Interim Evaluation
of the
Winnipeg Regional Health Authority’s
Healing our Health System Plan

January 24, 2018

Keir Johnson, MPA, Winnipeg Regional Health Authority
Tara Stewart, PhD, Centre for Healthcare Innovation
Paul Beaudin, MSc-SLP, PhD, Centre for Healthcare Innovation
Jason Klainchar, RN, BN, Winnipeg Regional Health Authority
Contents
1. Executive Summary ............................................................................................................................... 2
2. Introduction .......................................................................................................................................... 4
3. Evaluation Plan...................................................................................................................................... 4
   3.1 Objectives of Evaluation ............................................................................................................... 5
   3.2 Methods ........................................................................................................................................ 5
4. Evaluation of the Phase I Implementation ........................................................................................... 7
   4.1 Planning and Preparatory Work .................................................................................................... 7
   4.2 Summary of Phase I Implementation ........................................................................................... 9
   4.3 Implementation Evaluation: Lessons Learned ............................................................................ 15
      4.3.1 What worked well? ............................................................................................................. 16
      4.3.2 What could be improved? ................................................................................................... 17
5. Results ................................................................................................................................................. 20
   5.1 Patient Flow ................................................................................................................................ 20
      5.1.1 Changes in Patient Volumes ............................................................................................... 20
      5.1.2 Emergency and Urgent Care Performance ......................................................................... 22
      5.1.3 Inpatient Performance and New Service Options .............................................................. 30
      5.1.4 Conclusions about Changes in Patient Flow Performance ................................................. 36
   5.2 Patient Experience ...................................................................................................................... 38
      5.2.1 Patient Complaints .............................................................................................................. 39
      5.2.2 ED and Urgent Care Patient Survey .................................................................................... 40
      5.2.3 Sub-Acute Patient Experience Interviews ........................................................................... 41
   5.3 Safety Monitoring ....................................................................................................................... 42
      5.3.1 Critical Incidents .................................................................................................................. 42
      5.3.2 Occurrence Reporting ......................................................................................................... 44
      5.3.3 Readmission Rates .............................................................................................................. 44
      5.3.4 Safety and Quality Monitoring at Victoria General Hospital .............................................. 45
      5.3.5 Monitoring at Misericordia ................................................................................................. 47
   5.4 Workforce Impact ....................................................................................................................... 49
      5.4.1 Labour Adjustment Impact ................................................................................................. 49
      5.4.2 Monitoring Sick Time and Overtime ................................................................................... 50
      5.4.3 Feedback from Employees and Physicians about the Changes .......................................... 51
6. Looking Ahead to Phase II of Consolidation ....................................................................................... 52
7. Recommendations .............................................................................................................................. 56
8. Appendices .......................................................................................................................................... 58
   8.1 ED and Urgent Care Length of Stay for Non-Admitted Patients ................................................. 58
   8.2 ED and Urgent Care Length of Stay for Admitted Patients .......................................................... 59
1. Executive Summary

- In April 2017, the WRHA announced major changes to clinical services in Winnipeg, called Healing our Health System. Phase 1 of the clinical consolidation plan was formally implemented on October 3, 2017. This report provides an interim evaluation of the first three months of the plan.

- Overall, the evaluation found that nearly all of the changes planned in phase I were implemented on schedule. Opportunities were identified to improve the planning and implementation process, particularly with internal communication and clarity of roles; the WRHA has already started to incorporate these improvements into its work.

Emergency and Urgent Care Changes

- On October 3, Victoria General Hospital’s emergency department (ED) converted to an urgent care centre and Misericordia urgent care closed. Additional treatment spaces were added at St. Boniface ED, staffing was increased at HSC, Grace and St. Boniface EDs and new patient streaming processes were implemented.

- In the three months following the October 3 changes, median wait times were 1.47 hours. This is a 19% decrease or 21-minute improvement over the same period in 2016/17. All adult EDs and urgent care have seen reductions in their median wait times compared to last year, despite the earlier and more significant impact of influenza this year.

- If maintained, this improvement closes about half of the gap towards achieving the Canadian median wait time of 1.1 hours.

- Patients’ length of stay in EDs and urgent care has also improved, both for those who are and aren’t admitted to hospital. The median length of stay in ED for patients admitted to hospital was 12.15 hours, down 14% from last year.

- Some of these improvements had started before October 3, likely reflecting the work that began earlier in the year to reduce prolonged inpatient hospital stays and improve ED processes. This, in turn, reduced delays in emergency for patients to be admitted and freed up ED treatment spaces for better throughput, though there are still opportunities to improve throughput in ED, which has the potential to further free up existing capacity to accommodate more patients.

Inpatient Changes

- Following the initial announcement in April, hospitals focused on improving inpatient capacity in preparation for the clinical changes planned for the fall. The average inpatient length of stay is 8.6 days so far this year, a 4.6% reduction over the same period in 2016/17. This is the equivalent of freeing up an average of approximately 84 beds.

- New models of care and inpatient services were introduced in October, including new or expanded clinical assessment units at HSC, Grace and St. Boniface as well as sub-acute and transitional care units at Victoria.

- These new models of care, along with new home care and long term care services, appear to have had a positive impact on patient flow, providing more appropriate care options for patients who no longer require full acute care. The wait list for patients waiting in hospital for a personal care home bed has shrunk to the lowest in over a decade.

- After assessing the changes, the evaluation team concluded that there are four factors which appear to have improved patient flow: 1) consolidation of services and resources; 2) strengthening how the WRHA coordinates acute services regionally including the new Central Bed Access and regional
operations supports; 3) the focus on improved inpatient capacity; and 4) a heightened sense of accountability and commitment to improving performance.

- The wait list for the new sub-acute care service, however, continues to grow, and this appears to be creating a new bottleneck in the system. This, in turn, is eroding the effectiveness of clinical assessment units and impacting the ability of acute medicine to provide timely admissions from ED.

**Monitoring Patient Experience and Safety**

- Several systems were implemented to monitor the patient experience and patient safety during the period of change in phase I. Regionally, no major quality or safety concerns were identified:
  - The volume of patient complaints has generally remained within expected range and any elevations were investigated and no consistent patterns or links to consolidation identified.
  - A real-time ED and urgent care survey found 94% of patients rated their care positively while 74% rated their wait time positively.
  - Reported and verified critical incidents remained within expected ranges.
  - Occurrence reporting largely remained within expected range; any elevations were screened and no pattern or link to clinical consolidation was identified.
  - Regional 30-day readmission rates remained within expected range.
- Targeted safety monitoring at VGH found no major safety concerns, though some opportunities for quality improvement and further exploration were identified.

**Workforce Impact**

- Clinical consolidation, overlaid with sustainability initiatives, resulted in major changes for many employees. The WRHA’s stated goal was to minimize impact on employees as much as possible.

- Adjustments to staff rotations, shifts or staffing levels can require position deletions to comply with collective agreements. A total of 3,776 positions were deleted across nursing, support, professional/technical and trades sectors. Nearly all were able to select a new position, though 6%, or 244, resulted in a lay off; over half of those (54%) have since secured a position within the WRHA.

- For nurses, 2,297 positions were deleted and 3%, or 70, resulted in a lay off. All but 31 of those have secured a position within WRHA; as of early January there were 99 nursing vacancies posted.

- The evaluation also monitored overtime and sick time levels and found that neither exceeded the expected range. Feedback from staff captured the anxiety and uncertainty that change can bring, with some opportunities identified to improve the labour adjustment and communication process going forward.

**Looking Ahead to Phase II**

- The evaluation makes 19 recommendations aimed at improving planning and implementation efforts, optimizing patient flow and continuity of care, streamlining access to services, communicating with patients about transition in care, and improving the labour adjustment process.

- When it comes to implementing phase II, it is recommended to finalize key dates as soon as possible. The evaluation also identified an urgent need to move ahead with adding more sub-acute beds to the system as soon as possible. This must be done carefully and in a way that is aligned with the other changes planned for emergency departments, critical care, medicine, surgery and other inpatient services inside and outside of Winnipeg.
2. Introduction

On April 7, 2017, the Winnipeg Regional Health Authority (WRHA) announced a major change to its clinical services, called Healing our Health System, or HoHS. The changes involve the consolidation of clinical services at specific hospitals to concentrate resources effectively rather than spread them too thinly across multiple locations.

By better pooling resources, WRHA sought to improve performance in a number of areas in which it had traditionally lagged behind national averages, such as emergency department (ED) wait times and extended lengths of stay. The HoHS plan was largely informed by the recommendations in the Clinical and Preventive Services Planning for Manitoba study, led by Dr. David Peachey.

The full plan involves several changes to clinical services in Winnipeg. Three hospitals will be designated as acute care sites with full emergency departments (EDs), intensive care units (ICUs), surgery and other specialized care and diagnostics. The three acute hospitals are Grace Hospital (GH), HSC and St. Boniface Hospital (SBH). The other three existing hospitals – Concordia Hospital (CH), Seven Oaks General Hospital (SOGH) and Victoria General Hospital (VGH) – will remain as community hospitals with a focus on sub-acute and transitional care as well as some specialization in specific clinical areas. These changes include consolidating:

- Emergency services from six adult EDs and one urgent care centre to three EDs at the acute hospitals and two urgent care centres at VGH and SOGH;
- Critical care (ICU) services into the three acute hospitals;
- Acute mental health services from five hospitals to three (HSC, SBH and VGH);
- Inpatient Surgery from all hospitals to four (acute sites plus CH); and
- Geriatric rehabilitation from SBH and Riverview Health Centre (RHC) to VGH and Deer Lodge Centre (DLC)

Internal medicine and family medicine services would be completely redesigned around meeting different levels of need for patients, including acute, sub-acute and transitional care.

The plan also sought to add new services, such as clinical assessment units in the acute hospitals to provide better short-term care for patients, as well as introducing enhanced home care services and new temporary beds outside of hospital for patients with transitional care needs (i.e. River Ridge Transitional Care).

The WRHA subsequently announced it would implement clinical consolidation in two phases, with the first phase starting October 3, 2017.

3. Evaluation Plan

The WRHA requested an evaluation be conducted to help inform the planning and implementation as well as to help determine the impact of HoHS. An interim evaluation was requested to report on phase 1

---

1 News Release: Broad improvements for health care in Winnipeg: Consolidation of health centres builds on excellence. Winnipeg Regional Health Authority, April 7, 2017: http://healingourhealthsystem.ca/media-170407.php

changes after the first three months, to assess the initial impacts and to help guide the planning and implementation of phase II.

The WRHA partnered with the George and Fay Yee Centre for Healthcare Innovation (CHI) Evaluation Platform to conduct the evaluation, forming an evaluation team along with an evaluation advisory group. Contributions were also received from the project management office, organizational change, decision support and several clinical and operational leaders.

3.1 Objectives of Evaluation

The evaluation has two broad components: an implementation evaluation using a formative, improvement-oriented approach; and an impact evaluation with a summative, outcome-oriented focus. The evaluation team was embedded into the planning and implementation structure within the WRHA to help monitor, identify and share issues early in order to support and inform the ongoing implementation.

The evaluation was designed with input from key stakeholders, including the WRHA’s executive, clinical and operations leaders with consultation from leaders with Shared Health Manitoba. Specific questions the ongoing evaluation aims to answer include:

- Were the changes implemented as planned? Did patient volumes shift as anticipated?
- How has consolidation impacted patient flow and system sustainability?
- Have there been any quality or safety impacts due to service consolidation or changes in models of care?
- What was the impact on staff?
- How has care changed for the elderly?

This interim evaluation report includes findings from both the implementation and impact evaluations.

3.2 Methods

In order to answer the questions agreed to by the primary stakeholders, a mixed method evaluation was pursued using both quantitative and qualitative methods. These methods include: document review and analysis; observation of meetings; interviews and focus groups with key informants, surveys and questionnaires for staff and patients, chart reviews, clinical review of specific cases, and the analysis of primary and secondary data. A variety of public and internal planning and implementation documents and presentations were available to the evaluation team.

Qualitative methods are essential to many forms of evaluation including impact and implementation.\(^3\) These methods are ideal for obtaining the experiences and perspectives of various stakeholder groups, including for the identification of concerns and opportunities. Qualitative approaches are also invaluable in assessing and understanding impacts, including the contextual factors and underlying issues that may have contributed. Often, these methods can help focus quantitative analysis and assist with strengthening its interpretation and validation through cross-verification, a research technique called triangulation.

---

For quantitative methods, the evaluation team conducted a retrospective analysis of secondary data, including activity statistics such as patient volumes, patient flow data and safety and quality indicators. The secondary data sources include:

- Emergency department and urgent care: Emergency Department Information System (EDIS), with data available soon after a patient’s visit.
- Inpatient care: Admission Discharge and Transfer (ADT) system, which provides summary information of each patient’s stay. Full data about inpatient stays is normally accessed from the Discharge Abstract Database (DAD), but because of the time it takes for patient charts to be dictated by physicians and abstracted and coded by health information staff, this data source was not used for the interim evaluation.
- Activity statistics from the WRHA Long Term Care Program for the Personal Care Home (PCH) wait list and use of the new River Ridge Transitional Care Environment as well as from the WRHA Home Care Program for statistics about new home care services.
- Human resource data including overtime and sick time rates and vacancy data from SAP and labour adjustment statistics from WRHA Labour Relations.
- Patient complaints, occurrence and critical incident reports through WRHA Quality and Patient Safety’s incident and risk management software (RL6).

Primary data collection was coordinated through the evaluation, including surveys, some activity monitoring and chart reviews.

A variety of statistical techniques were used to analyze the data, including descriptive statistics, comparative tests and trending. Where possible, data from before and after implementation (October 3, 2017) were included in the analyses, as described throughout the report. Unless noted otherwise, the study period for the “first three months” includes October 4, 2017 to January 2, 2018.

This “before-after” or “pre-post” treatment of the data is best complemented by an approach that examines the data over time, across multiple time periods (e.g., monthly, weekly) in order to accurately convey the extent of background or cyclical variation, and to indicate the extent to which any trend toward improvement might have been present prior to the intervention period. Thus, the evaluation team also used statistical process control to identify meaningful variation and trends. A further description of quantitative methods is embedded throughout this evaluation report.

