80.4	82.2	78.1
April	80.8	73.0	85.3	87.5	84.9	88.1	81.6	82.3	71.6	77.3	78.6	79.1	78.7	82.2
May	82.6	81.8	88.7	83.5	80.9	85.1	81.4	79.8	85.3	74.2	83.1	84.6	88.0	76.3
June	80.8	75.2	90.2	78.9	83.5	83.9	85.8	85.0	72.9	75.2	72.1	78.8	86.6	83.5
July	80.2	79.3	82.3	86.4	86.7	90.1	80.5	80.5	64.7	76.7	75.7	78.5	86.9	80.8
August	78.9	76.1	81.6	82.8	79.7	85.9	75.5	82.0	76.5	62.9	78.2	79.7	78.9	83.1
September	79.6	74.2	87.2	80.8	75.5	85.3	82.4	88.1	72.2	74.2	73.1	86.7	82.3	77.7
October	79.6	77.1	86.9	78.6	78.0	90.0	77.8	87.5	75.7	74.3	84.5	79.5	76.8	81.1
November	78.6	73.5	82.0	78.3	79.0	81.6	79.8	84.8	73.3	71.3	80.2	83.4	78.2	76.6
December	76.4	78.4	81.7	81.5	73.9	83.4	78.7	85.6	67.8	68.1	77.9	65.8	79.0	76.5
January '13	77.8	77.3	86.7	81.3	77.9	85.1	79.7	84.7	71.6	72.6	65.1	76.6	76.5	77.7
February	79.1	68.1	88.1	87.5	76.3	85.5	81.3	84.9	74.5	77.0	70.9	81.0	80.5	75.1
March	78.7	76.8	89.8	84.9	77.0	84.3	73.3	81.7	81.1	69.4	74.9	77.5	77.2	83.0
April	80.1	74.4	85.9	82.5	77.8	85.3	77.5	86.0	78.9	76.7	77.4	80.1	87.0	77.2
May	80.5	79.9	82.9	82.3	80.6	87.6	81.6	89.2	74.9	73.9	81.6	78.8	86.9	76.1
June	80.6	76.1	84.3	81.0	82.3	83.4	80.0	87.7	78.0	83.9	70.2	80.8	79.3	81.1
July	77.6	65.0	83.4	80.6	69.6	82.8	73.0	94.5	75.2	75.6	77.5	85.8	79.0	72.6

Table 296: Facility cleanliness composite – **Standard deviations** (*S* chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	21.0	24.3	15.2	17.2	18.6	14.3	22.4	20.3	21.8	22.7	23.9	23.4	18.4	22.2
August	21.8	23.1	15.2	20.8	21.2	14.4	24.0	18.5	25.0	22.8	22.4	23.5	14.5	20.6
September	21.0	17.8	13.6	21.5	20.2	14.3	19.6	23.2	23.1	21.7	20.0	26.5	18.4	21.7
October	20.4	22.6	16.2	20.0	24.2	19.8	20.7	23.3	17.1	22.0	20.3	15.2	15.7	21.3
November	19.7	22.4	18.1	19.6	17.3	14.8	17.1	22.5	23.2	25.3	20.1	15.7	15.8	15.8
December	22.4	20.3	16.1	16.6	23.4	16.3	26.3	17.9	19.9	29.1	22.7	23.4	14.5	24.2
January '11	22.5	19.8	13.2	20.1	26.3	17.8	24.3	19.7	21.2	24.3	22.4	25.1	15.9	26.5
February	20.5	20.5	16.2	18.2	21.7	15.8	20.7	21.3	21.8	22.0	25.4	20.3	16.5	22.2
March	22.2	25.1	19.8	25.2	21.1	15.2	19.5	18.3	25.3	20.9	24.9	25.4	16.6	22.7
April	21.1	19.9	18.4	17.6	19.4	19.3	19.0	17.4	24.5	20.6	22.7	28.1	14.3	23.6
May	20.5	21.2	18.8	14.8	20.3	16.5	19.4	18.3	23.7	20.4	29.4	18.4	14.6	21.8
June	21.0	17.2	15.8	18.2	20.1	15.9	22.2	25.0	17.3	27.2	17.2	27.4	18.3	23.2
July	20.5	27.4	16.1	17.4	20.0	15.9	21.6	19.4	22.3	19.1	19.7	20.5	15.4	23.3
August	21.2	24.6	14.4	24.5	22.7	16.8	18.5	19.3	25.5	22.0	24.0	19.5	16.5	20.1
September	21.1	18.2	21.9	15.5	17.5	16.6	19.2	20.3	20.7	26.2	23.4	27.7	15.7	25.0
October	21.0	24.4	16.8	16.2	24.5	14.7	17.7	18.9	19.1	21.5	23.4	20.9	15.2	26.2
November	20.6	21.3	15.6	15.5	18.2	18.0	18.9	17.7	19.5	24.4	21.0	22.2	20.8	21.8
December	20.5	20.4	13.6	16.7	19.9	17.7	18.6	19.1	25.1	24.9	16.8	23.7	16.3	20.7
January '12	22.9	21.6	19.3	24.8	27.0	17.2	24.9	20.9	23.7	22.8	24.2	22.9	17.4	22.6
February	24.2	23.7	14.2	18.1	24.2	17.2	25.0	28.4	30.6	21.8	20.8	20.3	25.2	27.4
March	21.6	23.4	21.2	18.2	19.7	15.2	25.6	20.8	20.6	24.5	19.1	21.6	20.5	25.4
April	20.2	21.4	15.7	17.0	18.3	15.1	17.6	18.7	24.4	23.9	21.4	17.4	22.4	20.4
May	18.8	15.9	16.4	21.7	23.0	17.9	19.7	22.8	17.2	17.5	17.1	16.9	14.9	18.4
June	20.6	21.2	15.3	27.7	16.9	16.8	17.8	16.2	29.2	18.0	22.4	21.0	16.5	17.6
July	21.9	23.1	20.7	18.0	14.4	16.2	22.6	20.8	27.8	20.7	25.5	18.9	16.2	22.8
August	21.1	25.0	17.6	17.5	20.9	20.7	20.6	16.1	18.3	27.7	18.0	21.9	22.0	16.7
September	20.6	20.1	15.2	22.4	19.3	17.4	18.2	15.6	21.3	20.7	25.8	15.3	21.3	22.7
October	20.5	20.1	15.4	18.3	17.0	21.2	25.0	16.3	23.1	22.6	15.6	23.3	19.6	19.6
November	23.6	24.6	21.9	26.5	21.4	21.8	24.6	21.6	25.5	22.4	22.1	23.8	21.5	30.4
December	23.7	21.4	19.0	23.8	24.5	20.0	23.3	16.1	28.7	28.2	23.0	24.3	21.3	21.8
January '13	23.0	21.2	16.7	22.2	24.1	19.2	22.2	21.6	26.6	25.5	24.2	22.2	23.4	21.5
February	21.3	24.6	15.1	16.6	27.7	20.7	18.8	16.2	20.8	21.2	23.5	20.8	16.8	21.8
March	21.2	22.1	15.5	15.5	21.4	19.6	21.8	22.8	21.9	22.8	22.1	22.5	21.9	16.3
April	20.6	23.6	21.3	22.5	17.2	17.7	21.0	19.9	22.9	18.6	24.9	18.3	19.2	19.5
May	21.9	17.5	23.0	27.1	18.5	15.8	22.4	14.8	21.8	22.6	22.8	23.2	17.3	28.1
June	20.5	21.4	18.2	20.1	15.9	20.9	20.1	16.0	18.4	19.1	21.7	21.5	25.9	23.2
July	21.7	24.3	24.9	24.5	26.3	15.8	17.7	9.5	25.0	21.0	24.1	16.1	17.9	23.2

