BIG HEALTHCARE Benchmark Intelligence Group
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Operational Review

Report Submitted to:
Lake of the Woods District Hospital

BIG Healthcare
60 Atlantic Avenue
Suite 200
Toronto, Ontario
M6K 1X9
www.BIGhealthcare.ca

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Contents

Executive Summary

The Lake of the Woods District Hospital (LWDH) in Kenora is Northwestern Ontario's largest hospital west of Thunder Bay. Services are provided to approximately 35,000 residents of the City of Kenora and a large surrounding area, including several First Nations Communities. The population served by the hospital expands to over 70,000 in the summer months due to the influx of summer residents and tourists to the area. The hospital was originally founded in 1897 as the Rat Portage Jubilee Hospital and became the Kenora General Hospital in 1905. The St. Joseph's Hospital and the Kenora General Hospital amalgamated in 1968 to form the Lake of the Woods District Hospital.

A comprehensive Operational Review was undertaken to examine financial and clinical processes and identify strategies to allow the hospital to manage it operations within its fiscal constraints, achieve long-term sustainability and provide accessible, high quality and safe care that aligns with population health care needs. The objectives of Operational Review included the development of a:

- Hospital Improvement Plan (HIP);
- governance improvement plan; and
- review of the effectiveness of hospital leadership.

The HIP is to provide recommended mitigation strategies and other remedial actions that, in the short term, will return the hospital to a balanced operating position and protect its rapidly deteriorating working capital position, and, in the long term, will provide a sustainable operating plan to ensure high quality, safe, accessible, and sustainable hospital services.

A review of the current governance model will provide comparisons to best practices and produce recommendations for a governance improvement plan.

The effectiveness of hospital leadership (management and medical staff) will be examined to provide recommendations on strategies to strengthen and improve relationships.

The first step in the review was to develop an understanding of the clinical, operating and fiscal characteristics of the hospital; details are presented in Chapter 2 of this report. LWDH financial results for the fiscal years (FY) 2011/12 through 2016/17 are summarised in the following exhibit[1]. As can be seen, LWDH has run an 'operating deficit' in two of the last six years. The hospital results have ranged from a deficit of 2.0% of revenues (2014/15) to a surplus 0.4% of revenues (2011/12).

Importantly, when building depreciation and deferred contributions are considered, LWDH has had an 'accounting deficit' in 5 of the previous 6 years. An accounting surplus is necessary to support the hospitals' capital needs.

[1] The historical information presented here was taken largely from the Board approved financial statements of the hospital, and supplemented with information from management along with some modifications made for restated building and equipment amortization and expenses to match the HSAA definition of Operating Surplus / Deficit.

Exhibit 1: LWDH Financial Results 2011/12 to 2016/17

	Act 2011/12	Act 2012/13	Act 2013/14	Act 2014/15	Act 2015/16	Act 2016/17
Revenue						
NWLHIN & Ministry of Health & CCO						
LHIN Global & HBAM	26,779,271	26,075,607	24,678,762	24,025,932	23,179,212	24,840,309
LHIN QBP	0	663,970	2,444,264	2,244,425	2,245,320	1,813,912
	26,779,271	26,739,577	27,123,026	26,270,357	25,424,532	26,654,221
CCO Funding	700,728	562,934	1,838,745	1,972,405	1,779,494	1,479,720
CCO QBP	0	0	0	289,390	345,241	480,226
WTIS Funding	707,878	114,800	105,900	294,010	281,750	283,970
LHIN Programmatic one-time	165,000	245,950	301,456	331,324	158,000	183,000
MoHLTC Programmatic one-time	474,257	1,523,184	311,146	350,634	281,432	307,122
Medical Staff Funding	3,873,813	3,519,815	3,757,931	3,510,160	3,533,819	3,798,988
LHIN Operating pressures one-time	0	0	142,643	0	710,992	0
	5,921,676	5,966,683	6,457,821	6,747,923	7,090,728	6,533,026
	32,700,947	32,706,260	33,580,847	33,018,280	32,515,260	33,187,247
Patient Revenue from Other Payers						
WSIB	57,765	51,237	60,018	85,039	51,683	48,492
Non-Residents of Province	897,548	1,010,943	965,340	847,407	955,714	1,123,384
Non-Residents of Canada	58,513	64,579	142,153	172,032	133,227	220,979
OHIP	1,754,336	1,568,977	1,464,549	1,387,345	1,332,867	2,114,855
Ambulance Services	73,821	72,012	78,253	88,951	77,970	92,955
Differential & Copayment	442,915	293,086	269,422	338,780	305,396	342,191
	3,284,898	3,060,834	2,979,735	2,919,554	2,856,857	3,942,856
Other Revenue & Rec's & Mkted serv's	3,293,523	3,341,651	2,977,787	3,310,737	3,111,058	3,053,958
Specially-funded Provincial Programs	6,017,237	6,089,715	6,290,704	6,790,850	7,131,707	7,172,145
Deferred Capital contributions Equip.	587,507	651,403	655,608	736,568	745,141	828,745
	45,884,112	45,849,863	46,484,681	46,775,989	46,360,023	48,184,951
Expenses						
Salaries and Wages	20,303,403	20,488,086	20,807,988	21,264,658	20,520,024	20,302,157
Employee Benefits	5,116,894	5,278,620	5,151,667	5,366,973	5,226,226	5,216,784
Medical Staff Remuneration	5,543,885	5,392,631	5,275,805	5,173,031	5,018,275	6,305,404
Supplies and Other	5,354,408	5,365,201	5,239,345	5,562,185	5,515,085	5,972,197
Medical and surgical supplies	1,157,104	1,071,697	1,123,978	1,137,871	1,157,169	1,110,526
Drugs	1,357,241	1,225,581	1,527,311	1,509,256	1,358,780	1,189,567
Specially-funded Provincial Programs	6,017,237	6,089,715	6,290,704	6,790,850	7,131,707	7,172,145
Bad Debts	23,197	23,250	30,160	29,284	28,489	27,707
Depreciation Equipment	828,739	825,682	878,945	889,165	895,225	861,534
	45,702,108	45,760,463	46,325,903	47,723,273	46,850,980	48,158,021
Operating Revenue less Expenses	182,004	89,400	158,778	(947,284)	(490,957)	26,930
As a percentage of revenue	0.40%	0.19%	0.34%	-2.03%	-1.06%	0.06%
Depreciation Buildings	(952,328)	(976,917)	(1,027,340)	(1,090,008)	(1,197,995)	(1,235,220)
Deferred Capital Contributions Buildings	802,945	751,788	679,941	727,006	847,623	865,824
	(149,383)	(225,129)	(347,399)	(363,002)	(350,372)	(369,396)
Surplus/(Deficiency) of Revenue/Expenses	32,621	(135,729)	(188,621)	(1,310,286)	(841,329)	(342,466)

Following extensive discussions between the hospital and the LHIN, base funding was increased in 2016/17 by $1.4M. Even with this increase, overall LHIN funding from 2011/12 ($26.8M) to 2016/17 ($26.7M) has remained essentially flat. Excluding revenue associated with specifically funded programs (CCO, Provincial Programs, Medical Staff) we see that revenue available for hospital operations (despite the recent base increase) has declined from $33.5M in FY 2011/12 to $33.1M in FY 2016/17; a decrease of 1.2% or $400k over this 6-year period.

Overall therefore, the resources available for hospital operations have declined over the last 6-years. Management has responded as required with efficiency improvements and service reductions in an attempt to maintain a balanced position while also dealing with inflationary pressures.

The operational efficiency efforts are apparent in the benchmarking analysis undertaken to compare individual department operational performance to peer hospitals. Using department specific results, we have assessed overall performance by looking at the proportion of departments operating within each comparative efficiency quartile of peer hospitals (see chapter 6 for approach description). In 2016/17, most LWDH departments (63%) are operating at or better than the median efficiency performance of peer hospitals; this represents an increase since 2013/14 when 55% of departments were operating at or better than median efficiency performance of peer hospitals.

Unlike many hospitals in Ontario, LWDH has maintained a current ratio above 1 for each of the last 6 years. Total net assets over the period have declined however from $8M to $5.2M. In 2017/18, the current ratio is expected to fall below 1 and net assets are forecast to fall further to $4.6M. Working capital over this six year period has remained positive and between $1.3M and $3.6M. The forecasted decline in working capital in 2017/18 (a deficit of 92k) will require that management ensure that sufficient operating credit facilities are in place.

While the drop in net assets has been slow, it has been consistent and is clearly not sustainable over the long run. A balanced position that is sufficient to generate cash to maintain equipment and the capital infrastructure is essential.

The LWDH Board is challenged with the responsibility of oversight in a very difficult environment: a poor physical infrastructure, declining revenues, a complex and limited funding environment, continual inflationary pressures and ever increasing patient demands. The result of these pressures has been a slow erosion of net assets, recurring deficit challenges, increasing cash-management concerns and associated strained relations among the board members, administration, staff and physicians.

A fundamental responsibility of any hospital Board is the fiscal integrity of the hospital and its long-term solvency. Appropriately, the LWDH Board has supported management in the difficult service reduction and efficiency decisions implemented over the last few years in an attempt to maintain a balanced financial position.

Planning is also recognized as a critical component of hospital governance and management. Hospitals must develop plans in response to the needs of the community and in collaboration with the LHIN, local community and other health care and social service agencies. Decision-making in the absence of clearly

articulated strategy and strategic priorities is often uncoordinated and inconsistent. Board members report this is, unfortunately, the case at LWDH because of the Board's focus on immediate financial issues.

Some Board members have also expressed frustration with the limited engagement of the Board in meaningful financial oversight and decision-making and an inability to deal with current and emerging issues, resulting in minimal Board discussion about important issues. This is felt to arise from the current policy governance model that prescribes retrospective monitoring of Executive Limitations and Governance Policy reports. There is a divergence of perspectives among Directors however on the value of the policy governance model for LWDH. A perceived advantage of the model is that it very clearly differentiates the role of the Board and the CEO. Some Directors appreciated the prescriptive process as an easier approach for volunteer Boards and also observed that it results in time efficient meetings (an important objective for volunteer Board members).

The presence of medical staff leadership who are informed and aware of the hospital's fiscal issues, and have the knowledge and skills to assist the hospital as it moves forward (including the ability to plan medical staff human resources, strategic planning to meet community needs, quality improvement and improvements in clinical operations), is essential. Unfortunately, at LWDH we heard a long history of the poor relationship between Administration and Medical Staff. The roots of this situation are beyond the scope of this review; the real issue, however, is that this poor relationship is affecting patient care at LWDH. All interviewees acknowledged this challenge between Management and Medical Staff and its more recent direct impact on the Board.

Numerous physicians have expressed a long-standing frustration with being generally omitted from important service decisions. There were periods of time, however, when there have been no Medical Staff Association (MSA) Officers and therefore no MSA presence on the Board. This eliminates physician opportunities to advise the Board on issues from the perspective of the medical staff.

The Medical Staff report that they first brought their concerns to the attention of the Board over 8 years ago and have continued to do so. They report poor communication, lack of involvement in the direction of the hospital, lack of consultation on decisions that affect clinical operations, and a general lack of cooperation between Administration and Medical Staff. They do not feel that the Board has ever meaningfully responded to their concerns. Medical staff, and in fact many external observers, label the relationship as "dysfunctional". Many feel that both parties have been unreasonable over the years and appear unwilling to move forward in an effective way.

A number of important issues also exist on the physician side of this dysfunctional relationship. To begin, the Medical Organizational Structure (Chief-of-Staff, Department Chiefs, MAC, Medical Staff Association) is weak. The MAC is uniformly described as being dysfunctional and ineffectual. The MAC attendance is suboptimal, so there is often not a quorum, and this means the annual number of MAC meetings prescribed in the Professional Staff Bylaw is not met. Not all prescribed MAC Sub-committees exist (e.g. the Medical Records Committee). The MAC has not fulfilled its mandate to ensure that physicians adhere to the Professional Staff Bylaws. Unsurprisingly then, many interviewees described ongoing behaviour by some physicians that is unacceptable, and in contravention of the Organization's Professional Staff Bylaw and Code-of-Conduct Policy. The reviewers heard a number of

powerful anecdotes in this regard that are well known throughout the hospital and that are having a profoundly demoralizing effect.

The dysfunctional relationship between Administration and the Medical Staff is apparent to all, and negatively influences both the culture of the organization and patient care. However, despite the abundant evidence that Administration and the Medical Staff, left alone, will not be able to solve their differences, the Board has not insisted that a serious physician engagement initiative be undertaken.

Differences in perspective between Administration and Medical Staff and Boards may be inevitable; a completely dysfunctional relationship is not. Hospitals that thrive under difficult circumstances are uniformly characterized by dynamic, constructive and collaborative relationships between Management and appointed Medical Staffs. Both medical staff and administration at LWDH must accept responsibility and move forward. The Board must take a leadership role to ensure that this happens.

We have made a variety of recommendations that we believe will assist the Board, Management and Medical Staff to establish the necessary constructive and collaborative relationships that are essential to address the many challenges faced by LWDH. Immediately, the hospital needs to reduce its operating costs to: 1) balance its operating position; and 2) support renewal of its equipment and buildings.

LWDH is forecasting a break-even operating position and an accounting deficit of approximately $400,000 in 2017/18. We have prepared a simplified deficit projection that assumes:

- No programmatic / volume based funding changes; such changes should largely be neutral to the bottom-line as revenues should offset expenses;
- Non-programmatic / volume based funding will increase 1% annually;
- Total operating expenses will increase at 2% annually.

In this scenario, the LWDH deficit will increase annually by approximately $450,000. With no action taken, these assumptions will see the operating deficit grow to $1.8M and the accounting deficit grow to $2.2M by fiscal 2021/22.

As a result of our review and recommendations, we have identified necessary investments and efficiency opportunities that will provide the hospital with net savings of approximately $0.5 million from 2016/17 expense levels. Incorporating these operational improvement initiatives and proposed timing into the simplified deficit projection, reduces the projected deficit; with the implementation of the initiatives in the timeframes proposed, the operating deficit grows to $1.3M (vs. $1.8M) and the accounting deficit grows to $1.7M (vs. $2.2M) by fiscal 2021/22.

While the deficit is reduced with the implementation of the operational improvement initiatives, it is evident that there remains a significant operating and accounting deficit in each of the next four fiscal years. Further, working capital and net assets also continue to deteriorate.

We feel that over the time horizon considered, if further cost reductions of the magnitude required to balance were to be identified, they would need to come from service reductions. We have not included

any service reductions as part of the proposed Hospital Improvement Plan initiatives. Based on our analysis' we feel that the services that LWDH is providing now are required to serve the population and have identified potential areas for increased rather than decreased service (mental health, surgery, rehabilitation). Further, the difficulties inherent in expecting patients to travel for care (and the likelihood that care would be inaccessible if they did travel), and the impact on physician recruitment, would likely result in cost increases for the health system should LWDH choose to reduce services.

Therefore with a commitment from the LWDH Board to:

- Achieve its forecasted balanced operating position in 2017/18;
- Implement the identified operational improvement initiatives and other recommendations;
- Continue looking for internally identified operational improvements;
- Work with other providers to identify opportunities for synergies;
- Generate a surplus to maintain the current building as long as required;
- Initiate a strategic planning process with an emphasis on the clinical services required to appropriately serve the population of Kenora and the potential to develop regional programs supported by the LHIN (e.g. surgery, Mental health, rehabilitation); and
- Community engagement in the development of the strategic plan,

the LHIN/MOHLTC should provide the hospital with a base funding increase in 2018/19 of $1.75M. The combination of the hospitals aggressive pursuit of savings and additional funding from the LHIN would address the operating results and allow LWDH to address building maintenance challenges into 2021/22.

We feel that an investment of this magnitude by the LHIN will provide the hospital with the financial foundation to:

- Balance the hospital's operating budget;
- Sustain a balanced operating budget into the future;
- Achieve a sufficient accounting surplus, to position the Hospital to meet its capital investment requirements; and
- Ensure that the hospital is able to meet its HSAA obligations.

This investment will also give LWDH the financial certainty and foundation to address the variety of cultural challenges identified in this report and begin working constructively with its community towards a new Health Service Campus for Kenora.

However, if the LHIN/MOHLTC does not provide additional funding, the hospital will need to immediately pursue service reductions to alleviate the inevitable financial pressures on the organization. It will also need to aggressively pursue horizontal integration opportunities and changes to its care processes.

It will be critical for the Hospital to develop and implement a communication plan supporting the elements of the Hospital Improvement Plan. The hospital will need to communicate the seriousness of its fiscal situation and the plan to address and resolve the problem. It will need to craft specific messages addressing the interests and concerns of its key stakeholders including patients, hospital staff, other Health Service Providers in the LHIN, the LHIN, communities in its catchment area, first nations communities, local civic governments and local Members of Provincial (and federal) Parliament.

The LWDH Senior Management, MAC and Board should review this report, the recommendations and the detailed benchmarking and analyses' that supports the recommendations. Based on that review, the hospital should determine the timing for implementation of each recommendation and review their plan with the LHIN. We have assumed that all recommendations will be accepted and implemented expeditiously. We have made suggestions of timing and priorities; as this is contingent of management capacity, however, management should establish their own more specific plan.

The Hospital Improvement Plan (HIP) generated from this review will be reviewed by Senior Management, the LWDH Board and the LHIN prior to final decisions and implementation. The identified recommendations, and / or the timing of their implementation, may or may not be feasible and appropriate for LWDH in the opinion of management and the Board. It will be the responsibility of the Board, upon the advice of the management team, to determine which recommendations are feasible and appropriate, as well as the appropriate timeframe for implementation, with due consideration of the unique context of LWDH. A final HIP, recommended by the management team, and approved by the Board and the LHIN, will be developed for implementation following receipt of the Final Report.

Listing of Recommendations

Section 2.8

(1) The CFO should ensure that sufficient operating credit facilities are in place, and approved by the Board and LHIN as required, to manage the anticipated negative working capital in 2017/18.

(2) The CEO and CFO should develop a maintenance and capital renewal plan sufficient to ensure that the hospital equipment and facilities meet the needs of the population served by LWDH.

Section 3.1

(3) The Medical Staff Association should immediately elect officers to both provide leadership to the MSA and represent the Physicians on the Board of LWDH.

(4) The Board of Directors should implement a new governance model aligned with leading practice as outlined in the *OHA Guide to Good Governance, 3rd Edition* and relevant legislation in the Ontario hospital sector that includes the following three components:

- **Board and individual director accountabilities, roles and responsibilities;**
- **Board structures;**
- **Board processes.**

(5) That the Board of Directors amend Article 4.01(a) to increase the number of elected Directors from 9 to 12 in alignment with the OHA Model, and to facilitate the annual rotation of Directors as required by the Public Hospitals Act, succession planning within the Board for leadership roles, and a more balanced distribution of Standing Committee assignments among the elected Directors.

(6) That the Board of Directors reduce the number of Standing Committees to align with its defined responsibilities, establish revised Terms of Reference and canvass all Directors for expression of interest in assuming Committee leadership and membership positions.

(7) That the Board of Directors operationalize its current by-law provision 8.03(g) to recruit non-Director members to selected Board Standing Committees to acquire additional skills and expertise as may be required and to serve as a potential pool for recruitment of future Directors.

(8) That the Board of Directors amend Section 6.01(b) to limit the position of the CEO to Secretary of the Board. In the event that the Board wishes to have a Treasurer, this should be an elected member of the Board. Alternatively, if the Board does not wish to have a Treasurer, the administrative and operational functions to support the Boards responsibility for financial oversight should be assigned to the Chief Financial Officer.

(9) That as a priority pending the completion of new Board policies, the Board of Directors establish clear and transparent processes for:

- **Succession planning of existing Directors to assume leadership positions within the Board including Board Officers and Committee Chairs;**
- **Annual evaluation of the performance of the Board as a whole and individual Directors and Board Officers.**

(10) That pending the completion of new Board policies, the Board of Directors establishes clear and transparent processes for comprehensive annual evaluation of the performance of the CEO.

(11) That pending the completion of new Board policies, the Board of Directors establishes clear and transparent processes for comprehensive annual evaluation of the performance of the Chief of Staff.

(12) The Board of Directors initiate the development of a new strategic plan to best position LWDH within the LHIN and sub-LHIN region.

Section 3.2

(13) The CEO and COS should develop and implement a formal ongoing multifaceted physician engagement strategy, the goal of which is to ensure LWDH physicians come to recognize that the Administration genuinely seeks a partnership with them, a partnership that will allow them to have a voice in policy and strategy development and implementation, and meaningful input into decisions with clinical implications.

(14) The CEO and Board of Directors should ensure that a commitment to full physician engagement is consistently expressed in internal and external communications.

(15) The CEO and COS should identify and enlist the support of a temporary "guiding coalition" of credible physicians in Kenora with whom LWDH can work during the transition period. The CEO and COS should work with this Guiding Coalition, to put a process in place to create an effective Medical Organization Structure and implement a strategy to improve the culture and relations between Administration and the Medical Staff.

(16) The COS and Board of Directors should ensure that Chiefs / department heads are in place in the areas of Emergency, GP Extender / Internal Medicine and Surgery (at a minimum) to advise the MAC with respect to the quality of care (as required by the Public Hospitals Act).

(17) The COS and MAC should establish a clear and transparent processes for comprehensive annual evaluation of the performance of the Medical Chiefs.

(18) The CEO and COS should evaluate the LWDH approach to Clinical Quality to ensure that it fully aligns with Corporate Quality and is effectively reported to the Board as required under the PHA.

(19) The CEO and COS, in partnership with the MoHLTC and the OMA (as required) should review / re-visit each Alternative Funding Plan (AFP), ensuring that each is constructed in a fashion that fully supports LWDH and its responsibilities to its patient population.

(20) The COS should report annually (at a minimum) to the Board on each AFP / APP and specifically on the status of the hospital obligations contained in each.

Section 3.3

(21) The CEO and Board of Directors COS should develop and implement a formal communication strategy with its health partners and the community about the operational review and its outcomes.

(22) The Board of Directors should include health partners and the community in the recommended development of a strategic plan for LWDH to ensure that issues of inclusiveness, transparency and trust and collaboration / integration are addressed.

Section 4.4

(23) The VP Mental Health and Addictions should work with the LHIN and agree to report the psychiatric bed capacity that is actually available at the hospital.

(24) The VP Mental Health and Addictions should work with the LHIN to review the available mental health bed configuration to ensure that both appropriate capacity and facilities are available to meet the needs of the population served by LWDH.

Section 5.1

(25) The VP Corporate Services & Chief Financial Officer should work with the LHIN and agree to report the bed capacity that is actually available at the hospital.

Section 5.4

(26) The CEO should request, and the North West LHIN should support, the formal re-designation of 10 LWDH acute beds to Chronic beds. This should be done in conjunction with recommendation 43 (section 6.3) to review the entire bed map at LWDH to identify a bed configuration that will best meet the needs of patients.

(27) The North West LHIN, to support the implementation of its Rehabilitation and Complex Continuing Care Capacity plan, should ensure that Kenora residents have as equitable access to inpatient rehabilitation beds as residents of Thunder Bay.

Section 6.2

(28) LWDH should reduce legal fees by $100,000.

(29) The VP, Corporate Services and Finance should undertake a strategic review of Transcription Services, as well as considering a regional approach to transcription services.

(30) The VP Corporate Services should either recruit a Manager of Plant Operations and Maintenance or establish a shared management service with another hospital for these services.

(31) The VP Corporate Services should realign the reporting of the Biomedical Engineering Department to Plant Operations and Maintenance.

(32) The Manager of Finance and Manager of Housekeeping should ensure that all costs are being recovered for externally provided laundry services.

(33) The CEO should initiate a plan to provide appropriate on-site security services.

(34) The VP Corporate Services and Manager of Food Services should undertake a review of food services and develop a plan to reduce costs and/or increase revenues by $173,000 and achieve the peer median performance level of $51.23 per patient day.

Section 6.3

(35) The VP Patient Care and the Manager should ensure a process to transition the Hospital Attendant Role to a PSW role.

(36) The VP Patient Care and the Manager for the 3E should develop and implement a plan to achieve median productivity performance of 6.1 worked hours/patient day.

(37) The VP Patient Care and the VP Corporate Services Manager should ensure that nurse manager hours are reported or divided between all the units/departments that the manager covers.

(38) The VP Patient Care and the Manager for 2E should temporarily continue a staffing rotation that includes the hours of RPN that were added in 2017..

(39) The VP Patient Care and the Manager for Birthing Services should explore and implement a process for cross training with surgical services rather than the medical service.

(40) The VP Patient Care and the Manager for Birthing Services should implement as soon as possible an agreement and process with a high volume obstetrical service to provide delivery experience for new staff as part of a retention strategy.

(41) The VP Patient Care and the Manager for Birthing Services should conduct an evaluation of the amalgamation of obstetrics and Medicine to determine what possibilities exist to ensure that improvements in the service can be made and determine what can be done to reduce risks that are apparent in the current situation.

(42) The CEO and VP Patient Care should develop a process to improve communication and collaboration across care areas.

(43) The CEO and VP Patient Care should develop a process to review the entire bed map at LWDH to identify a bed configuration that will best meet the needs of patients. This should be informed by the utilization data presented in chapters 4 and 5 and in conjunction with recommendations 26 and 27, Section 5.4.

(44) The VP Mental Health and Addictions and the Manager Mental Health Services should evaluate the role of Hospital Attendant and RPN to determine the best role for patient care on this unit.

(45) The VP Mental Health and Addictions and the Manager Mental Health Services should evaluate the ratio of full-time to part-time staff to assist in recruitment.

(46) The CEO and the VP Mental Health and Addictions should work with the LHIN to review the accessibility to and potential need for Child and Adolescent psychiatric capacity and the potential ability for LWDH to meet such demands.

(47) The CEO and the VP Mental Health and Addictions should investigate with the LHIN the requirements for both youth and adult crisis response capacity.

(48) The Manager for the ED should develop and implement a plan to achieve median productivity performance of 1.2421 worked hrs/equivalent visit.

(49) The CEO and VP Nursing should work with the NW LHIN to secure permanent funding for the General Ambulatory Clinic.

(50) The VP Patient Services should develop a process to eliminate the presence of the nursing supervisor on days.

(51) The VP Patient Service and VP Corporate Services should ensure that hours for Unit Producing Personnel (UPP) recorded in Nursing Administration, are instead recorded where the associated staff are working.

Section 6.4

(52) The Laboratory Manager should undertake a review of workload collection practices and ensure that workload is collected accurately and comprehensively.