Statistical process control (SPC) is a common method used to examine patterns of change over time. SPC involves plotting data on a “control chart” to visually represent the pattern and magnitude of changes. A generic example is included below in figure 1. On the control chart, the solid centre line represents the average of all data points and the dotted lines represent the upper control limit and lower control limit. The upper and lower control limits are statistically-derived boundaries that represent the normal or expected range of variability. Control charts are examined for patterns of deviation around the average centre line and for deviations outside of upper- and lower-control limits. The existence of significant variation is determined by applying several rules, such as: one data point outside the upper/lower

---

5 Interested readers can review the following for more background:
control limits, six consecutive data points ascending/descending, and nine consecutive points above/below the average.

**Figure 1: Sample Statistical Control Chart**

Qualitative and quantitative data were thoroughly reviewed, analyzed, compared and synthesized to identify patterns. This evidence is considered along with important contextual factors, relevant literature, feedback from clinical and operational leaders and the evaluation team’s own extensive experience and familiarity with the WRHA’s structure and operations to help develop interpretations of findings. Ultimately this analytic process supports making balanced claims and judgments about the findings, considering their implications, and formulating conclusions and recommendations.  

4. **Evaluation of the Phase I Implementation**

While the largest focus of phase I implementation has centred on October 3, 2017 – the date VGH ED transformed to an urgent care centre – there were many activities that occurred before and after this date. The evaluation team was tasked with documenting the planning and preparation that occurred before implementation, as well as confirming whether or not phase I implementation activities occurred on schedule and as planned. The evaluation team also sought feedback about how phase I unfolded and how the planning and implementation approach could be improved for phase II.

4.1 **Planning and Preparatory Work**

The broad scope of clinical changes had been planned in advance of the first public announcement in April, 2017. The evaluation team reviewed the planning materials and found it to be informed by published evidence, benchmarking with peers and expert clinical advice. This included reviewing key patient flow metrics and comparing with other jurisdictions, trends in emergency and inpatient volumes, research and analysis about models of care and appropriate staffing levels, and a comparison of the capital and operational needs of maintaining the existing system with six acute hospitals with what would be needed in a consolidated acute and sub-acute hospital model.

It is important to revisit the rationale for the consolidation of clinical services in Winnipeg developed by the WRHA. There was a growing strain – both financially and clinically – to sustain six acute hospitals in Winnipeg. As medicine has become more and more advanced and sub-specialized, it has become increasingly challenging to meet medical standards and public expectations of the full scope of services that should be co-located with an urban emergency department. Access to on-site specialist consultations was variable, as was access to diagnostic testing such as CT and MRI scans. While the

---

6 Patton (1997).
WRHA had been able to compensate for this over time – often by sending patients back and forth between sites – the sustainability of this model and the risks to providing the best possible patient care that meets ever-increasing medical standards were becoming more and more challenging to manage with each passing year.

The rationale for change, however, was about more than just emergency care. On the inpatient side of hospital operations, WRHA’s analysis had found that on average an equivalent of 446 hospital beds are occupied by patients who stay too long in hospital. This includes both patients waiting for an alternate level of care (ALC) such as a personal care home (PCH), home care or other level of care (equivalent of 215 beds total), as well as patients with prolonged lengths of stay beyond what would routinely be expected for their condition (equivalent of 231 beds total). Past analyses have found the WRHA’s average inpatient length of stay to be longer than the Canadian average. A recent national report found Winnipeg had the highest proportion of seniors entering residential care who might have been able to be supported at home.

Furthermore, on many inpatient units in city hospitals, patients with serious and acute medical needs were mixed together with patients who were more medically stable but required monitoring or minor treatment (“sub-acute care”) as well as patients waiting for service outside of hospital (“transitional care”). From the sub-acute or transitional care patient perspective, this could feel like a competition with sicker acute patients for the attention of nurses, doctors and other health professionals. Clinical leaders in WRHA saw an opportunity to redesign inpatient medicine care around the needs of patients, by grouping patients with similar care needs together and planning the staffing around these different levels of care.

While health care in Winnipeg was regionalized 20 years ago, individual hospitals have maintained some staffing ratios on inpatient units. This has led to variation in staffing levels on similar types of units across different hospitals, meaning a patient may find themselves on a unit with less staffing at one hospital than if they were admitted with the same condition to a similar unit at a different hospital. Generally, there has been a lack of standard regional or provincial models of care that describe the services delivered and staffing ratios required. By grouping patients and redesigning the configuration of inpatient care, WRHA also saw the opportunity to introduce standard models of care and staffing ratios for all hospitals, centered on the needs of patients.

With over 200 beds used for patients waiting for alternate levels of care, WRHA sought to close some of these beds and reinvest the funding associated with them into additional home care services, called priority home care service and rapid response nursing, as well as a temporary transitional care environment outside of hospital, based on a review of the barriers and delays to discharge for these patients. A request for proposals was issued to identify private partners to deliver some of these services.

To prepare for the changes to acute services coming in October 2017, there was more attention and scrutiny on improving inpatient bed use in spring and summer throughout WRHA, including:

- First, better coordinating care for inpatients to avoid prolonged lengths of stay;

7 Patients are deemed to have a prolonged hospital stay if their actual length of stay (ALOS) is longer than the expected length of stay (ELOS) for their condition. An ALOS to ELOS ratio is created and any overstays are considered conservable bed days.

• Second, a new care options public awareness campaign to help patients identify when to use family doctors and walk-in clinics, urgent care or emergency departments; and
• Third, reinforcing options for patients requiring an alternate level of care, such as home care and PCH.

Much of the planning work described above was spearheaded by the Innovation and Improvement Implementation (III) Team, which included regional clinical leaders as well as expertise from labour relations, capital planning, eHealth, process engineering, communications, patient safety, evaluation, decision support, organizational change, organizational development, project management, clinical engineering, patient transport, finance, materials management and health information. This team was created to function as a hub for planning, engaging hospital leaders as needed in the planning process. Ultimately, the III Team is advisory in nature, with recommendations about changes to clinical services being submitted to the WRHA executive council for approval.

Hospital and other operational leaders were engaged in April 2017 and regional resources were assigned to assist them in preparing for implementing phase I.

Recognizing the need for a regional approach to defining different types of clinical services and how patients access those services the III Team led the development of the following regional clinical service standards:
• Models of Care, which describe the patients served and their needs, services delivered, admission criteria, staffing required, goals of care and expected outcomes for patients;
• Patient Pathways, which outline which services patients can move from and to; and
• Standard Operating Procedures, which detail the process and procedures staff must follow for patients to access service.

4.2 Summary of Phase I Implementation

Phase I involved several clinical service changes and related adjustments to staffing ratios at the majority of WRHA hospitals, as well as dozens of supportive changes such as shifting equipment between sites to align with new services, ensuring proper computer access for staff working on new or changed units, public signage changes and minor capital renovations among others.

It’s also important to recognize that several major changes were occurring at the same time as Phase I was being planned and implemented:
• Several WRHA sustainability initiatives were being implemented.
• A 15% reduction in management positions occurred across WRHA.
• Shared Health Manitoba was announced and work began on identifying which WRHA functions would migrate to the new provincial organization.
• The WRHA implemented a new organizational structure including several changes to its executive leadership.

This section reviews what the key changes were in phase I, when they were planned to occur and what actually unfolded.
### Table 1: Assessment of Phase I Implementation Milestones

<table>
<thead>
<tr>
<th>Planned Date</th>
<th>Planned Change-</th>
<th>Evaluation Review</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>September</strong></td>
<td>1. Preparatory case management work to identify and expedite ALC patients a VGH and other acute hospitals suitable for discharge to PCH, home care or other post-hospital service</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td><strong>Sept 22</strong></td>
<td>2. Admissions suspended to SBH Geri-Rehab to reduce patient census in preparation for moving the unit to VGH</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td><strong>Oct 2</strong></td>
<td>3. Admissions start to River Ridge II, a new 65-bed transitional care environment</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td><strong>Oct 2</strong></td>
<td>4. MHC Urgent Care closes, with urgent eye care service continuing.</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td><strong>Oct 3</strong></td>
<td>5. VGH ED converts to Urgent Care</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td><strong>Oct 3</strong></td>
<td>6. VGH stops ICU admissions to prepare for critical care services to shift to other acute sites</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td><strong>Oct 3</strong></td>
<td>7. VGH stops acute medicine admissions</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td><strong>Oct 3</strong></td>
<td>8. VGH begins admission of sub-acute and transitional care patients</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td><strong>Oct 3</strong></td>
<td>9. SBH ED mid-to-low acuity treatment space opens</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td><strong>Oct 3</strong></td>
<td>10. GH 10-bed clinical assessment unit opens</td>
<td>Delayed by 2 weeks&lt;br&gt;<strong>Fully opened on Oct 16</strong></td>
</tr>
<tr>
<td><strong>Oct 3</strong></td>
<td>11. SBH 10-bed clinical assessment unit opens</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td><strong>Oct 3</strong></td>
<td>12. Ambulance destination policies updated and new destination advisory launched</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td><strong>Oct 3</strong></td>
<td>13. Central Bed Access begins operations, initially focused on coordinating access from HSC, GH and SBH to the sub-acute and transitional care units at VGH</td>
<td>Initiated on schedule</td>
</tr>
<tr>
<td><strong>Oct 6</strong></td>
<td>14. VGH performs last slate of surgeries requiring inpatient admission</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td><strong>Oct 9</strong></td>
<td>15. Target date for VGH to discharge or transfer out acute medicine and surgery patients, in preparation for inpatient conversion to sub-acute and transitional care on Oct 10</td>
<td>Completed Oct 6, ahead of schedule</td>
</tr>
<tr>
<td><strong>Oct 9</strong></td>
<td>16. VGH ICU closes, with capacity transferred to GH and SBH</td>
<td>Completed Oct 8, ahead of schedule</td>
</tr>
<tr>
<td><strong>Oct 10</strong></td>
<td>17. VGH begins admitting sub-acute and transitional care patients</td>
<td>Completed Oct 8, ahead of schedule</td>
</tr>
<tr>
<td><strong>Oct 10</strong></td>
<td>18. VGH inpatient surgery unit closes</td>
<td>Completed on schedule</td>
</tr>
<tr>
<td><strong>Oct 10</strong></td>
<td>19. Two VGH medicine units close to undergo renovations for future Geri-Rehab and mental health services; surgery inpatient unit closes</td>
<td>Completed on schedule</td>
</tr>
</tbody>
</table>
Planned Date | Planned Change- | Evaluation Review |
--- | --- | --- |
Oct 10 | 20. SBH Transitional Care Unit on A6 converts to a new 16-bed medicine unit with cardiac capacity as well | *Completed ahead of schedule, as SBH was able to start admitting medicine patients on Oct 3 as transitional patients were discharged.* |
Oct 10 | 21. GH and SBH ICU capacity expands as resources redeployed from VGH ICU | *Completed on schedule* |
Oct 24-25 | 22. Geri-Rehab unit relocates from SBH to VGH | *Completed on schedule* |
Oct 26 | 23. Temporary Geri-Rehab unit at VGH opens to new admissions in old surgical unit | *Completed on schedule* |
Nov 1 | 24. HSC Personal Care Unit (for transitional care patients) closes | *Completed on schedule* |
Nov 1 | 25. Admissions suspended to RHC Geri-Rehab to reduce patient census in preparation for moving the unit to DLC on Dec 1 | *Completed on schedule* |
Nov 1 | 26. New 11-bed special needs behavioural unit opens at DLC | *Delayed due to capital construction issues. Opened Nov 20.* |
Nov 6 | 27. Priority Home and Rapid Response Nursing services begin operations | *Completed on schedule* |
Nov 17 | 28. HSC’s 6-bed CAU expands to 10 beds | *Completed on schedule* |
Nov 17 | 29. HSC high observation unit expands from 6 to 9 beds | *Completed on schedule* |
Nov 24 to Dec 4 | 30. Geri-Rehab patients relocated from RHC to DLC and DLC opens admissions to new Geri-Rehab unit | *Completion delayed slightly to Dec 8* |
Dec 4 | 31. RHC begins admissions to new PCH unit | *Delayed to Dec 11* |

As MHC Urgent Care closed and VGH ED converted to Urgent Care, the WRHA redeployed emergency and urgent care physician, nursing and support staff resources to GH, HSC and SBH to accommodate the anticipated increase in patient volumes. This generally resulted in a 20% increase in physician resources and a 10% to 20% increase in nursing resources, as outlined in table 2 below.

### Table 2: Increase in Emergency Department Staffing (Equivalent Full Time Positions and % increase)

<table>
<thead>
<tr>
<th>Staffing Resource</th>
<th>Grace (EFT)</th>
<th>St. Boniface (EFT)</th>
<th>HSC (EFT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician Staffing</td>
<td>+2.1 (+19.9%)</td>
<td>+3.2 (+20.3%)</td>
<td>+4.3 (+21.9%)</td>
</tr>
<tr>
<td>Nursing Staffing</td>
<td>+7.0 (+20.4%)</td>
<td>+7.0 (+13.2%)</td>
<td>+7.0 (+10.0%)</td>
</tr>
<tr>
<td>Support Staffing</td>
<td>+2.8 (+15.1%)</td>
<td>+5.6 (+26.7%)</td>
<td>+2.8 (+7.1%)</td>
</tr>
</tbody>
</table>

*Note: EFT = equivalent full time*

Additional treatment spaces were also added at SBH as part of the mid-to-low acuity treatment area, resulting in a 25% expansion in capacity. These changes in staffing and physical capacity as well as processes were designed to accommodate the increases in patient flow expected through consolidating emergency care.
WRHA also launched a new, real-time, public ED wait time forecaster on October 3, 2017. The WRHA had used an internally-developed tool to post ED wait times online for several years. The new ED forecast tool was developed in Ontario. WRHA moved to the new tool because it had three key advantages:

1. The new wait times are a forecast based on historic patient volumes and ED performance, rather than simply displaying the current wait time for existing patients.
2. The new wait time captures the full waiting period, from registration to the initial assessment by a physician or nurse practitioner. This aligns with how actual wait times are reported by WRHA and through the Canadian Institute for Health Information (CIHI). The old tool only captured a portion of the waiting period, from registration until the patient moved from the waiting room to a stretcher or treatment room, also called “waiting room time”.
3. The new wait time displays the longest wait most patients are forecast to experience. From a statistical perspective, this is the 90th percentile, which means 9 out of 10 patients are expected to wait the forecasted time or less. The 90th percentile is generally much longer than the median (50th percentile).