Table 297: Wait time communication composite – **Average scores** ($\bar{X}$ chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	46.2	34.8	51.0	44.1	52.1	48.5	55.4	38.1	48.1	46.0	47.2	43.6	44.0	38.2
August	44.6	39.1	41.9	40.9	52.2	57.4	56.3	31.6	40.9	38.8	45.3	53.6	37.0	28.1
September	43.7	58.3	47.3	42.4	54.0	54.5	51.0	37.6	40.7	43.6	29.5	38.1	31.3	32.9
October	44.7	40.9	51.6	49.6	55.3	36.6	48.9	40.5	68.8	37.9	32.8	47.5	35.9	27.1
November	48.7	49.8	59.1	55.0	54.7	66.0	50.6	45.3	41.4	44.8	43.6	42.7	45.1	31.4
December	48.4	47.6	50.2	50.2	50.6	53.9	55.9	40.3	56.9	54.6	40.7	51.7	38.0	27.2
January '11	45.2	40.8	56.8	42.9	50.7	50.2	57.0	44.3	43.6	41.4	41.7	47.7	35.0	30.6
February	43.7	47.3	37.4	54.9	54.3	55.4	53.2	38.2	46.0	31.0	39.9	35.7	35.8	25.6
March	42.0	38.7	38.8	33.8	48.1	45.8	48.3	57.3	43.5	48.8	33.0	40.5	40.2	24.5
April	46.6	41.5	45.8	47.6	49.2	45.5	56.6	39.3	49.1	47.9	48.7	64.5	31.1	27.5
May	48.3	54.6	49.0	46.5	55.6	49.6	59.6	50.6	54.8	49.5	35.2	51.5	39.6	22.7
June	48.4	39.9	48.6	55.6	58.3	51.3	58.1	44.4	57.2	45.1	29.8	50.3	37.6	37.5
July	45.3	51.5	50.4	42.1	56.5	54.3	46.9	44.4	45.7	40.4	45.3	47.1	33.1	24.0
August	42.7	45.1	41.7	34.2	50.6	52.8	43.3	37.2	53.8	31.6	52.1	40.8	32.8	30.6
September	44.1	48.0	53.5	46.6	43.9	53.1	48.6	39.4	47.3	37.0	41.9	45.6	29.8	34.4
October	46.2	44.6	58.1	60.2	52.1	55.6	56.0	32.8	53.4	41.3	31.3	38.6	37.9	25.3
November	43.8	43.5	43.7	47.6	44.8	46.7	57.1	44.0	40.0	37.2	42.2	43.8	39.4	31.5
December	45.1	39.7	43.5	38.6	59.4	56.4	61.4	40.7	39.4	39.0	36.3	45.2	33.5	34.1
January '12	41.9	32.1	54.2	53.3	50.2	44.0	48.1	34.6	42.7	34.2	39.3	41.8	33.5	33.1
February	46.3	45.0	46.3	47.7	52.6	57.1	52.6	43.0	48.7	37.5	41.4	52.1	32.6	32.6
March	43.8	45.6	43.4	31.4	51.3	45.3	46.9	45.6	52.1	41.4	43.8	45.0	37.6	33.3
April	45.2	38.1	59.2	52.5	59.3	46.9	50.0	46.6	50.5	40.9	45.1	37.4	38.3	18.2
May	45.3	40.3	40.1	39.4	49.6	49.5	57.8	51.6	52.5	37.5	43.1	52.0	33.3	27.9
June	48.2	36.8	50.4	57.6	56.9	45.1	51.6	56.3	53.1	45.6	49.0	57.7	33.9	29.2
July	43.2	35.8	54.2	43.6	54.8	53.4	43.7	53.7	39.7	38.8	39.6	44.3	28.6	31.7
August	44.6	27.5	43.8	39.6	50.8	41.3	43.8	59.5	57.0	33.9	42.8	48.8	45.7	45.9
September	46.6	43.5	48.7	54.9	51.6	64.0	50.0	56.6	47.7	47.7	45.0	48.5	29.2	31.0
October	44.8	38.3	43.7	39.0	31.0	41.7	55.2	53.5	60.9	53.0	49.8	43.1	33.7	33.9
November	48.6	42.2	47.0	59.0	52.3	57.4	59.4	52.4	44.5	46.7	49.0	38.6	36.2	35.8
December	45.4	28.6	40.6	44.9	48.4	59.1	61.3	43.5	46.6	51.1	30.9	54.3	27.2	30.6
January '13	45.7	31.7	49.1	50.5	46.5	50.8	45.1	39.0	57.0	49.3	40.9	50.6	40.6	32.2
February	43.9	28.5	51.5	52.4	43.0	54.0	54.8	53.5	43.9	41.9	42.2	48.5	29.2	27.9
March	42.9	35.9	47.4	44.5	50.3	51.4	40.6	48.3	44.7	30.2	47.8	43.0	31.5	44.1
April	43.8	35.3	43.7	42.1	47.7	56.8	57.4	48.5	43.6	43.9	42.2	35.9	37.6	34.4
May	44.8	42.9	51.9	50.0	53.1	45.8	57.2	37.1	43.4	40.5	49.1	50.5	31.1	31.5
June	48.5	44.9	54.7	36.7	54.9	64.4	53.6	48.1	55.2	49.7	38.8	46.4	37.6	29.8
July	43.8	37.5	40.3	38.0	51.4	59.7	48.6	32.5	58.8	35.0	42.8	46.6	25.0	34.2

Table 298: Wait time communication composite – **Standard deviations** (*S* chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	35.8	32.4	37.4	34.8	35.8	32.0	39.9	35.2	34.2	35.3	37.5	38.4	36.0	36.3
August	36.8	38.7	34.3	34.0	36.5	35.0	36.1	31.1	36.7	32.3	40.6	39.6	39.3	30.7
September	36.0	39.0	35.0	33.2	36.0	37.0	36.3	30.5	31.9	37.7	34.2	38.3	34.0	34.2
October	36.6	36.7	35.9	37.1	37.2	30.9	34.8	35.4	35.2	35.6	33.7	39.2	35.8	31.6
November	36.9	36.1	38.1	36.4	29.6	37.2	34.6	39.4	34.0	39.8	42.2	38.3	37.3	32.6
December	35.9	39.0	35.0	37.1	36.1	36.3	33.2	32.9	37.2	33.9	34.8	33.0	37.7	30.6
January '11	37.5	36.2	35.2	41.5	33.6	38.4	37.6	39.5	39.9	39.3	39.4	38.7	30.8	32.2
February	35.5	38.2	34.4	37.7	32.0	38.5	34.7	33.8	35.5	32.3	36.6	36.5	31.1	27.5
March	37.0	40.1	30.0	36.1	36.2	38.4	40.4	37.6	37.7	38.6	36.8	33.6	35.1	31.6
April	35.9	33.8	34.3	35.7	35.6	36.3	33.3	35.0	32.3	38.5	33.5	40.7	31.5	30.3
May	36.8	32.5	34.3	39.4	34.7	33.8	36.2	37.3	38.6	40.6	35.2	41.3	35.7	23.0
June	37.6	34.7	35.6	42.6	39.2	35.8	32.7	33.6	39.7	34.8	35.2	38.8	37.8	38.2
July	38.2	36.7	34.5	36.9	38.5	36.7	41.3	37.8	38.0	37.2	41.7	39.6	36.6	30.7
August	35.4	35.3	34.8	38.4	36.9	32.4	34.0	31.0	34.1	35.3	39.4	36.4	32.2	31.4
September	36.0	37.9	39.8	38.7	40.0	33.6	33.2	35.4	32.2	39.0	36.1	34.5	33.0	35.4
October	37.6	38.3	37.1	37.1	38.3	38.9	37.4	33.8	34.5	37.4	35.3	37.0	37.7	27.9
November	35.1	36.4	35.6	34.8	37.3	34.5	33.5	34.2	29.5	35.9	36.2	36.5	37.6	32.5
December	36.0	35.2	34.3	34.7	30.2	37.0	36.3	35.9	33.2	34.4	37.1	35.5	33.7	36.9
January '12	34.8	28.2	38.1	36.3	34.5	36.8	34.8	33.8	34.7	34.9	32.0	37.5	33.7	28.6
February	36.4	39.0	36.6	34.1	35.6	35.6	40.1	38.9	36.3	30.4	34.8	36.5	32.8	36.3
March	35.5	39.3	38.0	35.5	35.6	33.9	32.8	38.5	33.6	33.6	34.6	34.4	37.7	36.2
April	37.6	32.6	37.7	38.1	37.4	40.2	34.6	40.7	37.7	38.5	37.6	38.2	34.6	24.0
May	36.1	37.2	36.1	32.1	33.1	33.3	36.8	35.2	39.3	38.0	36.9	36.9	35.0	30.4
June	36.7	33.3	38.8	41.0	38.3	36.3	36.6	39.1	33.7	32.5	40.7	35.6	33.6	29.8
July	36.5	35.3	38.1	35.2	36.8	38.8	37.7	35.2	34.3	36.7	33.6	37.5	33.3	34.1
August	35.5	36.0	33.5	34.7	32.8	35.6	37.1	31.9	35.9	38.2	35.5	35.6	34.6	34.0
September	35.8	35.5	39.4	37.0	32.8	33.8	36.0	36.4	32.5	35.0	36.9	38.7	34.2	28.9
October	36.1	31.7	33.2	37.5	26.2	35.1	40.1	34.7	32.9	39.7	37.8	37.4	35.0	34.3
November	35.8	30.3	36.2	36.2	39.9	32.0	33.8	38.8	36.5	35.6	31.7	36.4	36.0	33.9
December	35.9	33.8	33.4	34.6	37.8	35.2	34.3	36.5	36.3	34.6	30.4	35.1	34.3	26.9
January '13	36.6	34.0	40.6	33.7	38.0	40.2	37.4	31.7	36.6	34.0	34.4	38.3	35.9	32.8
February	36.5	30.8	36.3	40.0	36.8	34.9	37.6	37.1	33.0	39.2	39.2	38.1	31.7	28.9
March	35.3	34.8	35.7	35.5	35.3	35.2	34.9	34.7	40.0	31.1	39.0	39.0	28.2	31.3
April	36.8	37.7	34.2	30.6	31.1	38.5	38.0	40.2	37.7	40.5	33.5	39.3	39.6	32.0
May	36.2	37.3	31.7	30.6	35.8	8.3	36.3	36.2	40.7	34.1	39.4	40.6	33.2	34.4
June	37.6	35.8	37.3	37.7	39.6	34.4	36.8	37.3	37.7	36.9	36.9	39.0	38.3	30.7
July	35.2	35.0	35.7	39.9	35.3	30.4	27.6	34.1	36.5	34.7	39.9	40.4	25.4	34.3

Table 299: (Q17) Did a member of staff check on you while you were waiting? – Provincial aggregate and site-specific chart results