(53) The Diagnostic Imaging Manager should undertake a review of workload collection practices and ensure that workload is collected accurately and comprehensively.

(54) The Diagnostic Imaging Manager should develop and implement a plan to achieve median productivity performance of 0.0360 worked hours per Patient Care Workload Unit.

(55) The Diagnostic Imaging Manager should investigate an integrated PACS with the other NW Ontario hospitals.

Section 7.1

(56) The CEO and VP Patient Services should immediately establish a Perioperative Executive Committee (PEC) with representation from surgery, nursing, and anesthesiology and a mandate to manage perioperative resources, enforce policies, resolve conflicts, and act as the executives of the surgery program.

Section 7.2

(57) The VP Patient Services should relocate the office of the Manager, Surgical Services and MDRD to be proximal to the OR, and ensure the manager has significant visibility and interaction with the perioperative staff.

(58) The VP Patient Services should require that the role of Manager, Surgical Services and MDRD implements:

- **Weekly staff meetings / in-services;**
- **Daily Huddles; and**
- **Daily rounds.**

(59) The VP Patient Services and Manager, Surgical Services and MDRD, should redefine the OR Team Leader role to be that of a Control Desk Coordinator, and develop daily functions and expectations for this role to ensure consistency and reliability to ensure proper and efficient flow of patients throughout the perioperative process, and troubleshoot when issues arise.

(60) The VP Patient Services and Manager, Surgical Services and MDRD, should eliminate the co-manager role.

(61) The VP Patient Services and the Manager, Surgical Services and MDRD should target median performance of peer hospitals to achieve 5.8 worked hours per case.

(62) The VP Patient Services and the Manager, Surgical Services and MDRD should consider booking endoscopy and dental cases on specific days, and change the staffing compliment to match the industry requirement.

(63) The VP Patient Services and the Manager, Surgical Services and MDRD should formally change the RPN position performing booking and pre-surgical testing from 0.6 FTEs to 1.0 FTEs.

Section 7.3

(64) The VP Patient Services should consider the development of a perioperative educator role to support all areas in the perioperative environment including OR, pre-op, PACU, and MDRD.

(65) The VP Patient Services and Manager, Surgical Services and MDRD, should develop a competency-based orientation program for all perioperative areas.

(66) The VP Patient Services and Manager, Surgical Services and MDRD, should review standards of practice in all areas and develop qualification standards for staff to perform competently in those areas (i.e. ACLS for all nurse who rotate through PACU).

Section 7.4

(67) The VP Patient Services should charge the Perioperative Executive Committee with the development of policies defining the scheduling process, schedule administration, and block schedule management and utilization.

(68) The Manager, Surgical Services and MDRD, should develop an urgent emergent policy and case classification system.

(69) The Manager, Surgical Services and MDRD, and the OR Team Lead should establish a daily huddle to review the next day's surgery slate, and to review the schedules of cases five days out.

(70) The Manager, Surgical Services and MDRD, should charge the OR Team Lead role with primary responsibility for managing efficiency and patient flow throughout the OR, with the visible support of the Manager.

(71) The VP Patient Services and Manager, Surgical Services and MDRD, should develop an online patient questionnaire to provide patients with the opportunity to pre-fill out required information prior to the telephone screening, thus creating a verification process versus an information collection process.

Section 7.5

(72) The Manager, Surgical Services and MDRD, should implement use of the ORM preference card module, and utilize that module to plan resources, pick cases, intraoperatively record items used/develop a bill of materials, and perform case costing.

(73) The Manager, Surgical Services and MDRD, should proceed with the plan to implement an exchange cart system for OR theatre supply replenishment.

(74) The Manager, Surgical Services and MDRD, should ensure that stores items amalgamated during construction should remain in one location, to minimize inventory and decrease restocking of multiple locations.

1.0 Background and Objectives

1.1 Lake of the Woods District Hospital

Ontario's largest hospital west of Thunder Bay.

The Lake of the Woods District Hospital (LWDH) in Kenora is Northwestern Ontario's largest hospital west of Thunder Bay. Services are provided to approximately 35,000 residents of the City of Kenora and a large surrounding area, including several First Nations Communities. The population served by the hospital expands to over 70,000 in the summer months due to the influx of summer residents and tourists to the area. The hospital was originally founded in 1897 as the Rat Portage Jubilee Hospital and became the Kenora General Hospital in 1905. The St. Joseph's Hospital and the Kenora General Hospital amalgamated in 1968 to form the Lake of the Woods District Hospital.

Parts of the current structure date back to 1929.

Through the years, a series of additions and renovations took place to meet expanding needs of the population. Parts of the current structure date back to 1929 with the most current renovation being the expansion of the Diagnostic Imaging department in 2004. The hospital is currently undergoing a $10 million renovation to its Surgical Services and Medical Device Reprocessing Departments. A planning grant has been provided for a new hospital to replace the existing facility.

LWDH is governed by a 14 member Board of Directors. The Board is comprised of nine (9) voting members, in addition to 5 legislated non-voting members (Chief of Medical Staff, CEO [Secretary / Treasurer], Chief Nursing Officer, President of the Medical Staff and Vice-President of the Medical Staff).

The core programs include Emergency Medicine, acute inpatient care, maternal and child health, a broad range of ambulatory care and mental health.

The core programs include Emergency Medicine, acute inpatient care, maternal and child health, a broad range of ambulatory care and mental health including Schedule 1 Psychiatry. The hospital currently operates 71 acute care beds (although the census reports 74 beds), providing services in general medicine, post-surgical, obstetrics, paediatrics, psychiatry and ICU. The Hospital offers both inpatient and outpatient Surgical Services and accepts referrals to these services through the Regional Surgical Services Network. A broad range of ambulatory services are offered including dialysis, chemotherapy, diagnostic imaging, mammography, ultrasound, regional laboratory, a sexual assault and domestic violence program, physiotherapy and rehabilitation services, palliative care and various educations programs. LWDH is also host to 12 visiting specialist clinics that provide service to patients not only from Kenora, but from the entire Kenora / Rainy River District.

LWDH also administers several Outpatient Mental Health and Additions Programs.

In addition to traditional hospital services, LWDH also administers several Outpatient Mental Health and Addictions Programs. The 42 Bed Morningstar Centre operates inpatient and outpatient alcohol withdrawal and support programs as well as a Managed Alcohol Program.

1.2 Project Background

A comprehensive review of Hospital operations was undertaken to facilitate the development of a Hospital Improvement Plan (HIP).

LWDH has had an unbalanced budget submission for the past five consecutive years. A comprehensive operational review of Hospital operations was undertaken to facilitate the development of a Hospital Improvement Plan (HIP) that will ensure a long term, sustainable operating plan, and ensure high quality, safe, accessible, and sustainable hospital services, including fulfilling its mission. The review examines financial and clinical processes and identifies strategies to allow the hospital to manage it operations within its fiscal constraints, achieve long-term sustainability and provide accessible, high quality and safe care that aligns with population health care needs.

Recommendations that apply to LWDH as a singular organization compared to similar hospitals in the province.

In the context of Health System Funding Reform (HSFR), the review recommendations apply to LWDH as a singular organization compared to similar hospitals in the province, while also recognizing the broader regional role it plays in the provision of care in the North West LHIN as part of the NW Surgical Services Network and its role in Regional Laboratory Services.

Current and future services in the context of population health requirements across the continuum of care.

The review examines current and future services in the context of population health requirements across the continuum of care, identifies strengths and opportunities as well as service gaps and constraints for LWDH to meet the current and projected service requirements and provides recommendations to expand or realign services where appropriate.

The internal work environment structures and relationships.

The Review also examines the internal work environment structures and relationships, including the appropriateness and effectiveness of the leadership and governance structures, management practices, communication strategies and physician practice.

The operational review was conducted with a positive approach in the spirit of:

- Recognizing the importance of healthy internal and external partnerships as keys to success.
- Objective, proactive, open-minded analysis with focus on challenges and opportunities for improvement, and identification of strengths and opportunities for progress and development.
- Providing clear communication to the stakeholders throughout the process.
- Implementing constructive recommendations, credible solutions and processes based on transparency and openness.
- Ensuring that formal recommendations are credible and realistic and that risk factors to achieving desired outcomes are outlined.

1.3 Project Objectives

The objectives to be realized through the Operational Review, in a report and presentation format, will include the development of a:

Three primary objectives

- Hospital Improvement Plan (HIP);
- governance improvement plan; and
- review of the effectiveness of hospital leadership.

The HIP is to provide recommended mitigation strategies and other remedial actions that, in the short term, will return the hospital to a balanced operating position and protect its rapidly deteriorating working capital position, and, in the long term, will provide a sustainable operating plan to ensure high quality, safe, accessible, and sustainable hospital services.

A review of the current governance model will provide comparisons to best practices and produce recommendations for a governance improvement plan.

The effectiveness of hospital leadership (management and medical staff) will be examined to provide recommendations on strategies to strengthen and improve relationships with internal and external partners and stakeholders.

1.4 Steering Committee

Steering Committee established to guide the work of the review team.

A Steering Committee was established to guide the work of the review team throughout the course of the project and to review the progress of the project, including:

- Status of deliverables and/or implementation
- Review of preliminary findings
- Change requests, corrective actions, preventive actions, administration issues
- Percent of work completed, etc.
- Quality issues/concerns
- Risks to project success
- Review of workplan and any necessary modifications

1.5 Peer Facilities

Following discussion with the Steering Committee, the peer Hospital Facilities chosen are presented below.

For the purposes of our clinical analysis, both Muskoka Algonquin Healthcare and Perth & Smith Falls District Hospital were divided into their separate sites. In our operational analysis West Perry Sound Health Centre was excluded since its Trial Balance was not made available.

Exhibit 2: Peer Facilities for Benchmarking Purposes

Facility No	Hospital	MIS Trial Balance Data	DAD / NACRS Data	Northern	Multi site	Obstetrics	Total Inpatient Weighted Cases
788	Renfrew Victoria	Yes	Yes	No	No	No	1135
676	Hanover and District Hospital	Yes	Yes	No	No	Yes	1233
696	Kirkland and District	Yes	Yes	Yes	No	No	1337
647	Dryden regional Health Centre	Yes	Yes	Yes	No	Yes	1470
650	St. Joseph's - Elliott Lake	Yes	Yes	Yes	No	Yes	1647
900	Riverside - Fort Frances	Yes	Yes	Yes	Yes	Yes	1679
888	New Liskeard Temiskaming	Yes	Yes	Yes	No	Yes	2143
826	Kenora - LOTWs	Yes	Yes	Yes	No	Yes	2192
931	West Parry Sound Health Centre	No	Yes	Yes	No	Yes	2320
964	Sioux Lookout Meno Ya Win Health Centre, Sioux Lookout	Yes	Yes	Yes	No	Yes	2383
814	Strathroy Middlesex General Hospital, Strathroy	Yes	Yes	No	Yes	Yes	2723
704	Leamington - Erie Shores	Yes	Yes	No	No	Yes	2926
882	Winchester District Memorial Hospital	Yes	Yes	No	No	Yes	3214
946	Kincardine / South Bruce Grey HC	Yes	Yes	No	Yes	Yes	3311
928	Perth and Smith Falls	Yes	Yes	No	Yes	Yes	3697
726	Huronia - Georgian Bay	Yes	Yes	No	Yes	Yes	3989
804	Norfolk General Hospital	Yes	Yes	No	No	Yes	4051
940	Northumberalnd	Yes	Yes	No	No	Yes	4476
640	Collingwood General & Marine	Yes	Yes	No	No	Yes	4993
968	Muskoka Algonquin Healthcare	Yes	Yes	No	Yes	Yes	5158
763	Pembroke Regional	Yes	Yes	No	No	Yes	5266

For our analysis associated with mental health, a separate peer group was established since only two of the peer facilities above have psychiatric beds; for our psychiatric clinical analysis, we chose hospitals with fewer than 30 mental health beds, without a specialized psychiatric program, and that were not in a major urban centre. According to bed census reports, no hospitals have fewer than 15 beds (there are 5 hospitals with 15).

Exhibit 3: Psychiatric Peer Facilities for Benchmarking Purposes (2017/18 Peer beds and Occupancy)

Hospital	Beds	% Occ.
Peterborough Regional HC	27	86.90%
Bluewater Health-Sarnia	27	109.50%
Brockville Gen. Hosp-Elmgrove Site	24	75.20%
Orillia Soldiers' Memorial	23	93.10%
Quinte Healthcare - Belleville	22	74.40%
Chatham Kent HA- Public General	21	89.50%
Timmins & District	20	95.00%
Alexandra Marine & General	20	94.70%
Lake-Of-The-Woods District	19	43.80%
Brant CHS - Brantford	18	100.60%
Cornwall Community Hospital	16	97.70%
Woodstock General Hospital	16	100.40%
Ross Memorial Hospital	15	88.20%
Pembroke Regional	15	53.00%
St. Thomas-Elgin	15	92.20%
Stratford General Hospital	15	99.40%

2.0 Understanding the Hospital

Understand the clinical, operating and fiscal characteristics of LWDH.

The first step in the review was to develop an understanding of the clinical, operating and fiscal characteristics of the hospital.

2.1 Clinical Activity Data Sources

The LWDH clinical activity analysis was primarily based on administrative data reported by LWDH and all Ontario hospitals to the Ministry of Health and Long-Term Care, including:

Based on administrative data reported by LWDH.

- MOHLTC Bed Census Reports;
- LWDH-specific ED, day surgery, and inpatient acute care data (for clinical service profiles) obtained from MOHLTC IntelliHealth system;
- Population reliance on LWDH data based on 2016/17 FY (i.e. most current complete fiscal year available for all Ontario hospitals);
- Clinical efficiency performance uses provincial benchmarks derived from 2016/17 Ontario data, and compares LWDH 2016/17 performance vs. benchmarks;
- Adult mental health analyses based on 2016/17 OMHRS data from IntelliHealth.

2.2 LWDH Capacity and Clinical Profile

LWDH reports 55 acute care beds and 19 adult psychiatric beds.

In early 2017/18 LWDH reported to the MoHLTC that it had 55 acute care beds and 19 adult psychiatric beds staffed and in operation. The table following presents the number of beds and occupancy by category (along with the peer hospital facilities), as reported to the MOHLTC by LWDH via the monthly Bed Census Reporting system for 2017/18.

In June 2017, the MoHLTC switched to a daily bed census reporting system. No reports using the new daily reporting process have yet been published.

LWDH Steering Committee members expressed concern that the bed and occupancy numbers historically reported to the MoHLTC may not have been accurate and initiated an internal review of the reporting process.

Specifically in relation to Psychiatric beds, while the hospital reports 19 adult psychiatric beds in the most recently available MOHLTC Bed Census Reports, the hospital reports that it is now reporting 17 beds. Despite this, LWDH also reports that the service has only 14 functional inpatient beds plus 1 seclusion room (as one room is only used when no other room is available as a result of a leaking window; repairs are pending).

Exhibit 4: LWDH & Peer Hospital 2017/18 Q1 Acute Beds & Occupancy

Hospital Site	LHIN	Beds							% Occupancy						
		MED	SURG	CMS	ICU	OBS	PAE	Total	MED	SURG	CMS	ICU	OBS	PAE	Total
Sth Br. Grey - Walkerton	South West	0	0	25	0	6	0	31	0%	0%	63%	0%	29%	0%	57%
Hanover And District	South West	0	0	23	2	2	1	28	0%	0%	64%	25%	30%	0%	57%
Temiskaming Hospital	North East	0	0	40	3	5	0	48	0%	0%	61%	68%	42%	0%	59%
Winchester District	Champlain	0	0	25	4	8	0	37	0%	0%	67%	53%	47%	0%	61%
Lake-Of-The-Woods Dis.	North West	18	0	25	4	8	0	55	81%	0%	78%	59%	11%	0%	68%
Renfrew Victoria Hospital	Champlain	0	0	28	3	0	0	31	0%	0%	72%	73%	0%	0%	72%
West Parry Sound HC	North East	0	0	56	6	2	1	65	0%	0%	75%	78%	40%	14%	73%
Strathroy Middlesex	South West	27	0	23	4	0	0	54	88%	0%	67%	68%	0%	0%	78%
Pembroke Regional	Champlain	53	13	0	7	7	0	80	84%	72%	0%	67%	75%	0%	80%
St. Joseph's, Elliot Lake	North East	17	0	27	6	1	2	53	103%	0%	86%	59%	28%	11%	85%
Kirkland & District Hospital	North East	0	0	32	6	0	0	38	0%	0%	91%	53%	0%	0%	85%
Perth & SF - Perth	South East	0	0	44	4	0	0	48	0%	0%	86%	84%	0%	0%	86%
Sioux Lookout MYW	North West	0	0	43	0	5	4	52	0%	0%	48%	0%	49%	25%	87%
Leamington District	Erie St. Clair	0	0	40	3	3	0	46	0%	0%	96%	46%	53%	0%	90%
Perth & Smiths Falls - SF	South East	0	0	30	4	4	0	38	0%	0%	101%	91%	48%	0%	94%
Norfolk General Hospital	HNHB	47	16	0	6	5	2	76	121%	50%	0%	96%	35%	0%	96%
Huronia District Hospital	Nth. Sim. Musk.	0	0	60	6	3	0	69	0%	0%	101%	81%	21%	0%	96%
Musk. Alg. - Bracebridge	Nth. Sim. Musk.	0	0	36	4	2	1	43	0%	0%	105%	81%	23%	2%	97%
Collingwood Gen. & Mar.	Nth. Sim. Musk.	0	0	63	5	0	0	68	0%	0%	101%	78%	0%	0%	100%
Musk. Algonq. - Huntsville	Nth. Sim. Musk.	0	0	28	5	3	1	37	0%	0%	115%	76%	25%	2%	100%
Dryden Regional	North West	0	0	31	0	0	0	31	0%	0%	102%	0%	0%	0%	102%
Riverside - Laverendrye	North West	0	0	23	3	2	2	30	0%	0%	125%	35%	44%	20%	104%
Northumberland Hills	Central East	0	0	46	6	6	0	58	0%	0%	122%	70%	41%	0%	108%

LWDH overall occupancy of 68%; ranks 5th lowest among the 23 peer sites.

LWDH reports an overall occupancy of 68% and ranks 5th lowest among the 23 peer sites.

The LWDH inpatient discharges are presented by "Program Cluster Category" (PCC). PCC's are assigned based on Case Mix Group (CMG[2]) to reflect the

[2] Case Mix Group (CMGs) are used to support clinical and administrative analysis of hospital services. CMGs are derived using a methodology designed to aggregate hospital inpatients with similar diagnoses and treatment requirements. CMG is a registered trademark of the Canadian Institute for Health Information. HBAM Inpatient Groups (HIGs) are used within HSFR for grouping and weighting cases in the HBAM and QBP funding methodologies. HIGs are assigned using CIHI's Case Mix Group+ (CMG+) grouping methodology output along with additional clinical information from CIHI's DAD. In most cases, the HIG groups are identical to the CMG+ groups. In fact, 82% of cases are assigned to HIG groups that are the same as the CMG+ group. The remaining 18% are assigned to 40 HIG groups that are created after applying 1 of the following 4 split types to 19 CMG+ groups: 1. Diagnosis—For example, CMG+ group 139 Chronic Obstructive Pulmonary Disease has been split into 2 HIG groups: 139c Chronic Obstructive Pulmonary Disease with Lower Respiratory Infection and 139d Chronic Obstructive

clinical service most often responsible for care of that type of inpatient. The use of PCCs facilitates comparisons across hospitals where different medical specialties may assume responsibility for care for particular types of patients (e.g. neurosurgeons vs. orthopaedic surgeons for some spinal procedures).

The average Resource Intensity Weight (RIW) per case is relative measure of the cost per case; the average RIW per day is relative measure of cost per day. Long-stay cases may have high a RIW per case because cost is accumulated over many days, but relatively low cost per day. The Program Cluster Categories with the highest volume of inpatient days at LWDH in 2016/17 are presented.

Exhibit 5: LWDH PCCs with Highest Volume of IP Days in 2016/17

Program Cluster Category	IP Cases	Total Days	Avg. LOS	ALC Days	% ALC Days	RIW Wtd. Cases	Avg. RIW/ Case	Avg. RIW/ Day
Other Internal Medicine	265	2,761	10.4	1,294	46.90%	370.4	1.4	0.134
Non-Acute	149	2,748	18.4	1,617	58.80%	272.8	1.83	0.099
Cardiology	231	1,349	5.8	320	23.70%	236.4	1.02	0.175
Gastro/Hepatobiliary	263	1,332	5.1	239	17.90%	205.5	0.78	0.154
Other Reasons	61	1,329	21.8	912	68.60%	152	2.49	0.114
General Surgery	148	947	6.4	93	9.80%	187.7	1.27	0.198
Pulmonary	173	929	5.4	157	16.90%	164.1	0.95	0.177
Neurology	123	879	7.1	407	46.30%	139.8	1.14	0.159
Orthopaedics	92	675	7.3	137	20.30%	154	1.67	0.228
Endocrinology	73	524	7.2	90	17.20%	95.4	1.31	0.182
Urology	69	471	6.8	133	28.20%	81.1	1.17	0.172
Obstetrics	197	395	2	3	0.80%	81.2	0.41	0.206
Neonatology	191	380	2	7	1.80%	41.3	0.22	0.109
Neurosurgery	10	355	35.5	298	83.90%	59.7	5.97	0.168
Psychiatry	37	345	9.3	211	61.20%	42.2	1.14	0.122
Haematology	26	242	9.3	82	33.90%	41.9	1.61	0.173
Nephrology	26	138	5.3	7	5.10%	27.7	1.07	0.201
Otolaryngology	35	98	2.8	-	0.00%	17.4	0.5	0.178
Thoracic Surgery	1	65	65	-	0.00%	12.4	12.37	0.19
Gynaecology	10	52	5.2	13	25.00%	8.5	0.85	0.164
Vascular Surgery	3	38	12.7	-	0.00%	5.1	1.69	0.133
Plastic Surgery	6	29	4.8	-	0.00%	6.4	1.07	0.221
Grand Total	2,189	16,081	7.3	6,020	37.40%	2,403.00	1.1	0.149

The CMGs that represent the most inpatient days are non-acute and other reasons for admission.

Inpatient Activity can also be presented at a finer level of detail by CMG. The highest volume (days) CMGs are presented below. As can be seen the CMGs that represent the most inpatient days are non-acute and other reasons for admission.

Pulmonary Disease without Lower Respiratory Infection; 2. Presence/absence of comorbid cardiac conditions among cardiac CMG+ groups—All diagnoses on the DAD abstract (types 1, 2, W, X and Y) are examined for specific comorbid cardiac conditions, such as congestive heart failure; 3. Presence of comorbidities in obstetric cases using the CMG+ grouper output comorbidity level (CL)—Cases with CL 0 are grouped separately from cases with CL 1 to 4; and 4. A single intervention-driven group—The Bone Marrow/Stem Cell Transplant CMG+ group has been enhanced so that all records with bone marrow and stem cell transplants are grouped together.

LWDH has 6,020 ALC days representing an equivalent to 17 beds not available for acute care.

These CMGs also have a high % of days that are Alternative Level of Care (ALC). LWDH has 6,020 ALC days representing an equivalent to 17 beds not available for acute care.

Exhibit 6: LWDH CMGs with Highest Volume of IP Days in 2016/17

Case Mix Group	IP Cases	Total Days	Avg. LOS	ALC Days	% ALC Days	RIW Wtd. Cases	Avg. RIW/ Case	Avg. RIW/ Day
811-General Symptom/Sign	59	1,320	22.4	906	68.60%	148.8	2.52	0.113
809-Awaiting Placement	39	1,000	25.6	884	88.40%	84	2.15	0.084
805-Rehabilitation	21	963	45.9	399	41.40%	93.7	4.46	0.097
670-Dementia	17	946	55.6	769	81.30%	77.8	4.58	0.082
806-Convalescence	83	461	5.6	43	9.30%	68.3	0.82	0.148
139-Chronic Obstructive Pulmon Dis	55	395	7.2	95	24.10%	58.2	1.06	0.147
138-Viral/Unspecified Pneumonia	62	322	5.2	55	17.10%	59.9	0.97	0.186
196 Heart Failure w/o Coronary Angiogram	51	306	6	32	10.50%	54.5	1.07	0.178
008-Non Maj Int Spine/Can/Vert/Oth	1	287	287	277	96.50%	48.4	48.43	0.169
194-MI/Shock/Arrst wo Coronary Angiogram	32	269	8.4	148	55.00%	49.1	1.54	0.183
693-Depressive Episode without ECT	3	236	78.7	211	89.40%	20.7	6.91	0.088
285-Cirrhosis/Alcoholic Hepatitis	12	229	19.1	125	54.60%	30.8	2.57	0.135
660-Other Infectious/Parasitic Dis	7	213	30.4	160	75.10%	38.4	5.49	0.18
810-Palliative Care	4	205	51.3	192	93.70%	25.9	6.47	0.126
024-Other Degen Dis of Nervous Sys	4	203	50.8	161	79.30%	27.7	6.93	0.137
All Other CMGs	1,739	8,726	5	1,563	17.90%	1,516.50	0.87	0.174
Grand Total	2,189	16,081	7.3	6,020	37.40%	2,403.00	1.1	0.149

2.2.1 Day Surgery and Ambulatory Activity

Day Surgery activity is presented below by PCC. The highest volume of activity for day surgery is associated with endoscopy and cataract cases.

Highest volume of activity for day surgery is associated with endoscopy and cataracts.

Exhibit 7: LWDH Day Surgery Cases by PCC in 2016/17

Program Cluster Category	Cases	Total Hours	Avg. LOS (Hrs.)	ACW Wtd. Cases	Avg. ACW
Gastro/Hepatobiliary	835	2,528	3	98.6	0.118
Ophthalmology	468	1,487	3.2	80.1	0.171
Obstetrics	94	365	3.9	17.4	0.185
General Surgery	81	996	12.3	32.3	0.398
Neurosurgery	53	172	3.3	9.8	0.185
Dental/Oral Surgery	51	210	4.1	16.8	0.33
Orthopaedics	51	184	3.6	12.8	0.25
Plastic Surgery	44	165	3.7	9.8	0.223
Ungroupable	36	48	1.3	2.5	0.069
Psychiatry	27	72	2.7	1.2	0.045
Vascular Surgery	18	46	2.5	5.1	0.283
Urology	16	67	4.2	3.4	0.215
Gynaecology	8	26	3.3	1.3	0.169
Haematology	3	5	1.6	0.3	0.096
Otolaryngology	2	9	4.5	0.5	0.233
Pulmonary	2	5	2.5	0.5	0.245
Other Internal Medicine	1	2	1.9	0.1	0.093
Grand Total	1,790	6,387	3.6	292.6	0.163

Visit volumes associated with other ambulatory services, as documented through the NACRS reporting system are presented below.