How Phase I Implementation was Supported

Existing internal project management resources were re-assigned to help coordinate the planning and implementation of phase I changes, with some temporary project management consultants hired to supplement existing resources. WRHA also contracted organizational change management experts to assist with the change process.

A cross-function coordinating committee was established to help plan and align all of the supporting changes between sites, such as capital, eHealth, equipment moves between sites, supply chain needs, staffing adjustments, financial changes, patient transport requirements, communications and health information.

Because the Phase I implementation coincided with other major organizations changes, the WRHA used a familiar structure to oversee the implementation called incident command. While traditionally used during crises or in response to major events such as fires or floods, the incident command structure was chosen to ensure maximum clarity of role and function and to leverage key areas of WRHA to support the major implementation project. The structure includes a regional command team along with four sections – operations, planning, finance and logistics – to mobilize human and other resources, identify and resolve issues and ensure coordinated oversight, process and communications during change.

Each site also implemented an incident command structure, albeit to different levels of activation, to help coordinate between sites and with regional incident command.
Regional incident command was activated on Sept 25 and remained active until Nov 10. During this period, there were a series of daily meetings or teleconferences:

8:30 AM  Debriefing with Administrator-on-Call focused on any overnight issues

Operations Briefings for each sector: acute, long term care, community services

9:00 AM  Operations Section Briefing, bringing together leaders across all sectors to identify potential issues and provide direction as necessary

10:00 AM Incident Command Briefing: Section chiefs for operations, planning, finance and logistics come together with the command section to review new and outstanding issues and risks, problem solve, assign follow up actions and make key decisions to resolve issues

Updated issue log distributed with follow-up actions expected

10:45 AM Planning Section Briefing, to review new issues and ensure planning resources are mobilized to support operations and implementation work

4:00 PM Updates on issues and actions submitted and included in end-of-day report, which is distributed to all command sections.

4:30 PM Administrator-on-Call becomes point person for evening and overnight period.

Through the incident command process, a total of 78 issues were escalated for resolution. The issues were reviewed by the evaluation team and fell into the following groups:

- Process change issues, such as patient transfer documentation, clarification about new patient pathways, admissions process to new sub-acute units and documentation questions;
- Patient flow and system capacity challenges, including flow between acute and sub-acute/transitional care services, increasing EMS volumes and acuity levels at some sites, process for when patient/family declines PCH bed, etc.;
- Potential communication gaps, both internally and publicly, to understand the service changes;
- Human resources, including physician coverage challenges for new or changing services and potential issues related to nursing/support staff redeployment;
- Capital renovation concerns, including timelines for minor upgrades and signage changes;
- Equipment transfers between sites to match new services; and
- Technology-related issues, such as setting up a sufficient number of functional computers, updating services in clinical computer applications and concerns about server capacity

**Labour Adjustment Strategy: Redeploying Front Line Staff**

A major part of implementing phase I was adjusting and balancing staffing levels and rotations to match the new clinical services with new models of care and standardized staffing ratios, as well as new physician coverage models.

As services changed at each site, new regional models of care were implemented and each included new standardized staffing ratios for unit-based support and nursing staff. New models of care were also implemented for allied health and diagnostic imaging staff to align with clinical service changes. For
these changes, a regional lens was applied to ensure consistent inpatient allied health resources among hospitals serving similar patient populations. Implementing these changes alone would be a major change for staff, however two other factors added to the complexity of the labour adjustment process.

First was the fact that for at least a decade, staffing ratios and rotations were left largely unchanged in Winnipeg hospitals. This meant that while patient volumes and the mix of patients had changed year-over-year in most hospital units, there was an accumulation of years of what would otherwise have been small routine staffing adjustments. A recent study by KPMG during the Health System Sustainability and Innovation Review found that staffing ratios at Winnipeg hospitals are generally higher than those at facilities in other Canadian jurisdictions.

Second, “legacy” collective agreements remain in place in many areas that pre-date regionalization, each with unique contractual requirements. While the Manitoba government intends to combine bargaining units through legislation passed last year, phase I of HoHS was implemented with the existing legacy agreements. These factors contributed to the complexity of the labour adjustment.

For phase I, most of the clinical service changes were aligned by site to help streamline the labour adjustment process for the affected staff. The hospitals affected by phase I reviewed the staffing levels on each unit as well as patient volumes and expected occupancy levels to build new staffing rotations for nursing and support staff. Dates were selected for new rotations to be effective and a labour adjustment process was activated at each hospital.

In preparing for the changes, unions were consulted by the WRHA and Provincial Health Labour Relations Services (PHLRS) to develop processes that could minimize the disruption and uncertainty for staff while respecting the existing collective agreements. The precise labour adjustment process depended on the sector and union, but generally followed similar steps:

- Hospitals worked with WRHA Labour Relations and Human Resources to identify which units would have staffing changes during phase I
- Employment security notices were issued to unions to identify which units at each hospital would be impacted
- Notices of position deletions were issued listing the specific staff whose positions are deleted, signaling a change in rotation but not necessarily a net loss of positions or a layoff (see box 1).
- For nurses, a streamlined selection process is activated where nurses on each unit chose their new position in order of seniority. This was a special process developed in partnership by WRHA, PHLRS and Manitoba Nurses Union.

**Box 1: Labour Adjustment Terminology**

There is some confusion about the terms used to describe different parts of the labour adjustment process.

Deletions do not generally result in a layoff. Deletion notices are issued to staff when there are material changes to positions. Most commonly, this could mean that the rotation schedule on a unit has changed and following the terms of the collective agreement, affected rotations are “deleted” and staff select positions on the new rotations based on seniority.

Layoffs can occur at any step following a deletion notice. Layoffs can occur because there are not enough positions in a new rotation for all existing staff and no other positions are available. However, layoffs can also occur because staff do not want a changed shift on the new rotation, do not want to bump staff on other units out of their existing positions or do not want to pursue a vacancy within their existing hospital.

---

• A bumping process can then unfold, where displaced staff can “bump” into any occupied position in the hospital for which they are qualified and hold more seniority than the incumbent. The individual holding that position can then bump another staff person, take a vacant position or be laid off.

• Remaining positions and other vacant positions are posted at strategic times, facilitating additional opportunities for staff within the hospital.

• Once the selection and bumping processes are complete, the new rotations are implemented and any staff that are not in a new position are laid off.

The effective dates for new rotations were selected to follow clinical service changes to offer a short period of overlap:

- MHC nursing and support staff: Oct 10
- GH and VGH nursing and support staff: Oct 20
- HSC nursing: Nov 17
- HSC and SBH support staff: Dec 1
- DLC and RHC nursing and support staff: Dec 1
- SBH nursing staff: planned for Jan 12
- Allied health staff at all hospitals: Nov 25

For some services being moved from one site to another, specialized nurses are required. In these cases, the WRHA and MNU negotiated program transfer agreements to allow nurses with unique qualifications, such as ICU nurses, to transfer between sites and have first opportunity for newly created positions, thereby bypassing the standard labour adjustment process.

Implementing standardized staffing ratios and new rotations at CH and SOGH were delayed to phase II to align with future clinical service changes and to minimize disruption on staff. The labour adjustment process will continue in phase II as more services are consolidated.

The impact of the labour adjustment process is included in section 5.4 which focuses on workforce impacts.

4.3 Implementation Evaluation: Lessons Learned

Collecting lessons learned from the perspectives of those involved in or impacted by the planning and/or implementation of phase I provides valuable information to build upon and improve efforts in Phase 2.

To achieve this, several opportunities were pursued to elicit feedback from a variety of internal stakeholders, including front line staff and management as well as leaders and executives in sites, clinical programs, regional operations and other business support areas. Opportunities to share lessons learned were created using a variety of methods, including surveys, focus groups, interviews, open forum discussions and dedicated lessons learned sessions within pre-existing program and/or clinical consolidation project meetings.

Over 750 staff provided feedback, including over 130 leaders, managers and physicians in interviews, focus groups and other open-ended sessions and 613 responses to the survey from the five participating sites: SBH, GH, VGH, Riverview Health Centre (RHC) and Deer Lodge Centre (DLC).
For the survey tool of front line staff, 26% of respondents were from VGH, 22% from GH, 20% from RHC, 16% from DLC and 13% from SBH. The remaining 3% were from other locations or declined to identify their site. Nearly 40% had worked at their existing site for less than 5 years while 18% had worked at their site for over 20 years. The majority of responses were from nurses (34%), allied health (22%) and support staff such as health care aides and unit clerks (13%).

4.3.1 What worked well?

In consulting hundreds of staff at various levels about lessons learned, there was a consistent message being conveyed by those engaged: employees at all levels continue to demonstrate, time after time, how they will pull together to meet challenges with success. The success was attributed by many to the willingness and dedication of staff from all areas to “step up” to the challenge, despite the often personal sacrifices that were required.

The role of front line supervisors and managers was viewed as pivotal. Two thirds (67%) of front line staff surveyed felt that their direct supervisor supported the changes and 74% felt their direct supervisor encouraged their team to embrace the changes. Further, 68% felt their direct supervisor was available to them throughout the changes and 65% felt supported by their manager.

Many managers praised the dedication and resilience of front line staff: “Staff were able to still provide excellent care, and ‘put on a professional face’ despite not knowing their future!”

Specific planning and implementation components referenced by many as being key contributors to the success of phase I include:

- Despite the initial confidential planning process that occurred regionally without the hospitals direct involvement, participants talked about how both WRHA senior leadership and site senior leadership were open and transparent:
  
  “Events like Town Halls and Face-to-Face Communication showed leaders to be honest, open, authentic, and transparent.”

  “Truthful information was given at staff forums.”

  “Appreciate our COO's commitment to face-to-face delivery of news and updates. She has delivered some hard messages in a very compassionate manner.”

- Pulling together a single coordinated regional plan, along with site specific ‘roadmaps’. Sites and programs liked to see and reference a specific plan: “When sites finally got their roadmap, things turned around, sites felt more in control. They now had something to plan around. Something tangible...this was helpful.”

- Pooling regional resources together wherever possible to be strategically used where they are needed most (e.g., project management from WRHA, eHealth, etc.).

- Most managers and leaders were highly engaged in supporting changes. In particular, site staff talked very highly about the commitment their leadership demonstrated in support of the changes. Once they were involved, site leadership played a key role in supporting the planning and implementation of the changes within their sites.

- Incident Command provided a helpful structure to daily reporting, emergency notification, government updates, and timely resolution of issues as they arose.
While several opportunities for improvement were identified through the implementation evaluation, it is important to note that among the hundreds of staff surveyed, 73% said they feel confident in their own abilities to move forward with these changes.

### 4.3.2 What could be improved?

A key focus of the implementation evaluation was to identify how it could be improved for phase II. Therefore, the following section focuses on practical opportunities for improvement to the planning and implementation process to support and oversee the next phase.

Generally, the suggestions to improve planning and implementation include a) better communication, b) more collaboration and earlier engagement with key stakeholders including physicians, c) better role clarity around who is responsible for what when it comes to planning and implementation and d) a firm critical path with clear requirements for consultation, review and approvals.

**Better “Communication”**

Internal communication continues to be the most important element in planning and implementation of change. With so many people involved across so many sites and programs, it is important to have clear and consistent information being shared across the whole system. The concerns about communications were raised at all levels, from front line staff to senior leaders at hospitals and the WRHA.

However, upon closer review of the underlying issues related to communication challenges, these go beyond simply sending and receiving information and include how staff are engaged in, trained on and oriented to changes that affect them. Compounding this challenge is that most staff affected by change work within hospitals, which generally have their own internal communications processes. Many staff shared perspectives such as the following:

"Information was not given to staff until the last possible minute. Staff had no voice. Staff was barely involved in the process... Not much support was given to staff through these stressful times... Extra training not given prior to new job starts."

The survey found that front line staff learned of changes primarily through media coverage. Some described internal communications as inconsistent and the impact of learning about changes through the media often resulted in “feeding the rumour mill” and increasing anxiety among staff. The communication they did receive did not answer all of their questions as it was generic and not customized to their own work area, with many wanting more information about the rationale for the changes.

<table>
<thead>
<tr>
<th>Table 3: Getting Information about Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How did you get information about the changes in Phase I?</strong></td>
</tr>
<tr>
<td>Public media</td>
</tr>
<tr>
<td>Co-workers</td>
</tr>
<tr>
<td>Direct Manager</td>
</tr>
<tr>
<td>Staff forums</td>
</tr>
<tr>
<td>WRHA CEO email messages</td>
</tr>
<tr>
<td>Healing our Health System website</td>
</tr>
<tr>
<td>Hospital/WRHA intranet</td>
</tr>
</tbody>
</table>

For example, 42% of survey respondents did not understand the objectives of the changes and 67% did not understand how the changes would improve patient flow. Just over half said they did not know how to access information about the changes or who to get it from and 68% did not feel they were adequately informed of decisions that impacted their role.
At a management and leadership level, the most consistent message was wanting more frequent updates during the planning stage, as key components of the plan were being reviewed by different areas (e.g. clinical, operational, capital, labour relations, financial, etc.) and each review sometimes offered a new perspective that could change the plan. This often made people feel like decisions were “flip-flopping.” Leaders consistently identified the need to reconcile feedback from different groups and create a feedback loop to ensure those involved or affected by a decision remain updated and engaged.

Some also wanted to better understand all of the rationale and supporting evidence behind the changes overall or behind specific decisions. Clear and transparent communication of decisions and reasons for changes in decisions are an important component in cross-collaborative planning. Establishing a mechanism for clear communication is important.

Many leaders described the documentation and information-sharing processes through the incident command structure, used to oversee and monitor implementation, as very effective. This included routine calls, documentation and regular daily and weekly reporting on key events and an issue and action log that also communicated how issues were resolved. Several recommended expanding this approach to the planning and pre-implementation process to improve communication and documentation.

An opportunity in phase II is the ability to plan more collaboratively and communicate more openly. In phase I, the initial planning was completed in advance of the first public announcement in April 2017 and was undertaken discreetly at by regional clinical leaders. Because phase II planning is occurring after the announcement of its scope, the communication and planning can be more inclusive and collaborative. This includes more integrated planning among clinical programs as well as more involvement from hospitals.

**Role Clarity**

A lack of role clarity has been identified as a challenge within WRHA in previous evaluation reports and several recent external reviews have noted that WRHA’s matrix organization structure is complicated and can lead to confusion and ineffective decision-making or how such a structure can impact patient flow.