Percentage of patients who reported they were not checked on, or were not checked on enough, by staff while they waited														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	45.9	44.0	37.9	50.0	59.3	37.1	45.8	66.7	38.7	41.2	46.7	36.0	48.5	52.2
August	48.7	44.4	51.7	44.8	50.0	21.9	30.3	66.7	59.4	62.9	54.8	46.7	57.9	64.3
September	46.6	29.6	28.6	42.9	39.3	32.3	40.0	64.3	55.2	48.5	76.0	52.9	55.0	50.0
October	45.2	34.6	41.9	50.0	39.1	65.2	34.2	46.9	23.1	66.7	57.1	44.4	55.6	45.0
November	40.9	38.2	26.7	36.0	35.5	40.0	33.3	48.2	44.4	44.0	47.8	41.7	50.0	50.0
December	41.4	47.8	38.5	35.1	48.4	34.3	32.3	56.8	35.1	32.1	60.0	39.3	46.7	55.0
January '11	43.4	50.0	22.6	40.9	32.3	42.9	29.4	58.6	57.1	52.0	34.4	41.7	50.0	62.5
February	46.5	35.5	40.9	23.1	42.9	34.4	47.1	50.0	53.3	52.2	68.2	52.6	45.5	68.2
March	45.4	63.3	42.4	55.6	37.0	34.3	38.5	29.0	39.3	44.8	58.8	44.0	53.3	62.1
April	34.8	48.9	41.1	25.0	26.3	30.2	24.4	50.0	31.6	32.0	37.3	31.3	50.0	51.2
May	37.6	33.3	38.3	27.3	29.4	36.1	13.6	31.3	35.3	42.9	64.3	40.0	47.4	71.4
June	39.4	46.7	26.9	35.0	36.7	31.4	12.5	46.7	21.4	63.6	62.5	60.9	52.2	43.5
July	42.8	35.5	45.5	44.4	32.0	36.7	40.0	53.9	53.9	26.3	50.0	40.9	55.6	55.6
August	45.0	27.6	50.0	51.7	42.4	36.4	33.3	57.6	52.9	66.7	40.7	47.8	50.0	48.0
September	46.3	41.9	33.3	50.0	44.4	40.0	32.1	55.2	38.5	61.9	52.0	48.0	61.5	61.9
October	39.0	46.4	30.0	31.3	35.3	24.2	23.3	65.7	34.6	48.2	57.1	48.7	33.3	60.0
November	44.8	41.4	38.5	32.3	55.0	30.3	28.6	48.5	55.2	57.1	44.0	50.0	40.9	68.8
December	45.9	53.3	43.2	48.2	32.4	31.4	24.1	59.3	59.4	63.0	54.6	48.5	53.3	55.6
January '12	45.8	56.7	29.6	35.1	38.7	29.4	37.9	51.9	65.5	57.7	50.0	47.2	50.0	50.0
February	42.3	41.7	42.3	60.0	20.6	13.8	37.5	47.6	52.0	72.7	45.5	32.4	59.1	50.0
March	46.9	37.5	48.0	51.9	44.0	39.5	32.0	39.1	42.9	78.3	46.4	45.5	63.3	43.5
April	42.9	55.0	32.1	32.0	35.3	32.1	39.3	36.4	45.5	50.0	25.0	55.0	56.5	73.7
May	42.6	47.8	60.0	55.0	51.4	38.7	23.1	39.1	33.3	55.2	39.3	32.4	57.1	47.6
June	37.1	65.4	16.7	25.0	33.3	32.3	39.3	31.6	37.0	39.1	42.9	24.1	45.0	52.6
July	45.3	42.1	33.3	42.9	40.9	26.9	30.4	40.9	62.2	59.3	48.4	33.3	71.4	52.4
August	49.2	68.8	60.0	50.0	40.8	47.2	50.0	47.1	31.3	75.0	66.7	39.1	51.2	40.0
September	41.7	50.0	40.0	48.2	41.2	10.0	23.1	32.0	28.6	41.9	51.6	42.3	72.2	73.7
October	39.0	51.6	36.4	42.1	100.0	33.3	16.7	41.7	34.3	28.6	30.6	37.0	40.0	36.0
November	38.7	54.2	47.8	31.6	33.3	36.4	28.0	23.1	33.3	42.4	40.0	40.9	60.0	57.9
December	48.2	61.1	53.3	61.5	48.3	32.1	34.8	47.4	50.0	28.6	68.0	37.5	75.0	71.4
January '13	42.5	53.3	37.5	44.0	34.4	36.7	39.3	63.2	32.0	51.9	40.9	41.4	35.3	66.7
February	46.3	72.0	47.6	32.1	38.9	23.5	25.0	36.0	58.1	54.2	47.6	50.0	77.3	57.9
March	48.0	57.1	27.3	48.0	52.2	37.8	37.9	45.5	40.0	75.0	57.7	39.1	63.3	42.9
April	45.8	50.0	40.0	38.5	47.6	41.7	28.6	52.2	55.6	31.3	52.4	50.0	50.0	60.7
May	38.5	33.3	36.4	41.7	31.3	25.0	28.0	55.6	50.0	48.0	28.6	39.1	44.4	28.6
June	41.1	37.5	26.9	52.6	38.5	20.0	31.3	54.6	40.0	40.0	76.0	34.5	60.9	55.6
July	50.0	41.7	50.0	57.1	41.2	47.4	50.0	50.0	18.2	73.9	77.8	40.0	84.6	30.8

Table 300: Privacy composite – **Average scores** ($\bar{X}$ chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	81.3	81.3	90.2	84.4	76.9	89.3	79.4	70.6	79.3	83.2	90.7	81.0	69.0	85.5
August	80.8	81.3	82.4	86.3	76.7	86.7	81.5	73.5	77.8	76.5	88.0	80.6	78.8	79.5
September	80.2	86.7	89.5	85.4	81.4	81.4	75.7	75.0	75.7	81.5	86.3	82.8	67.2	83.3
October	79.0	67.2	83.5	81.7	79.7	82.9	82.5	68.2	78.6	76.5	86.0	90.5	69.1	77.8
November	83.2	80.8	88.6	89.6	87.5	88.8	84.4	66.7	80.9	69.0	86.9	88.6	80.3	82.5
December	83.9	78.8	82.9	91.0	86.9	90.5	82.7	87.3	81.5	84.9	81.4	83.1	78.0	79.8
January '11	82.8	82.7	89.7	85.3	81.9	79.5	87.2	87.2	79.4	80.6	89.9	82.9	76.2	81.8
February	82.2	76.1	84.8	92.9	84.9	86.7	84.2	76.7	85.0	81.3	81.4	78.3	79.9	71.2
March	82.6	84.6	88.0	87.5	75.5	85.0	79.1	94.2	82.1	77.3	84.4	86.8	78.1	80.1
April	86.7	82.2	93.5	90.4	87.7	86.5	87.4	81.8	87.2	85.6	93.2	89.8	81.3	81.7
May	85.0	73.5	84.6	88.0	88.5	90.9	86.2	90.5	88.3	85.3	85.6	85.2	78.8	73.8
June	83.5	78.1	90.0	84.2	78.0	87.0	86.5	81.9	84.4	78.8	92.7	88.6	75.6	81.1
July	84.5	78.7	87.8	86.3	86.0	87.8	81.1	85.9	81.7	78.6	93.9	82.1	83.1	88.6
August	81.9	71.8	88.6	82.4	85.0	82.1	86.0	79.1	79.5	79.3	88.1	78.9	81.3	82.3
September	82.0	81.0	92.1	91.2	79.8	82.2	87.5	79.9	80.0	78.8	86.5	75.7	78.2	77.9
October	82.3	77.7	90.2	84.7	85.3	89.4	80.2	83.5	84.6	75.5	84.1	79.3	79.7	74.0
November	82.8	81.0	87.8	88.0	81.3	89.4	81.0	80.7	79.2	82.8	80.8	85.3	76.4	82.8
December	81.6	73.9	90.6	83.3	83.2	85.9	82.4	87.8	81.1	76.2	91.2	86.6	69.3	70.8
January '12	82.6	70.9	89.4	86.4	83.5	88.5	85.2	87.2	82.5	78.2	85.3	82.8	73.7	80.7
February	84.1	80.4	89.6	88.3	87.2	83.8	81.9	89.3	75.0	84.6	90.7	85.9	82.2	80.7
March	80.5	65.5	79.5	81.4	81.8	81.9	82.9	88.1	86.9	74.3	88.6	87.8	65.3	78.7
April	83.6	77.8	89.5	90.0	83.3	86.3	89.2	92.0	82.9	75.0	90.4	79.2	74.4	81.1
May	82.2	86.3	88.2	75.7	79.9	82.7	82.4	86.0	82.2	84.8	87.8	85.1	77.5	72.6
June	82.9	76.4	90.6	86.8	92.3	78.7	82.9	86.4	80.0	84.0	85.7	80.6	81.5	74.3
July	84.0	88.1	82.8	84.6	79.2	90.3	82.1	87.9	80.9	84.0	89.4	82.7	77.9	85.8
August	83.8	84.0	83.3	83.6	83.9	85.2	89.3	91.7	88.0	75.0	89.8	86.8	72.5	79.4
September	82.5	78.5	90.3	82.8	69.6	91.7	88.2	93.9	78.6	80.1	91.1	82.9	75.6	78.9
October	81.6	70.4	83.5	81.8	67.9	85.0	86.1	92.8	83.0	83.7	93.2	89.5	63.3	83.9
November	81.2	73.6	85.1	82.1	91.3	79.2	85.3	88.5	76.8	78.1	80.5	84.6	67.7	78.7
December	79.2	76.5	83.8	89.3	76.2	81.3	84.4	82.6	89.0	79.5	87.5	72.8	59.5	71.8
January '13	79.3	79.3	86.5	81.3	84.4	80.4	83.5	87.5	77.3	80.6	78.8	84.5	56.8	78.3
February	83.3	57.2	89.9	89.8	89.0	93.5	88.3	88.2	83.1	85.1	90.9	86.6	63.6	77.9
March	79.5	68.8	85.6	87.8	78.4	79.2	82.1	83.3	78.6	81.4	90.9	79.1	72.5	71.3
April	83.5	80.0	85.2	93.6	81.3	86.1	85.3	75.8	84.6	86.1	92.7	82.8	77.0	78.8
May	85.3	78.5	84.6	88.4	85.6	100.0	85.3	94.2	86.1	82.6	93.1	90.0	77.6	76.0
June	83.5	83.6	85.0	79.3	91.1	81.9	83.3	91.9	86.4	77.1	87.1	82.4	78.5	79.3
July	79.2	60.0	72.0	90.3	81.3	85.4	75.0	85.7	79.4	76.5	87.5	77.6	77.3	77.5