Exhibit 8: LWDH Coded Ambulatory Visits in 2016/17

Program	Cases	Total Hours	Avg. LOS (Hrs.)	ACW Wtd. Cases	Avg. ACW
ER	18,888	69,981	3.7	904.8	0.048
Dialysis	2,869	14,331	5	220.9	0.077
Oncology	1,625	2,950	1.8	133.8	0.082
Grand Total	23,382	87,261	3.7	1,259.40	0.054

2.2.2 Psychiatric Activity

LWDH had 314 Inpatient psychiatry discharges in 2016/17.

Exhibit 9: LWDH 2016/17 Inpatient Psychiatry Discharges by SCIPP Category

SCIPP Category	IP Disch.	Total Days	Avg. LOS	ALC Days	% ALC
Short Stay Assessments	125	401	3.2	-	0%
Schizophrenia & Oth. Psychotic Dis.	64	1,287	20.1	1	0%
Other Disorders	33	455	13.8	-	0%
Mood Disorders	29	475	16.4	2	0%
Substance Related Disorders	25	219	8.8	-	0%
Ungroupable	22	124	5.6	-	0%
Personality Disorders	11	152	13.8	2	1%
Cognitive Disorders	3	65	21.7	-	0%
Eating Disorders	2	11	5.5	-	0%
Grand Total	314	3,189	10.2	5	0%

Among the psychiatric hospital peers, LWDH had the lowest occupancy in Q1.

For our analyses associated with mental health, a separate peer group was established since only two of the peer facilities have psychiatric beds; for our psychiatric clinical analysis, we chose hospitals with fewer than 30 mental health beds, without a specialized psychiatric program, and that were not in a major urban centre. Among these peers, LWDH had the lowest occupancy in Q1; (based on monthly census data reported to the MoHLTC by each hospital). The hospital also reports however, that there are functionally only 14 Psychiatric beds available at LWDH. According to bed census reports, no hospitals have fewer than 15 beds (there are 5 hospitals with 15). For first quarter of 17/18, LWDH reported 43.9% occupancy of 19 beds, the lowest occupancy in the province. Only 3 hospitals in total function at lower than 72% occupancy of their psych beds. Based on 14 beds, LWDH occupancy in 2016/17 would have been 62.5%; the second lowest among peers.

Exhibit 10: LWDH and Peer Hospital 2017/18 Q1 YTD Psychiatric beds and average occupancy

Hospital	Beds	% Occ.
Peterborough Regional HC	27	86.90%
Bluewater Health-Sarnia	27	109.50%
Brockville Gen. Hosp-Elmgrove Site	24	75.20%
Orillia Soldiers' Memorial	23	93.10%
Quinte Healthcare - Belleville	22	74.40%
Chatham Kent HA- Public General	21	89.50%
Timmins & District	20	95.00%
Alexandra Marine & General	20	94.70%
Lake-Of-The-Woods District	19	43.80%
Brant CHS - Brantford	18	100.60%
Cornwall Community Hospital	16	97.70%
Woodstock General Hospital	16	100.40%
Ross Memorial Hospital	15	88.20%
Pembroke Regional	15	53.00%
St. Thomas-Elgin	15	92.20%
Stratford General Hospital	15	99.40%

Very few ALC days were reported for LWDH discharges from inpatient psychiatry.

The LWDH average LOS for psychiatric inpatients of 10.2 days is similar to peer average. Very few ALC days were reported for LWDH discharges from inpatient psychiatry. This contrasts sharply with the high ALC days reported for non-psychiatric care by LWDH.

Exhibit 11: Psychiatric Inpatient Activity for LWDH and Psychiatric Peer Hospitals in 2016/17

Hospital	IP Disch.	Total Days	Avg. LOS	ALC Days	% ALC
Brant Community HCS	1,060	7,492	7.1	63	1%
Orillia Soldiers' Memorial	801	8,356	10.4	468	6%
Peterborough Regional HC	799	9,619	12	11	0%
Bluewater Health	776	9,657	12.4	19	0%
Timmins & District	699	7,083	10.1	-	0%
Stratford General Hospital	623	5,385	8.6	124	2%
St. Thomas-Elgin	609	4,793	7.9	28	1%
Brockville General Hospital	575	6,912	12	420	6%
Woodstock General Hospital	559	6,282	11.2	80	1%
Pembroke Regional	553	4,920	8.9	114	2%
Quinte Healthcare	549	5,724	10.4	97	2%
Cornwall Community Hospital	515	5,345	10.4	362	7%
Alexandra Marine & General	465	5,912	12.7	220	4%
Ross Memorial Hospital	434	4,910	11.3	-	0%
Chatham Kent HA	363	6,655	18.3	63	1%
Lake-Of-The-Woods District	314	3,189	10.2	5	0%
Grand Total	9,694	102,234	10.5	2,074	2%

LWDH had by far the fewest number of "mood disorder" discharges among the peer hospitals.

The Ontario Mental Health Reporting System (OMHRS) data used to support the psychiatric activity comparisons uses "SCIPP" (System for Classification of In-Patient Psychiatry) groups (instead of CMGs) to categorize patients. In 2016/17, 40% of LWDH psychiatric discharges were "short stay" cases. LWDH had by far the fewest number of "mood disorder" discharges among the peer hospitals.

Exhibit 12: 2016/17 LWDH and Peer Hospital cases by SCIPP Group

Hospital	Short Stay Assessments	Mood Disorders	Schizophrenia & Oth. Psychotic Dis.	Other Disorders	Substance Related Disorders	Personality Disorders	Cognitive Disorders	Ungroupable	Not Applicable	Eating Disorders	Grand Total
Brant Community HCS	576	179	175	33	25	27	13	32			1,060
Orillia Soldiers' Memorial	309	291	140	32	12	12	2		2	1	801
Peterborough Regional HC	271	295	176	21	12	11	6	4	3		799
Bluewater Health	232	247	120	44	37	37	24	34	1		776
Timmins & District	309	133	106	32	48	35	11	24		1	699
Stratford General Hospital	285	152	89	11	4	26	37	18		1	623
St. Thomas-Elgin	334	140	65	22	13	16	12	6	1		609
Brockville General Hospital	227	139	104	23	30	19	33				575
Woodstock General Hospital	137	203	80	38	52	29	15		4	1	559
Pembroke Regional	271	176	61	20	17	7	1				553
Quinte Healthcare	258	128	114	12	12	17	2		6		549
Cornwall Community Hospital	237	121	87	27	20	14	7		1	1	515
Alexandra Marine & General	138	177	64	25	27	9	8	17			465
Ross Memorial Hospital	108	204	80	14	13	4	2	8		1	434
Chatham Kent HA	48	157	100	26	23	3	4			2	363
Lake-Of-The-Woods District	125	29	64	33	25	11	3	22		2	314
Grand Total	**3,865**	**2,771**	**1,625**	**413**	**370**	**277**	**180**	**165**	**18**	**10**	**9,694**

Exhibit 13: Percent Distribution of LWDH and Peer Hospital Psychiatric Discharges by Age Group

Hospital	Discharges	% Distribution of Discharges by Age Group				
		5 to 19	20 to 34	35 to 54	55 to 64	65 +
Alexandra Marine & General	465	9%	32%	33%	14%	13%
Bluewater Health	776	28%	32%	23%	7%	10%
Brant Community HCS	1,060	11%	38%	33%	10%	7%
Brockville General Hospital	575	7%	33%	30%	18%	12%
Chatham Kent HA	363	8%	24%	37%	15%	16%
Cornwall Community Hospital	515	8%	37%	35%	11%	9%
Lake-Of-The-Woods District	314	23%	39%	25%	8%	4%
Orillia Soldiers' Memorial	801	11%	37%	33%	12%	6%
Pembroke Regional	553	10%	31%	37%	13%	8%
Peterborough Regional HC	799	7%	43%	30%	10%	9%
Quinte Healthcare	549	9%	35%	35%	13%	8%
Ross Memorial Hospital	434	10%	37%	27%	16%	10%
St. Thomas-Elgin	609	6%	38%	35%	12%	9%
Stratford General Hospital	623	12%	32%	35%	9%	12%
Timmins & District	699	10%	38%	36%	10%	6%
Woodstock General Hospital	559	13%	39%	28%	11%	9%
Grand Total	9,694	11%	36%	32%	12%	9%

Exhibit 14: Percent Distribution of LWDH and Acute Care Peer Hospital Psychiatry Cases by Age Group

Acute Care Peer Hospitals	Psych. Discharges from Acute Beds	% Distribution of Discharges by Age Group			
		00-17	18-49	50-74	75+
Temiskaming Hospital	149	21%	46%	26%	7%
Collingwood Gen. & Marine	149	13%	45%	38%	4%
Muskoka Algonquin	119	4%	44%	41%	11%
St. Joseph's, Elliot Lake	102	5%	56%	33%	6%
Norfolk General Hospital	100	0%	55%	37%	8%
West Parry Sound HC	97	6%	48%	31%	14%
Sioux Lookout Meno-Ya-Win	77	45%	45%	8%	1%
Georgian Bay General	76	13%	39%	32%	16%
Northumberland Hills Hospital	69	6%	39%	43%	12%
Pembroke Regional	59	0%	56%	32%	12%
Kirkland & District Hospital	54	4%	50%	39%	7%
Riverside HCF	44	2%	52%	36%	9%
Lake-Of-The-Woods District	37	8%	59%	27%	5%
Perth & Smiths Falls	33	0%	15%	64%	21%
Renfrew Victoria Hospital	32	0%	13%	19%	69%
South Bruce Grey	28	11%	50%	29%	11%
Hanover And District Hospital	23	0%	35%	57%	9%
Dryden Regional	22	14%	32%	50%	5%
Winchester District Memorial	21	0%	33%	52%	14%
Strathroy Middlesex	19	0%	16%	63%	21%
Leamington District Memorial	11	0%	45%	36%	18%
Grand Total	1,321	10%	45%	35%	11%

An unusual distribution of inpatient psychiatric discharges by age group.

In comparison with peer hospitals, LWDH has an unusual distribution of inpatient psychiatric discharges by age group. 23% of LWDH discharges in 2016/17 were age 19 or younger (compared to only 11% for the overall peer group), and 12% were age 55 or older (compared to 21% for the peer group).

Most psychiatry patients receive care in a designated psychiatric bed and are tracked using the OMHRS data system (e.g. as in the table above). However, there are some patients with psychiatric diagnoses who are treated in an acute care bed, particularly if the hospital does not have any schedule 1 psychiatric beds, or if the patients are paediatric patients. In 2016/17, LDWH had 37 discharges of psychiatric patients from an acute (i.e. non-psych) bed. Only 8% of these patients were paediatric patients, and only 5% were geriatric patients (compared to 11% for all of the acute care peer hospitals).

LWDH also operates a 42-bed residential treatment centre staffed by attendants, with support from physicians and social workers, and managed by the VP Mental Health and Addictions.

2.3 North West LHIN Geography

CIHI health service records submitted by Ontario's hospitals contain geographic information about patients, based on their reported residence. The CIHI records report geographic location based on:

- Postal codes
- Census division
- Residence codes

The first three characters of the postal code (the "Forward Sortation Area", FSA) is often used in urban centres to support mapping of distribution of patients and for determining catchment areas. However, in northern and rural communities, FSAs may cover very large geographic areas, and are not considered to be particularly useful.

The census divisions of Ontario are used by Statistics Canada to aggregate census data; these divisions are used in this report when population data is presented.

The census divisions of Ontario are used by Statistics Canada to aggregate census data; these divisions are used in this report when population data is presented. They generally reflect Ontario's first-level administrative divisions (i.e. regional municipalities or counties, and districts). Districts are regional areas in Northern Ontario that do not serve any municipal government purpose. The North West LHIN geography includes three census divisions or districts:

- Kenora District
- Rainy River District
- Thunder Bay District

The North West LHIN has divided its geography in to 5 "integrated district networks", or sub-LHINs:

- District of Kenora
- District of Rainy River
- District of Thunder Bay
- City of Thunder Bay
- Northern

The District of Rainy River sub-LHIN corresponds to the Rainy River District census subdivision. The District of Kenora sub-LHIN is the southern part of the Kenora District census subdivision. The District and Thunder Bay plus the City of Thunder Bay represents the southern portion of Thunder Bay District. Because of the low population density, the northern portions of both Kenora District and Thunder Bay District have been carved off as a separate Northern sub-LHIN.

The MoHLTC has also created a Residence Coding classification system for patient residence information.

The Ministry of Health and Long-Term Care has also created a Residence Coding classification system for patient residence information. A unique four-digit number has been assigned to each municipality and populated First Nation Reserve or Settlement in the province. The first two digits of the code represent the geographic county, district or regional municipality in which the place is located (i.e. 42 for the Kenora census division). Digits three and four identify

municipalities within the county, or areas of the county if the area is not municipally organized, or First Nation Reserves and Settlements. The following table shows all the Ontario MOHLTC residence codes included in the Kenora District census division.

Exhibit 15: List of Ministry of Health and Long-Term Care Residence Codes for Kenora District Census Division

Residence Code	Place	Type
4204	SIOUX LOOKOUT	M
4205	IGNACE	TP
4207	MACHIN	TP
4211	EAR FALLS	TP
4213	BOYS ETC.	TP
4215	COYLE ETC.	TP
4216	BRIDGES ETC.	TP
4217	BRODERICK ETC.	TP
4218	HAYCOCK ETC.	TP
4219	REDDITT	TP
4220	BENEDICKSON ETC.	TP
4221	BARRETT ETC.	TP
4222	AUBREY ETC.	TP
4223	AVERY ETC.	TP
4224	VAN HORNE	TP
4225	BULLER ETC.	TP
4226	BRITTON ETC.	TP
4227	BYSHE ETC.	TP
4228	AGNEW ETC.	TP
4229	PICKLE LAKE	TP
4230	BALL ETC.	TP
4232	BEARSKIN LAKE	IR
4233	KITCHENUHMAYKOOSIB 84	IR
4234	CAT LAKE 63C	IR
4235	DEER LAKE	IR
4236	EAGLE LAKE 27	IR
4237	ENGLISH RIVER 21	IR
4239	FORT HOPE 64	IR
4240	FORT SEVERN 89	IR
4241	WABASEEMOONG	IR
4242	KASABONIKA LAKE	IR
4243	***KENORA 38B***	***IR***
4244	KINGFISHER LAKE 1	IR
4245	LAC SEUL 28	IR
4247	LAKE OF THE WOODS 37	IR
4248	LANSDOWNE HOUSE	IS
4249	WAWAKAPEWIN	IR
4250	MACDOWELL LAKE	IS
4252	MUSKRAT DAM LAKE	IR
4253	NORTH SPIRIT LAKE	IR
4254	NORTHWEST ANGLE 33B	IR
4255	OSNABURGH 63B	IR
4256	PIKANGIKUM 14	IR
4257	POPLAR HILL	IR
4258	RAT PORTAGE 38A	IR
4259	SABASKONG BAY 35D	IR
4260	SACHIGO LAKE 1	IR
4262	SANDY LAKE 88	IR
4263	SHOAL LAKE 34B2	IR
4264	SHOAL LAKE 39A	IR
4265	SHOAL LAKE 40	IR

Residence Code	Place	Type
4266	SLATE FALLS	IS
4267	SUMMER BEAVER	IS
4268	THE DALLES 38C	IR
4269	WABAUSKANG 21	IR
4270	WABIGOON LAKE 27	IR
4272	WAPEKEKA 2	IR
4273	WEAGAMOW LAKE 87	IR
4274	WEBEQUIE	IR
4275	WHITEFISH BAY 32A	IR
4276	WHITEFISH BAY 33A	IR
4277	WHITEFISH BAY 34A	IR
4278	WUNNUMIN 1	IR
4281	DRYDEN	C
4282	RED LAKE	M
4283	KEE-WAY-WIN	IR
4284	SABASKONG BAY 35C	IR
4285	NESKANTAGA	IR
4291	***KENORA***	***C***
4292	SIOUX NARROWS-NESTOR	TP
4299	***KENORA & KENORA P.P.***	***UN***

The residence code for the city of Kenora is 4291. Two other less populated residence codes also contain "Kenora" in their names, i.e. 4243 Kenora 38B (First Nation Reserve), and 4299 Kenora and Kenora P.P. (Unorganized Area).

2.4 Who are LWDH Patients?

67.7% of all LWDH inpatient cases come from Kenora city.

The following table provides an indication of where LWDH acute care inpatients come from. It presents the number of patients from each residence code that were admitted to LWDH. The table presents the residence codes with the highest number of LWDH inpatients. As can be seen, 67.7% of all LWDH inpatient cases come from Kenora city itself.

Exhibit 16: Residence of LWDH Inpatients (2016/17)

Patient Residence Code	LWDH 2016/17 IP Activity			% of LDWH Total	
	Cases	Days	Avg. LOS	Cases	Days
Kenora (City)	1,485	12,344	8.3	67.7%	76.8%
Wabaseemoong	133	740	5.6	6.1%	4.6%
English River 21	123	636	5.2	5.6%	4.0%
Shoal Lake 39A	86	425	4.9	3.9%	2.6%
Sioux Narrows-Nestor	76	436	5.7	3.5%	2.7%
Whitefish Bay 33A	57	336	5.9	2.6%	2.1%
Broderick	34	191	5.6	1.6%	1.2%
MANITOBA	31	86	2.8	1.4%	0.5%
Red Lake	19	47	2.5	0.9%	0.3%
The Dalles 38C	17	77	4.5	0.8%	0.5%
Coyle	14	98	7.0	0.6%	0.6%
Dryden	11	40	3.6	0.5%	0.2%
U.S.A. REMAINING	9	20	2.2	0.4%	0.1%
Thunder Bay District	7	19	2.7	0.3%	0.1%
Sabaskong Bay 35D	7	13	1.9	0.3%	0.1%
Redditt	7	134	19.1	0.3%	0.8%
All Others	76	439	5.8	3.5%	2.7%
Grand Total	2,192	16,081	7.3	100.0%	100.0%

77% of all LWDH inpatient psychiatric cases come from Kenora District.

The following table provides an indication of where LWDH psychiatric inpatients come from. It presents the number of patients from each residence code that were admitted to LWDH. The table presents the residence codes with the highest number of LWDH inpatients. Kenora District residents accounted for 77% of psychiatric discharges at LWDH in 2016/17.

Exhibit 17: Residence of LWDH 2016/17 Psychiatric Discharge

Patient District	Cases	Cumul. %
Kenora District	241	77%
Rainy River District	46	91%
Out Of Province	16	96%
Thunder Bay District	9	99%
Ontario Unknown	2	100%
Grand Total	314	

Exhibit 18: Detail Residence of LWDH 2016/17 Psychiatric Discharge

Residence Code	Cases	Cumul. %
4291 – Kenora (City)	83	26%
4601 - Fort Frances	25	34%
4281 - Dryden	24	42%
4282 - Red Lake	19	48%
4299 - Kenora (Unorganized Area)	16	53%
YYYY - Out Of Province	16	58%
4204 - Sioux Lookout	15	63%
4237 - English River 21	13	67%
4241 - Wabaseemoong	11	71%
4264 - Shoal Lake 39A	9	74%
4699 - Rainy River Dist	7	76%
4604 - Atikokan	7	78%
4901 - Thunder Bay	7	80%
4292 - Sioux Narrows-Nestor	7	82%
4233 - Kitchenuhmaykoosib 84	5	84%
4262 - Sandy Lake 88	5	86%
4256 - Pikangikum 14	5	87%
4245 - Lac Seul 28	4	89%
4609 - Emo	4	90%
All Others	32	100%
Grand Total	314	

2.5 Reliance on LWDH for Hospital Care

An indication of how dependent Kenora District patients are on LWDH for their inpatient acute care.

The following exhibits present the reliance on LWDH of patients from Kenora District. It is an indication of how dependent Kenora District patients are on LWDH for their inpatient acute hospital care.

Overall, LWDH provides 24.7% of the inpatient acute care hospitalizations for Kenora District residents. Kenora residents are most reliant on LWDH for Medicine (29.1%) and least reliant for acute hospital Mental Health (10.2%).

From a level of care perspective, the Kenora District population is most dependent on LWDH for Primary level care (29.2%), and least dependent for Quaternary level care (2.3%).

LWDH provides 24.7% of the inpatient acute care hospitalizations of Kenora District residents.

Exhibit 19: Kenora District Residents reliance on LWDH by Program in 2016/17

Broad Program	Kenora District Resident Cases	LWDH Cases	% LWDH
Birthing	1,814	385	21.20%
Medicine	4,482	1,304	29.10%
Mental Health	363	37	10.20%
Surgery	1,875	378	20.20%
Grand Total	8,534	2,104	24.70%

LWDH provides 29.2% of the primary care hospitalizations of Kenora District residents.

Exhibit 20: Kenora District Residents reliance on LWDH by Level of Care in 2016/17

Level of Care	Kenora District Resident Cases	LWDH Cases	% LWDH
Primary	5,086	1,484	29.20%
Secondary	2,895	575	19.90%
Tertiary	465	43	9.20%
Quaternary	88	2	2.30%
Grand Total	8,534	2,104	24.70%

Looking at a lower level of detail, analysis by PCC suggests that while LWDH provides an average 24.7% of all acute inpatient separations for Kenora District residents, more than 30% of separations are provided for:

- Non-Acute 34.1%
- Other Reasons 33.0%
- Neurology 32.3%
- Endocrinology 31.4%
- Gastro/Hepatobiliary 31.1%
- Other Internal Medicine 30.6%

Exhibit 21: Kenora District Residents reliance on LWDH by PCC for inpatients in 2016/17

Program Cluster Category	Kenora District Resident Cases	Cases				% by Hospital			
		Sioux Lookout Meno-Ya-Win	Lake-Of-The-Woods District	Thunder Bay Regional	Dryden Regional	Sioux Lookout Meno-Ya-Win	Lake-Of-The-Woods District	Thunder Bay Regional	Dryden Regional
Obstetrics	927	459	194	118	121	49.5%	20.9%	12.7%	13.1%
Neonatology	887	442	191	108	114	49.8%	21.5%	12.2%	12.9%
Other Internal Medicine	828	212	253	141	122	25.6%	30.6%	17.0%	14.7%
Gastro/Hepatobiliary	816	211	254	79	158	25.9%	31.1%	9.7%	19.4%
Cardiology	783	160	214	173	145	20.4%	27.3%	22.1%	18.5%
Pulmonary	758	221	171	126	163	29.2%	22.6%	16.6%	21.5%
Orthopaedics	538	24	86	286	119	4.5%	16.0%	53.2%	22.1%
General Surgery	478	93	135	130	86	19.5%	28.2%	27.2%	18.0%
Non-Acute	425	96	145	56	91	22.6%	34.1%	13.2%	21.4%
Psychiatry	363	70	37	123	20	19.3%	10.2%	33.9%	5.5%
Neurology	344	36	111	118	37	10.5%	32.3%	34.3%	10.8%
Urology	235	44	68	67	26	18.7%	28.9%	28.5%	11.1%
Endocrinology	223	52	70	43	40	23.3%	31.4%	19.3%	17.9%
Other Reasons	182	27	60	27	38	14.8%	33.0%	14.8%	20.9%
Otolaryngology	179	31	33	55	43	17.3%	18.4%	30.7%	24.0%
Haematology	123	16	26	38	21	13.0%	21.1%	30.9%	17.1%
Neurosurgery	115	5	10	85	5	4.3%	8.7%	73.9%	4.3%
Nephrology	106	16	26	42	16	15.1%	24.5%	39.6%	15.1%
Gynaecology	60	7	10	26	11	11.7%	16.7%	43.3%	18.3%
Plastic Surgery	60	1	6	29	22	1.7%	10.0%	48.3%	36.7%
Cardiac Surgery	45	-	-	-	-	0.0%	0.0%	0.0%	0.0%
Vascular Surgery	28	5	3	15	1	17.9%	10.7%	53.6%	3.6%
Thoracic Surgery	19	1	1	14	-	5.3%	5.3%	73.7%	0.0%
Ophthalmology	12	3	-	5	2	25.0%	0.0%	41.7%	16.7%
Grand Total	8,534	2,232	2,104	1,904	1,401	26.2%	24.7%	22.3%	16.4%

LWDH provides 30.3% of the day surgery cases for Kenora District residents.

LWDH provides an average of 30.3% of day surgery cases for Kenora District residents. The Program Cluster categories where the most care is provided by LWDH are:

- Psychiatry (ECT) 100%
- Ophthalmology 74.7%
- Obstetrics 48.3%
- Vascular Surgery 40.5%
- Haematology 37.5%
- Gastro/Hepatobiliary 32.7%

Exhibit 22: Kenora District Residents reliance on LWDH by PCC for day surgery cases in 2016/17

Program Cluster Category	Kenora District Resident Cases	Cases				% by Hospital			
		Lake-Of-The-Woods District	Dryden Regional	Sioux Lookout Meno-Ya-Win	Thunder Bay Regional	Lake-Of-The-Woods District	Dryden Regional	Sioux Lookout Meno-Ya-Win	Thunder Bay Regional
Gastro/Hepatobiliary	2,531	827	811	453	229	32.7%	32.0%	17.9%	9.0%
Ophthalmology	553	413	1	1	126	74.7%	0.2%	0.2%	22.8%
Dental/Oral Surgery	489	49	-	379	50	10.0%	0.0%	77.5%	10.2%
Orthopaedics	402	47	144	15	177	11.7%	35.8%	3.7%	44.0%
General Surgery	317	80	90	98	41	25.2%	28.4%	30.9%	12.9%
Urology	256	16	18	24	191	6.3%	7.0%	9.4%	74.6%
Ungroupable	241	36	30	107	63	14.9%	12.4%	44.4%	26.1%
Plastic Surgery	217	43	119	26	24	19.8%	54.8%	12.0%	11.1%
Neurosurgery	181	52	37	77	13	28.7%	20.4%	42.5%	7.2%
Obstetrics	151	73	12	32	34	48.3%	7.9%	21.2%	22.5%
Otolaryngology	71	2	28	15	23	2.8%	39.4%	21.1%	32.4%
Vascular Surgery	42	17	8	12	5	40.5%	19.0%	28.6%	11.9%
Pulmonary	39	1	2	-	35	2.6%	5.1%	0.0%	89.7%
Gynaecology	36	8	6	3	17	22.2%	16.7%	8.3%	47.2%
Psychiatry	27	27	-	-	-	100.0%	0.0%	0.0%	0.0%
Cardiology	22	-	-	-	21	0.0%	0.0%	0.0%	95.5%
Other Internal Medicine	10	1	2	-	7	10.0%	20.0%	0.0%	70.0%
Haematology	8	3	-	4	-	37.5%	0.0%	50.0%	0.0%
Endocrinology	3	-	2	1	-	0.0%	66.7%	33.3%	0.0%
Neurology	2	-	1	-	-	0.0%	50.0%	0.0%	0.0%
Grand Total	5,598	1,695	1,311	1,247	1,056	30.3%	23.4%	22.3%	18.9%

LWDH provides 85% of the inpatient psychiatric care for Kenora District residents.