This role confusion issue was made even more ambiguous in early planning for the same reasons that made implementation more complex: management position reductions, a changing organizational structure and the creation of Shared Health Services Manitoba. Site leaders were initially unclear about their role in planning the changes because they had not been part of the regional planning until it was publicly announced in April 2017.

---

10 See, for example:
KPMG Health System Sustainability and Innovation Review: Phase I Report, 2017:
Accreditation Report: Winnipeg Regional Health Authority, Accreditation Canada, 2016:
Nearly all participants indicated that it would be more helpful to spend more time clarifying and defining the roles of all people involved. Having clear and established roles between planning and implementation leaders allows for smooth, consistent and effective interaction and communication between members. Because roles can change as groups and experiences evolve over time, role re-clarification should also happen regularly. Roles should be explicitly stated and communicated so they can be consistently understood by all.

Many of the regional program leaders were members of the III Team and this did give some needed clarity and purpose to their role in planning and standards setting early on. However, many noted that the III team could have had more clarity about its function and expectations earlier on. For example:

“It took some time for the III Team to form and to have a clear mandate as a planning group. The III Team wasn’t always the place where decisions were made and there seemed to be many side discussions and decisions that were never fully explained at the III Team meeting, or loops were never closed with people affected by those decisions.”

Others described how the approval process wasn’t clear as changes and implementation was being planned. Some were unclear what decisions they had the authority to make themselves, who should be consulted when and ultimately who makes the final decisions.

Again, many leaders from sites, regional programs and corporate areas often pointed to the role clarity that came with incident command and suggested incorporating elements of this into the planning and implementation structure going forward.

The following recommendations are intended to strengthen the planning and implementation process for phase II:

- **Recommendation 1**: Identify internal and external stakeholders impacted by changes, engage them as early as possible in the planning process and collaborate on planning and implementation where feasible.

- **Recommendation 2**: Ensure clear roles for all those involved in planning and implementing major changes. There must be a commonly-understood process for decision-making, including how planning and implementation recommendations are made, who is consulted and which groups ultimately approve recommendations.

- **Recommendation 3**: A clear timeline with key milestones is required for planning, especially when multiple groups with shared responsibilities are involved.

- **Recommendation 4**: Among the planning and implementation teams regionally and within sites, establish a clear and concise documentation process to track key components of the planning process, their current status, identify who is responsible, the due date and expected action or work. Ensure updates are fed back to those involved or impacted by each component.

- **Recommendation 5**: Better align and coordinate regional and site communication, education and organizational change resources to ensure targeted, timely communication with all staff and physicians about changes, especially changes that impact them directly. Use these resources to better equip direct managers with information relevant to their staff.
The evaluation team acknowledges that many of these recommendations are already being incorporated into the WRHA’s planning efforts.

Additional suggestions for improving implementation largely focused on having enough time to plan for major changes, with many agreeing they wanted “a lot more warning and information regarding the changes.” Many suggestions also focused on how the labour adjustment process could be improved. The suggestions about the latter are included in section 5.4.

### Table 4: Preference for Receiving Updates

<table>
<thead>
<tr>
<th>Method</th>
<th>Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>50.6%</td>
</tr>
<tr>
<td>Directly from my manager</td>
<td>48.1%</td>
</tr>
<tr>
<td>Staff forums</td>
<td>31.3%</td>
</tr>
<tr>
<td>Bulletin or memo from my site leadership</td>
<td>23.3%</td>
</tr>
<tr>
<td>My site's intranet</td>
<td>17.5%</td>
</tr>
<tr>
<td>Healing our Health System website</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

5. **Results**

The results focus on four key areas: patient flow, patient experience, patient safety and workforce impact. It’s important to interpret the results with caution as they represent only the first three months following the October 3, 2017 changes. Thus, this is considered an *interim* evaluation report, to be used to help assess the early results and inform the next stages of planning and implementation.

#### 5.1 Patient Flow

Patient flow is a sentinel marker of health care performance, monitoring how patients move across different stages of care. While ED and urgent care wait times are often the indicator that receives the most focus, there are several other facets of patient flow that need to be monitored, such as patient volumes, length of stay in ED, length of stay and occupancy in inpatient units and delays for hospital patients in accessing community services and alternative levels of care.

##### 5.1.1 Changes in Patient Volumes

WRHA forecasted how ED and urgent care patient volumes would be redistributed among EDs and urgent care following the phase I changes. The forecast was based on the actual volume of visits from 2016/17 with a geographic analysis to predict how patients would access services and a separate analysis of how ambulance volumes would be redirected. Table 5 compares the forecasted changes for phase I with the actual changes observed starting October 3, 2017.

Victoria Urgent Care was projected to see a 5% increase in visits over what it had seen as an ED, but has actually seen a 28% increase.

### Table 5: Projected vs. Actual Volumes Following Phase I

<table>
<thead>
<tr>
<th>Hospital</th>
<th>16/17 Actual ED Visits</th>
<th>Projected Change in Visits</th>
<th>Actual Change in Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concordia</td>
<td>30,515</td>
<td>11%</td>
<td>-11%</td>
</tr>
<tr>
<td>Grace</td>
<td>30,072</td>
<td>28%</td>
<td>14%</td>
</tr>
<tr>
<td>HSC (Adult)</td>
<td>62,201</td>
<td>18%</td>
<td>12%</td>
</tr>
<tr>
<td>HSC (Children's)</td>
<td>52,723</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Misericordia</td>
<td>38,614</td>
<td>-100%</td>
<td>-100%</td>
</tr>
<tr>
<td>St. Boniface</td>
<td>42,239</td>
<td>18%</td>
<td>16%</td>
</tr>
<tr>
<td>Seven Oaks</td>
<td>41,472</td>
<td>12%</td>
<td>-5%</td>
</tr>
<tr>
<td>Victoria</td>
<td>32,056</td>
<td>5%</td>
<td>28%</td>
</tr>
<tr>
<td>Total</td>
<td>329,892</td>
<td>0%</td>
<td>-5%</td>
</tr>
</tbody>
</table>

*Note: Actual change calculated using Oct 4/17-Jan 2/18 over same period year before*
increase. All other sites have seen fewer visits to their EDs than projected. This partly reflects the assumption that ED and urgent care volumes would remain consistent with last year. Volumes had remained very similar to last year prior to consolidation, but decreased by 7% following consolidation. It will be important to monitor total volumes to see if they return to pre-consolidation levels.

The pattern is quite different for ambulance volumes and ED patients requiring admission, signs of potential increased acuity or complexity of patients. Both ambulance volumes and patients requiring admission started increasing before phase I of consolidation occurred.

Prior to consolidation (April to September 2017), the number of patients arriving to EDs and urgent care via ambulance had increased 5% over the previous year and the number of patients requiring admission had also increased by 5%. These increased even more after phase I of consolidation, with a 10% increase in ambulance volumes and patients requiring admission over the same period in the prior year, as outlined in table 6 below. While GH and VGH had fewer ambulances arriving than projected, the other hospitals all had more ambulances arriving than expected. For admissions, all hospitals except for VGH had more than expected.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Volume of Patients Arriving via Ambulance</th>
<th>Volume of Patients Requiring Admission</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16/17 Actual Visits</td>
<td>Projected Change in Visits</td>
</tr>
<tr>
<td>Concordia</td>
<td>5,610</td>
<td>0%</td>
</tr>
<tr>
<td>Grace</td>
<td>7,417</td>
<td>56%</td>
</tr>
<tr>
<td>HSC (Adult)</td>
<td>12,783</td>
<td>1%</td>
</tr>
<tr>
<td>HSC (Children’s)</td>
<td>4,187</td>
<td>0%</td>
</tr>
<tr>
<td>Misericordia</td>
<td>265</td>
<td>-100%</td>
</tr>
<tr>
<td>St. Boniface</td>
<td>7,250</td>
<td>-6%</td>
</tr>
<tr>
<td>Seven Oaks</td>
<td>8,768</td>
<td>0%</td>
</tr>
<tr>
<td>Victoria</td>
<td>6,205</td>
<td>-58%</td>
</tr>
<tr>
<td>Total</td>
<td>48,298</td>
<td>0%</td>
</tr>
</tbody>
</table>

Note: Actual change calculated using Oct 4/17-Jan 2/18 over same period year before

It will be important to regularly update these projections to incorporate into further phase II planning.

The distribution of ambulance visits among hospitals was also affected by the change in EMS destination protocols. Previously, unless a patient had specialized medical needs such as trauma or specific cardiac issues or a past affiliation to a specific hospital, geographic catchment areas helped inform paramedics on the appropriate hospital destination for each patient. On October 3, catchment areas were eliminated and a destination advisor system was introduced to take patients to the hospital best suited to meet their needs at that moment, regardless of geography. So, as general ED volumes shifted and capacity was freed up at some hospitals, such as Concordia, the number of ambulance arrivals was re-balanced in real time among hospitals to match available ED capacity.
5.1.2 Emergency and Urgent Care Performance

While the objectives of HoHS include more than shorter emergency and urgent care wait times, this indicator has become a primary focus for many. Many studies have noted that ED overcrowding and wait times have multiple causes, which are often grouped together into input, throughput and output factors, described further later in this section.12

Measuring wait times and length of stay in EDs and urgent care has become quite standardized in Canada, rooted in recommendations several years ago from the Canadian Association of Emergency Physicians (CAEP) and the methodology used routinely by CIHI in its independent reporting.13

Figure 2 below helps to visualize the difference between wait times and the full length of stay in emergency. Often, ED and urgent care length of stay is separated into two groups: patients ultimately admitted to hospital (“admitted length of stay”) and patients who are discharged from the ED and not admitted to hospital (“non-admitted length of stay”).

Figure 2: The Patient Journey in Emergency Departments and Urgent Care

This evaluation applies the methodology and data definitions set by CIHI for ED wait times and length of stay. While these are the same methods the WRHA uses to report ED wait times internally, for this report the evaluation team independently calculated ED wait times and length of stay based on individual patient-level data to provide an added level of rigour. This data was validated by reviewing the date and time stamps that capture key steps in each patient’s visit to an ED or urgent care, such as initial registration and initial assessment by a physician or nurse practitioner.

Wait times and length of stay data were checked for obvious errors (i.e., duplicate visits, negative values). Following procedures used by CIHI, all patients with status ‘left without being seen’ were omitted in the calculation of wait times and length of stay. Outliers and zero values were examined, but to be consistent with CIHI’s procedures they were not excluded.

For ED and urgent care wait time and length of stay measurement, both the median (50th percentile) and the 90th percentile are used to monitor performance. CAEP recommends using both the median and 90th percentile for internal monitoring, and the median for public reporting.

12 Further background on the conceptual model of input, throughput and output factors as they relate to ED overcrowding can be found in Asplin, BR et al. A conceptual model of emergency department overcrowding. Annals of Emergency Medicine, 2003; 42(2)
Canadian Institute for Health Information. Indicator Library: http://indicatorlibrary.cihi.ca/
Because urgent care centres serve a very similar function as EDs, their performance is grouped with EDs to report the WRHA performance overall, consistent with how CIHI has reported WRHA performance. This means that following October 3, VGH Urgent Care is included. Prior to October 3, MHC Urgent Care is included. For all periods, Children’s ED is included as well.

When it comes to patient flow, there is generally some seasonal variation in performance, an expected variation that many clinical and operational leaders told the evaluation team aligns with the timing and magnitude of influenza circulating each year. Thus, when it comes to comparing patient flow performance with historic operations, a similar time period from previous years is generally used to account for this routine seasonal variation.

To help illustrate the repeated increase in ED wait times and timing of influenza circulating each season, monthly median wait times have been plotted in figure 3 with a heat map overlay representing the volume of lab confirmed cases of influenza.14

Figure 3: Monthly Median ED and Urgent Care Wait Times and Influenza Activity

When the evaluation was designed, the evaluation team had planned to compare the three month period following phase I performance with the same period last year: October 4 to January 2. However, influenza surveillance in Winnipeg has identified that the flu is hitting earlier and harder this year compared to last year, which also matches the reports from clinical and operational leaders to the evaluation team (see figure 4 below for number of timing of lab-confirmed influenza cases in Winnipeg).15 Because of the earlier onset of flu this year, comparing with the previous year should be interpreted appropriately. To help with this interpretation, the evaluation team has included a second comparison that uses a longer comparator period for (October 4, 2016 to February 28, 2017) to include more of last year’s flu season.

14 The flu heat map is meant to visualize the magnitude of flu circulating, using lab confirmed cases of influenza as a proxy. Yellow represents weeks with 10-19 cases of flu confirmed, orange represents 20-29 cases and red represents 30 or more cases. The cases include those identified in health facilities and in the community.

15 Lab-confirmed influenza cases generally represent a small proportion of flu cases in any given period. Thus, it is to be used as a proxy for the volume of flu circulating.
Another comparison for WRHA ED performance is to the Canadian average. A key part of the HoHS plan is to meet the Canadian averages after the full plan is implemented, including both phase I and phase II. While there was no intention to meet the Canadian median or 90th percentile following phase I, it is important to monitor WRHA’s progress towards these benchmarks.

**ED and Urgent Care Wait Times**

Overall, the median wait time across all EDs and urgent care in the first three months after consolidation was 1.47 hours, down 19% or 21 minutes over the same period last year. If the comparator period for last year is extended to the end of February to adjust for and include the majority of flu season, median wait times are down 24% or 28 minutes.

If it holds, this improvement has closed about half of the gap towards achieving the Canadian median wait time of 1.1 hours.

When looking at wait times on a weekly basis, as illustrated in figure 5, the trend towards lower wait times actually started before October 3. The evaluation team’s assessment is that this is a reflection of the efforts made by WRHA to free up inpatient beds that began in spring, which has resulted in fewer emergency treatment spaces blocked by patients waiting for an inpatient bed and better ED throughput (see admitted length of stay results). Changes to ED processes also appear to have helped with throughput and length of stay.

All adult EDs have seen their median wait times improve over last year, ranging from a 9% improvement at Concordia to a 31% improvement at HSC, as outlined in table 7.
Overall, the median length of stay in EDs and Urgent Care in the three months following October 3 was 3.98 hours, down from 4.22 hours in the same period last year. This is a 6% improvement or a 14 minute decrease. If adjusted to include last year’s flu period, there was a 9% improvement.

As discussed earlier, the total length of stay for patients in ED is broken into several segments, which can broadly be grouped into the wait and the period after the wait, referred to as testing and treatment time, including any consultations with other specialists that may be required.