Table 301: Privacy composite – **Standard deviations** (*S* chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	27.7	28.3	20.1	21.5	30.7	22.9	24.2	35.3	25.6	22.6	20.4	30.6	38.1	25.8
August	27.6	28.1	31.7	20.8	28.7	25.3	27.1	34.4	27.3	29.9	22.8	32.3	22.6	27.4
September	28.9	28.0	19.0	26.3	29.9	27.3	26.7	34.8	29.7	30.9	22.2	27.3	36.2	25.2
October	29.8	34.5	29.0	30.3	30.7	30.8	25.4	34.7	26.3	28.9	22.7	16.0	35.9	32.9
November	26.3	26.0	25.5	21.9	22.3	19.9	23.4	35.0	24.3	34.4	24.0	25.3	29.7	25.4
December	26.1	32.3	27.1	20.7	21.2	18.3	27.0	27.1	26.7	24.3	26.0	26.4	32.2	29.9
January '11	26.1	22.4	17.9	20.5	28.4	30.2	27.5	25.2	27.2	26.8	20.0	24.7	31.1	24.6
February	27.0	32.0	20.7	15.5	21.9	23.8	23.8	31.2	25.9	31.4	26.7	29.9	28.6	35.1
March	26.8	24.8	24.6	24.7	32.9	24.1	28.8	13.2	24.5	28.9	26.8	18.1	31.1	32.3
April	24.4	29.9	15.7	19.0	19.7	25.6	23.2	31.7	24.9	24.5	16.3	18.7	31.5	27.2
May	25.5	33.3	26.1	20.0	19.7	21.6	22.3	24.0	23.0	24.1	28.9	25.3	29.0	33.2
June	25.0	29.2	19.4	24.1	29.8	23.7	21.9	28.3	22.4	29.4	14.7	19.9	26.5	28.5
July	24.5	30.9	24.4	27.1	21.5	22.7	27.8	24.9	24.4	30.4	16.6	21.5	21.6	20.4
August	26.7	32.0	23.8	25.0	22.9	25.5	24.8	28.8	33.4	27.4	21.9	25.7	24.6	29.7
September	27.1	24.3	16.9	16.9	26.5	27.8	26.0	27.5	30.8	29.0	20.6	32.3	30.7	29.4
October	26.2	26.9	22.5	20.9	23.5	18.6	28.6	26.7	25.4	27.8	29.6	30.8	24.9	31.8
November	25.3	30.1	24.7	23.6	26.9	18.6	23.8	30.4	26.4	27.1	24.9	22.0	26.7	27.8
December	27.4	31.7	21.7	23.8	27.2	26.2	26.7	23.3	25.6	30.1	16.9	26.9	30.9	32.2
January '12	26.9	31.3	20.7	25.7	26.5	21.9	24.3	22.9	24.2	32.0	24.5	26.2	33.5	29.5
February	24.8	23.7	19.2	22.9	22.3	25.0	25.1	22.1	27.7	26.7	19.3	22.8	29.6	28.5
March	28.4	36.0	25.6	24.8	29.5	27.9	23.3	24.0	22.6	30.6	23.2	24.0	37.5	28.8
April	27.4	30.9	16.1	23.5	28.2	24.6	22.5	20.9	24.1	33.8	21.9	32.2	34.7	27.8
May	26.2	22.2	19.4	30.6	30.6	26.4	25.0	24.4	23.2	21.6	19.9	24.3	31.4	34.4
June	26.6	32.7	17.6	25.6	20.9	27.7	26.7	26.7	32.4	24.0	22.1	26.6	23.2	32.3
July	26.4	20.4	26.8	30.2	28.7	17.2	27.5	24.7	30.5	27.1	19.6	31.5	28.0	20.9
August	25.7	23.3	23.1	26.1	24.5	28.9	17.7	22.8	23.0	31.0	16.7	25.7	31.4	28.8
September	26.8	27.5	17.9	30.1	35.3	18.3	23.6	19.0	23.3	25.6	19.0	27.1	34.7	27.0
October	27.9	33.8	25.7	31.0	27.8	31.6	18.2	15.3	23.9	24.9	16.9	23.2	39.7	22.0
November	29.7	38.2	25.3	22.4	18.8	32.5	25.5	22.1	35.1	27.3	34.6	23.4	38.8	33.8
December	30.6	31.2	25.8	18.5	33.2	31.8	24.4	30.9	24.8	28.0	27.2	28.4	41.0	33.4
January '13	29.8	28.4	22.1	29.8	24.0	29.0	26.6	24.7	27.9	28.1	30.7	26.5	41.1	31.4
February	27.3	42.7	18.1	16.6	18.7	14.7	20.5	21.5	23.6	23.9	16.3	21.7	42.9	29.4
March	28.7	30.5	24.6	25.6	28.1	32.6	26.3	28.9	27.9	26.7	22.4	28.8	30.9	31.5
April	26.4	30.6	26.1	16.4	23.8	25.7	22.0	31.6	31.7	22.3	16.1	24.3	34.1	29.0
May	26.1	26.8	26.1	18.6	24.7	0.0	25.5	12.6	26.3	22.2	22.1	22.5	37.6	34.2
June	26.2	26.4	24.5	24.6	15.2	32.0	24.6	18.7	24.1	31.1	23.0	25.6	32.3	30.6
July	29.9	40.1	35.6	17.4	28.8	20.7	29.7	29.1	28.3	30.6	20.4	33.0	36.9	32.3

Table 302: Medication communication composite – **Average scores** ($\bar{X}$ chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	73.9	63.9	68.3	68.6	74.0	87.3	88.0	71.4	84.6	85.2	75.0	65.2	64.4	58.8
August	73.6	71.0	64.7	74.2	87.5	70.2	84.4	80.8	77.5	81.0	76.3	79.2	59.6	55.4
September	73.1	83.3	76.4	70.3	72.7	86.7	80.6	66.7	77.1	75.3	67.9	78.3	63.3	67.4
October	70.8	63.1	65.9	70.2	71.7	81.3	76.7	73.3	83.3	70.6	71.1	76.7	60.0	62.0
November	75.4	77.7	75.0	75.7	83.3	78.1	88.9	70.6	80.4	73.3	88.0	93.2	60.0	55.8
December	75.7	90.9	55.2	78.7	76.1	83.3	83.3	76.4	89.5	84.4	51.7	84.8	69.2	58.8
January '11	71.4	69.9	65.5	70.8	69.4	76.4	78.1	78.9	77.8	79.4	82.2	72.2	66.3	54.5
February	72.2	65.0	66.7	83.3	77.8	81.7	80.6	72.7	83.3	78.8	57.7	81.5	63.1	52.3
March	70.8	74.6	57.9	76.5	77.3	76.8	68.2	75.5	70.8	76.7	64.3	87.0	61.1	64.1
April	74.4	74.0	67.3	76.9	77.5	83.3	69.2	75.0	86.7	71.8	79.5	76.2	69.9	61.4
May	73.7	79.4	64.9	76.8	80.3	80.1	62.5	78.6	81.1	83.3	70.8	72.0	66.7	63.3
June	74.6	64.8	72.0	78.3	77.8	70.6	83.0	87.5	79.2	79.6	62.1	80.0	66.4	72.1
July	75.7	73.8	54.9	74.5	85.9	84.5	88.3	78.5	70.5	76.9	84.5	83.3	62.6	70.8
August	71.5	76.2	66.7	75.9	78.7	66.7	88.1	75.4	59.4	76.2	64.2	82.3	63.3	64.0
September	73.0	84.3	55.4	67.4	81.5	70.3	83.9	77.2	84.4	82.3	45.8	68.8	68.2	50.0
October	74.9	61.9	71.2	68.5	85.4	79.2	73.3	64.1	82.7	76.8	79.6	77.9	67.6	78.7
November	72.6	89.3	68.3	79.8	71.4	73.8	78.7	80.6	68.1	72.4	67.7	80.8	68.8	61.9
December	70.7	71.1	71.0	75.0	84.5	75.8	86.3	77.3	84.4	50.0	74.5	75.9	54.7	48.7
January '12	72.6	75.0	68.3	81.9	76.1	77.1	70.5	71.6	89.6	73.9	73.7	69.2	53.7	73.9
February	77.6	82.8	64.7	68.9	85.1	80.7	90.5	81.4	65.9	80.1	79.2	91.7	77.2	63.0
March	69.8	57.2	66.0	69.3	83.3	79.2	79.8	73.1	70.0	74.1	64.7	82.1	50.9	63.9
April	73.6	66.7	76.3	76.2	73.3	75.0	97.2	77.2	72.0	82.3	67.9	76.4	65.7	69.0
May	75.3	79.8	79.2	66.0	85.7	83.3	87.5	85.7	64.4	86.1	71.6	90.6	62.3	58.8
June	74.4	75.6	67.5	77.2	73.3	73.6	85.8	73.8	84.2	74.5	56.5	68.2	75.4	64.4
July	71.5	78.0	75.0	75.5	68.2	66.7	64.6	88.5	67.8	72.9	91.7	77.9	50.4	71.5
August	73.0	50.6	74.4	68.9	78.1	84.8	72.6	79.2	70.0	70.0	92.9	68.3	71.4	63.7
September	69.1	75.0	72.5	83.3	71.2	75.9	41.7	58.8	64.8	64.1	83.3	81.5	73.9	49.5
October	72.4	72.9	80.2	61.5	72.2	66.7		90.3	79.2	79.5	72.2	75.0	68.1	57.2
November	73.8	78.4	70.1	81.8	75.9	81.0	83.3	71.5	75.0	79.2	79.8	74.1	61.4	55.6
December	68.8	83.3	72.2	56.1	84.3	73.8	81.7	62.9	75.0	82.3	67.2	81.5	51.6	38.4
January '13	66.1	79.6	72.8	58.3	72.2	70.6	74.2	78.8	71.7	80.4	70.8	55.6	53.5	43.0
February	74.1	56.4	75.7	68.3	75.0	95.8	93.3	83.9	70.0	83.3	73.3	63.3	60.4	48.6
March	71.3	70.0	72.5	75.7	56.3	75.0	74.2	76.0	76.3	73.2	63.1	84.4	57.1	75.0
April	70.1	71.4	65.4	67.6	77.8	90.6	85.0	57.4	72.2	75.8	66.7	72.9	57.5	58.3
May	79.2	80.0	71.5	92.9	79.5	94.4	90.7	91.7	81.9	76.4	83.3	82.3	78.8	33.3
June	76.6	81.8	84.6	76.0	80.3	86.1	84.8	77.8	73.6	82.2	71.8	72.7	65.7	58.3
July	72.1	63.9	65.6	56.7	58.3	64.3	79.2	81.8	77.8	68.8	83.3	83.3	71.7	68.6