In 2016/17, 85% of all Inpatient Psychiatric Discharges of Kenora District Residents were from LWDH. LWDH was also the primary provider of Inpatient psychiatric care for residents of Rainy River District (73%).

Exhibit 23: Reliance of NW LHIN Residents on individual psychiatric Hospitals

Hospital	Patient Residence			
	Kenora District	Rainy River District	Thunder Bay District	Grand Total
Thunder Bay Regional	37	14	892	943
Lake-Of-The-Woods District	241	46	9	296
St. Joseph's CG, Thunder Bay	-	-	37	37
Homewood Health Centre Inc.	2	3	16	21
Centre for Addiction & MH	1	-	4	5
All Other Hospitals	3	-	18	21
Grand Total	284	63	976	1,323
LWDH % Market Share	85%	73%	1%	22%

The analyses above looks at the LWDH market share for the entire Kenora District. If the geography examined is restricted to the city of Kenora, then the

rate of population reliance on LWDH is substantially higher. The exhibit below shows the number of acute care inpatient hospitalizations for city of Kenora residents in 2016/17, and the percent of these hospitalizations provided by individual hospitals. Manitoba hospitalizations are not included in this analysis, because of the lack of availability of detailed data.

Exhibit 24: Reliance of City of Kenora Residents on Individual Hospitals for Inpatient Acute Care in 2016/17

Program Cluster Category	Kenora District Resident Cases	Cases				% by Hospital			
		Lake-Of-The-Woods District	Thunder Bay Regional	Dryden Regional	Hamilton HSC - General	Lake-Of-The-Woods District	Thunder Bay Regional	Dryden Regional	Hamilton HSC - General
Cardiology	210	181	27	-	-	86.2%	12.9%	0.0%	0.0%
Other Internal Med.	209	192	14	1	-	91.9%	6.7%	0.5%	0.0%
Gastro/Hepat.	182	172	5	2	-	94.5%	2.7%	1.1%	0.0%
Orthopaedics	146	64	61	20	-	43.8%	41.8%	13.7%	0.0%
Pulmonary	143	130	12	1	-	90.9%	8.4%	0.7%	0.0%
Neonatology	123	122	-	1	-	99.2%	0.0%	0.8%	0.0%
Obstetrics	120	119	-	1	-	99.2%	0.0%	0.8%	0.0%
Non-Acute	110	106	4	-	-	96.4%	3.6%	0.0%	0.0%
General Surgery	105	89	11	1	-	84.8%	10.5%	1.0%	0.0%
Neurology	99	74	24	1	-	74.7%	24.2%	1.0%	0.0%
Urology	56	53	2	-	-	94.6%	3.6%	0.0%	0.0%
Other Reasons	50	44	5	-	-	88.0%	10.0%	0.0%	0.0%
Endocrinology	42	38	2	1	-	90.5%	4.8%	2.4%	0.0%
Psychiatry	37	15	14	2	-	40.5%	37.8%	5.4%	0.0%
Haematology	32	24	6	-	-	75.0%	18.8%	0.0%	0.0%
Otolaryngology	30	25	2	2	-	83.3%	6.7%	6.7%	0.0%
Nephrology	26	19	7	-	-	73.1%	26.9%	0.0%	0.0%
Neurosurgery	21	6	14	-	-	28.6%	66.7%	0.0%	0.0%
Cardiac Surgery	8	-	-	-	6	0.0%	0.0%	0.0%	75.0%
Plastic Surgery	7	4	2	1	-	57.1%	28.6%	14.3%	0.0%
Gynaecology	6	6	-	-	-	100.0%	0.0%	0.0%	0.0%
Vascular Surgery	4	2	1	-	-	50.0%	25.0%	0.0%	0.0%
Thoracic Surgery	4	-	4	-	-	0.0%	100.0%	0.0%	0.0%
Grand Total	1,770	1,485	217	34	6	83.9%	12.3%	1.9%	0.3%

In 2016/17, the residents of the city of Kenora relied on LWDH for 83.9% of their inpatient acute care hospitalizations. Thunder Bay Regional was the next highest provider of care for Kenora City residents at 12.3%.

2.6 Projected Growth in Demand for Inpatient Acute Care at LWDH

The overall Kenora District population is projected to grow by only 4.2%, the number of residents age 65 and older is projected to increase by 34.7%.

The population served by LWDH, like communities elsewhere in the province, is experiencing increasing demands for health care primarily due to the aging of the "baby boom" population. While from 2016 to 2025, the overall Kenora District population is projected to grow by only 4.2%, the number of residents age 65 and older is projected to increase by 34.7%.

Exhibit 25: Projected Growth in Kenora District Population from 2016 to 2025

Kenora District				
Age Group	2016 Est.	2025 Proj.	Proj. Change	
			#	%
0 to 19	20,535	20,383	(152)	-0.7%
20 to 44	22,218	22,483	265	1.2%
45 to 64	18,270	16,760	(1,510)	-8.3%
65 to 79	7,472	10,239	2,767	37.0%
80+	2,161	2,737	576	26.7%
Total	50,121	52,219	2,098	4.2%
% 65+	19.2%	24.8%		

If practice and current patterns of reliance on LWDH don't change, there is an expected 11.4% increase in inpatient cases and 20.1% increase in acute care inpatient days over the 9-year period.

Because of the disproportionate impact of the elderly population on demand for hospital services there will be only a small increase in overall population size, but if current patterns of reliance on LWDH and LWDH practice patterns (admission rates and lengths of stay) don't change, there would be an 11.4% increase in inpatient cases and 20.1% increase in acute care inpatient days over the 9-year period. The greatest growth would be for inpatient medicine (i.e. 14.8% increase in inpatient days, requiring 8 more beds). Without mitigation, there will be significant pressure on the physical (and possibly financial) resources of the hospital.

Exhibit 26: Projected Change in LWDH Acute Care Inpatient Activity from 2016/17 Actual to 2025

Program	2016/17			2025 Projection			Change 16/17 to 2025		
	Cases	Days	HIG weight	Cases	Days	HIG weight	Cases	Days	HIG weight
Birthing	388	775	132.7	387	773	132.2	-1	-2	-0.5
Medicine	1,485	12,628	2,037.5	1,705	15,238	2,403.8	220	2,610	366.4
Mental Health	37	345	52.2	37	464	64.4	0	119	12.2
Surgery	279	2,333	538.4	308	2,833	640.2	29	500	101.9
Grand Total	2,189	16,081	2,760.8	2,438	19,309	3,240.7	249	3,228	479.9
Percent Change 2016/17 to 2025							11.4%	20.1%	17.4%

The magnitude of the increased demand for hospital care for LWDH (and every other Ontario hospital) makes it imperative that all opportunities to find efficiencies while maintaining access and quality of care are considered.

2.7 Financial Profile

LWDH has run an operating deficit in two of the last six years.

LWDH financial results for the fiscal years (FY) 2011/12 through 2016/17 as derived from the hospital's audited financial statements are summarised in the following exhibit[3]. As can be seen, LWDH has run an 'operating deficit' in two of the last six years. The hospital results have ranged from a deficit of 2.0% of revenues (2014/15) to a surplus 0.4% of revenues (2011/12). One-time funding for operating pressures was received in both 2013/14 ($142,643) and 2015/16 ($710,992).

LWDH has run an accounting deficit in five of the last six years.

Despite only two years of deficits and the one-time operating pressures funding, the accumulated deficit over this 6-year period is $981,129. Importantly, when building depreciation and deferred contributions are considered, LWDH has had an 'accounting deficit' in 5 of the previous 6 years. An accounting surplus is necessary to support the hospitals' capital needs.

Base funding was increased in 2016/17 by $1.4M.

Following extensive discussions between the hospital and the LHIN on the negative impacts of the introduction of Health System Funding Reform (HSFR) on the hospital, base funding was increased in 2016/17 by $1.4M. On a go-forward basis, the MoHLTC has recognized the challenges of applying HSFR to a number of smaller hospitals; as a result, LWDH will no longer be subject to HSFR and will instead be included in the small hospitals funding approach.

The 2016/17 base funding increase was intended to mitigate the financial challenges associated with the implementation of HSFR and ultimately allow the hospital to balance its budget. As a direct result of this funding, LWDH was expected, at a minimum, to balance its budget in the 2016/17 and 2017/18 fiscal years. The hospital did achieve a balanced position in 2016/17 (with an operating surplus of 0.06% of revenues) and is projecting a balanced position in 2017/18.

LHIN funding from 2011/12 ($26.8M) to 2016/17 ($26.7M) has remained essentially flat.

Even with this recent base funding increase however, overall LHIN funding from 2011/12 ($26.8M) to 2016/17 ($26.7M) has remained essentially flat. The hospital has had other revenue increases over this period largely attributable to three major programs:

- Cancer Care Ontario ($1.25M increase);
- Provincial Programs ($1.15M increase); and
- Medical Staff remuneration ($0.3M increase).

[3] The historical information presented here was taken largely from the Board approved financial statements of the hospital, and supplemented with information from management along with some modifications made for restated building and equipment amortization and expenses to match the HSAA definition of Operating Surplus / Deficit.

Exhibit 27: LWDH Financial Results 2011/12 to 2016/17

	Act 2011/12	Act 2012/13	Act 2013/14	Act 2014/15	Act 2015/16	Act 2016/17
Revenue						
NWLHIN & Ministry of Health & CCO						
LHIN Global & HBAM	26,779,271	26,075,607	24,678,762	24,025,932	23,179,212	24,840,309
LHIN QBP	0	663,970	2,444,264	2,244,425	2,245,320	1,813,912
	26,779,271	26,739,577	27,123,026	26,270,357	25,424,532	26,654,221
CCO Funding	700,728	562,934	1,838,745	1,972,405	1,779,494	1,479,720
CCO QBP	0	0	0	289,390	345,241	480,226
WTIS Funding	707,878	114,800	105,900	294,010	281,750	283,970
LHIN Programmatic one-time	165,000	245,950	301,456	331,324	158,000	183,000
MoHLTC Programmatic one-time	474,257	1,523,184	311,146	350,634	281,432	307,122
Medical Staff Funding	3,873,813	3,519,815	3,757,931	3,510,160	3,533,819	3,798,988
LHIN Operating pressures one-time	0	0	142,643	0	710,992	0
	5,921,676	5,966,683	6,457,821	6,747,923	7,090,728	6,533,026
	32,700,947	32,706,260	33,580,847	33,018,280	32,515,260	33,187,247
Patient Revenue from Other Payers						
WSIB	57,765	51,237	60,018	85,039	51,683	48,492
Non-Residents of Province	897,548	1,010,943	965,340	847,407	955,714	1,123,384
Non-Residents of Canada	58,513	64,579	142,153	172,032	133,227	220,979
OHIP	1,754,336	1,568,977	1,464,549	1,387,345	1,332,867	2,114,855
Ambulance Services	73,821	72,012	78,253	88,951	77,970	92,955
Differential & Copayment	442,915	293,086	269,422	338,780	305,396	342,191
	3,284,898	3,060,834	2,979,735	2,919,554	2,856,857	3,942,856
Other Revenue & Rec's & Mkted serv's	3,293,523	3,341,651	2,977,787	3,310,737	3,111,058	3,053,958
Specially-funded Provincial Programs	6,017,237	6,089,715	6,290,704	6,790,850	7,131,707	7,172,145
Deferred Capital contributions Equip.	587,507	651,403	655,608	736,568	745,141	828,745
	45,884,112	45,849,863	46,484,681	46,775,989	46,360,023	48,184,951
Expenses						
Salaries and Wages	20,303,403	20,488,086	20,807,988	21,264,658	20,520,024	20,302,157
Employee Benefits	5,116,894	5,278,620	5,151,667	5,366,973	5,226,226	5,216,784
Medical Staff Remuneration	5,543,885	5,392,631	5,275,805	5,173,031	5,018,275	6,305,404
Supplies and Other	5,354,408	5,365,201	5,239,345	5,562,185	5,515,085	5,972,197
Medical and surgical supplies	1,157,104	1,071,697	1,123,978	1,137,871	1,157,169	1,110,526
Drugs	1,357,241	1,225,581	1,527,311	1,509,256	1,358,780	1,189,567
Specially-funded Provincial Programs	6,017,237	6,089,715	6,290,704	6,790,850	7,131,707	7,172,145
Bad Debts	23,197	23,250	30,160	29,284	28,489	27,707
Depreciation Equipment	828,739	825,682	878,945	889,165	895,225	861,534
	45,702,108	45,760,463	46,325,903	47,723,273	46,850,980	48,158,021
Operating Revenue less Expenses	182,004	89,400	158,778	(947,284)	(490,957)	26,930
As a percentage of revenue	0.40%	0.19%	0.34%	-2.03%	-1.06%	0.06%
Depreciation Buildings	(952,328)	(976,917)	(1,027,340)	(1,090,008)	(1,197,995)	(1,235,220)
Deferred Capital Contributions Buildings	802,945	751,788	679,941	727,006	847,623	865,824
	(149,383)	(225,129)	(347,399)	(363,002)	(350,372)	(369,396)
Surplus/(Deficiency) of Revenue/Expenses	32,621	(135,729)	(188,621)	(1,310,286)	(841,329)	(342,466)

Funding increases between 2011/12 and 2016/17 have been tied to service expectations and / or subject to reconciliation and recovery.

Each of these areas has specific expense / volume requirements associated with the funding and are subject to reconciliation and recovery. CCO funding has increased almost 3-fold from $700k to $1.96M; this funding is tied specifically to drug expenses and QBP volumes.

Specially-funded provincial programs are Community Mental Health and Addictions ($4.6M in 2016/17) and Emergency Health Services ($2.7M in 2016/17); these programs are expected to break even and any excess funding is recovered. Funding, and expenses, for these programs has increased from $6.0M in FY 2011/12 to $7.2M in FY 2016/17. As required, the hospital has broken even on these programs in each of the last 6 years.

LWDH has increased administrative physician support to $225k in 2017/18.

Revenue, and expenses, associated with Medical Staff has remained fairly constant but declined slightly each year from 2011/12 through 2015/16 as a result of OHIP reductions; both revenue and expenses increased in 2016/17 with the introduction of a new Alternative Funding Plan for GP extenders / Internal Medicine. Like CCO funding and Specially-funded Provincial programs, this funding is flow-through; it is provided for a specific use and subject to reconciliation and recovery.

LWDH has historically budgeted approximately $150k annually in Medical staff remuneration to support administrative Physician roles; this budget will increase to approximately $225k in 2017/18 to support the GP extenders / Internal Medicine AFP. As can be seen below, the actual results vary from this budget year to year. This is largely the result of timing differences in receipt and expenditure of funds between 2011/12 and 2015/16.

LWDH supported the Internal Medicine program in 2016/17 until the AFP was confirmed.

The larger deficit in 2016/17 arose as a result of the hospital supporting the GP extenders / Internal Medicine program until funding started flowing from the AFP on April 1, 2017.

Exhibit 28: LWDH Medical Remuneration 2011/12 to 2016/17

	Act **2011/12**	Act **2012/13**	Act **2013/14**	Act **2014/15**	Act **2015/16**	Act **2016/17**
Medical remuneration funding	5,628,149	5,088,792	5,222,480	4,897,505	4,866,686	5,913,843
Medical remuneration expense	5,543,885	5,392,631	5,275,805	5,173,031	5,018,275	6,305,404
	84,264	(303,839)	(53,325)	(275,526)	(151,589)	(391,561)

Revenue available for hospital operations (despite the recent base increase) has declined from $33.5M in FY 2011/12 to $33.1M in FY 2016/17.

Considering all sources of revenue over the 6-year period, the hospital has seen an increase of 5% or $2.3M (from $45.9M to $48.2M). The $2.7M increase in the three flow-through programs (CCO, Provincial Programs, Medical Staff) more than account for this increase. Removing these programs from consideration therefore, we see that revenue available for hospital operations (despite the recent

base increase) has declined from $33.5M in FY 2011/12 to $33.1M in FY 2016/17; a decrease of 1.2% or $400k over this 6-year period.

Management has responded with efficiency improvements and service reductions to address inflationary pressures.

Overall therefore, the resources available for hospital operations has declined over the last 6-years. Management has responded as required with efficiency improvements and service reductions to attempt to maintain a balanced position while dealing with inflationary pressures. Through a series of efforts between 2011/12 and 2016/17, management has reduced hospital operating expenses by roughly $700k while also absorbing inflationary increases.

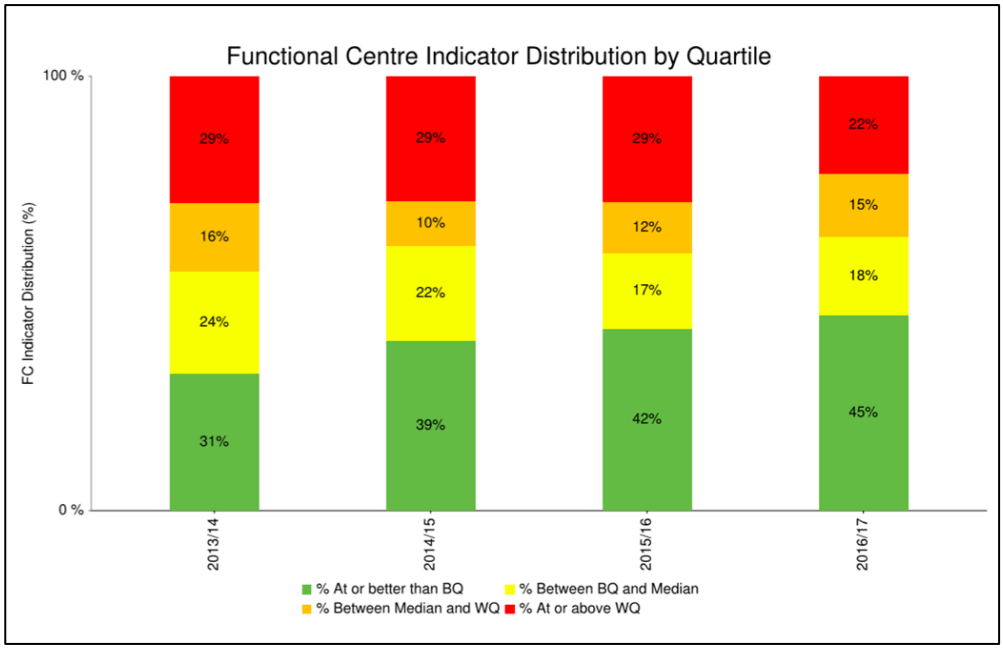
63% of LWDH departments are operating at or better than the median performance of peer hospitals.

These efforts are apparent in our benchmarking analysis when we compare individual functional centre operational efficiency performance to peer hospital performance. Using functional centre specific results, we can assess overall performance by looking at the proportion of functional centres operating within each comparative efficiency quartile (see chapter 6 for approach description). As can be seen, in 2016/17, most LWDH functional centres (63%) are operating at or better than the median performance of the peer hospitals; this represents an increase since 2013/14 (when 55% of functional centres were operating at or better than median performance). Overall, among the peer hospitals:

- LWDH has the 2nd highest/best % of indicators at or better than median
- LWDH has the 3rd highest/best % of indicators at or better than best quartile
- LWDH has the 3rd lowest/best % of indicators at or above the median
- LWDH has the 6th lowest/best % of indicators at or above the75th percentile

Exhibit 29: LWDH Functional Centre Performance Distribution by Peer Performance Quartile

Most LWDH functional centres operate at or better than the median performance of peer hospitals and many are operating at or better than the best quartile



2.8 Working Capital

LWDH has maintained a current ratio above 1 for each of the last 6 years.

Unlike many hospitals in Ontario, LWDH has maintained a current ratio above 1 for each of the last 6 years. Total net assets over the period have declined however from $8M to $5.2M. Even with the balanced operating forecast in 2017/18, the current ratio is expected to fall below 1 and net assets are forecast to fall further to $4.6M. The forecasted increases in both long-term assets and liabilities in 2017/18 arise from the Operating Room renovation project.

Management will need to ensure that operating credit facilities are in place.

Working capital over this six year period has remained positive and between $1.3M and $3.6M. The anticipated decline in working capital in 2017/18 (a deficit of 92k) will require that management ensure that sufficient operating credit facilities are in place.

Exhibit 30: LWDH Balance Sheet Summary 2011/12 to 2016/17, 2017/18 forecast

	Act 2011/12	Act 2012/13	Act 2013/14	Act 2014/15	Act 2015/16	Act 2016/17	Forecast 2017/18
Working Capital							
Current Assets	8,045,803	9,748,024	10,203,588	9,094,179	9,602,173	9,250,311	5,737,984
Current Liabilities	6,359,292	6,724,589	6,565,249	7,704,967	7,207,701	8,007,935	5,830,226
	1,686,511	3,023,435	3,638,339	1,389,212	2,394,472	1,242,376	(92,242)
Current Ratio	1.27	1.45	1.55	1.18	1.33	1.16	0.98
Current Assets	8,045,803	9,748,024	10,203,588	9,094,179	9,602,173	9,250,311	5,737,984
Capital Assets and Invests	19,610,292	18,579,152	17,828,631	19,151,209	18,510,003	19,104,676	27,000,000
Total Assets	27,656,095	28,327,176	28,032,219	28,245,388	28,112,176	28,354,987	32,737,984
Current Liabilities	6,359,292	6,724,589	6,565,249	7,704,967	7,207,701	8,007,935	5,830,226
Long Term liabilities	13,276,435	13,549,596	13,738,329	14,122,065	15,327,449	15,112,492	22,296,200
Total Liabilities	19,635,727	20,274,185	20,303,578	21,827,032	22,535,150	23,120,427	28,126,426
Net Assets (debt)							
Operating	7,770,368	7,802,991	7,478,641	6,168,355	4,250,491	4,863,704	4,361,558
Internally Restricted	250,000	250,000	250,000	250,000	1,326,535	370,586	250,000
	8,020,368	8,052,991	7,728,641	6,418,356	5,577,026	5,234,560	4,611,558

The decline in net assets is clearly not sustainable over the long run.

While the drop in net assets has been slow, it has been consistent and is clearly not sustainable over the long run. A balanced position that is sufficient to generate cash to maintain equipment and the capital infrastructure is essential.

No clear physical infrastructure plan is in place.

Over the last 6 years, the capital infrastructure has not been maintained sufficiently; specific challenges in this regard are raised throughout the report. Broadly, there is no comprehensive physical infrastructure plan in place, and maintenance has been kept to an unsustainable minimum. The operational efficiency of Plant Operations and Maintenance is discussed in section 6.2.6.2. There is a need for LWDH to invest in facilities management expertise either

through in-house staffing or through a purchased service relationship with another hospital.

While a planning grant has been received to plan for a new facility, it should be expected that the current hospital will need to remain in use for at least 10 years. While, there is no comprehensive plan, the hospital has taken advantage of both the Hospital Infrastructure Renewal Fund (HIRF) and the Hospital Energy Efficiency Program (HEEP) to complete a number of maintenance projects. These projects total just over $3M over the previous 6 years.

A comprehensive maintenance and capital renewal plan will need to be developed however, to ensure that the hospital can be appropriately maintained in a manner that will meet the needs of the population served by LWDH. An accounting surplus will be necessary to fund such a plan.

The hospital should plan for an accounting surplus to properly maintain equipment and infrastructure.

Current best practice amongst Ontario hospitals is to strive for an accounting surplus to properly maintain equipment and capital infrastructure; such surpluses are typically planned to be between 1% and 2%. In 2017/18 LWDH budgeted for a 0.5% operating surplus and a break-even accounting position; the projection, however is for a breakeven operating position (0.01% surplus) and an accounting deficit of $400k. An accounting surplus is particularly important in hospital communities that do not have strong capacity to fundraise from their communities. While there is no "correct" amount for such a surplus plan, it needs to take into account an appropriate level for equipment replacement, maintenance, infrastructure renewal, and the support that is anticipated from the hospital for the new facility.

Recommendations

It is recommended that:

(1) The CFO should ensure that sufficient operating credit facilities are in place, and approved by the Board and LHIN as required, to manage the anticipated negative working capital in 2017/18.

(2) The CEO and CFO should develop a maintenance and capital renewal plan sufficient to ensure that the hospital equipment and facilities meet the needs of the population served by LWDH.

3.0 Governance & Management

3.1 Governance

The LWDH Board is comprised of 9 voting members and 5 legislated non-voting members.

LWDH is governed by a 14-member Board of Directors. The Board is comprised of 9 voting members, in addition to 5 legislated non-voting members (Chief of Medical Staff, CEO [Secretary / Treasurer], Chief Nursing Officer, President of the Medical Staff and Vice-President of the Medical Staff). The Board follows a Carver policy governance model. The terms of reference for the Operational Review included an examination of the appropriateness and effectiveness of the governance structures.

The LWDH Board is challenged with the responsibility of oversight in a very difficult environment: a poor physical infrastructure, declining revenues, a complex and limited funding environment, continual inflationary pressures and ever increasing patient demands. The result of these pressures has been a slow erosion of net assets, recurring deficit challenges, increasing cash-management concerns and associated strained relations among the board members, administration, staff and physicians.

3.1.1 Situation Summary

A fundamental responsibility of any hospital Board is the fiscal integrity of the hospital.

A fundamental responsibility of any hospital Board is the fiscal integrity of the hospital and its long-term solvency. Appropriately, the LWDH Board has supported management in the difficult service reduction and efficiency decisions implemented over the last few years in an attempt to maintain a balanced financial position. Board members expressed that the primary reason to undertake an Operational Review was the continuing deterioration of the financial position of the hospital despite the difficult decisions that have been necessary. Many felt that LWDH has had many years of deficits and is now recognized as not being properly funded under HSFR and has achieved major improvements in efficiencies despite under-funding. They felt that the hospital's efforts to improve efficiencies have not been sufficiently recognized by the LHIN and that proper funding would only be provided in response to an objective third-party review.