The total length of stay in ED has not decreased as much as the wait time portion of the length of stay. This means that while patients are generally experiencing shorter wait times this year, some of the improvements in wait times have been offset by a slightly longer period for testing and treatment, an increase of about 5%, as illustrated in figure 6 below.

To translate this into minutes, since Oct 3, 2017 patients are waiting 21 minutes less than the same period last year, however their testing and treatment time is taking 7 minutes longer. This means their total length of stay in the ED or urgent care centre is 14 minutes shorter than last year.

A breakdown of overall length of stay into wait time and testing/treatment time for all hospitals is included in figure 7.
**Table 7: ED and Urgent Care Wait Time Results for WRHA and Sites (hours)**

<table>
<thead>
<tr>
<th>WRHA (all sites)</th>
<th>This Year Oct 4/17 - Jan 2/18</th>
<th>Last Year Oct 4/16 - Jan 2/17</th>
<th>Change</th>
<th>Last Year with Flu Season Oct 4/16 - Feb 28/17</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>1.47</td>
<td>1.82</td>
<td>-19%</td>
<td>1.93</td>
<td>-24%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>4.05</td>
<td>4.87</td>
<td>-17%</td>
<td>5.08</td>
<td>-20%</td>
</tr>
<tr>
<td>Concordia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>2.27</td>
<td>2.50</td>
<td>-9%</td>
<td>2.75</td>
<td>-17%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>6.02</td>
<td>5.98</td>
<td>1%</td>
<td>6.37</td>
<td>-5%</td>
</tr>
<tr>
<td>Grace</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>1.80</td>
<td>2.02</td>
<td>-11%</td>
<td>2.18</td>
<td>-17%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>4.83</td>
<td>5.15</td>
<td>-6%</td>
<td>5.38</td>
<td>-10%</td>
</tr>
<tr>
<td>HSC-Adult</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>1.33</td>
<td>1.92</td>
<td>-31%</td>
<td>2.00</td>
<td>-34%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>3.83</td>
<td>5.03</td>
<td>-24%</td>
<td>5.17</td>
<td>-26%</td>
</tr>
<tr>
<td>Seven Oaks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>1.28</td>
<td>1.48</td>
<td>-14%</td>
<td>1.58</td>
<td>-19%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>3.73</td>
<td>4.40</td>
<td>-15%</td>
<td>4.62</td>
<td>-19%</td>
</tr>
<tr>
<td>St. Boniface</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>1.58</td>
<td>1.92</td>
<td>-18%</td>
<td>2.12</td>
<td>-25%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>4.00</td>
<td>4.82</td>
<td>-17%</td>
<td>5.17</td>
<td>-23%</td>
</tr>
<tr>
<td>Victoria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>1.35</td>
<td>1.93</td>
<td>-30%</td>
<td>2.05</td>
<td>-34%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>3.52</td>
<td>5.25</td>
<td>-33%</td>
<td>5.58</td>
<td>-37%</td>
</tr>
<tr>
<td>Canada</td>
<td>(2016/17)</td>
<td>(Source for Canadian Data: CIHI)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>1.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90th Percentile</td>
<td>3.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Drivers of Testing and Treatment Time**

In 2017, the Manitoba Centre for Health Policy (MCHP) released a major report on the causes of ED wait times.\(^\text{16}\) This report drew a distinction between input factors (such as patient volumes, acuity level), throughput factors (such as diagnostic tests, provider supply), and output factors (such as inpatient status, hospital occupancy). The recent Wait Time Reduction Task Force Report also focused on the importance of throughput and output factors.

The MCHP found that input factors, namely the number of patients concurrently waiting, minimally impacted waiting room times. Throughput factors, in particular the number and type of diagnostic tests performed had a significant impact on ED wait times. Output factors, such as how many inpatient beds are available, were also found to impact wait times.

Figure 7: WRHA and Site ED and Urgent Care Median Wait Time and Testing/Treatment Time (hours)

Note: For WRHA, both 16/17 and 17/18 periods include Oct 4 – Jan 2.
Canada includes full fiscal year, obtained through CIHI
To examine the progress made on the throughput factors, the evaluation team looked at the time between initial physician assessment and when a disposition decision is made about patient care, only including those patients who had diagnostic imaging or lab tests. It is important to recognize that this time includes not only the actual testing, but also all of the care-related events that precede and follow, such as ordering, transporting the patient between emergency and the testing area, receiving and reviewing the results and deciding on treatment.

As illustrated in figures 8 and 9 below, there have been no discernable reductions in the length of time between initial assessment by ED physician or other provider and a disposition decision for those patients who underwent one or more diagnostic imaging or lab tests.

**Figure 8: Total Time Between Assessment and Disposition for Patients with Imaging Tests**

**Figure 9: Total Time Between Assessment and Disposition for Patients with Lab Tests**
Staffing resources in diagnostic imaging are being redeployed in January to better match increased emergency and inpatient volumes. While this could help with the turnaround times between when an order is received and results are delivered, there appears to still be an opportunity to improve the processes within and between emergency, diagnostic imaging and lab departments. The WRHA Emergency and Diagnostic Imaging Programs and Diagnostic Services Manitoba have conducted lean process reviews and are forming a special project to focus on improving the shared care and testing processes to reduce the length of stay in emergency for patients requiring testing.

Length of stay is often reported separately for admitted and non-admitted patients. Admitted patients generally account for only 11% to 12% of ED visits. However, because they have a much longer length of stay, as illustrated in figure 10, they often “block” treatment spaces for extended periods and that slows down ED throughput. Monitoring admitted length of stay helps to identify potential output challenges, another driver of ED wait times. Results for each site are included in the appendix.

The length of stay for non-admitted patients across all sites improved by 6% over last year, while the length of stay for admitted patients improved by 14%. The improvement in admitted length of stay, if maintained, of the gap towards achieving the Canadian median; at the 90th percentile, the WRHA has nearly met the Canadian average.

**Figure 10: WRHA ED and Urgent Care Length of Stay for Admitted and Non Admitted Patients (hours)**

<table>
<thead>
<tr>
<th></th>
<th>Admitted LOS</th>
<th>Non-Admitted LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRHA 16/17 period</td>
<td>3.82</td>
<td>14.10</td>
</tr>
<tr>
<td>WRHA 17/18 period</td>
<td>3.58</td>
<td>12.15</td>
</tr>
<tr>
<td>Canada 16/17</td>
<td>2.5</td>
<td>10.3</td>
</tr>
</tbody>
</table>

Note: For WRHA, both 16/17 and 17/18 periods include Oct 4 – Jan 2. Canada includes full fiscal year, obtained through CIHI

By looking at the weekly trend for admitted length of stay in figure 11, the improvement began earlier than October 3. As mentioned earlier, this likely reflects the efforts that began in spring to improve output from EDs by freeing up inpatient bed capacity. Indeed, there is a complementary pattern of reduction in figure 12, which isolates the portion of admitted patients’ ED length of stay between the decision to admit and the actual move to an inpatient bed. This is one of the output factors that can affect ED wait times.
Some of the improvements in admitted length of stay and the time to be admitted have eroded since the onset of flu season, though the evaluation team acknowledges that, overall, performance still appears to be better than last year’s flu season.

5.1.3 Inpatient Performance and New Service Options

As part of preparing for phase I of consolidation, WRHA had launched an initiative to reduce prolonged inpatient stays, which had the added benefit of freeing up inpatient bed capacity for changes planned in phase I in the fall. While these benefits extend beyond ED performance, inpatient capacity is also an output factor for ED wait times.
So far this year (April to December, 2017), inpatient length of stay is 8.6 days on average, down from 9.1 days last year. This 4.6% improvement translates to the equivalent of freeing up approximately 84 inpatient beds. This freed-up capacity has generally accommodated the increase in admissions noted earlier and had likely contributed to the improvement in the length of stay in ED for admitted patients.

Part of this inpatient length of stay improvement is also likely the result of focusing on discharging ALC patients sooner who require PCH or other post-hospital services. While formal ALC statistics will not be available until patient charts are fully abstracted and coded, the weekly tracking of patients waiting in hospital for PCH placement has decreased significantly this fall, as illustrated in figure 13.

**Figure 13: Weekly Total Patients Waiting in Hospital for PCH Placement**

![Weekly Total Patients Waiting in Hospital for PCH Placement](image)

**Launch of Transitional Care Environment**

**Launch of New Home Care Services**

---

**Reviewing the New Models of Care for Medicine**

Part of consolidation involves separating internal medicine and family medicine patients into units better designed to meet their need with new levels of care. This involves acute units for patients with the highest medical needs, sub-acute patients who are more stable but require some monitoring and treatment before they can be discharged and transitional care units for patients in the process of being assessed or waiting for post-hospital services.

An additional short-term level of care was created to meet the needs of patients who traditionally remained in ED for further assessment before an admission decision is made or would require transfer to sub-acute or transitional care. These are called clinical assessment units. The different models of care for medicine patients are conceptualized in figure 14. The original intent was to pilot or test the models of care as a prototype and continue to reexamine each model and further develop them to optimize how they meet patient needs.
Sub-Acute Care

The two sub-acute units have been fully occupied since opening, with a growing wait list. The average length of stay on the unit so far has been 22.6 days, though the stay has been increasing in recent weeks, as illustrated in figure 15. While the draft model of care document does not specify a target or expected length of stay, initial planning work identified the potential of a 15- to 20-day average stay.

Feedback from operational leaders suggest that the units were used initially to help take pressure off of acute sites by admitting some patients with more chronic care needs rather than sub-acute needs. Feedback also suggests referrals do not reflect the number of patients with sub-acute needs because care teams are still learning about the new service and/or the growing wait list is perceived as a barrier to access.

Figure 15: Average Length of Stay for Sub-Acute Units (reported weekly)
Clinical Assessment Units

Ten-bed clinical assessment units were created at the three acute sites. These were new to GH and SBH; HSC had a similar 6-bed unit for some time before consolidation and this was expanded to 10 beds and is aligning with the regional model of care for this service.

The draft model of care for CAUs outlines an expected length of stay of 12-36 hours, or up to 1.5 days on average. However, since their introduction the average length of stay has been 4.5 days and appears to be growing longer, as illustrated in figure 17.

The longer length of stay raises the question of whether CAUs are being used as intended and having the impact the WRHA expected. After investigating the use of these units, it appears a few factors have prevented the units from being optimally used as envisioned:

- A lack of sub-acute capacity has meant patients admitted to a CAU awaiting transfer to sub-acute or transitional care wait longer than planned.
- The lack of sub-acute capacity also appears to have resulted in acute medicine unit beds often being occupied by sub-acute patients awaiting transfer. This has resulted, at times, in the CAU being used for shorter term admissions that otherwise may have been admitted to an acute medicine unit.
- Initially there was a lack of clarity about the role and scope of the CAU model of care.
Transitional Care Unit

The transitional care unit has been fully occupied since opening at VGH in October. The wait list initially grew quite quickly, but has steadily declined since mid-November. This should be interpreted along with the demand seen for other ALC services, an outline of which follows.
New Service Options – Community and Long Term Care

The new 65-bed transitional care environment at River Ridge opened to admissions the week of October 2, 2017. The original plan was to admit 10 patients per week until all beds were full. This would have seen all beds full by the week of November 6. However, after initially seeing 10 weekly admissions in the first several weeks, admissions slowed down and the beds did not reach full occupancy until the week of December 25.

A total of 97 individuals have been admitted to River Ridge since it opened, with 32 discharges, as of January 12, 2018. Over a third of discharged residents (44%) were transitioned to a PCH and nearly a quarter (22%) moved back home or to a supportive housing environment. A smaller group of residents (25%) were transferred back to hospital due to changes in their medical condition that required acute care.

Priority Home Services were introduced in early November as a home-based alternative to PCH placement, to support the priority home, or “home first” philosophy being introduced in Winnipeg following similar policy changes in other provinces. Priority home aims to transition patients home from hospital rather than panel them for PCH placement, or avoid a hospitalization in the first place, with extra in-home supports for up to 90 days. Thus, rather than seeing older patients decompensate in hospital making long term care placement seem like the only option, patients are returned home with extra help and rehabilitation to maximize their functioning and independence before a decision is made about applying to a PCH.

The WRHA also launched Home Care Rapid Response Nursing, to provide short term and intensive nursing to medically-complex patients being discharged from an ED, urgent care or inpatient unit to help support successful discharge from and avoid readmission to hospital. This service is also available to existing home care clients to help prevent avoidable ED visits and hospital admission.

Since launching in early November, Priority Home Services have received 105 referrals and 47 have received services who otherwise would have waited in hospital for PCH or paneled prematurely from their home. An additional 12 hospital patients, who had been referred for priority home as an alternative to PCH-placement, returned home with regular home care.

There were 30 referrals that were not accepted, 27% were deemed to be medically unstable and 30% could not have their care needs met within a community setting.

Rapid Response Nursing has received 80 referrals and 59 were accepted and service was provided. Among the 17 referrals not accepted, nearly all (88%) did not meet the eligibility criteria.

Because these services were launched later in the implementation process, there was less time to assess their impact so a more complete evaluation of these services will follow later on. However, the evaluation team did find that the number of referrals and accepted patients for both Priority Home Services and Rapid Response Nursing has been lower than the planned capacity, though this is not unexpected for a new service and inappropriate referrals have been decreasing. Some preliminary suggestions about accessing these services follow in the next section.

17 Home Care has planned for 10-12 new clients per week for Priority Home Services and has seen an average of five per week so far. Rapid Response Nursing had planned for 12 referrals per day and is seeing closer to two per day on average.
5.1.4 Conclusions about Changes in Patient Flow Performance

The evaluation team reviewed the trends in patient flow indicators, identified any changes to operations over the last several months and assessed the feedback from operational and clinical leaders to identify drivers for the improvements in patient flow. This analysis found that the following factors are likely collectively responsible for the improvements seen so far:

1. Consolidation of services;
2. Strengthening how services are coordinated regionally;
3. Earlier focus on improving inpatient capacity; and
4. Heightened accountability and commitment to achieve results.

The consolidation of services appears to have improved throughput in EDs and urgent care. This includes changes such as more effective streaming of low-to-mid acuity patients, adding physician and nursing resources to the three acute EDs, and adding treatment spaces at SBH. It has also improved the output from EDs, by allowing for the creation of new services and models of care including clinical assessment, sub-acute and transitional care units, and services outside of hospital such as Priority Home and River Ridge Transitional Care. None of these additional services would have been possible in the current environment without consolidating services and redeploying resources.