Table 303: Medication communication composite – **Standard deviations** (*S* chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	30.8	43.6	35.3	30.8	31.8	22.9	19.1	33.0	17.3	18.9	29.8	30.2	34.7	32.5
August	30.2	29.8	31.7	26.2	21.5	37.3	25.6	20.4	28.1	23.7	26.8	22.6	39.1	30.2
September	29.1	18.9	25.1	33.7	31.9	18.9	27.4	29.8	29.5	25.6	29.6	26.1	29.4	39.7
October	30.4	30.4	28.2	26.2	33.4	20.1	30.1	28.3	24.5	28.9	25.7	31.6	39.9	34.3
November	30.6	29.5	27.9	26.0	24.5	23.3	16.7	36.6	23.0	31.3	23.6	12.3	40.0	39.5
December	28.5	11.5	41.1	20.7	28.7	21.9	25.8	30.0	25.0	19.7	33.7	26.3	28.2	30.9
January '11	31.2	26.4	24.0	28.9	30.8	30.5	30.9	31.8	39.0	28.7	21.3	29.6	35.6	37.6
February	30.9	33.7	29.2	22.7	30.6	33.7	25.9	31.3	25.8	19.8	31.6	19.4	37.6	32.2
March	31.1	30.5	31.2	36.4	30.2	26.2	34.5	27.5	32.5	23.4	37.5	16.2	31.7	34.5
April	31.8	35.5	31.7	32.3	33.9	26.6	31.0	28.4	27.2	31.2	30.3	25.2	36.1	33.9
May	31.3	25.4	36.4	31.3	29.6	29.3	45.2	34.2	22.6	22.6	32.1	22.4	37.0	33.8
June	25.3	31.8	24.8	29.4	25.0	20.6	17.8	21.5	26.7	26.1	35.8	18.9	25.7	24.8
July	29.0	25.1	34.4	29.1	16.5	24.0	19.3	25.7	31.3	25.0	28.1	23.3	35.5	35.8
August	31.7	35.6	26.1	34.9	30.4	31.9	20.9	20.1	36.6	31.2	22.4	26.9	40.4	36.5
September	27.6	24.6	34.5	34.9	15.5	27.2	18.0	27.3	15.5	20.6	34.4	24.3	28.9	37.6
October	28.8	25.7	33.4	29.6	18.9	32.5	32.8	33.2	21.8	22.5	28.3	29.9	31.4	31.8
November	29.5	12.4	26.4	25.8	20.9	28.7	26.7	27.6	37.2	25.9	27.5	18.4	38.2	34.5
December	31.5	29.9	27.6	29.4	20.9	26.2	27.3	24.2	28.5	34.7	25.4	23.7	35.2	36.5
January '12	30.6	25.1	35.0	21.8	22.9	34.4	35.5	31.3	19.8	29.0	33.0	30.1	38.1	27.9
February	28.1	22.0	38.6	32.5	22.1	23.1	8.9	24.2	35.1	27.4	31.9	15.0	26.6	35.9
March	30.3	37.1	37.3	32.7	21.5	21.1	22.8	23.1	18.3	29.8	27.7	37.2	33.4	30.3
April	29.7	35.6	30.8	23.3	32.0	30.7	6.8	29.0	24.8	25.6	33.0	24.1	36.5	30.4
May	28.3	24.6	28.9	25.1	24.3	21.1	24.8	24.3	28.1	18.6	29.9	13.6	36.0	32.6
June	27.2	30.9	27.3	25.3	25.1	25.1	15.3	37.8	21.7	23.5	36.3	26.2	30.6	33.8
July	30.2	30.2	17.8	31.8	32.9	31.8	31.4	15.8	33.8	27.7	15.2	25.4	33.2	30.7
August	31.1	40.0	33.8	33.3	19.9	25.1	35.0	34.2	13.9	34.1	13.1	29.9	29.5	38.7
September	32.2	29.1	33.8	28.2	33.4	31.3	34.7	36.1	31.7	33.9	19.6	19.4	30.1	35.2
October	28.3	27.8	28.7	32.2	25.5	13.6		15.0	20.3	23.7	31.9	34.0	32.0	32.6
November	31.9	28.0	34.6	28.3	29.8	31.9	23.6	31.1	37.3	28.2	11.6	31.3	40.3	34.3
December	32.6	19.2	27.6	36.0	23.2	31.2	26.6	30.6	22.0	28.2	39.5	30.6	36.9	28.2
January '13	32.0	26.1	34.0	38.7	33.8	23.3	21.6	23.7	34.3	29.2	34.2	35.1	34.0	31.1
February	31.6	31.6	38.2	21.4	40.3	9.6	21.1	19.5	34.1	21.1	37.0	36.7	32.1	35.9
March	29.0	25.8	35.8	26.0	29.5	26.4	27.2	26.5	30.8	25.8	34.0	26.3	32.7	27.6
April	30.9	35.5	33.1	30.0	28.7	21.9	18.3	35.3	27.2	20.2	26.9	32.7	34.8	35.7
May	28.2	25.4	40.0	13.1	31.3	9.6	14.7	13.3	30.9	27.0	18.6	24.9	29.3	22.0
June	29.0	31.1	21.6	25.8	20.8	22.3	30.2	23.9	31.8	27.8	40.5	22.7	34.6	36.0
July	30.4	33.3	29.0	40.1	50.0	37.8	26.4	21.7	25.1	36.5	23.6	15.9	27.4	37.6