The recent increase in global funding from the LHIN is cited positively as an example of the LHINs support.

In terms of the Boards relationship with the LHIN more generally, perspectives of the Directors ranged from positive and engaged with the LHIN to distant. However, there is a shared understanding that the LHIN is supportive of the hospital and that the LHIN Board is genuinely trying to assist LWDH address its challenges. The recent increase in global funding from the LHIN is cited positively as an example of the LHINs support as well as an indication of the successful performance of the CEO.

A non-confidence motion from Medical Staff that alleged that the hospital was not properly governed and managed.

In December 2016, the Medical staff passed a non-confidence motion that alleged that the hospital is not properly governed or managed arising from management efficiency decisions as supported by the Board. Many Board members dismissed this motion and felt that it was precipitated and supported only by a small number of disgruntled physicians. It was suggested that the motion arose largely as a consequence of a perceived loss of control arising from management's necessary service delivery decisions to meet efficiency requirements. The Board anticipated that the Operational Review would provide the opportunity to independently assess the governance model and Board/management leadership to counter this perceived lack of confidence by the physicians.

Board members felt that maintaining the solvency of the hospital was critical to meeting the care requirements of the community.

Board members expressed frustration with a perceived historic entitlement of physicians to determine what and how services are provided that was recently diminished as a result of Board accountability obligations due to financial constraints. Board members felt that their obligations to maintain the solvency of the hospital was critical for their ability to respond to the care requirements of the community. Board members believe that the non-confidence motion was led by a small group of physicians with a history of disruptive behaviour when MOHLTC and hospital decisions, and operational challenges have been perceived to adversely affect them personally (such as endoscopy privileges, staff retirements and OR labour shortages).

Physicians expressed a long-standing frustration with being generally omitted from important service decisions.

There were periods of time when there have been no Medical Staff Association (MSA) Officers and therefore no MSA presence on the Board[4]. Numerous physicians have expressed a long-standing frustration with being generally omitted from important service decisions; the non-confidence motion being only the most recent, albeit drastic, attempt to draw attention to this issue. Regardless, the MSA representatives on the Board have abrogated their responsibilities as Directors. They no longer take the opportunity at Board meetings to advise the Board on issues from the perspective of the medical staff. Board members also described the recent stalemate as a deteriorating relationship over a longer-period of time; Board members were frustrated prior to the non-confidence motion with MSA Members appearing only briefly at Board meetings and making little contribution to the discussion while there. However, following meetings, letters and / or emails would be made public with various grievances. Such passive aggressive behaviour is indicative of a failed relationship.

While the Board has confidence in the Chief of Staff, it was stated that the Medical Advisory Committee (MAC) is "broken".

Board members did express confidence in the Chief of Staff (COS) as an exemplar of integrity and ethical behaviour in a challenging environment. While the Board has full confidence in the Chief, it is felt that the Medical Advisory Committee (MAC) is "broken". Board members cited examples where the MAC has refused to meet its obligations to sanction both incidental and long-standing bad behaviour by members of the medical staff. It was felt that this is likely due to lack of leadership and lack of willingness of the physicians and COS to take

[4] In February 2018, the MSA elected a President and Vice-President to sit on the Board.

difficult positions in a small community. This has resulted, however, in passive consent to on-going and worsening behavioural issues from some medical staff. Importantly, the Board has also not intervened in such disciplinary issues as they have not seen it as their role nor understood the implications of the inaction on organizational culture.

The Board officers were positive about their relationship with the CEO.

The Board officers were very positive about their relationship with the CEO and generally expressed full confidence in him. They believe that both the Board and CEO are fulfilling their respective and distinct roles under the governance model. Newer members, however, expressed some frustration with the governance model feeling that the Board is over burdened with reviewing policies and monitoring reports, leaving little opportunity for broader discussion which allows the CEO wide discretion in decision-making about processes and operational decisions without Board approval / oversight. Several directors agreed that the policy governance model gives a wide scope of authority to management, resulting in a heavy dependence on the CEO along with a concentration of power in that role.

3.1.2 Governance Model

LWDH uses the Carver Policy Governance Model and by all accounts strictly adheres to the model.

LWDH uses the Carver Policy Governance Model and by all accounts strictly adheres to the model in its Board policies, structures and processes. With the introduction of this model, Carver raised the profile and importance of proper organizational governance and the separation of Governance and Management accountabilities. The model is characterized by:

- A rigid separation between the responsibilities of the Board and management;
- Board responsibility for establishing the "vision, values, ends" and governance process policies;
- Management responsibility for all operational decisions subject to compliance with a series of Executive Limitations which circumscribe the items that the CEO is not allowed to do;
- Standard templates by the CEO for reporting compliance with Executive Limitations;
- Policy formulation by the Board limited to the Board's own processes; and
- Board review of post-facto monitoring reports to demonstrate compliance or non-compliance with Executive Limitations.

Concern has been expressed that the Carver model is too formulaic, highly retrospective and reactive.

While the Carver model was very popular in the early days of Board governance in the 1990s and still has strong proponents in the not-for-profit sector, over the years as the role of governance was debated and experience with the model increased, concern has been expressed that this model can be too formulaic, highly retrospective and reactive. While the model importantly emphasized the separation of governance and management, it is felt that the Board is positioned to be overly arms length. The model has been criticized for not allowing the flexibility needed to enable the Board to proactively engage in providing direction and oversight of strategy, resource allocation and CEO performance (among other

things). Further, more current thinking is that Boards have strategic responsibilities beyond "ends". This has become increasingly apparent in Ontario over the last decade, as hospital Boards have increasing accountabilities for governance and operations of their hospital corporations defined by legislation. There is an increased emphasis now on the Board's responsibility to oversee organizational performance and for more effective partnerships between Boards and their CEOs and with other health care providers.

An annual orientation session with corporate counsel and a Carver governance coach.

At LWDH, the Board holds an annual orientation session at which its corporate counsel and a Carver governance coach provide governance orientation to the Directors. In addition, the Carver governance coach provides periodic assessment of LWDH Board compliance with the Carver model.

There is a divergence of perspectives between seasoned and newer Directors on the value of the policy governance model for LWDH.

There is a divergence of perspectives between seasoned and newer Directors on the value of the policy governance model for LWDH. All Directors noted the considerable time required to learn the Carver Policy Governance model. The longer serving Directors believe that once learned, it can be a very effective model and that it is working very well for LWDH. A perceived advantage of the model is that it very clearly differentiates the role of the Board and the CEO. Some Directors appreciated the prescriptive process as an easier approach for volunteer Boards and also observed that it results in time efficient meetings (an important objective for volunteer Board members).

Newer Directors expressed frustration with the prescribed approach to reviewing and monitoring policies and retrospective Executive Limitation reports. The model is seen as being reactive, paper-heavy and not allowing the Board to engage in discussion or provide direction on future-oriented strategy and issues. Directors questioned the role of the Board sensing that it is 'simply' monitoring rather than being engaged in providing direction. Other Directors described the lack of substantive engagement about what is actually going on, with little opportunity or time to ask questions because of so much time spent completing forms.

Directors indicated that on the Executive Limitation policies, the primary interaction is asking questions. Some Directors noted that questions were often limited by the Chair restricting discussion among Directors on potentially significant issues. There is felt to be a greater focus on discussion of potential amendments to Governance Process policies rather than emerging hospital issues.

The newer Directors strongly urged a different model that allowed more engagement and future and issue oriented discussion.

Individual members of the Board are periodically assigned the responsibility to review one or more of the Governance Process policies and make recommendations to the Board. Recently, the Board adopted a new policy prepared by corporate counsel for Board meetings to include informal sessions of elected Directors. These sessions were intended to promote more Board discussion and deliberation. However, the informal sessions have not been implemented to date. The newer Directors are strongly in favour of using a

different governance model that allows for more engagement and future- and issue-oriented discussion by the Board.

A majority of the Board members interviewed are satisfied that financial reporting by the CEO through EL reports.

Oversight of financial performance is done by the Board as a whole through monitoring of the CEO Executive Limitations (EL) reports to Board. While only one of the nine Board members has a financial background, a majority of the Board members interviewed are satisfied that financial reporting by the CEO through EL reports is comprehensive and that the hospital is compliant with financial policies. Board discussion on financial matters occurs where the CEO is not compliant with the Executive Limitations. Generally, the Board does not receive recommendations from management on resource allocation nor does it provide direction to management beyond the EL policy. It was acknowledged by some members that, even though a deficit position was not compliant with EL policies, the Board did not feel that it should intervene because it would adversely affect patient care and services.

Despite the focus of the Executive Limitation reporting policies, there is some modification to the Policy Governance Model at LWDH: the CEO reports that there are regular updates on issues outside of the EL requirements when significant issues arise. In addition, members of the Senior Management provide reports for information at the request of the Board at each meeting.

Newer Board members expressed concern with the limited engagement of the Board in meaningful financial oversight and decision-making.

Some of the newer Board members expressed concern with this limited engagement of the Board in meaningful financial oversight and decision-making. They expressed frustration attributable to the governance model which prescribes retrospective monitoring of EL and Governance Policy reports and does not deal with current and emerging issues, resulting in minimal Board discussion about important issues. As a result, a number of the newer Directors feel that there is validity in medical staff frustrations with engagement of the Board and understand the criticism of the governance model as part of the non-confidence motion.

The Board has had a limited involvement in setting a strategic direction for the hospital.

Planning is recognized as a critical component of hospital governance and management. Hospitals must develop plans in response to the needs of the community and in collaboration with the LHIN, local community and other health care and social service agencies. We believe that a Mission / Vision Statement, Value Statement, Role Statement, Long Range and Strategic Plan are critical to the successful governance and management of a hospital. Decision-making in the absence of clearly articulated strategy and strategic priorities is often uncoordinated and inconsistent. However, Board members report this is, unfortunately, the case at LWDH because of the Board's focus on immediate financial issues. Directors indicated that under the current governance model, the Board's involvement in long range is limited to defining vision, mission, values and "ends" and that in the recent past, there has been limited time to address even these matters.

There was a divergence of perspectives among Board members as to whether the hospital has a strategic plan.

There was a divergence of perspectives among Board members as to whether the hospital has a strategic plan. To the extent that Directors were aware of it, the strategic plan was seen to be largely management's responsibility that has to be compliant with the Board's "ends" policy. The LWDH Board is felt to be less involved in the hospital's strategy than in Directors' previous experiences with other Boards, and does not regularly monitor organizational performance against a strategy or plan. Newer directors expressed frustration at the inability to engage with emerging and strategic issues under the current governance model.

3.1.3 Committee structure

There was a general feeling that the Board has a large number of committees.

The Executive Committee has assumed the previous functions of the Governance Committee to streamline the number of committees. However, Directors were not aware of any review of the committee structure in recent years. The Board has not discussed committee structure since at least 2014. There was a general feeling that the Board has a large number of committees, particularly for a nine member Board. Committees are:

- Executive, (Chaired by Board Chair);
- Audit, (Chaired by Vice Chair);
- Ownership Linkages, (Chaired by Board Chair);
- CEO Evaluation / Compensation, (Chaired by Board Chair);
- Nominating, (Chaired by Board Chair);
- Building a future, (Chaired by Board Chair);
- Quality, (Chaired by Board Chair);

Some of these committees meet infrequently while the Building a Future Committee has not met at all for an extended period of time. At least two directors questioned the value of the Ownership and Linkages committee that includes the largest number of Directors in its membership and meets monthly.

There was a majority view that the Committee structure and frequency of meetings should be reviewed.

There was a majority view that the Committee structure and frequency of meetings should be reviewed. Newer Directors did not understand how Board members were assigned to committees and why Director preferences for committee assignments were not granted.

The Board's role in quality is recent and is a departure from policy governance.

The Quality Committee, responsible for the annual QIP, has a membership that consists of the Board Chair (who also serves as the Chair), the Vice Chair, and another Board Member elected by the Board (currently the past-Chair). Consequently the Quality Committee meets immediately following the Executive Committee. Non-voting members include the COS, CEO, CNO, VP Mental Health, a healthcare provider who is not a nurse or physician, and Manager of Quality/Risk. The Board's role in quality is recent and is a departure from policy governance because it draws the Board into operational matters (as is mandated by government at present).

The Quality Committee of the Board is a victim of the poor relationship with physicians.

Corporate Quality Assurance, however, is mostly divorced from clinical quality assurance and is not reported in a uniform manner to the Board. There are a number of Corporate QA projects underway in the Organization (MOREOb, Med Reconciliation, Enhancing Communication with Patients, Addressing Risks of Re-Admission, Addressing Re-admits of COPD patients, ED Wait Time Management). There is, however, an expressed lack of involvement in most of these initiatives by physicians, likely as a direct outcome of the poor relationships with physicians at LWDH. These types of quality initiatives would benefit greatly if physicians were more engaged in the organization.

There is no annual objective setting process with the CEO.

The Board has a CEO Evaluation and Compensation Committee that has not been active because executive compensation is frozen. The CEO Executive Limitation policies provide the framework for evaluation of the performance of the CEO. There is no annual objective setting process with the CEO as the only measure of performance is CEO compliance with the Executive Limitation policies and Quality Improvement Plan. There is no performance evaluation framework or 360 review. One Director observed, if the hospital is performing well, it is assumed that the CEO is performing well.

The Board does not have any process or policy for evaluation of the Chief of Staff.

The Board also does not have any process or policy for evaluation and compensation of the Chief of Staff other than monitoring Executive Limitations. A Board Policy delegates the accountability of the Board for patient care to the Chief of Staff. There was limited awareness that the Chief of Staff is the employee of the Board and accountable to the Board. Rather, the Board Chair understood the Chief of Staff to be an employee of the hospital and evaluated and compensated by the CEO. There was no evidence of a performance evaluation of the COS having ever been performed by the Board.

3.1.4 Board leadership & succession planning

As constituted, the LWDH has a severe concentration of power.

As constituted, the LWDH Board has a severe concentration of power. The current Chair, Vice-Chair and Past Chair have all previously served as Board Chair. In response to our inquiry about the unusual recycling of 3 Directors to the Chair and Vice-Chair position over the past decade, we were advised that only retired people have the time to fulfill the responsibilities of Board Chair and it is difficult to find individuals interested in the role. Time constraints are an appropriate concern, as the Chair is currently expected to oversee 5 sub-committees (Executive Committee, Quality Committee, Ownership and Linkages Committee, CEO Evaluation and Compensation Committee and Building a Future Committee) as well as the Board itself. The Vice Chair chairs the Audit Committee. Consequently, there is no apparent opportunity or effort to groom newer Directors for Board leadership by serving as Standing Committee Chairs. While the Board does have a transparent process for nomination of new Directors, there is no process for succession planning for Board Committee Chairs or Officers. The current approach to Board evaluation is also sub-optimal; at present there is no evaluation of the Board as a whole and Director evaluation occurs only every two years and is very limited in scope.

There is no process for succession planning for Board Committee Chairs or Officers.

Directors were not aware that the by-law provides for the Board to appoint a minority of non-Director community members to Standing Committees and were receptive to a recommendation that they pursue this opportunity in the future. This provides additional expertise as required to support the work of the Committees as well as a source of future Board members with familiarity with the organization. It also reduces the requirement for Board members to serve on multiple Committees.

There is a skills matrix that is completed annually be each Director and that serves as the basis for recruitment of new Directors.

Interest in Board membership fluctuates. While in some years there are very few applications, more recently there has been a great deal of interest such that this year, three very strong candidates were turned down. There is a skills matrix that is completed annually be each Director and that serves as the basis for recruitment of new Directors. As a result of the 2017 nominations process, there was a general sense that the Board has a wide range of skills and experience.

As the Board moves forward with the following recommendations, it will be important to ensure that the skills required of Board members are clearly identified and that the current approach to the annual skills matrix is maintained. It will also be important to maintain the current focus on Board orientation and capacity building.

Recommendations

It is recommended that:

(3) The Medical Staff Association should immediately elect officers to both provide leadership to the MSA and represent the Physicians on the Board of LWDH.

(4) The Board of Directors should implement a new governance model aligned with leading practice as outlined in the *OHA Guide to Good Governance, 3rd Edition* and relevant legislation in the Ontario hospital sector that includes the following three components:

- **Board and individual director accountabilities, roles and responsibilities;**
- **Board structures;**
- **Board processes.**

(5) That the Board of Directors amend Article 4.01(a) to increase the number of elected Directors from 9 to 12 in alignment with the OHA Model, and to facilitate the annual rotation of Directors as required by the Public Hospitals Act, succession planning within the Board for leadership roles, and a more balanced distribution of Standing Committee assignments among the elected Directors.

(6) That the Board of Directors reduce the number of Standing Committees to align with its defined responsibilities, establish revised Terms of Reference and canvass all Directors for expression of interest

in assuming Committee leadership and membership positions.

(7) That the Board of Directors operationalize its current by-law provision 8.03(g) to recruit non-Director members to selected Board Standing Committees to acquire additional skills and expertise as may be required and to serve as a potential pool for recruitment of future Directors.

(8) That the Board of Directors amend Section 6.01(b) to limit the position of the CEO to Secretary of the Board. In the event that the Board wishes to have a Treasurer, this should be an elected member of the Board. Alternatively, if the Board does not wish to have a Treasurer, the administrative and operational functions to support the Boards responsibility for financial oversight should be assigned to the Chief Financial Officer.

(9) That as a priority pending the completion of new Board policies, the Board of Directors establish clear and transparent processes for:

- **Succession planning of existing Directors to assume leadership positions within the Board including Board Officers and Committee Chairs;**
- **Annual evaluation of the performance of the Board as a whole and individual Directors and Board Officers.**

(10) That pending the completion of new Board policies, the Board of Directors establishes clear and transparent processes for comprehensive annual evaluation of the performance of the CEO.

(11) That pending the completion of new Board policies, the Board of Directors establishes clear and transparent processes for comprehensive annual evaluation of the performance of the Chief of Staff.

(12) The Board of Directors initiate the development of a new strategic plan to best position LWDH within the LHIN and sub-LHIN region.

3.2 Medical and Administrative Management

The presence of engaged medical staff leadership is essential.

The presence of medical staff leadership who are informed and aware of the hospital's fiscal issues, and have the knowledge and skills to assist the hospital as it moves forward (including the ability to plan medical staff human resources, strategic planning to meet community needs, quality improvement and improvements in clinical operations), is essential.

Unfortunately, at LWDH we heard a long history of the dysfunctional relationship between Administration and Medical Staff. The roots of this situation are beyond the scope of this review; the real issue, however, is that this poor relationship is affecting patient care at LWDH.

All interviewees acknowledged the dysfunctional relationship between Management and Medical Staff.

All interviewees acknowledged this challenge between Management and Medical Staff and its more recent direct impact on the Board. There are many signs of it. On one hand, an emphasis on the important partnership role of the Medical Staff and LWDH is not evident in hospital communications or on its website. On the other hand, physicians have been quite public in signaling their estrangement from the hospital.

The Medical Staff report that they first brought their concerns to the attention of the Board over 8 years ago and have continued to do so. They report poor communication, lack of involvement in the direction of the hospital, lack of consultation on decisions that affect clinical operations, and a general lack of cooperation between Administration and Medical Staff. They do not feel that the Board has ever meaningfully responded to their concerns. Medical staff, and in fact many external observers, label the relationship as "dysfunctional". Many feel that both parties have been unreasonable over the years and appear unwilling to move forward in an effective way.

Both medical staff and administration must accept culpability and move forward.

Differences in perspective between Administration and Medical Staff and Boards may be inevitable; a completely dysfunctional relationship is not. Hospitals that thrive under difficult circumstances are uniformly characterized by dynamic, constructive and collaborative relationships between Management and appointed Medical Staffs. Both medical staff and administration at LWDH must accept responsibility and move forward. The Board must take a leadership role to ensure that this happens.

The dysfunctional relationship between Administration and the Medical Staff is apparent to all, and negatively influences both the culture of the organization and patient care. However, despite the abundant evidence that Administration and the Medical Staff, left alone, will not be able to solve their differences, the Board has not insisted that a serious physician engagement initiative be undertaken. In fact, some interviewees from the Board minimized this challenge; accepting it as inevitable under the circumstances and not within their role to address.

There is no well-organized, well-functioning Medical Staff Organization.

A number of important issues exist on the physician side of this dysfunctional relationship. To begin, the Medical Organizational Structure (Chief-of-Staff, Department Chiefs, MAC, Medical Staff Association) is weak.

The MAC is described as utterly dysfunctional and ineffectual.

The MAC is uniformly described as being dysfunctional and ineffectual. The MAC attendance is suboptimal, so there is often not a quorum, and this means the annual number of MAC meetings prescribed in the Professional Staff Bylaw is not met. Not all prescribed MAC Sub-committees exist (e.g. the Medical Records Committee). The MAC has not fulfilled its mandate to ensure that physicians adhere to the Professional Staff Bylaws. Unsurprisingly then, many interviewees described ongoing behaviour by some physicians that is unacceptable, and in contravention of the Organization's Professional Staff Bylaw and Code-of-Conduct Policy. The reviewers heard a number of powerful anecdotes in this regard that are well known throughout the hospital and that are having a

profoundly demoralizing effect. That ongoing egregious physician behaviour continues is acknowledged by the COS, and while he has taken some measures to deal with physician performance and / or behaviour issues, these are generally seen as inconsistent and inadequate. Some interviewees indicated that the CEO and COS are reluctant to deal with problematic physicians for fear they will leave Kenora. Untoward events involving physicians that come to the organization's attention via the *Risk Monitor* are referred to the COS for follow-up. Commonly these complaints relate to physicians failure to answer calls or be available when on call. Many interviewees indicated that there was little evidence that these physicians had been disciplined. Nursing Managers uniformly indicate that many nurses will not report objectionable physician behaviour because they believe nothing will be done about it, and they will suffer consequences from physicians.

The MAC has refused to deal with both incidental and long-standing behaviours that contravene the Professional Staff Bylaw and Code-of-Conduct Policy.

As noted above, there are a number of quality improvement initiatives underway in the hospital (Med Reconciliation, Enhancing Communication with Patients, Addressing Risks of Re-admission, Addressing Re-admits of COPD patients, ED Wait Time Management), but few physicians are playing a leadership role in these activities; in some cases physicians are not even aware of the initiatives. It was reported that physicians do not act in support of many of the hospital's operational objectives, and that this lack of support makes a challenging hospital environment even more difficult. For example many physicians do not organize their work so as to be fully supportive of discharge planning and other utilization management initiatives. Some physicians are known to routinely show up late for their rounds, making it impossible to discharge patients in a timely way. Other physicians have chosen not to embrace the "wait at home" policy for admission to LTC. These physician behaviours impact the Organization negatively, in that the Hospital's acute care beds are typically filled with many ALC patients. It is recognized that there is a broader systems challenge associated with such things as ALC patients and LTC access and there is a shared responsibility to address such items; it is felt, however, that many physicians are not as supportive as they could be.

LWDH could benefit from greater physician leadership of quality and utilization management initiatives.

Not all medical services are organized into departments, (e.g. Perinatal Medicine and Family Medicine are Committees rather than Departments, in part to avoid requirements associated with being a Department). In Departments that do exist, not all Department Chiefs fulfill the designated responsibilities of the position; for example, there are no meaningful annual reviews of physicians and annual re-appointments are usually 'rubber-stamped'. There is no accountability structure for Department Chiefs. Further, the organization has not been effective in mentoring and developing physician leaders or ensuring physician leadership succession plans are in place.

Medical services are not organized into departments.

It is the role of all hospital leaders, including physician leaders, to act in the interests of the hospital corporation. While physicians are not generally employees of the hospital, there are members of the medical staff who, either by appointment or election, take on administrative functions of the hospital. These physician leaders must act in the best interest of the hospital.

As officers of the Medical Staff, physician leaders must act in the best interest of the hospital.

The Public Hospital Act (PHA) identifies the COS and the chief's / department heads as officers of the medical staff and prescribes their duties to advise the MAC with respect to the quality of care. The role of the MAC in turn is to advise the Board on matters of the quality of care and is required under the PHA to supervise the practice of medicine and report to the Board at each meeting. The MAC therefore serves as a conduit between the medical staff and the Board and assists the Board in exercising its responsibilities to assess and ensure the quality of care.

The Public Hospitals Act provides for the establishment of the MAC and requires the inclusion of the criteria for granting medical privileges in the by-laws of the hospital. Based on these criteria, the MAC is to make recommendations to the Board on the appointment, re-appointment, dismissal, suspension, denial revocations and restriction of privileges. The Board is dependent on the MAC for such recommendations. The Board of Directors must be able to rely on the MAC to make such recommendations annually in accordance with the provisions of the Ontario Public Hospitals Act and an appropriate by-law of the Hospital.

There is little hospital support for medical leadership.

Lack of hospital support for these types of medical staff responsibilities is also contributing to the challenge. With one exception (Emergency Medicine), Department Chiefs are not compensated at LWDH. More recently a stipend has been made available for the head of the GP Extender and General Internal Medicine AFP. The establishment of this program, however, was initiated largely without the necessary support of Administration. Management does not appear to understand the new funding models for family physicians, the unintended consequences of them and how they might be creatively managed. This recently led to a significant crisis in in-hospital care that was ultimately resolved through the leadership of one Family Physician who found a way to work effectively with the NW LHIN, Health Workforce Ontario and the MOHLTC to establish an Alternative Funding Plan (AFP).

Importantly, as noted in Section 2.7 above, the hospital has recently increased support for medical administrative roles while support was also provided to the GP Extender and General Internal Medicine roles by the hospital until the AFP funds began. Management notes that Senior Management and the COS did actively participate in the AFP negotiations. This AFP is currently only an interim funding arrangement between the hospital and MOHLTC, as no physician was willing to sign on behalf of the physician group. This interim agreement will roll into a permanent agreement once 2 Full-Time-Equivalent (FTE) physicians have permanently signed on; active recruitment is underway to fill these Internal Medicine positions. There does appear, however to be a reluctance to recruit into the GP Extender positions.

Administration and Physicians are not managing AFP arrangements in partnership.

There is a challenge in managing such AFPs at LWDH. Administration and Physicians are not managing such arrangements in partnership; their contradictory perspectives on the development of the GIM AFP is evidentiary. What does appear clear is that the lack of partnership has led to vague deliverables, poor accountability and disconnected recruitment. The GP Extender role, staffed by local GPs, are supposed to be on-site 8 am - 4 pm, but are not. They are not supposed to be engaged in other clinical activities while scheduled as a GP-Extender, but we heard from numerous interviewees that they often are. Incidental other clinical activities can be expected in a smaller community like Kenora; the challenge occurs when other clinical activities such as clinics are planned during GP-Extender shifts. This type of double scheduling must not occur.