The WRHA has strengthened how services are coordinated regionally between hospitals. This includes opening Central Bed Access in October to facilitate access to sub-acute and transitional care beds, using an incident command structure during implementation and subsequently incorporating the strengths of the command structure into routine regional operations.

The earlier focus on improving inpatient capacity by reducing prolonged hospital stays has also had an impact. The WRHA has been focusing on trying to improve inpatient length of stay for some time. It wasn’t until spring and summer, however, that these efforts appear to have had an impact. All sites now have real-time bed management software, called Oculys, to help monitor patient flow and quickly address bottlenecks. Patient flow best practices have also been developed. Expectations have been set that these tools should be actively used to improve flow and avoid delays in care.

A common theme identified through the evaluation is a heightened sense of accountability that has emerged since April. Many participants said they felt that this started with the initial Healing our Health System announcement in April, 2017, explaining that it sent a clear message that “performance has to change and has to improve.” Some explained that in the past, it had “become acceptable to routinely rely on overcapacity beds rather than focusing on reducing prolonged hospital stays.”

While there have been decreases in wait times and lengths of stay in 2017, there are also some opportunities for further improvements within the existing consolidated health system. The evaluation team heard repeatedly about, and directly observed, some confusion about which of these new services and models of care are the right fit for each specific patient’s needs.

So, while the WRHA has created several new services or care models to meet different patient needs, accessing these services appears to be more difficult, not less. Consider a care team at a busy acute hospital trying to decide where a specific elderly patient should go:

- For sub-acute or transitional care, they would consult the medicine model of care and patient pathway to determine eligibility and call the new Central Bed Access team to get the patient on the wait list;
• For transition to personal care home or the new River Ridge transitional care environment, they would request a consultation and assessment from the WRHA long term care program;
• For rehabilitation, they would request a consultation and assessment through the WRHA geriatric rehabilitation program; and
• For any home care service, including priority home or rapid response nursing, they would consult a WRHA home care case coordinator.

At the same time they are learning about new care options, they are also faced with trying up to four different doors before finding the right fit for their patient. Many praised the efforts from WRHA to improve the regional coordination of services and the introduction of Central Bed Access, but there is clearly an opportunity to go further to streamline and better coordinate the process for clinical care teams.

Finally, another recurring theme observed throughout phase I and the planning of phase II has been a focus on ED patient “boarding.” This issue was also raised in the Wait Time Reduction Task Force report. “Boarding” occurs when patients stay in ED beyond an acceptable period, many requiring longer observation or ultimately admission to hospital. The evaluation team calculated the number of treatment spaces occupied by these patients, defined as patients with at least a 24-hour length of stay in ED. After adjusting these lengths of stay to account for an ideal ED visit,\(^{18}\) the evaluation team found that on average in 2016/17, an equivalent of 59 ED treatment spaces were used to “board” patients. This fiscal year, that number decreased to an average of 40, though it increased in December.

![Figure 19: Patient “Boarding” in Emergency Departments](image)

It was described to the evaluation team that boarded patients – those with prolonged stays in EDs – often fall into three groups. First, some patients are accepted for admission by an inpatient service but no bed is yet available. Second, admission is recommended for some patients by emergency physicians but no inpatient service will accept them, sometimes called “orphaned” patients. Finally, some patients

\(^{18}\) For patients admitted to hospital, the first eight hours are excluded. For patients not admitted, the first four hours are excluded. Though shorter than the Canadian average, these lengths of stay align with recommendations from the Canadian Association of Emergency Physicians.
who are retained in the ED for extended treatment and observation in hopes of avoiding an admission to hospital.

If boarding is viewed as a key indicator of flow and system performance, it should be incorporated into routine performance measurement. Currently, the length of stay for admitted patients is the only routinely collected and reported measure related to this issue. Quantifying the number of treatment spaces blocked by “boarded” patients can help to better focus attention on resolving this challenge.

Based on the evaluation of the first three months of consolidation, and the improvements achieved in advance of October 3, the evaluation team recommends the following actions:

**Recommendation 6**: Further investigate throughput improvement opportunities in EDs, including optimizing the process for patients who require testing and inpatient consultant availability, to further reduce length of stay.

**Recommendation 7**: Continue to implement patient flow tools, monitor their use and reinforce their important to reduce and avoid prolonged hospital stays.

**Recommendation 8**: Continue to monitor the new models of care for inpatient medicine, particularly the eligibility criteria for sub-acute and transitional care to ensure service models are being as inclusive and supportive as possible of patient needs at acute hospitals. Family physicians should be engaged as part of refining the models of care.

**Recommendation 9**: Begin monitoring patient “boarding” in EDs immediately and incorporate this monitoring and expectations into hospital performance management. An ED boarding indicator should not be viewed as a reflection of ED performance, but rather of the whole hospital’s performance on patient flow.

**Recommendation 10**: Review the multiple different processes care teams must use to advance their patients to a different level of care to identify opportunities for streamlining and simplifying access, removing barriers and avoiding delays in patient transitions.

**Recommendation 11**: Monitor the uptake of the new alternate levels of care, such as the transitional care environment, priority home services and rapid response nursing, to ensure their capacity is being maximized to best support acute care sites. This could include reorienting staff on these services and the shift away from paneling in hospital as well as reinforcing the safety and strengths of community care options with hospital care teams.

### 5.2 Patient Experience

Monitoring patient experience was an important focus during the change process. While there is routine patient experience monitoring in WRHA through mail-out surveys, these surveys allow patients three months to respond and then must be analyzed before results are available. Given the multiple months of time lag, alternative monitoring approaches were developed, including reviewing patient complaints and conducting an abbreviated survey of ED patients.
5.2.1 Patient Complaints

All patient and family feedback to WRHA is logged using a standardized format and centralized database, maintained by WRHA Quality and Patient Safety. This system collects complaints to WRHA as well as all of the hospitals in the city.

A weekly report was generated to monitor the volume of patient complaints. Immediately following the initial HoHS announcement in April, WRHA created a specific flag to mark complaints related to organizational change and this subset of complaints was monitored weekly as well.

The number of complaints overall has largely remained within expected range since clinical consolidation was implemented, as illustrated in figure 20 below, though the number appears to be slightly elevated since the summer. There were two specific weeks since October 3, 2017 with a volume of complaints above the upper limit on the expected range: the weeks of November 5 and December 3. This triggered a further review of complaints during this period and no pattern or theme related to clinical consolidation was identified; further the number of complaints flagged as related to organization change has remained within expected range and below the average over the same period. Though the slightly elevated level of complaints observed since summer is still generally within expected range, it should to be monitored closely.

Figure 20: Weekly Volume of Patient Complaints (all categories)

The complaints related to organization change capture concerns related to clinical consolidation as well as other unrelated changes such as the public announcement of the WRHA’s sustainability initiatives on July 11, 2017 (see the increase in complaints the week of July 9). The number of complaints related to organizational change has remained in the expected range since October 3, 2017.

5.2.2 ED and Urgent Care Patient Survey

The changes in phase I included significant shifts in how emergency and urgent care services are delivered. Given the risk to the patient experience during this change and the time lag in getting results from the more detailed mail-out survey used by WRHA, the evaluation team proposed an abbreviated, real-time survey tool to monitor the patient experience during the month following October 3. All EDs and VGH urgent care were included, as it was expected that any sites could see some impact following the changes.

The survey tool included four brief closed-ended questions and a space for comments (a fifth question was added for urgent care). The tool was handed out to patients by ED staff during their visit and patients were encouraged to complete the survey and leave it in a drop box before leaving. For the standard four closed-ended questions, patients could choose poor, fair, good, very good or excellent as a response. Positive responses include good, very good and excellent, consistent with how responses are grouped in the existing mail-out survey used by WRHA.

A total of 825 responses were collected in October, out of a total of 26,331 ED and urgent care visits. This is nearly double the number of responses than the traditional mail-out version, which routinely sees between 430 and 480 responses each month.

Overall, the responses were quite positive. More than nine in 10 patients rated key areas positively, including their overall care (93.7%), the courtesy and respect from staff (95.9%) and the information they received about their health concern and care (92.6%). When it comes to wait times, 73.9% of patients rated their wait time positively. Table 8 summarizes the results and response counts for the WRHA and for each hospital.
<table>
<thead>
<tr>
<th>Survey Item</th>
<th>WRHA</th>
<th>CH</th>
<th>GH</th>
<th>HSC-Adult</th>
<th>HSC-Children</th>
<th>SOGH</th>
<th>SBH</th>
<th>VGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Overall, how would you rate the care you received during your visit?</td>
<td>93.7%</td>
<td>95.3%</td>
<td>95.2%</td>
<td>97.3%</td>
<td>93.0%</td>
<td>88.8%</td>
<td>91.3%</td>
<td>97.1%</td>
</tr>
<tr>
<td>2. How would you rate the courtesy and respect of our staff?</td>
<td>95.9%</td>
<td>99.1%</td>
<td>95.2%</td>
<td>98.6%</td>
<td>95.8%</td>
<td>90.9%</td>
<td>93.4%</td>
<td>98.6%</td>
</tr>
<tr>
<td>3. How would you rate the information you received about your health concern and care?</td>
<td>92.6%</td>
<td>95.3%</td>
<td>92.9%</td>
<td>97.3%</td>
<td>94.3%</td>
<td>87.8%</td>
<td>86.6%</td>
<td>95.0%</td>
</tr>
<tr>
<td>4. How would you rate the length of time you waited to be seen during this visit?</td>
<td>73.9%</td>
<td>68.3%</td>
<td>88.1%</td>
<td>85.1%</td>
<td>66.4%</td>
<td>74.7%</td>
<td>69.3%</td>
<td>83.5%</td>
</tr>
<tr>
<td>5. Would you return to this urgent care centre again if you or your family needed care?</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>97.9%</td>
</tr>
</tbody>
</table>

**Count of Completed Surveys**  
<table>
<thead>
<tr>
<th>WRHA</th>
<th>CH</th>
<th>GH</th>
<th>HSC-Adult</th>
<th>HSC-Children</th>
<th>SOGH</th>
<th>SBH</th>
<th>VGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>825</td>
<td>107</td>
<td>42</td>
<td>74</td>
<td>220</td>
<td>100</td>
<td>138</td>
<td>144</td>
</tr>
</tbody>
</table>

### 5.2.3 Sub-Acute Patient Experience Interviews

Understanding the patient experience on the new sub-acute units was also important. In early December, a questionnaire and interview was completed with 22 patients currently receiving care on sub-acute units at VGH. In three cases the patient’s family member also participated. Many of the participants had been transferred from an acute unit at another hospital, though some arrived via VGH Urgent Care or had been an acute inpatient at VGH prior to the site’s conversion.

For patients who were transferred from another hospital to VGH for sub-acute care, only half of the patients recalled being informed of the transfer beforehand. For example, one patient described that their “doctor talked with us and felt I was too frail to go home” so a transfer to sub-acute would be a good fit for them. Another patient said they were “glad” to move.

However, some patients said they were “surprised” to move or that “all I know is they put me in an ambulance and took me here.” Some patients knew a move might happen, but said they “don’t know why, where or when.”

Regardless of how patients arrived to the sub-acute units, nearly all rated their care at VGH as positive and recognized the courtesy and respect of the staff on their unit. Most patients said their condition was explained to them in a way they could understand.

Half of participants, however, rated the information they received about their care as poor or fair, with comments such as feeling “left in the dark sometimes” or “not sure why I’m here.” Some of this feedback may be related to how patients were transferred from other sites, but also reflects the care they were receiving at VGH. Furthermore, nearly all of the participants were not aware of who the manager was on their unit.
The theme across of all these areas of improvement is to increase communication with the patient and family and improve their involvement in their own care. While these interviews were limited to the two sub-acute units at VGH, the feedback from clinical leaders and observations by the evaluation team suggest the results may not be different on units in other hospitals in the city, and thus, the opportunities for improvement should be reinforced more broadly.

**Recommendation 12:** Acute sites should focus on preparing patients for a move to a sub-acute facility, including explaining why the move is in the patient’s interest and when it is likely to occur.

**Recommendation 13:** All hospital should reinforce the need to communicate with patients about their condition and involve them in their care planning. Unit managers should take the time to introduce themselves to patients and/or their families.

### 5.3 Safety Monitoring

In addition to monitoring the patient experience, a series of routine and targeted safety checks were monitored during the period of change in phase I. During a period of significant change, risks to safety and quality can increase and require focused attention and rapid intervention. Thus, real-time reporting was requested of the evaluation team and was fed back to the incident command team routinely.

Where possible, the evaluation team used existing safety monitors that are readily available without delay. This included monitoring potential and verified critical incidents, reported occurrences and hospital readmission rates. Additional targeted safety monitoring was conducted in areas identified as a risk during implementation, largely focused on VGH and MHC given the magnitude of the changes at these sites.

These monitoring efforts complemented and fed into the routine operational safety risk monitoring and response conducted day-to-day by the health system and the regional incident command structure.

#### 5.3.1 Critical Incidents

A critical incident is an unintended event that occurs during the delivery of health services that results in serious harm (e.g. death, disability, prolonged hospital stay, unplanned admission). It is not a result from underlying condition or a risk inherent to the treatment being provided. Critical incidents are sometimes referred to as adverse events. Each incident offers an opportunity to learn and make changes to prevent recurrence.

The evaluation team monitored both the number of potential critical incidents reported and the number verified as confirmed critical incidents. While critical incident reporting is mandatory under law in Manitoba, it still relies on patients, families or staff to identify and report a potential incident for it to be captured. One cannot use the volume of incidents to judge how safe the health care system is because it relies on individual reporting. However, monitoring reported and verified incidents for any spikes during a period of change can be helpful to identify potential safety issues, especially when combined with other safety monitoring and investigative methods.
The number of potential critical incidents reported has since remained in the expected range since October 3, as illustrated in figure 22. The number of verified critical incidents also has remained within the expected range since October 3, as captured in figure 23.
All potential and verified critical incidents were screened by WRHA Quality and Patient Safety to identify whether each event could be related to the changes or implementation of phase I. No incidents were identified through this screening as potentially related to consolidation.

5.3.2 Occurrence Reporting

WRHA also monitors occurrences through reporting. Occurrences are also safety events, but do not meet the threshold of harm required to be considered a critical incident. For example, this includes patient falls or medication errors that do not result in physical patient harm. The number of occurrences reported each week was monitored through implementation to flag potential safety issues, similar to critical incident monitoring.