Table 304: Discharge communication composite – **Average scores** ($\bar{X}$ chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	51.2	50.0	42.8	51.6	41.9	53.5	57.2	55.7	58.2	55.6	52.9	65.6	40.1	41.7
August	51.3	56.3	47.8	49.4	58.1	62.4	52.6	39.9	56.7	54.3	59.0	43.6	44.4	34.1
September	52.3	64.9	47.4	57.4	41.0	55.1	63.1	50.9	47.9	55.9	51.5	57.0	43.8	43.7
October	48.3	50.3	49.4	51.6	46.4	41.2	53.2	48.1	56.6	46.1	44.1	61.9	42.7	38.2
November	50.3	53.0	49.7	52.0	47.4	60.6	48.5	43.3	41.9	52.6	59.6	57.1	48.0	38.2
December	49.6	60.0	49.3	62.8	47.5	55.4	49.1	53.6	57.4	56.8	34.8	44.6	40.6	32.3
January '11	54.0	47.8	46.8	68.5	54.2	55.6	62.8	50.7	62.8	54.5	46.9	52.3	46.5	42.5
February	51.4	51.3	46.0	71.5	60.6	49.6	61.9	50.1	58.0	55.9	41.4	42.5	42.1	33.6
March	50.5	55.4	34.4	57.7	56.3	55.1	54.7	57.5	45.6	66.6	54.2	41.9	39.1	38.5
April	55.2	54.6	44.5	60.6	49.2	66.0	61.5	54.5	53.5	58.2	56.4	56.3	52.5	41.4
May	55.3	48.5	57.1	56.9	58.1	54.3	55.1	58.7	67.3	65.7	51.8	45.9	54.1	43.7
June	51.2	38.2	57.8	63.9	63.9	52.6	65.0	50.3	57.2	43.0	45.9	42.3	42.6	39.6
July	53.8	57.9	44.6	61.5	53.6	61.2	45.9	50.6	57.8	53.0	56.1	52.6	48.9	52.2
August	51.8	58.8	35.2	55.9	50.9	56.9	60.7	52.6	47.0	52.9	48.4	53.3	42.8	49.4
September	52.8	55.7	51.6	60.9	59.7	54.8	51.5	44.6	52.4	60.6	38.0	55.7	53.9	41.3
October	53.2	42.9	43.7	54.4	56.5	58.7	65.6	47.5	55.7	52.1	53.0	51.3	51.6	43.8
November	51.7	58.6	43.2	56.5	40.9	55.8	67.3	53.1	44.9	51.6	44.3	60.8	52.1	42.2
December	50.1	45.4	44.8	45.5	60.0	55.7	60.0	52.2	56.3	41.0	56.6	49.8	36.5	38.2
January '12	51.4	46.9	58.0	50.7	56.4	66.4	52.1	46.6	54.0	51.9	44.8	51.9	42.8	44.4
February	54.2	48.6	61.3	62.4	62.4	64.4	48.5	56.3	50.3	52.0	53.3	53.7	52.3	36.9
March	46.8	39.0	51.0	40.2	56.1	52.3	35.9	64.3	54.5	48.0	44.2	51.3	32.0	43.4
April	52.5	42.2	49.3	62.1	49.0	57.1	71.3	61.2	54.6	55.9	46.1	42.2	38.9	51.8
May	48.8	54.1	46.5	42.4	49.9	50.7	60.5	52.6	43.1	51.2	50.9	54.8	39.9	36.2
June	51.3	45.3	58.9	62.0	39.0	44.8	68.9	59.3	64.7	47.6	41.1	55.3	45.5	37.7
July	55.3	55.7	58.3	56.8	60.2	54.8	57.7	67.2	53.4	46.6	57.4	65.3	43.6	47.7
August	53.1	51.5	40.9	49.9	64.6	59.7	51.0	49.8	59.5	44.5	61.0	51.5	45.0	52.5
September	50.0	52.9	49.6	51.9	48.2	53.8	47.1	53.2	44.7	42.5	61.7	62.4	46.9	40.2
October	54.0	29.6	45.6	48.2	74.2	49.6	60.8	74.3	64.7	56.0	55.0	54.4	49.3	46.8
November	53.1	48.6	44.1	50.6	59.7	56.8	62.3	55.5	57.9	47.1	51.1	37.4	54.4	51.7
December	49.5	51.9	50.2	57.9	49.7	53.8	58.4	47.9	56.4	58.2	52.6	37.6	35.2	36.5
January '13	47.1	52.3	50.9	48.6	48.8	56.0	48.2	51.7	47.3	41.2	48.7	48.6	35.8	38.4
February	52.8	36.2	48.7	59.0	55.9	62.2	68.5	58.7	58.7	63.7	39.5	52.5	39.7	39.8
March	48.3	49.0	55.8	56.9	49.3	48.6	50.1	59.2	56.4	43.3	49.0	53.7	32.4	36.1
April	51.8	51.1	58.4	45.0	50.6	68.4	74.7	48.2	37.6	54.2	54.2	66.5	36.5	30.9
May	56.1	69.0	65.7	62.7	51.7	53.2	45.6	54.2	54.2	53.7	64.7	65.8	52.7	44.4
June	53.0	48.6	57.4	58.5	54.0	63.2	65.1	34.9	60.5	57.4	49.7	57.0	39.9	40.0
July	51.9	37.8	37.1	53.8	52.6	58.3	59.0	50.6	63.4	56.8	47.6	57.0	45.0	39.8

Table 305: Discharge communication composite – **Standard deviations** (*S* chart results)

Provincial aggregate and site-specific chart results														
	PROV	**CRH**	**MHRH**	**RDRH**	**PLC**	**RGH**	**FMC**	**SCH**	**RAH**	**GNCH**	**MCH**	**UAH**	**NLRHC**	**QEII**
July '10	37.0	37.6	36.3	36.1	35.2	36.2	36.9	36.5	36.4	37.2	41.2	34.0	37.0	37.4
August	35.7	38.0	38.3	35.9	33.3	35.6	32.6	35.8	34.2	34.8	32.0	35.3	38.4	36.0
September	35.4	36.8	36.4	30.4	32.1	30.9	37.4	39.3	35.8	35.6	34.6	36.4	36.1	38.3
October	36.1	41.6	36.1	31.0	31.8	32.9	37.8	36.4	36.4	37.9	35.8	35.7	37.6	37.2
November	36.4	40.6	40.9	37.4	35.5	36.9	33.8	34.0	30.7	33.9	36.4	38.6	40.2	35.6
December	35.6	32.4	38.0	35.1	36.9	30.3	33.7	38.5	35.7	37.3	35.2	34.8	37.2	30.8
January '11	36.8	28.3	38.1	33.9	40.1	38.9	32.9	34.6	39.3	41.2	36.3	33.9	35.7	37.3
February	36.5	38.5	35.3	32.6	34.2	34.7	30.7	32.9	40.6	37.5	36.8	39.8	34.6	33.3
March	36.3	33.3	33.2	37.6	34.5	39.2	34.6	39.0	34.7	32.4	32.9	40.3	34.4	35.3
April	36.6	38.7	36.9	38.0	33.8	34.9	33.3	37.2	36.4	36.4	36.9	40.1	38.0	33.9
May	37.9	37.9	38.8	33.7	40.8	42.6	36.8	36.7	36.7	34.9	38.4	35.9	39.9	36.6
June	36.2	29.9	39.7	37.5	29.7	34.3	36.0	36.7	36.5	37.3	36.7	38.0	35.5	35.6
July	35.6	36.5	35.7	32.2	28.4	39.5	38.9	35.1	36.4	36.8	41.8	36.8	34.4	34.2
August	37.3	39.1	33.2	38.1	37.5	36.4	37.0	35.0	33.2	36.9	37.4	39.5	40.0	39.8
September	35.5	36.9	39.2	35.2	34.4	37.5	34.4	35.8	31.2	36.8	34.6	34.4	35.1	37.9
October	35.7	36.9	34.9	36.3	36.5	31.8	31.6	33.4	39.0	38.2	39.7	34.2	33.2	39.3
November	37.4	38.3	36.6	36.2	33.8	40.2	36.9	36.5	34.6	33.1	35.5	37.6	42.0	38.4
December	36.8	37.2	38.5	34.8	35.6	36.0	37.6	39.6	41.5	36.9	30.4	34.6	35.5	33.4
January '12	36.0	34.7	37.2	38.2	33.7	31.6	35.9	35.5	32.3	41.0	35.5	35.3	38.6	37.0
February	36.1	39.2	37.0	35.8	33.7	32.8	35.2	37.4	33.9	36.2	40.9	32.8	40.9	33.5
March	37.0	33.2	37.3	38.6	40.3	32.7	36.1	36.3	34.7	37.1	39.4	34.9	37.9	35.9
April	37.0	38.6	40.5	33.5	37.6	35.3	29.0	34.4	38.0	36.1	38.4	38.1	36.8	38.3
May	36.5	35.5	39.1	34.4	38.7	33.1	39.5	43.5	31.3	35.9	39.4	39.0	29.7	35.8
June	35.1	38.5	32.2	31.1	29.5	31.3	35.0	35.9	37.1	36.8	32.8	38.3	30.7	35.3
July	37.4	36.1	40.5	33.9	35.1	38.8	35.2	38.5	37.8	39.1	37.0	35.1	36.6	43.9
August	37.1	39.5	32.9	36.6	36.2	35.8	40.2	39.6	40.4	35.9	32.9	38.2	35.3	35.9
September	36.6	37.9	42.0	35.6	34.3	30.5	39.4	39.4	41.9	38.6	33.7	31.5	38.9	31.3
October	38.3	32.0	37.4	37.8	35.6	45.0	42.5	32.3	30.8	43.4	34.3	39.5	39.6	36.8
November	36.3	37.1	35.1	37.9	31.3	37.5	32.8	34.2	39.5	36.5	38.0	30.1	39.6	43.3
December	36.3	35.2	33.7	36.8	32.4	35.6	35.7	40.1	35.3	34.7	37.0	38.1	37.1	36.1
January '13	36.9	40.2	36.6	40.8	35.9	32.3	38.1	31.2	39.9	31.5	39.9	43.2	37.4	36.6
February	37.1	35.4	35.7	36.7	38.6	35.0	35.8	34.7	35.5	36.4	35.7	36.2	35.5	39.4
March	35.9	35.3	32.5	32.7	37.4	37.7	37.8	34.4	37.7	36.6	37.0	29.1	33.1	38.1
April	36.9	37.0	36.3	38.7	35.8	31.6	31.8	31.2	34.7	37.6	37.0	31.8	37.0	34.7
May	34.5	33.1	35.3	36.5	34.7	11.7	39.5	32.7	30.9	35.2	39.2	30.1	34.5	36.4
June	37.0	29.6	42.2	38.3	35.4	36.9	37.3	31.2	40.5	36.2	33.6	38.8	34.2	38.8
July	34.8	33.8	38.5	36.4	38.8	34.9	32.9	32.2	30.9	32.8	35.0	30.0	36.2	40.3

APPENDIX XII: IMPROVEMENT CHARTS PRIOR TO LIMIT SHIFT

Sections 5.2 to 6.10 present patient experience results over time at both the provincial aggregate and site levels. The provincial aggregate results and most of the site-level results exhibited either random variation or some unsustained or temporary periods of change over the study period. However, six site-level charts depicted evidence for a sustained or lasting improvement.