The agreement was presented to MOHLTC by physicians as a recruitment strategy to bring more physicians into the community however the local physicians appear to want to fill that role. In the evolving GIM Program, there are three visiting GIMs. Each week, one will cover ICU and do consults in the ED, one will work in community clinics and one will be off; such that each works 2 weeks out of three. Each is paid $480,000/year. Other local physician groups are attempting to use this pay scale as a benchmark.

The lack of partnership in the development and ongoing management of these arrangements is problematic on a number of fronts, including:

- Deliverables may be too vague;
- The Accountability Framework may be weak or non-existent;
- Administration is left with insufficient control over physician recruitment, thus unable to ensure existence of a complement of physicians capable of serving the needs of its population;
- Future financial risks; and
- Financial arrangements for one physician group being used as a benchmark by other physician groups.

Administration must play a larger role in physician recruitment and coverage planning.

LWDH management has, unfortunately, largely divorced itself from responsibility for physician coverage and recruitment and does not see this as part of their responsibilities. When 5 family physicians left Kenora recently within a short period of time, the COS and CEO did not initially appreciate the need for or support the hiring of a physician recruiter. This ultimately led local physicians to form the out-of-hospital "Kenora Area Health Care Working Group". This group approached the Mayor of Kenora, initially focusing on physician recruitment. A physician recruitment Sub-Committee was formed with representatives from each physician clinic. Ultimately, funds were developed from several sources and a physician recruiter has been hired. The hospital was a late partner to this initiative when many expected that the hospital would have demonstrated leadership and been well invested in such an initiative. Over time, the "Kenora Area Health Care Working Group" evolved into the "All Nations Healthcare Group" with a focus on developing a new Health Services Campus for Kenora.

The Hospital Administration is now represented on this group, but was not a leader in its development.

A number of staff and physicians identified a need for significantly enhanced diversity training for both physicians and staff, and characterized this need as an urgent one. When such proposals are brought forward to the CEO and COS, the initial response, according to many interviewees, is a simple "no". Some visiting specialists have been unsuccessful in attempting to arrange meetings with the CEO and COS to discuss important enhancements to their clinical program.

There is little engagement of physicians by Administration.

There is reportedly little engagement of physicians by Administration in policy development, strategy development, or decision-making. Recent examples cited include the move of Perinatal Services to the Medicine Unit, and the manner in which the current Operating Room renovation was planned and is being managed. The most recent Physician Satisfaction Survey provided honest and obvious feedback to the Administration on the basis for the poor relationship between physicians and Administration. It has not been responded to in an effective way by Administration or the Board.

Communication from the CEO and COS to LWDH physicians on important issues also appears to be sub-optimal. For example, there was a recent crisis in clinical care at LWDH when Winnipeg Regional Health Authority stopped accepting patients from NW Ontario, even "life and limb" patients. LWDH Physicians felt that they were caring for patients in sub-optimal conditions and often beyond their scope of practice. Although the reasons for this service change were known by the NW LHIN and an area-wide response plan had been developed by the LHIN, LWDH physicians allege that they were left unprepared as the Hospital Administration failed to effectively communicate the plan to them.

Physicians believe that both the Administration and Board have responded poorly to these types of issues and a variety physician expressions of concern. Ultimately, this led to the non-confidence motion in the Administration and Board. The Board appears to be largely unaware of the severity of these issues and the impact on patient care and organizational culture.

Recommendations

It is recommended that:

(13) The CEO and COS should develop and implement a formal ongoing multifaceted physician engagement strategy, the goal of which is to ensure LWDH physicians come to recognize that the Administration genuinely seeks a partnership with them, a partnership that will allow them to have a voice in policy and strategy development and implementation, and meaningful input into decisions with clinical implications.

(14) The CEO and Board of Directors should ensure that a commitment to full physician engagement is consistently expressed in internal and external communications.

(15) The CEO and COS should identify and enlist the support of a temporary "guiding coalition" of credible physicians in Kenora with whom LWDH can work during the transition period. The CEO and COS should work with this Guiding Coalition, to put a process in place to create an effective Medical Organization Structure and implement a strategy to improve the culture and relations between Administration and the Medical Staff.

(16) The COS and Board of Directors should ensure that Chiefs / department heads are in place in the areas of Emergency, GP Extender / Internal Medicine and Surgery (at a minimum) to advise the MAC with respect to the quality of care (as required by the Public Hospitals Act).

(17) The COS and MAC should establish a clear and transparent processes for comprehensive annual evaluation of the performance of the Medical Chiefs.

(18) The CEO and COS should evaluate the LWDH approach to Clinical Quality to ensure that it fully aligns with Corporate Quality and is effectively reported to the Board as required under the PHA.

(19) The CEO and COS, in partnership with the MoHLTC and the OMA (as required) should review / re-visit each Alternative Funding Plan (AFP), ensuring that each is constructed in a fashion that fully supports LWDH and its responsibilities to its patient population.

(20) The COS should report annually (at a minimum) to the Board on each AFP / APP and specifically on the status of the hospital obligations contained in each.

3.3 Relationship with External Partners

Interviews with representatives from the following external stakeholders and partner groups took place in early December, 2017:

- Waasegiizhig Nanaandawe'iyewigamig (NW) Health Access Centre
- Sunset County Family Health Team
- Kenora Medical Associates
- Kenora Area Health Care Working Group
- Kenora Chiefs Advisory
- Firefly

It is noted that patients, the public/community members were not included in information gathering for this review.

The purpose of the interviews was to collect any feedback that these stakeholder felt was important to inform for the Operational Review, particularly the review of hospital governance and leadership. Participants were notified of the purpose and objectives of the Operational Review, and were also provided a discussion guide with questions for their consideration in advance of the interviews.

According to external stakeholders, LWDH has a mixed reputation in its community. There was consistent feedback that the hospital is committed to excellent care and clearly strives to be good at what it does. Individuals at the hospital are dedicated and caring, and for the most part, are consistently trying to do the right thing. Stakeholders recognize the challenging environment in which the hospital operates, and that the demands and expectations of the hospital are very high.

In addition, the Hospital Foundation is thought to be very strong, and is perceived to do good, valid work with the community. The hospital is also felt to be a valuable clinical resource to others in the area.

However, there were a number of consistent concerns raised related to trust, leadership and partnership.

3.3.1 Racism

While some gains have been made with the Board, there is a lack of trust of LWDH as a result of perceived racist behavior.

Systemic and overt racism that continues to exist in Kenora unfortunately is also considered to be present at LWDH. At the hospital, as in other areas of society, this behaviour is perceived to be exhibited by some individuals and not others. While some of the stakeholders we spoke with had heard of disrespectful treatment of First Nations while at the hospital, they themselves had not experienced it personally. However, the impact of perceived racism to any degree is a continued sense of distrust of the hospital by members of the First Nations Community. It was suggested that the hospital should put in place, and communicate, policy pertaining to racism. While this will not "solve" the issue with trust, it would be an important positive signal.

First Nations stakeholders also seem to be unclear as to why the hospital is unable to provide all the specialized services that they feel their community needs. As such, it was reported that the preference of many members of the First Nations in the area is to travel to Winnipeg hospitals for services (rather than to Kenora), including for emergency department services, because they feel they will get better treatment (clinically and racially) in Winnipeg. This appears to be, in part at least, a role clarity issue, i.e. lack of understanding of the different levels of service that various hospital are able to provide. It is not clear to some stakeholders that Kenora is not able to provide (rather than not choosing to provide) the same specialized services that larger centres do.

As a whole, there is a sense from Stakeholders that the hospital Board is amenable to reconciliation and that they have good intentions. There is support for the positive steps that have been put in place, and stakeholders encourage even more dialogue and interaction.

3.3.2 Transparency and Trust

Stakeholders feel the Board has not been successful in ensuring LWDH is an honest and trusted partner or employer

Trustworthiness of the hospital was identified as a key issue by multiple stakeholders. Lack of trust appears to stem from a perception that the hospital does not do all it can to ensure transparency.

Concerns were expressed about the hospital's desire to share information. There is a sense that the hospital does not share all that it should with staff, stakeholders and the community, and often chooses not address the "elephant that everyone knows is in the room". There is a sense that messaging can be skewed and that there is a focus on the wrong issues from the leadership team. Stakeholders reflected that the hospital will too often discuss funding as a key barrier or issue, but other equally important issues, such as leadership, difficult relationships with physicians and suboptimal processes are less frequently addressed. This operational review was cited as an example, with stakeholders reporting that if LWDH "looks at efficiency opportunities and not leadership/relationship issues, it is missing the point".

Most stakeholders are all too aware of trust issues between hospital leadership and physicians in the area. For what it's worth, most also see that both parties have played "a blame and shame game" and have not been willing to come to the table in good faith to resolve issues effectively. Many believe that a third party negotiator will be required to mediate.

Transparency concerns extend to the hospital's approach to engaging and consulting their community in the work of the hospital. Stakeholders feel that the hospital "tells" the community what it is and isn't going to do rather than consulting with the community to identity needs, and working with partners to try to meet those needs. Some cited that the decision not to engage the community in this review, and the lack of communication about this review to date, as evidence of this issue.

The Board of Directors is viewed as the forum for community input. While it is recognized that the Board has made efforts to be more inclusive, stakeholders would like to see the Board assume leadership in communicating and including stakeholders in a more transparent and courageous manner. Stakeholders feel the Board must show leadership in shifting the culture and building trust with the community.

3.3.3 Leadership, Partnership and Integration

Stakeholders feel that more visionary leadership from the hospital would be beneficial.

Stakeholders also reflect that although relationships between individuals at the hospital and in partner/community agencies are good, organizational relationships are a challenge. Stakeholders feel that there is a tendency towards the status quo that has resulted in missed opportunities and delays in advancing the potential for health services in the Kenora region. There is a sense that the hospital stifles rather than promotes opportunities for engagement, innovation and participation in change and growth. This is a concern, given the types of challenges of delivering health care in this region.

Ongoing efforts to partner and integrate services in the region are required

Many noted that they would like the Board to be significantly more visionary, innovative and collaborative. Stakeholders are hopeful that the hospital board will recognize this need and take appropriate action as opportunities arise. Stakeholders expressed a concern that health services have not been well managed as a region. There is limited formal integration of providers and services. Many feel that this is historic, but also to some degree a result of the hospital being not as effective at collaboration as it could be. It is felt that LWDH needs to be more inclusive in both "big planning", i.e. for services, models and approaches, and "smaller planning", i.e. hospital decisions making about policy and operational procedures (such as pre-operative procedures, non-smoking policy, etc.) that impact other providers.

Stakeholders report a growing awareness and need to pursue opportunities for increased integration in the region. They also report opportunities to move more services from hospital to the community to more effectively meet the needs of the region.

Stakeholders also report an apparent duplication and lack of coordination of some services in the Region. There are multiple prevention and promotion efforts in the community, as well as primary care/chronic disease management services. However, many of these seem to operate in isolation from hospital services. Services for First Nations, in particular, do not appear to be well connected with the rest of the system.

While there have been some efforts, opportunities to reduce duplication of services and improve coordination and communication were identified

There have been some attempts at closer partnerships and integration in the past, according to stakeholders. Some examples, such as the Hostel that is located on the 3rd floor of LWDH and Nurse Practitioner staffing in the Emergency Department were cited as examples. Relationship and respect issues were identified as the key source of difficulty in these partnerships, including that "the hospital and our organization have different ideas of what working together means". Some partnerships have been successful with "peaceful co-existence" while others have not been sustained as effectively in the past.

In efforts to improve planning and better meet needs of individuals in the region, grassroots efforts to address common health service issues has resulted in the formation of the Kenora Area Health Care Working Group. This group is

There is energy in the region for developing a new "health campus" approach

promoting the development of an All Nations Health Campus approach, which is felt to be a huge opportunity for the region. There is significant energy for developing a model akin to that used in Sioux Lookout. The hospital is participating in this, but is not at this time considered to be a significant contributor to developing or advocating for this new model.

An issue that was raised by multiple stakeholders was hospital discharge planning. Apparently there have been efforts in the past to improve communication and collaboration with community providers, but that this no longer happens. Communication in anticipation for discharge was identified as a concern by all stakeholders, and the primary integrating "mechanism" in the region was identified to be the physicians themselves. There are historical issues around discharge planning (insufficient understanding on the part of hospital staff as to the resources that exist in the community, and weak mechanisms to ensure communication between hospital and the community actually occurs) as well as practical issues such as lack of effective information transfer with the EMR that is currently being used, etc. that continue to be challenges.

3.3.4 Clinical Issues and Gaps

A number of clinical issues and challenges were identified by stakeholders. These primarily are scope challenges (i.e. ability to provide a comprehensive range of service) and staffing issues typically experienced in northern and remote communities, but include concerns about:

- Lack of specialized services to meet the needs of First Nations (for example, treatment for Mercury Poisoning);
- Physician shortages and insufficient clinical staff to go around to all areas;
- Lack of rostering of patients to primary care providers (and un-rostered patients needing to use the ED as a clinic as a consequence);
- Even with rostered patients, the FHT Model is not perceived to work effectively in the North. People want choice so they continue to seek services in FHT, clinics, the ED etc. This model is considered be a challenge in the North where availability of specialists is limited;
- Perceptions that the LHIN model does not serve Kenora well, and that more specialized services are all in Thunder Bay; and
- Service gaps in: pediatrics, obstetrics and gynecology, women's health, physiotherapy and occupational therapy, particularly for seniors, long-term care, post-surgical care, non-urgent walk in care options.

Recommendations

It is recommended that:

(21) The CEO and Board of Directors COS should develop and implement a formal communication strategy with its health partners and the community about the operational review and its outcomes.

(22) The Board of Directors should include health partners and the community in the recommended development of a strategic plan for LWDH to ensure that issues of inclusiveness, transparency and trust and collaboration / integration are addressed.

4.0 Utilization of Hospital Services

4.1 Analysis Approach

Comparing volumes of inpatient care for a population with the demographic characteristics of that population.

The analysis of population-based utilization examines the patterns of use of inpatient care for the residents of specific geographic areas. It involves comparing volumes of inpatient care for a population (measured by cases, separations, days, or weighted cases) with the demographic characteristics of that population (i.e. gender, age, population size).

Use of inpatient hospital services by residents anywhere in Ontario.

The population-based utilization measures are based on use of inpatient hospital services by the residents of a community anywhere in Ontario, not just at their local hospitals. For example, a Kenora resident hospitalized in Ottawa would be counted as utilization for Kenora, based on home residence.

Utilization rates are age/gender standardized and expressed as a ratio.

Utilization rates are expressed as a ratio, with the total hospital activity volume for a population as the numerator and the population size as the denominator and are shown as rates per 10,000 population in this report. All utilization rates are "age/gender standardized", using direct standardization, where the rates for each geography are calculated for every age/gender cohort (i.e. 5-year age/gender groups) and then applied against a "standard population" (i.e. the Ontario 2016 population).

Standardization allows utilization rates to be compared across geographies by eliminating the confounding impact of differences in the age / gender.

The result is the expected hospital service volume per 10,000 population if the actual rates of use of hospital care by the residents of a smaller geographic area were extrapolated to the entire Ontario population. Standardization allows utilization rates to be compared across geographies by eliminating the confounding impact of differences in the age / gender distribution of the population in each geography. Examples of comparisons of health care utilization rates include the Dartmouth Atlas of Health Care and the ICES Atlas of Access to Health Services in Ontario.

For all of the analyses of utilization in this section of the report, the provincial utilization data reflects services for Ontario residents who were discharged from care in an Ontario hospital[5] during fiscal year 2016/17.

[5] Because of the proximity of Kenora District to Manitoba, residents will sometimes receive hospital care in a Winnipeg hospital. Later in this report, we show activity volumes for Kenora residents treated in Manitoba hospitals. The Manitoba data was not available at the level of detail required to include it in the population-based utilization analyses, so any measures of utilization by Kenora residents in this report will be lower than the true amount because of the missing Manitoba data.

An indication of differences in use of hospital services by residents of LWDH catchment area compared to residents of communities across Ontario.

These analyses provide an indication of differences in use of hospital services by residents of the LWDH catchment area compared to residents of different communities across Ontario. In considering these analyses, it is important to note that:

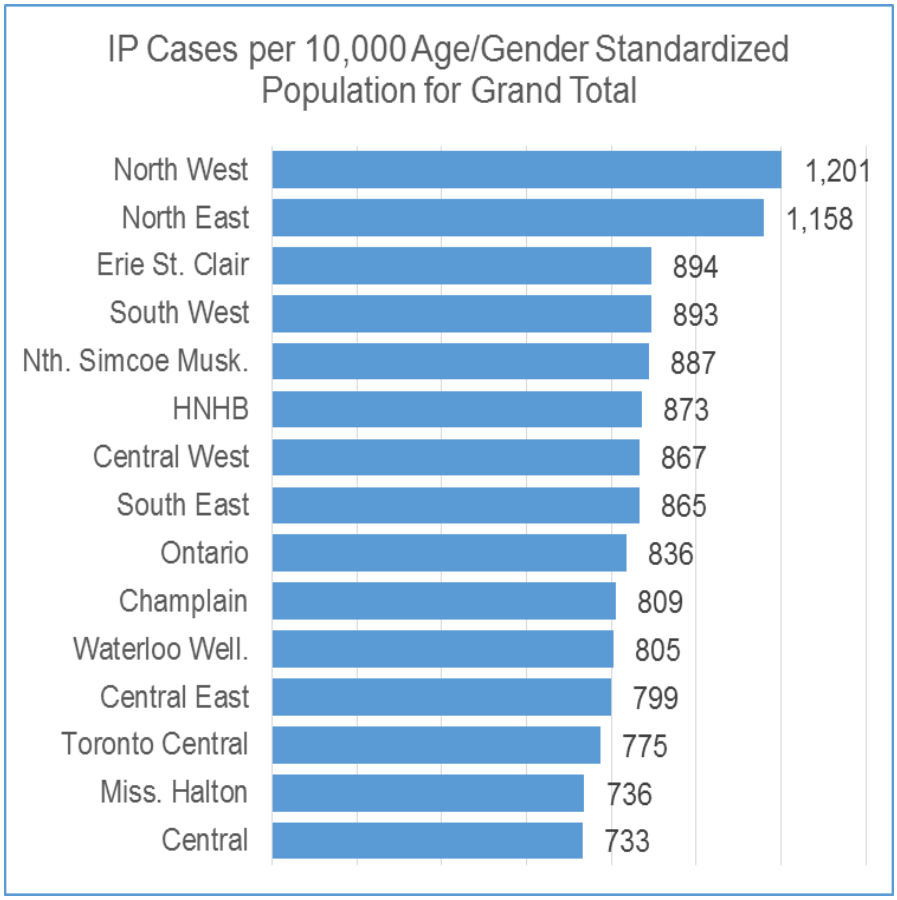
- High rates of hospital utilization for the residents of a community (e.g. Kenora District) may be reflective of factors such as:
  - Greater burden of illness and greater need for care than can be explained by adjusting for age and gender
  - Greater reliance on hospital care possibly due to unavailability of alternate ambulatory or community services
  - Lack of community health care and/or social service support, leading to acute exacerbation of illness that might otherwise have been avoided or managed outside the hospital
  - Greater propensity to admit patients to IP care to access specialized Diagnostic and Therapeutic (D&T) resources
  - Under-utilized IP capacity allowing admissions who might not be admitted if beds were in short supply
- Low rates of inpatient utilization may reflect:
  - Barriers to access to care such as distance (i.e. not locally available), cultural/linguistic, financial, etc.
  - Limited hospital capacity to accommodate patients who may require care
  - Greater access to, and reliance on, community and ambulatory based services
  - Lower burden of illness or socio-economic factors associated with greater need for health care
  - Enhanced primary care and chronic disease management in the community
  - Exclusion of utilization in Manitoba hospitals because of lack of access to sufficiently detailed data

4.2 Utilization of Hospital Inpatient Services in Northern Ontario

There are much higher utilization rates for residents of the north, and North West LHIN is higher than North East LHIN.

The following chart presents an analysis of inpatient acute care utilization by residents of Ontario LHINs. There are much higher utilization rates (as measured by inpatient cases) for residents of the north, and North West LHIN is higher than North East LHIN.

Exhibit 31: Acute Inpatient Cases in Ontario Hospitals per 10,000 Age Gender Standardized Population by LHIN (2014/15)



4.3 Population-based Analysis of Kenora District Residents

The utilization rates above are for the entire North West LHIN population. While the rates of utilization of health care services by the LHIN population provides information about health care needs of the residents of the LHIN, and population health needs for northern Ontario residents, LWDH is not the major provider of hospital services in the LHIN.

Ideally, it would be possible to examine population-based utilization specifically for the population that does rely on LWDH for their care. This would require specification of exactly which residents of the North West should be expected to rely on LWDH, and a breakdown of that population group by 5-year age gender categories (i.e. for standardization purposes).

MOHLTC population estimates by 5-year age and gender (prepared by the Ministry of Finance) are published only at the LHIN level and at the county/district level. This allows analysis of utilization for the Kenora District

population within the NW LHIN, but not at a smaller population subset within the Kenora District. While LWDH is not exclusively responsible for the hospital services used by the residents of Kenora District, it is a major provider of care.

Utilization rates for acute care tend to be higher in northern Ontario.

Rates are "standardized" to adjust for differences in age/gender mix of population across districts. Utilization rates for acute care tend to be higher in northern Ontario (typically reflecting both health status and lack of community alternatives). Residents of Kenora District have higher utilization than most northern districts.

Kenora District residents have the highest rate of use of acute care Days in the province.

When utilization is measured using Acute Care Days, Kenora District residents have the highest rate of use of acute care in the province; more than double the utilization of the province as a whole. Measuring utilization with inpatient cases, Kenora District residents have the 3rd highest rate of use of acute care in Ontario hospitals in the province. If utilization in Manitoba hospitals was included, the Kenora District resident acute care hospital utilization would be even higher.

Exhibit 32: 2016/17 Inpatient Acute Care DAYS in Ontario Hospitals per 10,000 age/gender standardized population

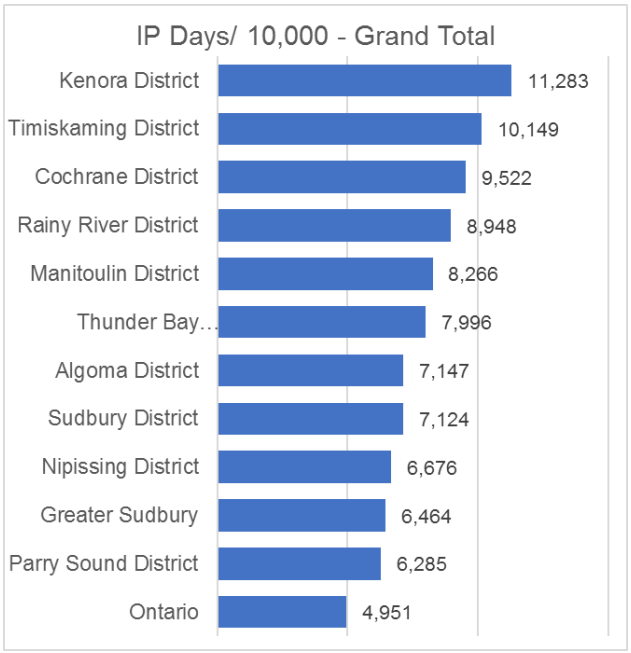
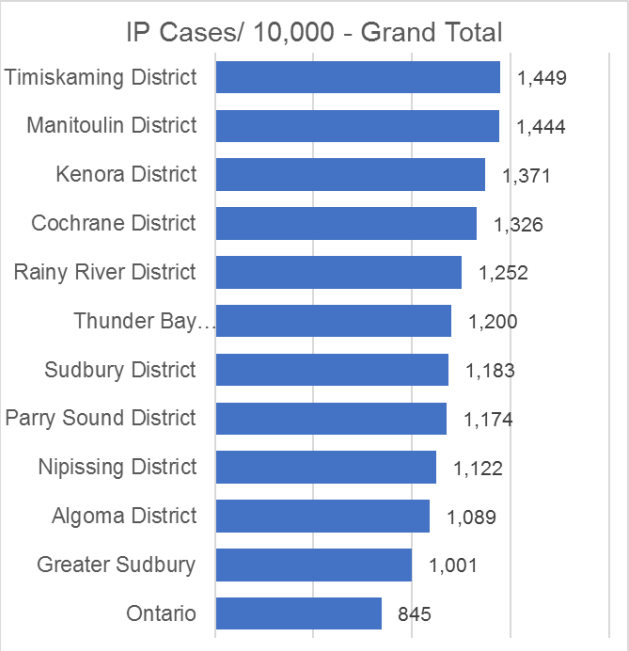


Exhibit 33: 2016/17 Inpatient Acute Care CASES in Ontario Hospitals per 10,000 age/gender standardized population



Kenora District residents have the highest rate of use of acute care Medicine Days in the province.

Looking solely at medicine days, residents of Kenora again have highest rate of utilization of inpatient days per population for Medicine cases in the province; more than double the Ontario average and significantly higher than Rainy River and Thunder Bay.