Weekly monitoring found there was one period following October 3 where there was a spike above the expected range for occurrence reporting: the week of December 10. This week was audited and a technical issue was identified with the reporting system whereby confirmation messages were not being sent, resulting in several occurrences being submitted multiple times in an effort to get a confirmation. This explained the higher number of occurrences that week, which returned to within the expected range the following week after the confirmation issue was resolved.

Figure 24: Reported Occurrences (weekly)

5.3.3 Readmission Rates

With the focus on improving length of stay beginning earlier in the year, and the changes to inpatient models of care, the risk of increased readmission rates was identified as a potential quality issue that required monitoring.
Readmission is generally measured within 30 days of discharge. In 2016/17, WRHA’s readmission rate was 8.3%, which is slightly below the Canadian average of 9.1%. Using the ADT system to flag readmissions at any site in a timely way, the rate was monitored as changes occurred before and after October 3. No spikes were identified in the general readmission rates across Winnipeg.

Figure 25: 30-Day Readmission Rate for All WRHA Hospitals (monthly)

5.3.4 Safety and Quality Monitoring at Victoria General Hospital

Because of the magnitude of change at VGH, targeted safety monitoring was initiated to areas identified by clinical leaders as possible risks. In addition to the patient flow, patient experience and safety monitoring described earlier, targeted monitoring at VGH included:

- Auditing transfers to other hospitals from VGH Urgent Care;
- Monitoring readmission rates;
- Monitoring transfers back to acute care sites from the new sub-acute and transitional care units at VGH;
- Transfer of care audits to ensure appropriate documentation between sending hospitals and VGH about patients’ conditions and needs; and
- Mock accreditation survey, using the validated criteria from Accreditation Canada.

Transfers from VGH Urgent Care to Acute Hospitals

As VGH’s ED was being transformed, a risk raised by several clinical leaders was whether the new urgent care centre would receive patients requiring acute emergency care that could not be safely managed within the resources present and whether the transfers from urgent care to acute hospitals was appropriate.

---

20 Canadian Institute for Health Information, Your Health System portal, 2017: https://yourhealthsystem.cihi.ca
To achieve this, all transfers out of VGH UC were flagged for clinical review. It’s important to recognize that VGH Emergency Department had transferred patients daily to other acute sites to receive specialized care prior to its conversion to an urgent care centre. The WRHA Regional Emergency Program led the review to determine whether the transfers would have happened before consolidation and whether the transfer to another site was clinically appropriate.

The audit period focused on October 4 to December 27, 2017. Over this period, 385 patients were transferred from urgent care to acute hospitals, about 4.5 per day on average or approximately 4.2% of the total patients attending VGH Urgent Care. While 7% of these visits requiring transfer initially arrived to urgent care via ambulance, the remainder was walk-in patients.

The hospitals patients were transferred to all other hospitals in the city; however the majority (52%) were transferred to SBH, followed by 23% to GH and 15% to HSC.

The audit found that 51% of the patient transfers still would have been transferred for more specialized care even if VGH had their former emergency, ICU and inpatient services. This included critical conditions such as heart attacks or conditions requiring more surgery not offered at VGH, such as major fractures or appendicitis. This means there are approximately 2-3 transfers per day that are due to the change in care level at VGH, often requiring acute inpatient treatment for more severe infections or conditions that would require closer monitoring than would be available at a non-acute hospital.

Nearly all (90%) of the transfers to other sites were deemed appropriate through the retrospective clinical audit. Only 6% were found to be potentially inappropriate transfers, generally for conditions that did not require specialized testing or consultation or did not require acute admission. The remaining 3% of cases could not be fully audited.

Given that the majority of cases requiring transfer are walk-in, the clinical review found that largely paramedics have successfully shifted their practice to take patients to the right site the first time when it comes to deciding between urgent care and ED. Clinical leaders also predicted it was likely the public walk-in visits requiring transfer would decrease over time as more of the public understand how to access care.

**Figure 26: Daily Volume of Transfers from VGH Urgent Care to Acute Hospitals**
Because the sub-acute model of care is new for WRHA, clinical and operational leaders identified a safety risk that patients might be discharged too early from sub-acute units resulting in a readmission at a Winnipeg hospital for care, or might be transferred to sub-acute or transitional care too soon resulting in a transfer back to acute care for more specialized stabilization and treatment.

A monitoring and audit process was established for any sub-acute patients transferred back to acute care within 48 hours of being transferred into VGH. This was monitored to ensure patients were in fact medically stable enough for transfer to sub-acute care. Only one transfer back within 48 hours was identified, which triggered an audit. The audit found the transfer back to be appropriate and not related to a premature move from acute to sub-acute care.

The 30-day readmission rate was reviewed regionally and for VGH specifically. For all inpatients at VGH, the readmission rate increased to 14.1% in November. Closer examination found that the readmission rate is highest (21.2%) on the sub-acute units, which is higher than what is traditionally seen among internal medicine and family medicine units across the WRHA. As this indicator only reflects one full month of discharges, it includes a small number of sub-acute cases (33). Further, it will take some time to understand what an appropriate readmission rate is for sub-acute care patients. Nevertheless, this elevated rate raises a potential concern which should be reviewed jointly by VGH and the regional internal medicine and family medicine programs.

**Recommendation 14**: Further investigate the readmission rate for sub-acute patients to identify the root causes and whether improvements to the model of care or care processes are required.

### 5.3.5 Monitoring at Misericordia
With Misericordia’s Urgent Care Centre closing and shifting this function to VGH, a risk was identified regarding the level of public awareness about the change. The WRHA used a variety of methods to communicate the change to the public, including a mass public awareness campaign.

Awareness seemed to increase as the number of visits to Misericordia Urgent Care started to decline following the initial announcement in April of its closure. Last year, the site saw an average of 106 urgent care visits per day and this year prior to its closure that number had declined to 71 per day.

Following the closure on October 2, Misericordia was asked to monitor the number of patients seeking urgent care. While that number was higher in the few weeks following the closure, the number has settled to an average of 10 per day.\(^{21}\) The evaluation team sent in a client relations resource to connect with those seeking care in late October and found that about half were local residents with social challenges (e.g. homeless or transient) who were not aware of the closure. This information was passed on to the Downtown / Point Douglas community area for outreach follow-up.

\(^{21}\) An audit of the tracking at Misericordia found the site was capturing both patients walking in looking for urgent care and patients phoning. This was corrected in mid-October to only include patients who had physically visited the site looking for urgent care.
5.4 **Workforce Impact**

With changes as substantial as documented in this report, the WRHA also wanted to monitor the impact on its workforce, with the expressed goal of minimizing disruption and maximizing opportunities for staff. In order to monitor this, the evaluation team quantified the impact of deletions and layoffs, reviewed sick time and overtime levels and reviewed comments from front line staff received through the lessons learned survey.

5.4.1 **Labour Adjustment Impact**

As clinical services were shifted and new models of care were implemented, new staffing ratios were also introduced. These changes were implemented using the labour adjustment process described earlier in section 4.2.

Because the clinical consolidation initiative occurred at the same time as other sustainability initiatives, the evaluation team was not able to separate workforce impacts between the two. However, the WRHA made a commitment to maximize opportunities for staff and has stated it expects there to be an opportunity for every nurse wishing to continue working within the region, regardless of which initiative impacted their position.

The evaluation team reviewed the labour adjustment impacts, as reported by hospitals and WRHA human resources as of January 12, 2018, to assess the impact on staff. This date was selected to align with the implementation of new rotations at SBH. In a small number of cases, employees received a “partial layoff” because their equivalent full time position (EFT) was reduced to fewer hours. These employees are counted as laid off and are also counted as new job secured, though they remain on partial layoff to retain their rights to a larger EFT as they become available.

Overall, the review found that 3,776 positions were deleted across the nursing, support, professional/technical and trades sectors. As mentioned earlier, a deletion generally does not translate into a loss of position, and indeed for 3,532 of the employees who received a deletion notice, or 94%, no
lay off was issued. Among the 244 employees that were laid off, over half (54%) have since secured a position within the WRHA or its funded facilities.

Table 9: Summary of Labour Adjustment (as of January 12, 2018)²²

<table>
<thead>
<tr>
<th>Sector</th>
<th>Positions Deleted</th>
<th>Total Laid Off</th>
<th>% Laid off</th>
<th>New job secured</th>
<th>% with new job</th>
<th>Still Laid Off</th>
<th>Status Unknown</th>
<th>Retired/Resigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing</td>
<td>2,297</td>
<td>70</td>
<td>3%</td>
<td>39</td>
<td>56%</td>
<td>31</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Support</td>
<td>1,365</td>
<td>125</td>
<td>9%</td>
<td>76</td>
<td>61%</td>
<td>45</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Professional/Technical and Trades</td>
<td>114</td>
<td>49</td>
<td>43%</td>
<td>17</td>
<td>35%</td>
<td>29</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3,776</td>
<td>244</td>
<td>6%</td>
<td>132</td>
<td>54%</td>
<td>105</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

For nurses, 2,297 received deletion notices and 70 of these, or 3%, resulted in a lay off. Of these 70 affected employees, all but 31 have since secured a position. To assess the WRHA’s expectation that positions would be available for all affected nurses, the evaluation team reviewed the number of nursing vacancies posted across the WRHA in early January and found 99 permanent and term positions available. In addition, the majority of the 31 nurses have been able to pick up shifts while on lay off up to their previous EFT, and many nurses have been able to pick up shifts exceeding their previous EFT.

WRHA Labour Relations reports that for nurses still on lay off, they may be waiting for the right opportunity, be that a specific EFT, preferred shift schedule, unique specialty area or location of work. A few nurses on layoff have elected to travel. Several nurses on layoff actively hold a second position for other health care employers.

5.4.2 Monitoring Sick Time and Overtime

Early on in the planning process, WRHA identified the importance of monitoring sick time and overtime to see how employees are being impacted by change and implementation.

Sick time was important as, with any change, it was expected that some staff may face uncertainty, anxiety or workload-related challenges in the lead-up to and during implementation. While sick time isn’t a definitive measure of these issues, it was seen as an easily-accessible indicator to identify potential issues. Monitoring sick time, as a percentage of total staffed hours, has found that there were no spikes or major increases in sick time in the period before or during implementation, as illustrated in figure 28 below.

Overtime was also monitored to identify any potential “stress points” during implementation. Overall, overtime did not spike during implementation across WRHA. In fact, overtime has decreased as a result of separate initiatives in this area. The evaluation team did note some isolated spikes at some individual hospitals, which appear to be temporary in nature related to the timing of the labour adjustments at that site.

²² Note that these statistics capture employees who had started a lay off as of January 12, 2018. St. Boniface General Hospital has identified up to eight additional nurses who may receive a lay off in January or February.
5.4.3 Feedback from Employees and Physicians about the Changes

Beyond the feedback mentioned earlier in the lessons learned section, a strong theme across all employee groups and especially among front line staff was a feeling of anxiety during the changes. Some of this relates to how the changes were communicated to them and how they were prepared for and oriented to changing roles, as described earlier in this report. A big part of this anxiety, however, stemmed from the uncertainty that came with the labour adjustment process, especially because of its quick timing and magnitude.
This risk was echoed by several operational leaders who were also concerned about the stability of services that may be impacted by changes in phase II. With changes announced but their timing unknown, some staff may find new positions elsewhere and recruiting into these new vacancies has become more challenging. This can reach a “tipping point” where it is no longer viable to maintain service. While some of this risk can be managed through labour adjustment strategies as outlined earlier, the risk increases the longer phase II changes are delayed.

The survey found that 63% of staff did not feel supported by human resources throughout the process. Many described the anxiety resulting from this. For example, one staff explained that “everyone had sleepless nights not knowing if they are going to have a job at the end of the month.”

There was also a feeling among some staff that they were treated disrespectfully through the process because they often learned about changes through media, including changes to their positions: “Talk with staff about changes and don’t surprise staff. Information related to our jobs should first be told to staff prior to media press releases. This was unfair, disrespectful and a low blow to staff.”

Some staff did recognize the efforts to make the labour adjustment process more streamlined for them, with several sharing comments such as “the bumping process was done quickly and efficiently.” However, many also pointed out that “the preparedness of staff is a factor to the smooth flow of the process.”

Outside of these staffing sectors, physician coverage models were also adjusted in medicine as the new models of care were introduced. Like the new models of care, the coverage models impacted family physicians who cover clinical assessment, sub-acute and transitional care units. These changes require recruitment of additional physicians and changes for existing physicians as well.

**Recommendation 15**: Consider how to ensure front line staff hear about labour adjustment changes first from internal sources rather than through the media

**Recommendation 16**: Set the dates for phase II as far in advance as possible to allow for more time for the labour adjustment process to be planned, communicated and implemented. This could have several positive impacts, including the potential to reduce uncertainty and anxiety among staff sooner and provide more stability to services that will change in phase II that might otherwise face the risk of staff leaving as they find other positions on their own. It will also allow for more time to engage with physicians about new models of care to support recruit efforts and the longer-term sustainability of physician coverage.

### 6. Looking Ahead to Phase II of Consolidation

As phase I of clinical consolidation implementation was underway, the WRHA has continued to focus on further developing its plan for implementing phase II. The evaluation team continues to be involved in the planning process.

While nearly all of the clinical and operational leaders consulted by the evaluation team continue to support the final vision of the Healing our Health System plan, there are ultimately two overarching and conflicting opinions centered on timing.
Some see a risk in moving too quickly and suggest waiting, monitoring and deciding on timing at a later date, a perspective shared by the Wait Time Reduction Task Force. Others see a risk in waiting, worried about operating in an interim state too long and wanting to see the further benefits that they believe will come with phase II as soon as possible.

When it comes to moving too quickly, the main concern is about concentrating patient volumes into fewer sites before those sites have the capacity to fully accommodate them and not see a decline in performance. Indeed, a review of the projected changes in patient volumes to EDs and admission pressures identifies some major increases to the three acute sites in phase II, as outlined in table 10 below, though the projections should be updated as some sites have already seen increases higher than expected in phase I.