In Sections 5.2 to 6.10 improvements are displayed by shifting the centreline and control limits to indicate that a more positive patient experience had occurred, relative to historical norms. The charts in this appendix display the multiple and successive periods of positive change that signaled these improvements had occurred and resulted in shifting the limits.

Figure 95: Changes indicating improvement in the overall rating of care at Sturgeon Community Hospital

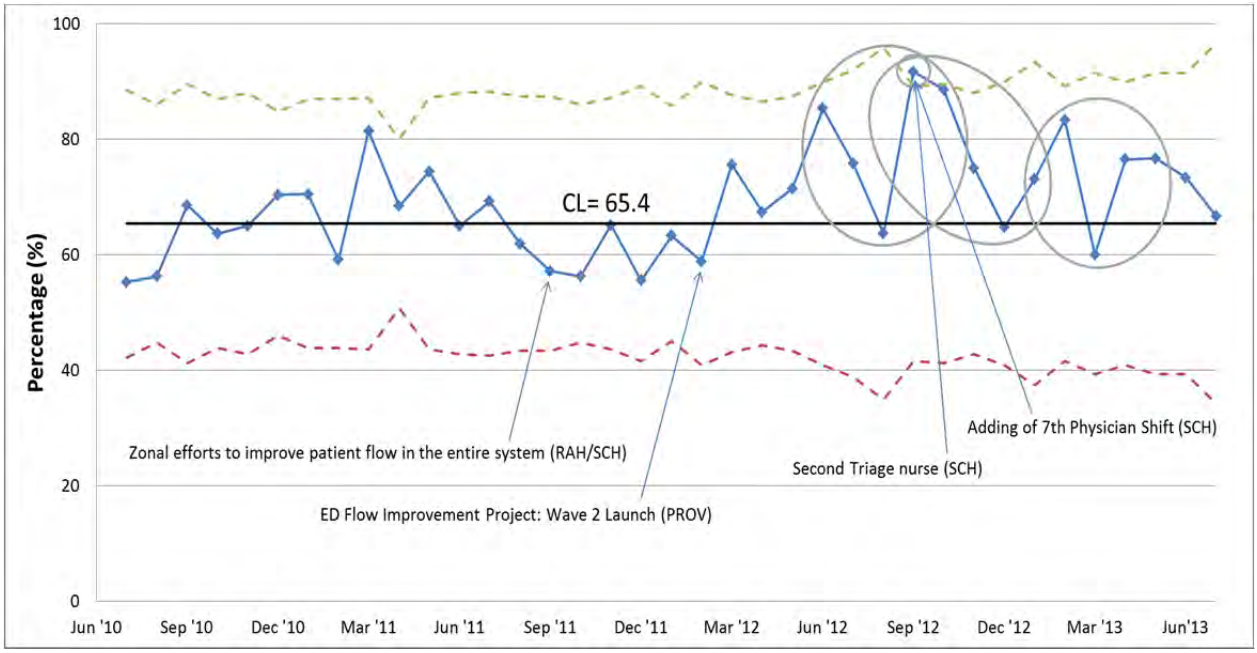


Figure 96: Changes indicating improvement in wait time and crowding at Sturgeon Community Hospital

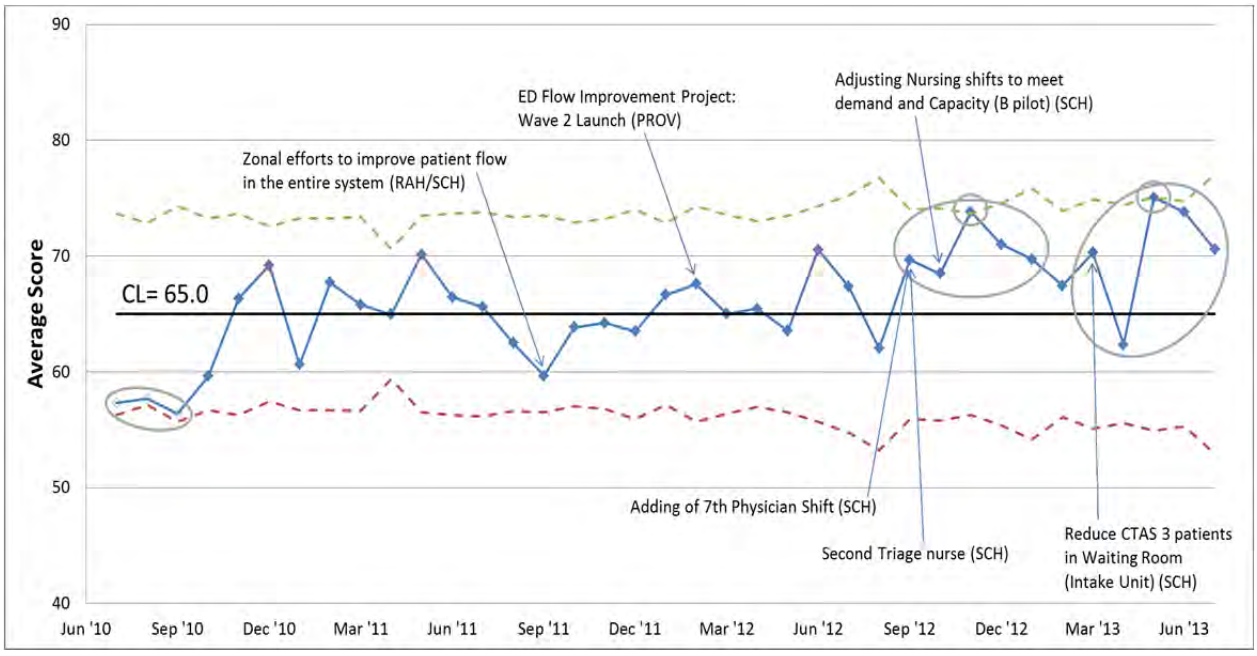


Figure 97: Changes indicating improvement in wait time and crowding at University of Alberta Hospital

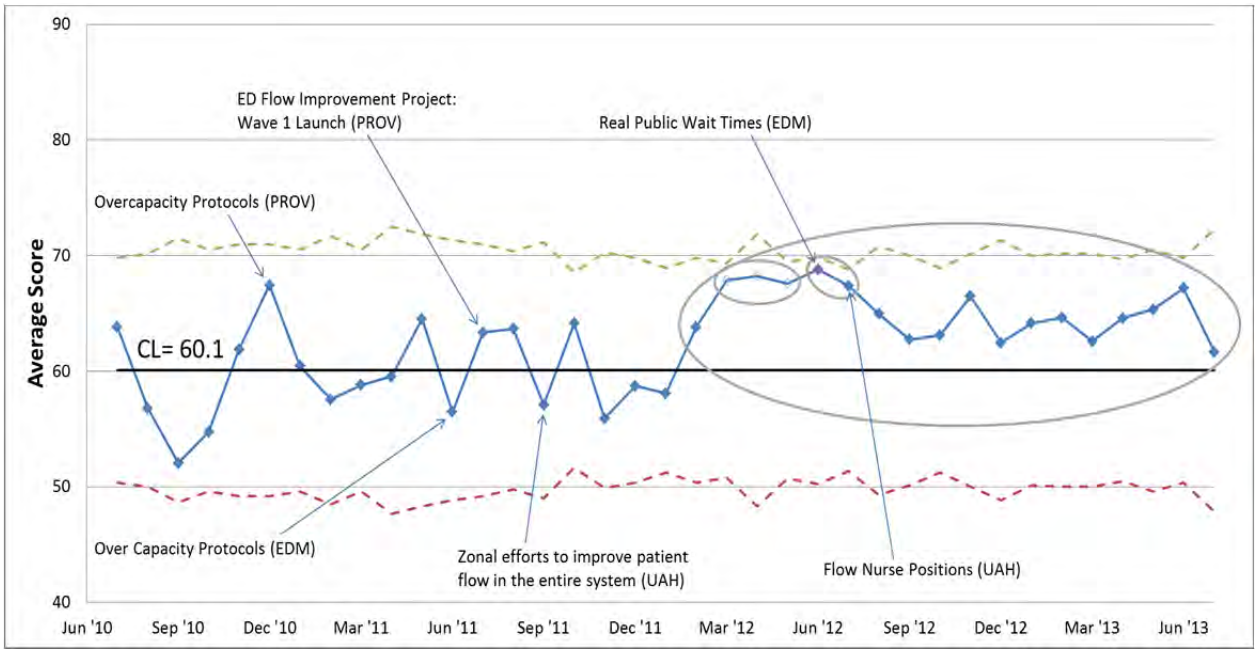


Figure 98: Changes indicating improvement in the percentage of patients who reported waiting more than two hours to be examined by a doctor at Sturgeon Community Hospital