Looking at medicine cases, Kenora residents have the 2nd highest rate of acute care Medicine admissions in Ontario:

- Higher than Rainy River and Thunder Bay
- The rate is only higher for residents of Manitoulin

Exhibit 34: 2016/17 Inpatient Acute Care MEDICINE DAYS in Ontario Hospitals per 10,000 age/gender standardized population

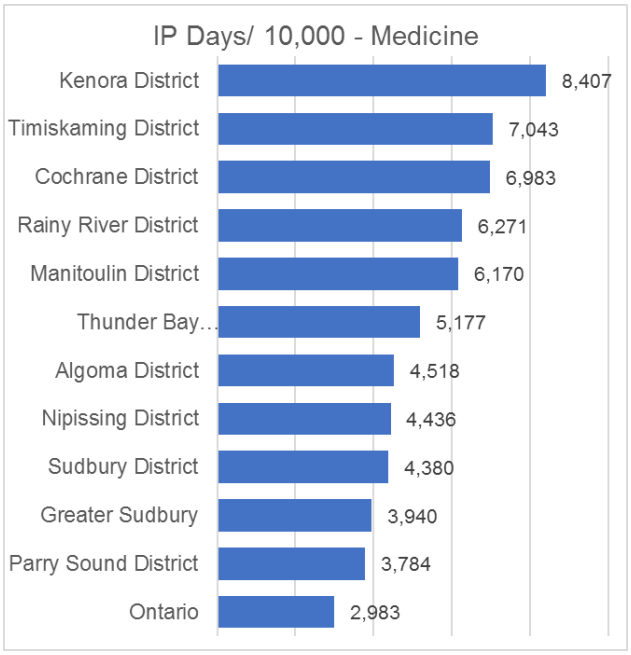
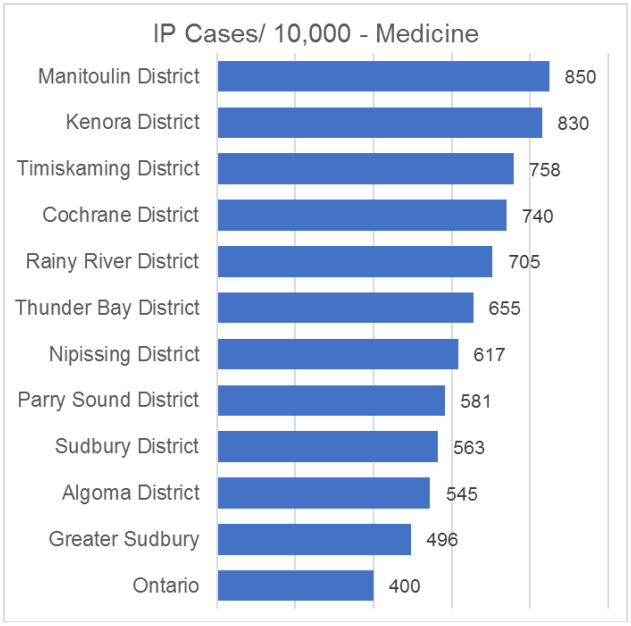


Exhibit 35: 2016/17 Inpatient Acute Care MEDICINE CASES in Ontario Hospitals per 10,000 age/gender standardized population



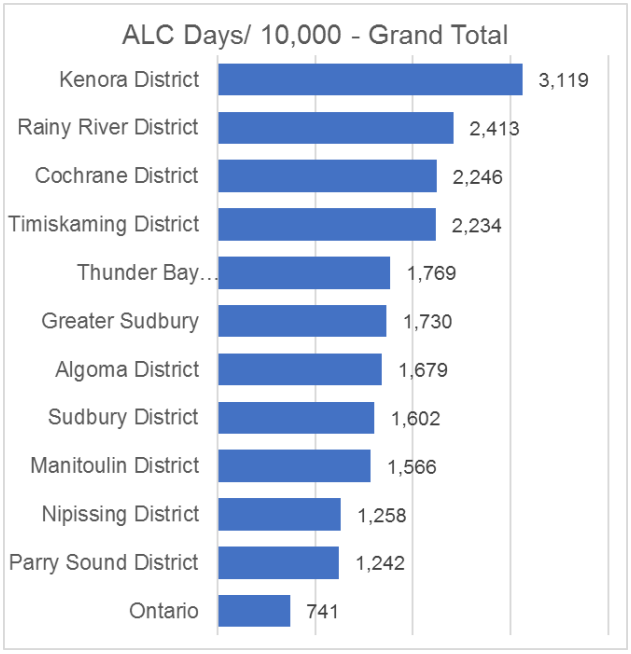
Kenora District residents have the highest rate of ALC Days in the province.

Residents of Kenora District also have highest rate of ALC days per population in the province:

- Four times higher than provincial average;
- 29% higher than Rainy River; and

- 76% higher than Thunder Bay.

Exhibit 36: 2016/17 Alternative Level of Care DAYS in Ontario Hospitals per 10,000 age/gender standardized population



The high rate of ALC utilization is driven by medicine rather than surgery.

Looking at the rates of ALC days for Kenora District Residents broken out by medicine days and surgery days, it is apparent that the high rate of ALC utilization is driven by medicine rather than surgery.

Exhibit 37: 2016/17 Alternative Level of Care MEDICINE DAYS in Ontario Hospitals per 10,000 age/gender standardized population

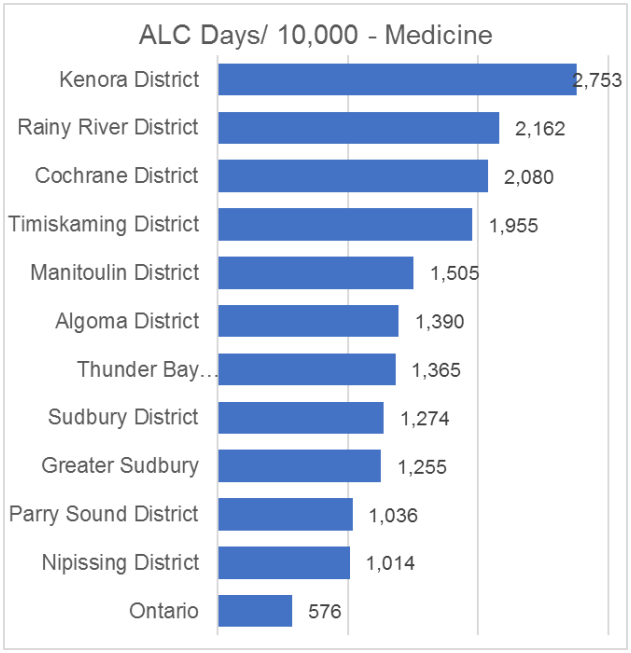
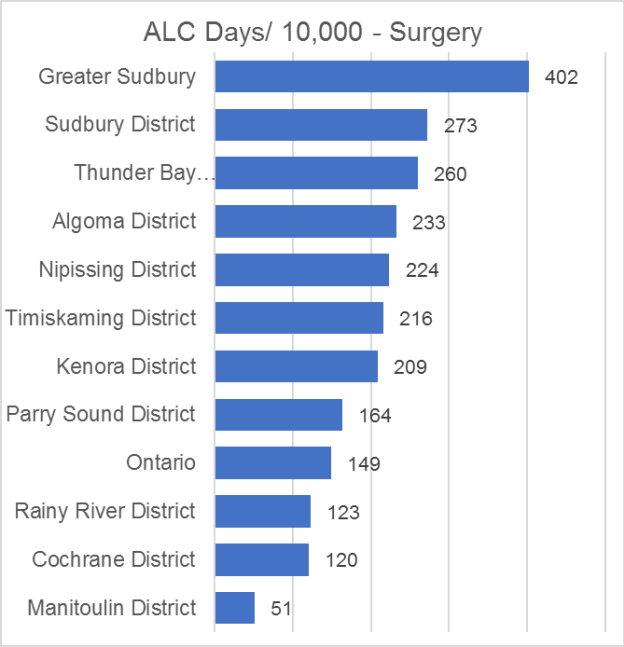


Exhibit 38: 2016/17 Alternative Level of Care SURGERY DAYS in Ontario Hospitals per 10,000 age/gender standardized population



Utilization of surgery for residents of Kenora District is dramatically different than medicine.

Utilization of surgery in Ontario hospitals for residents of Kenora District is dramatically different than medicine. Residents of Kenora District have the lowest rate of admission to acute care for surgery compared to the residents of any other northern district[6]. As measured by days of stay, however, residents of Kenora District have 3rd highest rate of utilization of inpatient days in acute care beds for Surgery in the province; similar to Thunder Bay.

[6] The utilization rates for Kenora District residents do not include utilization in Manitoba hospitals. Later in this report we describe the use of Manitoba hospitals by Kenora District residents.

Exhibit 39: 2016/17 Inpatient Acute Care SURGERY CASES in Ontario Hospitals per 10,000 age/gender standardized population

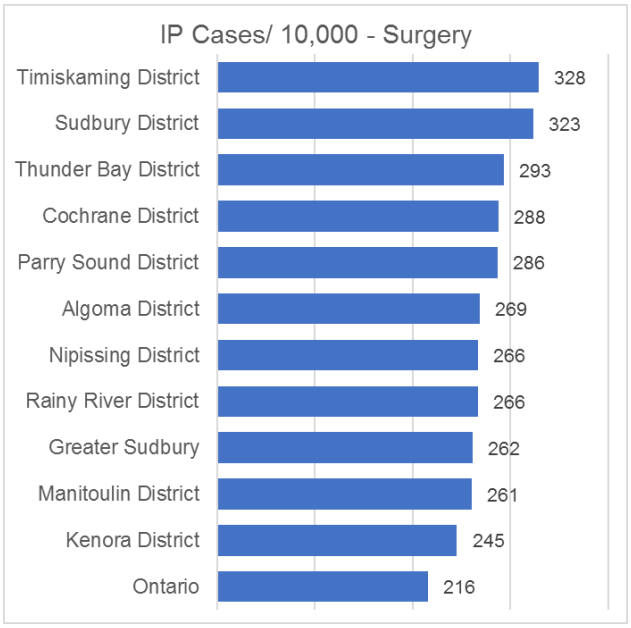
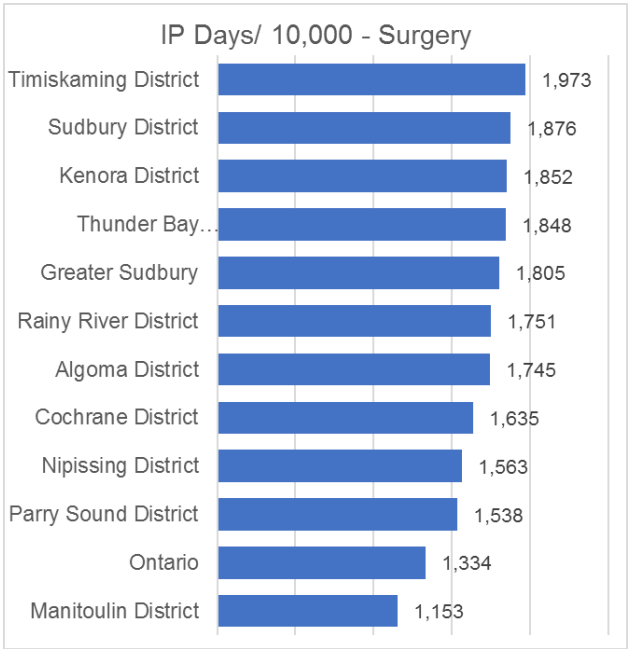
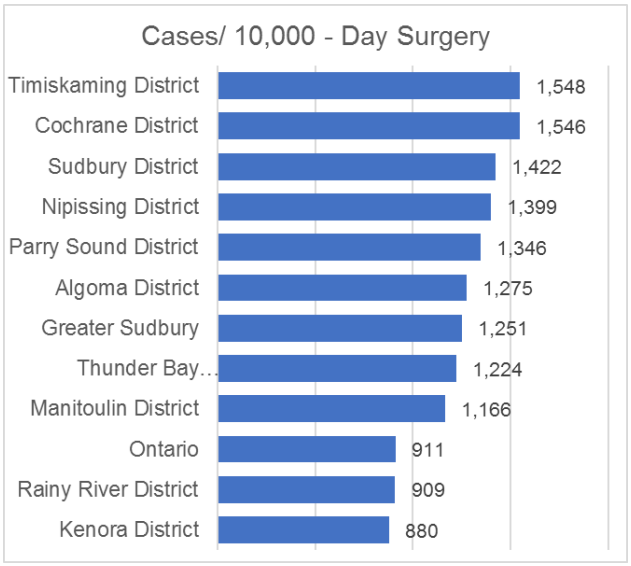


Exhibit 40: 2016/17 Inpatient Acute Care SURGERY DAYS in Ontario Hospitals per 10,000 age/gender standardized population



Like inpatient surgery, residents of Kenora District had the lowest rate of day surgery cases in Ontario hospitals per population of all northern districts; by this measure both Kenora and Rainy River were below the Ontario average rate.

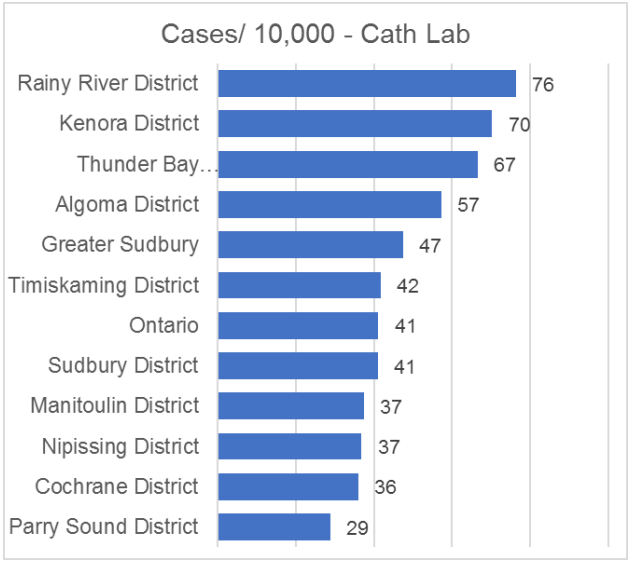
Exhibit 41: 2016/17 DAY SURGERY CASES in Ontario Hospitals per 10,000 age/gender standardized population



Residents of all 3 North West LHIN Districts have high rates of use of cardiac catheterization lab.

Residents of all 3 North West LHIN Districts have high rates of use of cardiac catheterization lab.

Exhibit 42: 2016/17 Outpatient Ontario Cardiac Catheterization Lab CASES per 10,000 age/gender standardized population



4.4 Psychiatric Utilization and Activity

LWDH has the lowest psychiatric occupancy of the peer hospitals.

As reported above, LWDH has the lowest occupancy in Q1 of the peer hospitals; (based on the most recently available monthly census data reported to the MoHLTC by each hospital). The hospital also reports however, that there are functionally only 14 Psychiatric beds available at LWDH as a result of a variety of reasons: repairs required making some beds unusable, patient mix, patient acuity and gender mix. Based on 14 beds, LWDH occupancy in 2016/17 would have been 62.5%; still the lowest among peers. LWDH reports that it recently (summer 2017) changed its Census reporting to identify 17 psychiatric beds; this is however, still higher than the 14 functional beds available.

Exhibit 43: LWDH and Peer Hospital 2016/17 YTD Psychiatric beds and average occupancy

Hospital Name	Beds	% Occup.
Peterborough Regional HC	27	88.4%
Bluewater Health-Sarnia	27	93.6%
Orillia Soldiers' Memorial	24	88.4%
Quinte Healthcare - Belleville	22	71.8%
Chatham Kent HA- Public General	21	80.8%
Alexandra Marine & General	20	81.5%
Timmins & District	20	91.8%
Lake-Of-The-Woods District	19	42.3%
Brant CHS - Brantford	18	99.1%
Woodstock General Hospital	16	99.2%
Cornwall Community Hospital	16	93.3%
Ross Memorial Hospital	15	86.9%
Pembroke Regional	15	73.3%
St. Thomas-Elgin	15	78.3%
Stratford General Hospital	15	89.9%

LWDH had by far the fewest number of "mood disorder" discharges among the peer hospitals.

The Ontario Mental Health Reporting System (OMHRS) data used to support the psychiatric activity comparisons uses "SCIPP" (System for Classification of In-Patient Psychiatry) groups (instead of CMGs) to categorize patients. In 2016/17, 40% of LWDH psychiatric discharges were "short stay" cases.

Exhibit 44: 2016/17 LWDH and Peer Hospital cases by SCIPP Group

Hospital	Short Stay Assessments	Mood Disorders	Schizophrenia & Oth. Psychotic Dis.	Other Disorders	Substance Related Disorders	Personality Disorders	Cognitive Disorders	Ungroupable	Not Applicable	Eating Disorders	Grand Total
Brant Community HCS	576	179	175	33	25	27	13	32			1,060
Orillia Soldiers' Memorial	309	291	140	32	12	12	2		2	1	801
Peterborough Regional HC	271	295	176	21	12	11	6	4	3		799
Bluewater Health	232	247	120	44	37	37	24	34	1		776
Timmins & District	309	133	106	32	48	35	11	24		1	699
Stratford General Hospital	285	152	89	11	4	26	37	18		1	623
St. Thomas-Elgin	334	140	65	22	13	16	12	6	1		609
Brockville General Hospital	227	139	104	23	30	19	33				575
Woodstock General Hospital	137	203	80	38	52	29	15		4	1	559
Pembroke Regional	271	176	61	20	17	7	1				553
Quinte Healthcare	258	128	114	12	12	17	2		6		549
Cornwall Community Hospital	237	121	87	27	20	14	7		1	1	515
Alexandra Marine & General	138	177	64	25	27	9	8	17			465
Ross Memorial Hospital	108	204	80	14	13	4	2	8		1	434
Chatham Kent HA	48	157	100	26	23	3	4			2	363
Lake-Of-The-Woods District	125	29	64	33	25	11	3	22		2	314
Grand Total	**3,865**	**2,771**	**1,625**	**413**	**370**	**277**	**180**	**165**	**18**	**10**	**9,694**

Compared to peer facilities, LWDH had twice the proportion of substance related disorders.

LWDH had by far the fewest number of "mood disorder" discharges among the peer hospitals. Mood disorders represented 9% of LWDH cases compared to 40% for peer hospitals. LWDH also had twice the proportion of substance related disorders in comparison to peer hospitals.

An unusual distribution of inpatient psychiatric discharges by age group.

LWDH also has an unusual distribution of inpatient psychiatric discharges by age group. 23% of LWDH discharges in 2016/17 were age 19 or younger (compared to only 11% for the overall peer group), and 12% were age 55 or older (compared to 21% for the peer group).

Exhibit 45: Percent Distribution of LWDH and Peer Hospital Psychiatric Discharges by Age Group

Hospital	Discharges	% Distribution of Discharges by Age Group				
		5 to 19	20 to 34	35 to 54	55 to 64	65 +
Alexandra Marine & General	465	9%	32%	33%	14%	13%
Bluewater Health	776	28%	32%	23%	7%	10%
Brant Community HCS	1,060	11%	38%	33%	10%	7%
Brockville General Hospital	575	7%	33%	30%	18%	12%
Chatham Kent HA	363	8%	24%	37%	15%	16%
Cornwall Community Hospital	515	8%	37%	35%	11%	9%
Lake-Of-The-Woods District	314	23%	39%	25%	8%	4%
Orillia Soldiers' Memorial	801	11%	37%	33%	12%	6%
Pembroke Regional	553	10%	31%	37%	13%	8%
Peterborough Regional HC	799	7%	43%	30%	10%	9%
Quinte Healthcare	549	9%	35%	35%	13%	8%
Ross Memorial Hospital	434	10%	37%	27%	16%	10%
St. Thomas-Elgin	609	6%	38%	35%	12%	9%
Stratford General Hospital	623	12%	32%	35%	9%	12%
Timmins & District	699	10%	38%	36%	10%	6%
Woodstock General Hospital	559	13%	39%	28%	11%	9%
Grand Total	9,694	11%	36%	32%	12%	9%

Some patients with psychiatric diagnoses are treated in acute care beds.

Most psychiatry patients receive care in a designated psychiatric bed and are tracked using the OMHRS data system (e.g. as in the table above). However, there are some patients with psychiatric diagnoses who are treated in an acute care bed, particularly if the hospital does not have any schedule 1 psychiatric beds, or if the patients are paediatric patients. In 2016/17, LDWH had 37 discharges of psychiatric patients from an acute (i.e. non-psych) bed. 8% of these patients were paediatric patients (compared to 10% for all of the acute care peer hospitals), and only 5% were geriatric patients (compared to 11% for all of the acute care peer hospitals).

Exhibit 46: Percent Distribution of LWDH and Acute Care Peer Hospital Psychiatry Cases by Age Group

Acute Care Peer Hospitals	Psych. Discharges from Acute Beds	% Distribution of Discharges by Age Group			
		00-17	18-49	50-74	75+
Temiskaming Hospital	149	21%	46%	26%	7%
Collingwood Gen. & Marine	149	13%	45%	38%	4%
Muskoka Algonquin	119	4%	44%	41%	11%
St. Joseph's, Elliot Lake	102	5%	56%	33%	6%
Norfolk General Hospital	100	0%	55%	37%	8%
West Parry Sound HC	97	6%	48%	31%	14%
Sioux Lookout Meno-Ya-Win	77	45%	45%	8%	1%
Georgian Bay General	76	13%	39%	32%	16%
Northumberland Hills Hospital	69	6%	39%	43%	12%
Pembroke Regional	59	0%	56%	32%	12%
Kirkland & District Hospital	54	4%	50%	39%	7%
Riverside HCF	44	2%	52%	36%	9%
Lake-Of-The-Woods District	37	8%	59%	27%	5%
Perth & Smiths Falls	33	0%	15%	64%	21%
Renfrew Victoria Hospital	32	0%	13%	19%	69%
South Bruce Grey	28	11%	50%	29%	11%
Hanover And District Hospital	23	0%	35%	57%	9%
Dryden Regional	22	14%	32%	50%	5%
Winchester District Memorial	21	0%	33%	52%	14%
Strathroy Middlesex	19	0%	16%	63%	21%
Leamington District Memorial	11	0%	45%	36%	18%
Grand Total	1,321	10%	45%	35%	11%

Kenora District residents have the highest rate of use of inpatient days in Ontario acute beds for Psychiatry in the province.

Residents of Kenora District have highest rate of utilization of inpatient days in acute beds for Psychiatry. More than 4 times the provincial average rate, 50% higher than Rainy River and Thunder Bay.

Exhibit 47: 2016/17 Inpatient ACUTE CARE BED PSYCHIATRY DAYS in Ontario Hospitals per 10,000 age/gender standardized population[7]

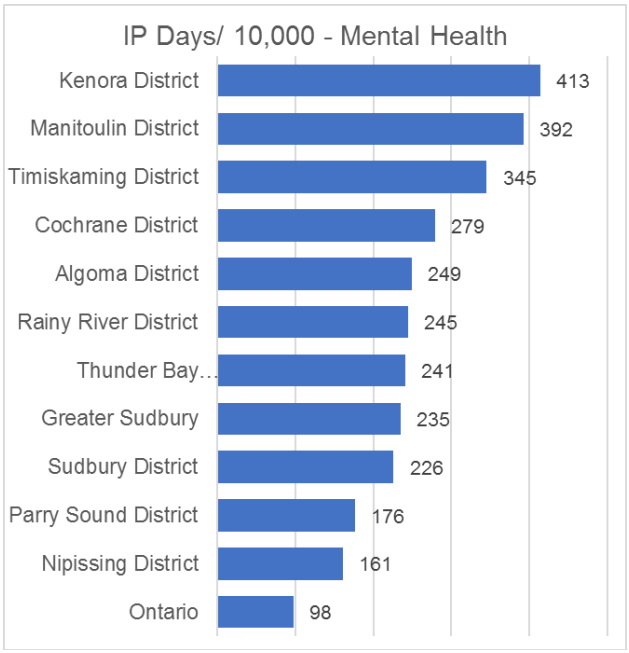
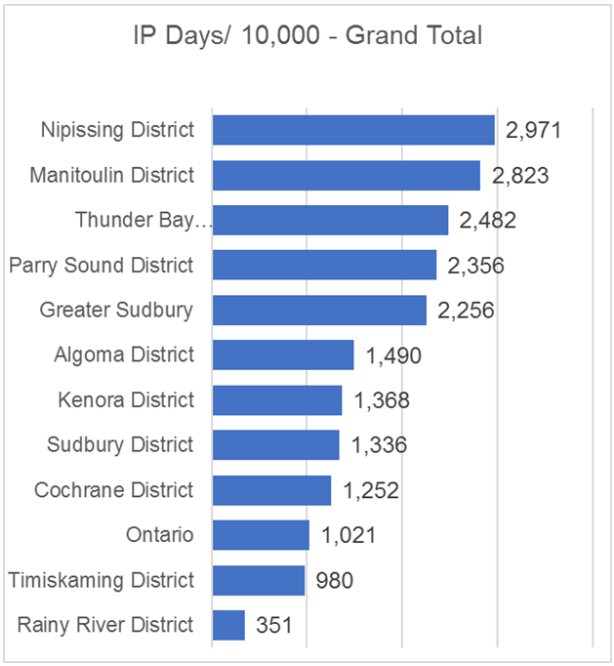


Exhibit 48: 2016/17 Inpatient PSYCHIATRIC BED PSYCHIATRY DAYS in Ontario Hospitals per 10,000 age/gender standardized population

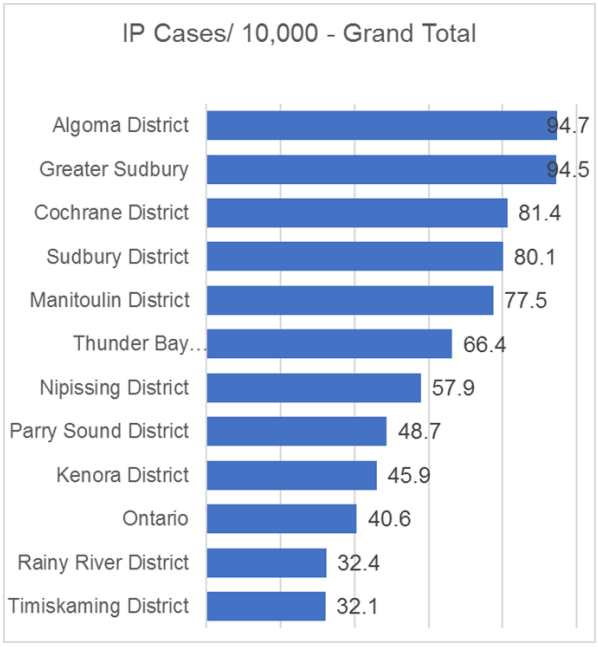


[7] There was a request by the Steering Committee to present this utilization by hospital within the NW LHIN. The prior analyses showed the % reliance of residents on individual hospitals, but you cannot break down utilization by hospital without specific, mutually exclusive catchment populations attributed to each hospital.

Kenora District residents' Psychiatric utilization in Ontario psychiatric beds is closer to the provincial average.

At the same time, inpatient psychiatric care in Ontario psychiatric beds for Kenora District residents is much lower as measured by days and almost half of Thunder Bay residents. As measured by cases, psychiatric care in psychiatric beds for Kenora Residents is close to the provincial average.

Exhibit 49: 2016/17 Inpatient Ontario PSYCHIATRIC BED PSYCHIATRY CASES per 10,000 age/gender standardized population



The combination of the high rate of use of acute beds, combined with the lower rate of use and low occupancy of psychiatric beds, and the high rate of use by patients under 19, may suggest that the services available in Kenora District are inappropriate for the demands of the population.

The low occupancy of the psychiatric beds at LWDH occurs despite reported challenges with psychiatric capacity.