Table 10: Projected Changes in Emergency and Urgent Care Visits, EMS Arrivals and Admissions

<table>
<thead>
<tr>
<th>Site</th>
<th>2016/17</th>
<th>Change in Phase I</th>
<th>Further Change in Phase II</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Visits</td>
<td>EMS</td>
<td>Admits</td>
</tr>
<tr>
<td>Concordia</td>
<td>30,515</td>
<td>5,610</td>
<td>3,568</td>
</tr>
<tr>
<td>Grace</td>
<td>30,072</td>
<td>7,417</td>
<td>3,381</td>
</tr>
<tr>
<td>HSC Adult</td>
<td>62,201</td>
<td>12,783</td>
<td>9,405</td>
</tr>
<tr>
<td>HSC Children’s</td>
<td>52,723</td>
<td>4,187</td>
<td>3,877</td>
</tr>
<tr>
<td>Misericordia</td>
<td>38,614</td>
<td>265</td>
<td>3</td>
</tr>
<tr>
<td>St. Boniface</td>
<td>42,239</td>
<td>7,250</td>
<td>6,748</td>
</tr>
<tr>
<td>Seven Oaks</td>
<td>41,472</td>
<td>8,768</td>
<td>3,945</td>
</tr>
<tr>
<td>Victoria</td>
<td>32,056</td>
<td>6,205</td>
<td>3,144</td>
</tr>
</tbody>
</table>

Source: WRHA Emergency Program, subject to ongoing updates

Grace, HSC and St. Boniface EDs will require additional capacity to meet the 21% to 37% further increases to their volumes projected in phase II.

The Wait Time Reduction Task Force suggests waiting for a new emergency department at St. Boniface before proceeding with changes that will further increase their volumes. Though the evaluation team did not review the merits of whether a new emergency department is required at SBH, the need for more physical capacity is warranted at all three acute sites and is already part of the WRHA’s plan. However, an important part of the solution lies in creating capacity in the existing space by focusing on the throughput and output factors discussed earlier in this report, including testing, consultant response and inpatient capacity. This sentiment is also underscored in the task force report, along with the need for increased staffing in acute hospital EDs.

The challenge, which is almost a paradox, is that the solution to addressing most of these concerns requires the implementation of phase II to free up resources and optimize the use of inpatient beds. This is recognized by those who see the greater risk in waiting.

While it appears WRHA hospitals have made significant progress in improving patient flow, including ED wait times and length of stay, there are barriers to achieving further improvement. Inpatient beds at the three acute hospitals have frequently been at or above 100% occupancy since October 3. This results in patients continuing to back up and wait for admission in their EDs.
While some initial improvement in this output from EDs was achieved in 2017, it appears to have slowed down or stalled. The assessment of patient flow trends combined with consultations with operational leaders finds that there is an urgent need for more sub-acute capacity, something phase II of consolidation will deliver at Seven Oaks and Concordia. This is not a surprise, because the 59 sub-acute beds now open at Victoria represent only a third of the sub-acute capacity planned for Winnipeg after phase II is implemented. As the wait list for sub-acute beds has grown, so too has the occupancy in hospitals and the length of stay in clinical assessment units, which were designed to take pressure off of EDs. In turn, patients are backing up again in EDs waiting for admission. These changes appear to be linked and are a signal of a new blockage in patient flow: moving patients from acute to sub-acute beds.

Finally, concerns were raised about maintaining the increased volume of higher acuity patients at Concordia and Seven Oaks that has been experienced since October 3. Both hospitals are seeing more ambulance arrivals and patients requiring admission than projected, as outlined earlier in this report. Maintaining this increased level of acuity at these two hospitals is a challenge, and several recommended that moving forward with phase II sooner would help to address this.

Reconciling these risks and the solutions to them is challenging and must be guided by evidence and collective clinical advice, over individual opinions. While the planning work is still underway, the evaluation team agrees with the need for more sub-acute capacity, which can only be delivered as inpatient changes occur at Seven Oaks and Concordia.

Some clinical leaders raised another concern about a potential erosion in the continuity of care for family physicians’ patients. Groups of family physicians have traditionally covered inpatient medicine at SOGH, CH, VGH and SBH. These doctors have reported that they see fewer of their own patients since October 3. An initial analysis of admissions to family medicine units confirmed fewer patients known to the family physician groups were being admitted to that group’s hospital. Further, concerns were raised about the capacity to ensure francophone patients are admitted to a bilingual unit. These issues should be monitored and incorporated into phase II planning.

There are also new or emerging issues such as new trends in volumes or demand for service, which have an influence on how the system operates and how the planning and final decisions on phase II are made. Some of these trends have been identified earlier in the report, such as increases in ambulance volumes and in patients requiring admission to hospital, both of which are not only related to the earlier onset of influenza. One of the most challenging trends in EDs identified by clinical leaders is the increase in patients with complications from crystal methamphetamine.

Another new and emerging variable that should be considered as phase II plans and implementation schedule are finalized is any change to clinical services outside of Winnipeg. For example, a new hospital opened in Selkirk in July 2017, which resulted in a decrease in Interlake patients using Seven Oaks ED. The WRHA will be engaged in clinical and preventive planning, through Shared Health, to ensure the scope and timing of any changes are aligned provincially.

**Recommendation 17:** Identify opportunities to begin transforming inpatient medicine units at Seven Oaks and Concordia to sub-acute care as soon as possible. This must be done carefully and as part the larger phase II plan to ensure the inpatient medicine changes are aligned with changes to emergency, critical care and other services.
→ **Recommendation 18:** Continue to monitor and optimize continuity of care for patients as well as admission of francophone patients to bilingual units.

→ **Recommendation 19:** Review and integrate new and emerging trends in patient volumes and needs into phase II planning, such as increases in ambulance volumes, patients requiring admission and crystal methamphetamine-related presentations. Furthermore, review the timing of phase II changes with Shared Health to ensure they are aligned provincially.
7. Recommendations

The interim evaluation makes 17 recommendations aimed at improving the system and strengthening readiness for the next phase of clinical consolidation. This includes improvements to planning and implementation efforts, optimizing patient flow, streamlining access to new services, communicating with patients about transition in care, improving communication with staff about the labour adjustment process and considerations for phase II implementation timing.

Planning and Implementation Opportunities

- **Recommendation 1**: Identify internal and external stakeholders impacted by changes, engage them as early as possible in the planning process and collaborate on planning and implementation where feasible

- **Recommendation 2**: Ensure clear roles for all those involved in planning and implementing major changes. There must be a commonly-understood process for decision-making, including how planning and implementation recommendations are made, who is consulted and which groups ultimately approve recommendations.

- **Recommendation 3**: A clear timeline with key milestones is required for planning, especially when multiple groups with shared responsibilities are involved

- **Recommendation 4**: Among the planning and implementation teams regionally and within sites, establish a clear and concise documentation process to track key components of the planning process, their current status, identify who is responsible, the due date and expected action or work. Ensure updates are fed back to those involved or impacted by each component.

- **Recommendation 5**: Better align and coordinate regional and site communication, education and organizational change resources to ensure targeted, timely communication with all staff and physicians about changes, especially changes that impact them directly. Use these resources to better equip direct managers with information relevant to their staff.

Optimizing Patient Care Following Phase I Changes

- **Recommendation 6**: Further investigate throughput improvement opportunities in EDs, including optimizing the process for patients who require testing and inpatient consultant availability, to further reduce length of stay.

- **Recommendation 7**: Continue to implement patient flow tools, monitor their use and reinforce their important to reduce and avoid prolonged hospital stays

- **Recommendation 8**: Continue to monitor the new models of care for inpatient medicine, particularly the eligibility criteria for sub-acute and transitional care to ensure service models are being as inclusive and supportive as possible of patient needs at acute hospitals. Family physicians should be engaged as part of refining the models of care.

- **Recommendation 9**: Begin monitoring patient “boarding” in EDs immediately and incorporate this monitoring and expectations into hospital performance management. An ED boarding indicator should not be viewed as a reflection of ED performance, but rather of the whole hospital’s performance on patient flow.
Recommendation 10: Review the multiple different processes care teams must use to advance their patients to a different level of care to identify opportunities for streamlining and simplifying access, removing barriers and avoiding delays in patient transitions.

Recommendation 11: Monitor the uptake of the new alternate levels of care, such as the transitional care environment, priority home services and rapid response nursing, to ensure their capacity is being maximized to best support acute care sites. This could include reorienting staff on these services and the shift away from paneling in hospital as well as reinforcing the safety and strengths of community care options with hospital care teams.

Recommendation 12: Acute sites should focus on preparing patients for a move to a sub-acute facility, including explaining why the move is in the patient’s interest and when it is likely to occur.

Recommendation 13: All hospital should reinforce the need to communicate with patients about their condition and involve them in their care planning. Unit managers should take the time to introduce themselves to patients and/or their families.

Recommendation 14: Further investigate the readmission rate for sub-acute patients to identify the root causes and whether improvements to the model of care or care processes are required.

Looking Ahead to Phase II

Recommendation 15: Consider how to ensure front line staff hear about labour adjustment changes first from internal sources rather than through the media.

Recommendation 16: Set the dates for phase II as far in advance as possible to allow for more time for the labour adjustment process to be planned, communicated and implemented. This could have several positive impacts, including the potential to reduce uncertainty and anxiety among staff sooner and provide more stability to services that will change in phase II that might otherwise face the risk of staff leaving as they find other positions on their own. It will also allow for more time to engage with physicians about new models of care to support recruit efforts and the longer-term sustainability of physician coverage.

Recommendation 17: Identify opportunities to begin transforming inpatient medicine units at Seven Oaks and Concordia to sub-acute care as soon as possible. This must be done carefully and as part the larger phase II plan to ensure the inpatient medicine changes are aligned with changes to emergency, critical care and other services.

Recommendation 18: Continue to monitor and optimize continuity of care for patients as well as admission of francophone patients to bilingual units.

Recommendation 19: Review and integrate new and emerging trends in patient volumes and needs into phase II planning, such as increases in ambulance volumes, patients requiring admission and crystal methamphetamine-related presentations. Furthermore, review the timing of phase II changes with Shared Health to ensure they are aligned provincially.
## 8. Appendices

### 8.1 ED and Urgent Care Length of Stay for Non-Admitted Patients

<table>
<thead>
<tr>
<th></th>
<th>This Year</th>
<th>Last Year</th>
<th>Change</th>
<th>Last Year with Flu Season</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>3.58</td>
<td>3.82</td>
<td>-6%</td>
<td>3.93</td>
<td>-9%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>9.15</td>
<td>9.82</td>
<td>-7%</td>
<td>10.03</td>
<td>-9%</td>
</tr>
<tr>
<td><strong>Concordia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>5.12</td>
<td>4.68</td>
<td>9%</td>
<td>4.98</td>
<td>3%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>13.85</td>
<td>11.72</td>
<td>18%</td>
<td>12.23</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Grace</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>4.43</td>
<td>4.77</td>
<td>-7%</td>
<td>5.02</td>
<td>-12%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>15.22</td>
<td>15.42</td>
<td>-1%</td>
<td>16.30</td>
<td>-7%</td>
</tr>
<tr>
<td><strong>HSC-Adult</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>4.00</td>
<td>4.80</td>
<td>-17%</td>
<td>4.90</td>
<td>-18%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>10.35</td>
<td>11.93</td>
<td>-13%</td>
<td>12.16</td>
<td>-15%</td>
</tr>
<tr>
<td><strong>Seven Oaks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>3.72</td>
<td>3.85</td>
<td>-3%</td>
<td>3.98</td>
<td>-7%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>9.02</td>
<td>9.03</td>
<td>0%</td>
<td>9.60</td>
<td>-6%</td>
</tr>
<tr>
<td><strong>St. Boniface</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>4.08</td>
<td>4.47</td>
<td>-9%</td>
<td>4.68</td>
<td>-13%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>9.37</td>
<td>10.93</td>
<td>-14%</td>
<td>11.08</td>
<td>-15%</td>
</tr>
<tr>
<td><strong>Victoria</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>3.03</td>
<td>4.27</td>
<td>-29%</td>
<td>4.45</td>
<td>-32%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>6.33</td>
<td>12.83</td>
<td>-51%</td>
<td>13.25</td>
<td>-52%</td>
</tr>
<tr>
<td><strong>Canada</strong></td>
<td>(2016/17)</td>
<td></td>
<td></td>
<td>(Source for Canadian Data: CIHI)</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>2.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90th Percentile</td>
<td>6.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## 8.2 ED and Urgent Care Length of Stay for Admitted Patients

<table>
<thead>
<tr>
<th></th>
<th>This Year</th>
<th>Last Year</th>
<th>Change</th>
<th>Last Year with Flu Season</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WRHA (all sites)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>12.15</td>
<td>14.10</td>
<td>-14%</td>
<td>14.60</td>
<td>-17%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>33.60</td>
<td>43.32</td>
<td>-22%</td>
<td>44.80</td>
<td>-25%</td>
</tr>
<tr>
<td><strong>Concordia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>13.37</td>
<td>19.98</td>
<td>-33%</td>
<td>19.73</td>
<td>-32%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>28.60</td>
<td>45.07</td>
<td>-37%</td>
<td>43.58</td>
<td>-34%</td>
</tr>
<tr>
<td><strong>Grace</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>18.62</td>
<td>14.08</td>
<td>32%</td>
<td>14.93</td>
<td>25%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>41.90</td>
<td>34.15</td>
<td>23%</td>
<td>34.47</td>
<td>22%</td>
</tr>
<tr>
<td><strong>HSC-Adult</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>10.90</td>
<td>11.04</td>
<td>-1%</td>
<td>11.30</td>
<td>-4%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>31.38</td>
<td>30.28</td>
<td>4%</td>
<td>30.92</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Seven Oaks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>15.55</td>
<td>24.25</td>
<td>-36%</td>
<td>24.40</td>
<td>-36%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>38.68</td>
<td>61.30</td>
<td>-37%</td>
<td>60.35</td>
<td>-36%</td>
</tr>
<tr>
<td><strong>St. Boniface</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>14.57</td>
<td>16.48</td>
<td>-12%</td>
<td>18.04</td>
<td>-19%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>38.57</td>
<td>46.27</td>
<td>-17%</td>
<td>50.13</td>
<td>-23%</td>
</tr>
<tr>
<td><strong>Victoria</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>22.88</td>
<td>23.35</td>
<td>-2%</td>
<td>24.62</td>
<td>-7%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>45.83</td>
<td>53.97</td>
<td>-15%</td>
<td>55.77</td>
<td>-18%</td>
</tr>
<tr>
<td><strong>Canada</strong></td>
<td>(2016/17)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Source for Canadian Data: CIHI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>10.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90th Percentile</td>
<td>32.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>