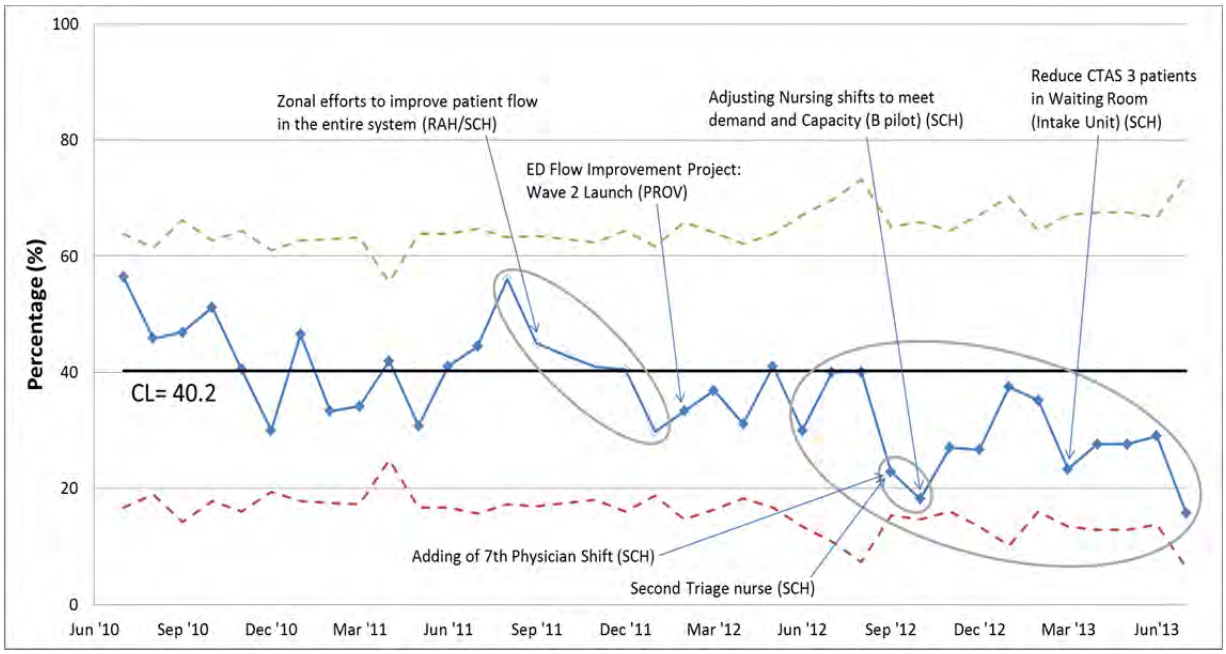


Figure 99: Changes indicating improvement in the percentage of patients who did not believe that staff did everything they could to help control their pain at Sturgeon Community Hospital

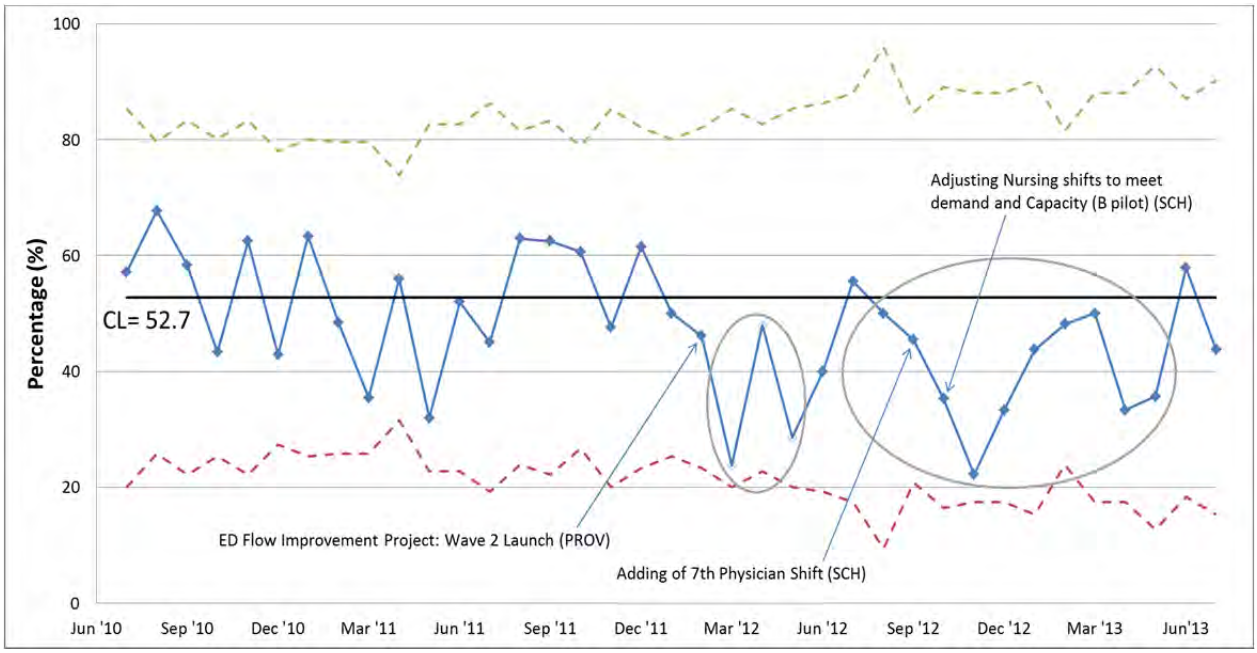
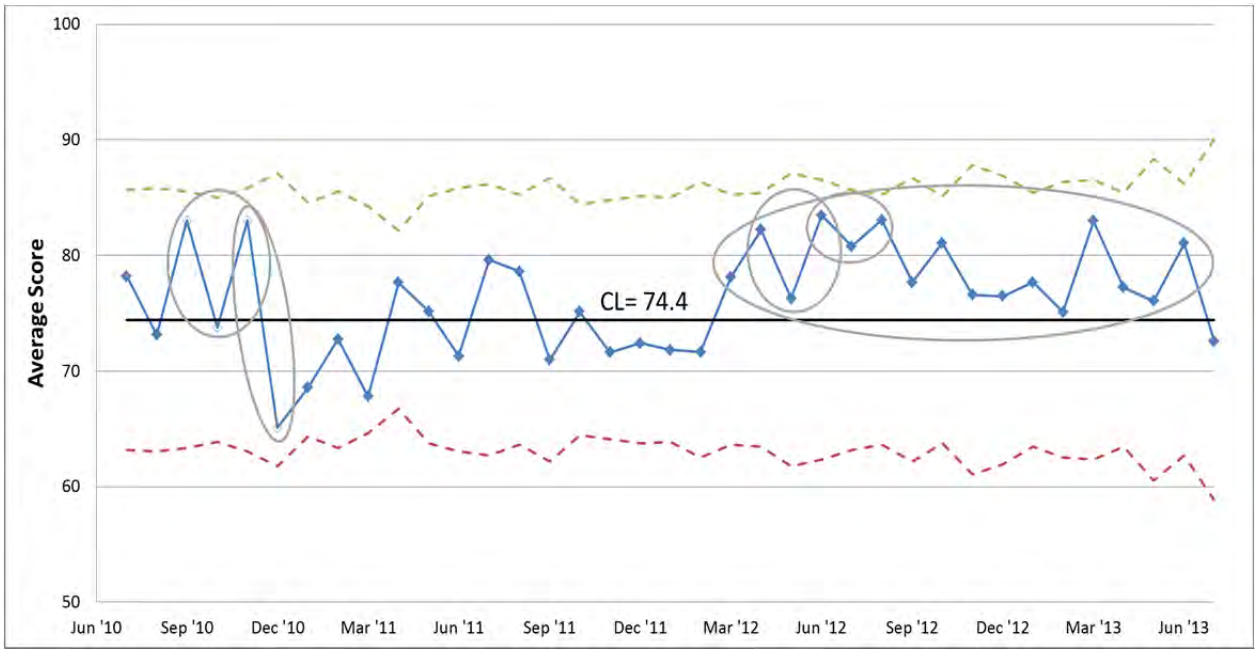


Figure 100: Changes indicating improvement in facility cleanliness at Queen Elizabeth II Hospital



APPENDIX XIII: ACKNOWLEDGEMENTS

This survey and report were made possible through the contributions of numerous individuals.

The process for this work was developed in 2007. Thus, everyone who participated in the 2007 working group inherently facilitated the 2009 and 2010-2013 surveys and reports. Members of the 2007 working group contributed at different times and in different ways according to their expertise and availability. No one individual was involved in all aspects of the initiative and may not have had the opportunity to provide their perspective on all aspects of this work. These individuals are identified in Appendix A of the 2007 report, which can be found on the HQCA website, at http://hqca.ca/surveys/emergency-department-patient-experience/emergency-department-patient-experience-survey/.

For the 2010-2013 survey, the survey process engaged administrative and medical leads at each emergency department site and within each of the geographic zones within Alberta Health Services (AHS) for support and internal communication. Staff at each site were responsible for the placement of posters to inform patients about the survey and for communication with clinical personnel. AHS and emergency department data managers were engaged to extract data files from each emergency department data system for generation of survey samples. Additionally, during the analysis phase of the 2010-2013 report, the HQCA engaged emergency department stakeholders at the site, zone, and provincial levels to ensure their perspective was included in the HQCA's presentation and interpretation of the results.

The HQCA also wants to acknowledge all of the patients who gave their time to participate in the emergency department patient experience survey.

The Health Quality Council of Alberta greatly thanks all of you for your contributions.

APPENDIX XIV: LIST OF TABLES

APPENDIX XV: LIST OF FIGURES

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