The low occupancy of the beds at LWDH occurs despite reported challenges with psychiatric capacity. Capacity challenges persist as a result of the poor physical condition of the acute psychiatric unit as well as an inability to attract appropriately trained staff. Further the psychiatric beds that are available are reported to be inappropriate to meet the needs of the patients; the hospital reports that patients often require Psychiatric Intensive care or seclusion that cannot be provided in the current bed configuration. Further, there is a need for psychiatric capacity to treat high risk youth patients while the current acute paediatric beds are often felt to be inappropriate for this population.

Recommendations

It is recommended that:

(23) The VP Mental Health and Addictions should work with the LHIN and agree to report the psychiatric bed capacity that is actually available at the hospital.

(24) The VP Mental Health and Addictions should work with the LHIN to review the available mental health bed configuration to ensure that both appropriate capacity and facilities are available to meet the needs of the population served by LWDH.

4.5 Emergency Department Utilization and Activity

The Canadian Triage and Acuity Scale (CTAS) guidelines incorporate 5 levels of acuity[8]:

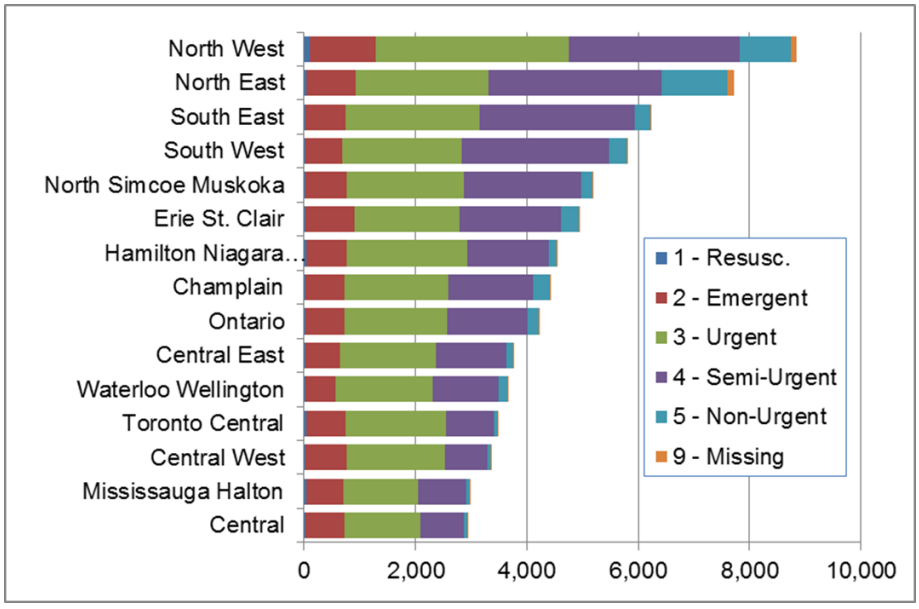
Canadian Triage and Acuity Scale incorporates 5 levels of acuity.

- CTAS Level 1 – Resuscitation; Conditions that are threats to life or limb (or imminent risk of deterioration) requiring immediate aggressive interventions.
- CTAS Level 2 – Emergent; Conditions that are a potential threat to life limb or function, requiring rapid medical intervention or delegated acts.
- CTAS Level 3 – Urgent; Conditions that could potentially progress to a serious problem requiring emergency intervention. May be associated with significant discomfort or affecting ability to function at work or activities of daily living.
- CTAS Level 4 – Less Urgent; Conditions that related to patient age, distress, or potential for deterioration or complications would benefit from intervention or reassurance within 1-2 hours.
- CTAS Level 5 – Non – Urgent; Conditions that may be acute but non-urgent as well as conditions which may be part of a chronic problem with or without evidence of deterioration. The investigation or interventions for some of these illnesses or injuries could be delayed or even referred to other areas of the hospital or health care system.

The following chart presents an analysis of the utilization of Emergency Departments by residents of each Ontario LHIN. These charts present the rates of use of hospital EDs by the residents of the LHIN and reflect visits to EDs anywhere in Ontario (i.e. not necessarily only the EDs in hospitals located within the LHIN).

[8] Implementation Guidelines for the Canadian ED Triage & Acuity Scale (CTAS), Robert Beveridge MD MSc FRCPC, et. al., CAEP Website, 2009.

Exhibit 50: Age/Gender Standardized Utilization (Visits per 10,000) by Patient LHIN and CTAS Level

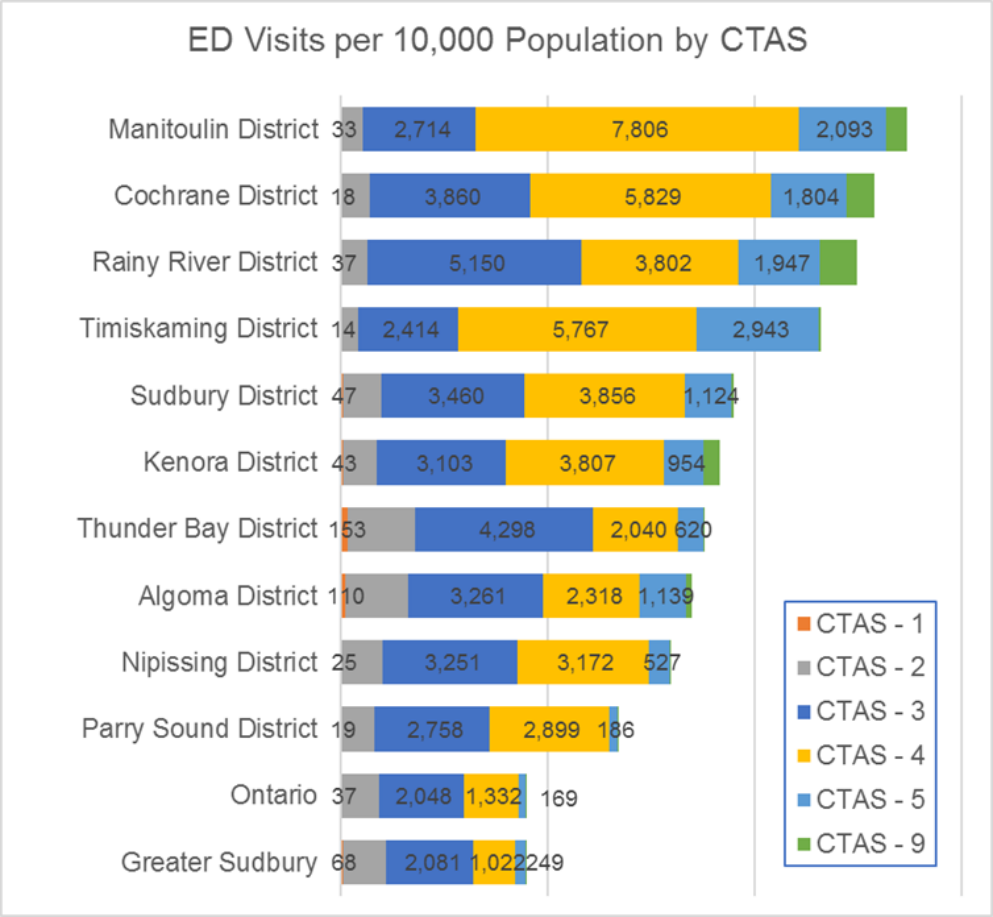


Very high age/gender standardized rate of use of Emergency Department for North West LHIN residents compared to southern LHINs.

The utilization rates are age/gender standardized to account for differences in population demographics across LHINs. Utilization rates are expressed in visits per 10,000 population. As can be seen, there is a very high age/gender standardized rate of use of Emergency Department for North West LHIN residents. Conventional wisdom is that the higher rate of utilization of the ED in the north (particularly for CTAS 4 and 5, potentially avoidable visits) reflects a lack of capacity of other ambulatory and community health services, and the resulting reliance on hospitals for a wider range of health care.

The following exhibit presents the distribution of ED patients by CTAS levels 1, 2 and 3 for Kenora District and other northern districts. Kenora residents have lower utilization of CTAS 2 and 3, and higher for CTAS 4 and 5, compared to residents of Thunder Bay.

Exhibit 51: 2016/17 Emergency Department Visits per 10,000 age/gender standardized population



LWDH has 2nd highest percentage of ED visits in high acuity (i.e. CTAS 1, 2, and 3) among the peer sites.

The following exhibits present the 2016/17 ED Activity for LWDH and peer hospitals by CTAS level. LWDH has 2nd highest percentage of ED visits in high acuity (i.e. CTAS 1, 2, and 3) among the peer sites. Looking more broadly across all Ontario hospitals, LWDH is the only small Ontario hospital (i.e. with fewer than 24,000 annual visits) with greater than 20% of ED visits in CTAS 1 and 2. This may be a function of isolation or it could reflect differences in CTAS coding across peer hospitals. Recent provincial implementation of electronic CTAS coding[9] is expected to improve comparability of CTAS scores, and the impact on LWDH and peer hospitals should be monitored to see whether the apparent high acuity of LWDH ED patients (compared to peer hospitals) is observed in the future.

[9] https://www.accesstocare.on.ca/ectas

Exhibit 52: LWDH & Peer Hospital 2016/17 ED Visits by CTAS

Hospital Site	Emergency Department Visits (non-scheduled) by CTAS							% of ED Visits	
	1 - Resusc	2 - Emerg	3 - Urgent	4 - Semi-Urgent	5 - Non-Urgent	9 - Unkn	All CTAS	CTAS 1, 2, 3	CTAS 4, 5
Collingwood Gen. & Marine	134	5,242	15,651	13,540	1,221	2	35,790	59%	41%
Pembroke Regional	87	6,039	15,665	12,243	739	0	34,773	63%	37%
Northumberland Hills Hospital	212	7,284	13,500	12,002	1,239	0	34,237	61%	39%
Leamington District Memorial	78	6,809	14,634	7,310	2,695	1	31,527	68%	32%
Norfolk General Hospital	208	5,165	10,633	11,542	1,609	0	29,157	55%	45%
Perth & Smiths Falls - Perth	47	2,901	8,645	11,318	2,088	128	25,127	46%	54%
Renfrew Victoria Hospital	67	1,646	8,520	10,432	3,574	46	24,285	42%	58%
Winchester District Memorial	15	1,698	9,342	12,383	291	1	23,730	47%	53%
Musk. Algonq. - Huntsville	37	3,143	9,993	9,271	283	10	22,737	58%	42%
Strathroy Middlesex	129	3,358	10,876	7,643	331	34	22,371	64%	36%
Musk. Algonq. - Bracebridge	62	2,569	9,201	9,025	569	39	21,465	55%	45%
Sioux Lookout Meno-Ya-Win	17	727	5,825	9,761	3,900	256	20,486	32%	68%
Temiskaming Hospital	25	1,079	6,104	8,474	3,390	6	19,078	38%	62%
Perth & Smiths Falls - SF	92	2,318	7,170	7,659	1,050	79	18,368	52%	48%
Lake-Of-The-Woods District	161	3,427	7,979	5,653	482	85	17,787	65%	35%
Riverside HCF - Laverendrye	34	853	8,549	4,629	1,838	1,865	17,768	59%	41%
West Parry Sound HC	30	1,607	6,417	8,706	504	3	17,267	47%	53%
Hanover And District Hospital	10	867	4,543	9,863	761	54	16,098	34%	66%
St. Joseph's, Elliot Lake	22	851	2,672	6,475	5,205	712	15,937	23%	77%
Dryden Regional	16	708	4,715	9,628	469	10	15,546	35%	65%
Kirkland & District Hospital	4	114	1,587	9,650	3,993	131	15,479	11%	89%
South Bruce Grey - Walkerton	16	474	2,678	6,822	2,677	0	12,667	25%	75%
Grand Total	1,503	58,879	184,899	204,029	38,908	3,462	491,680	50%	50%

Exhibit 53: LWDH NACRS – 2016/17 Diagnoses most frequently reported

Diagnosis Group	Visits by CTAS Level						
	1 - Res	2 - Emerg	3 - Urgent	4 - Semi-Urgent	5 - Non-Urgent	Unkn	Total
Acute Upper Respiratory Infect.	0	38	393	565	17	5	1,018
Ment/Behav Dis. Due to Alcohol	14	188	413	164	6	13	798
Abdominal Pain	0	186	392	84	10	3	675
Chest Pain	0	297	157	42	2	2	500
Urinary Tract Infection	2	24	198	268	3	3	498
Cellulitis	0	33	190	143	3	1	370
Examination & Investigation	0	25	81	137	70	3	316
Open Wound of Head	0	62	158	70	1	2	293
Injuries to Ankle and Foot	0	4	117	148	9	0	278
Intestinal Infectious Disease	0	43	146	76	1	1	267
Injuries to Knee & Lower Leg	1	9	145	105	4	1	265
Pneumonia	2	51	137	72	1	1	264
Open Wound to Finger w/ or w/o Nail Damage	0	12	111	129	3	0	255
Otitis Media	0	7	91	137	4	1	240
Abnormalities of Breathing	2	27	71	128	4	0	232
Injuries to Wrist and Hand	0	14	109	102	3	1	229
Prescription Repeat	0	0	13	110	101	1	225
Other Arthropathies	0	15	99	87	2	3	206
Complic. Surgical & Medical Care	0	23	104	63	5	1	196
All other Diagnoses	141	2,370	4,856	3,025	236	48	10,662
Grand Total	162	3,428	7,981	5,655	485	90	17,787

Acute Upper Respiratory Infections and Mental Health / Behavioural Distress due to alcohol are the diagnoses most frequently reported at LWDH ED. The exhibit above presents the details of the reported LWDH diagnoses; those listed accounted for 60% of all LWDH ED visits in 2016/17. The two diagnoses highlighted in yellow (Examination and Investigation, and Prescription Repeat) are not usually reported as high volume emergency visits in Ontario emergency departments.

The top 20 ED diagnoses account for 51% of admissions to IP acute care from ED.

The LWDH Diagnoses groups most frequently admitted to inpatient care are presented in the exhibit below. These top 20 ED diagnoses account for 51% of admissions to IP acute care from ED.

Exhibit 54: 2016/17 LWDH Emergency Department Visits most frequently admitted

Diagnosis Group	ED Visits	Admits to IP Care	% Admit
Signs/Symptoms invol. Emotional State	116	74	63.8%
Pneumonia	264	73	27.7%
Cellulitis	370	57	15.4%
Poisoning by Drugs/Med./ Biolog. Subst.	154	57	37.0%
Stroke and Other Cerebrovascular Disease	60	50	83.3%
Abdominal Pain	675	48	7.1%
Pancreatitis	73	47	64.4%
COPD	123	46	37.4%
Gastrointestinal Haemorrhage NOS	54	46	85.2%
Ment/Behav Disorder Due to Alcohol	798	36	4.5%
Electrolyte and Acid Base Disorders	48	36	75.0%
Ischaemic Heart Diseases	39	36	92.3%
Schizophrenia	57	34	59.6%
Other Diseases Of Intestines	84	34	40.5%
Abnormal Findings on DI/Function w/o Dx	34	33	97.1%
Congestive Heart Failure	51	33	64.7%
Hip Fracture	40	30	75.0%
Sympt/Signs Involv. Cognition, Percept., Behav.	59	29	49.2%
Atrial Fibrillation and Flutter	82	29	35.4%
Renal Failure	39	29	74.4%
All Other Diagnosis	14,567	904	6.2%
Grand Total	17,787	1,761	9.9%

To measure the relative propensity of LWDH (and the peer hospitals) to admit ED patients to inpatient (acute or psychiatric) care, we used provincial 2016/17 ED visit data (6.3 million records) to calculate the average actual Ontario hospital admission rate for every combination of ED diagnosis, CTAS score, and patient age. We then used these admission rates as benchmarks for the "expected" admissions for every diagnosis/CTAS/age combination for each hospital. This allowed us to compare the actual and expected rates of admission of ED patients at LWDH and the peer hospitals.

LWDH admitted only 2% more Emergency Department patients than would have been expected.

In 2016/17, LWDH admitted only 2% more Emergency Department patients than would have been expected, based on diagnosis, age, and CTAS triage. LWDH ranks in the middle of their peer group on this measure (rank 10 of the 23 sites).

Exhibit 55: 2016/17 Comparison of Actual & Expected Inpatient Admissions from the Emergency Department for LWDH and Peer sites

Hospital Site	Visits	Admissions		Admission Rate		Ratio of Actual to Expect.	Rank of Act. To Expect.
		Actual	Expect.	Actual	Expect.		
Collingwood Gen. & Marine	35,790	3,382	3,580	9.40%	10.00%	94%	16
Pembroke Regional	34,773	4,081	3,192	11.70%	9.20%	128%	3
Northumberland Hills Hospital	34,237	3,421	3,992	10.00%	11.70%	86%	19
Leamington District Memorial	31,527	2,701	3,255	8.60%	10.30%	83%	20
Norfolk General Hospital	29,157	3,305	2,925	11.30%	10.00%	113%	7
Perth & Smiths Falls - Perth	25,127	1,674	1,930	6.70%	7.70%	87%	18
Renfrew Victoria Hospital	24,285	1,435	1,615	5.90%	6.70%	89%	17
Winchester District Memorial	23,730	1,932	2,026	8.10%	8.50%	95%	13
Musk. Algonq. - Huntsville	22,737	2,075	2,195	9.10%	9.70%	95%	15
Strathroy Middlesex	22,371	1,876	2,263	8.40%	10.10%	83%	21
Musk. Algonq. - Bracebridge	21,465	2,186	2,041	10.20%	9.50%	107%	9
Sioux Lookout Meno-Ya-Win	20,486	1,314	1,163	6.40%	5.70%	113%	8
Temiskaming Hospital	19,078	1,283	1,122	6.70%	5.90%	114%	5
Perth & Smiths Falls - SF	18,368	1,238	1,529	6.70%	8.30%	81%	22
Lake-Of-The-Woods District	17,787	1,761	1,735	9.90%	9.80%	102%	10
Riverside HCF - Laverendrye	17,768	1,081	1,092	6.10%	6.10%	99%	11
West Parry Sound HC	17,267	1,831	1,466	10.60%	8.50%	125%	4
Hanover And District Hospital	16,098	945	995	5.90%	6.20%	95%	14
St. Joseph's, Elliot Lake	15,937	1,267	985	8.00%	6.20%	129%	2
Dryden Regional	15,546	948	959	6.10%	6.20%	99%	12
Kirkland & District Hospital	15,479	1,072	604	6.90%	3.90%	178%	1
South Bruce Grey - Walkerton	12,667	654	573	5.20%	4.50%	114%	6
Grand Total	491,680	41,462	41,238	8.40%	8.40%	101%	

Based on the provincial benchmarks, the table below lists the diagnoses where the LWDH admission rate was higher than expected (taking into account CTAS scores and patient ages), and the number of "excess" admissions to LWDH compared to the expected admissions at the provincial benchmarks. The higher than expected admission rate for "signs/symptoms involving emotional state" may reflect the availability of schedule 1 psychiatric beds at LWDH.

Exhibit 56: 2016/17 "Excess" Admissions to inpatient care from LWDH Emergency Department

Diagnosis Group	ED Visits	Actual Admits	Expected Admits	Excess Admits	Actual Admit Rate	Expected Admit Rate
Cellulitis	370	57	29	28	15.40%	8.00%
Signs/Symptoms invol. Emotional State	116	74	49	25	63.80%	42.10%
Pneumonia	264	73	57	16	27.70%	21.50%
Abdominal Pain	675	48	33	15	7.10%	4.90%
Convulsions NEC	67	27	17	10	40.30%	24.80%
Gastrointestinal Haemorrhage NOS	54	46	38	8	85.20%	69.80%
Hypertensive Diseases	71	14	6	8	19.70%	8.20%
Electrolyte and Acid Base Disorders	48	36	28	8	75.00%	58.20%
Syncope/Dizziness	171	24	16	8	14.00%	9.40%
Ischaemic Heart Diseases	39	36	28	8	92.30%	73.00%
Symptoms/Signs Involv. Cognition, Perception, Behav.	59	29	21	8	49.20%	36.40%
Dehydration	26	17	10	7	65.40%	38.10%
Nausea and/or Vomiting	154	19	13	6	12.30%	8.50%
Cholecystitis	29	25	20	5	86.20%	67.90%
Atrial Fibrillation and Flutter	82	29	24	5	35.40%	29.50%
Use of Health Services for Other Factors	41	13	8	5	31.70%	20.20%
Dorsalgia (excl. Low Back Pain)	158	8	3	5	5.10%	2.10%
Schizophrenia	57	34	30	4	59.60%	52.60%
Malaise and Fatigue	75	18	14	4	24.00%	18.70%
Abnormal Findings on DI/Function w/o Dx	34	33	29	4	97.10%	85.50%

LWDH has lower than expected ED admission rate for paediatrics, but 9% above for adults.

Based on provincial admission benchmarks (by diagnosis, age, and CTAS), the 20 diagnosis groups that contribute the greatest number of admissions in excess of expected admissions for LWDH are presented in the exhibit above. As can be seen below, LWDH has lower than expected ED admission rate for paediatrics, but 9% above for adults 18 to 49 (i.e. 44 more admissions than expected). In 2016/17, 20 more CTAS 4 (semi-urgent) ED patients were admitted than expected.

Exhibit 57: 2016/17 "Excess" Admissions to inpatient care from LWDH Emergency Department by Age Group

Age Group	Visits	Admissions		Admission Rate		Ratio of Actual to Expect.
		Actual	Expected	Actual	Expect.	
00-17	3,382	139	160	4.10%	4.70%	87%
18-49	7,625	536	492	7.00%	6.50%	109%
50-74	5,236	685	681	13.10%	13.00%	101%
75+	1,544	401	402	26.00%	26.00%	100%
Grand Total	17,787	1,761	1,735	9.90%	9.80%	102%

Exhibit 58: 2016/17 "Excess" Admissions to inpatient care from LWDH Emergency Department by CTAS Level

CTAS Triage Level	Visits	Admissions		Admission Rate		Ratio of Actual to Expect.
		Actual	Expected	Actual	Expect.	
1 - Resuscitation	161	112	114	69.60%	71.00%	98%
2 - Emergent	3,427	864	831	25.20%	24.20%	104%
3 - Urgent	7,979	666	688	8.30%	8.60%	97%
4 - Semi-Urgent	5,653	109	89	1.90%	1.60%	123%
5 - Non-Urgent	482	4	5	0.80%	1.10%	76%
Unknown	85	6	7	7.10%	8.30%	85%
Grand Total	17,787	1,761	1,735	9.90%	9.80%	102%

LWDH has 23% higher than expected ED admission rate for CTAS 4 – Semi-urgent patients.

4.6 LWDH Day Surgery Utilization and Activity

Kenora District residents have the lowest rate of day surgery cases of all northern districts.

Like inpatient surgery, residents of Kenora District had the lowest rate of day surgery cases per population of all northern districts; by this measure both Kenora and Rainy River were below the Ontario average rate. This data does not include day surgery cases for northwestern Ontario residents done in Winnipeg hospitals.

Exhibit 59: 2016/17 DAY SURGERY CASES in Ontario Hospitals per 10,000 age/gender standardized population

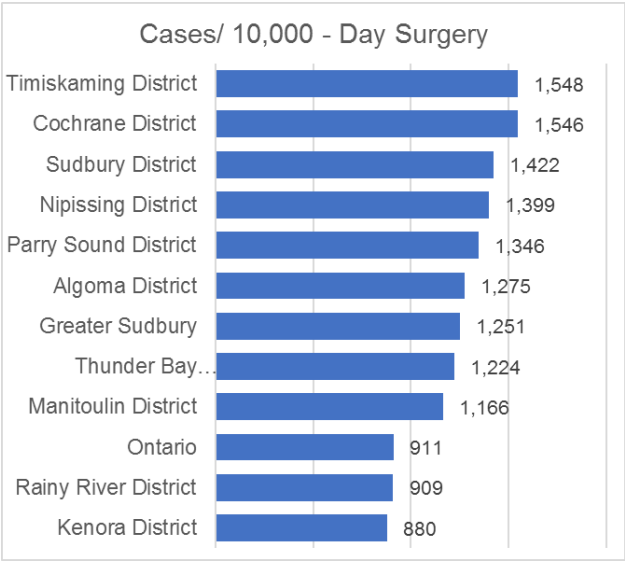


Exhibit 60: 2016/17 LWDH DAY SURGERY activity by PCC

Program Cluster Category	Cases	Total Hours	Avg. LOS (Hrs.)	ACW Wtd. Cases	Avg. ACW
Gastro/Hepatobiliary	835	2,528	3	98.6	0.118
Ophthalmology	468	1,487	3.2	80.1	0.171
Obstetrics	94	365	3.9	17.4	0.185
General Surgery	81	996	12.3	32.3	0.398
Neurosurgery	53	172	3.3	9.8	0.185
Dental/Oral Surgery	51	210	4.1	16.8	0.330
Orthopaedics	51	184	3.6	12.8	0.250
Plastic Surgery	44	165	3.7	9.8	0.223
Ungroupable	36	48	1.3	2.5	0.069
Psychiatry	27	72	2.7	1.2	0.045
Vascular Surgery	18	46	2.5	5.1	0.283
Urology	16	67	4.2	3.4	0.215
Gynaecology	8	26	3.3	1.3	0.169
Haematology	3	5	1.6	0.3	0.096
Otolaryngology	2	9	4.5	0.5	0.233
Pulmonary	2	5	2.5	0.5	0.245
Other Internal Medicine	1	2	1.9	0.1	0.093
Grand Total	1,790	6,387	3.6	292.6	0.163

Day Surgery activity is presented above by PCC. The highest volume of activity for day surgery at LWDH is associated with endoscopy and cataract cases. The highest volume Comprehensive Ambulatory Classification (CACs) are presented below.

Exhibit 61: 2016/17 LWDH DAY SURGERY activity by CACS Group – 15 highest Volume CACS

CACS Group	Cases	Ambul. CW	Avg. ACW
(C060) Cataract Removal/Lens Insertion	464	79.6	0.172
(C251) Inspection Digestive Tract	304	26.5	0.087
(C260) Biopsy Esophagus, Stomach	190	22.6	0.119
(C259) Biopsy Lower Digestive System	167	25.5	0.153
(C254) Partial Excision Anus, Rectum, Intestine	129	17.1	0.133
(C470) Termination Of Pregnancy	71	11.5	0.162
(C012) Carpal Tunnel Release	53	9.8	0.185
(C109) Dental/Peridontal Intervention	50	16.5	0.331
(C257) Other Minor Digestive System Intervention	41	5.8	0.141
(C302) Other Knee Intervent., excl. Cruciate Repair	36	9.5	0.263
(C282) Cholecystectomy	33	15	0.454
(C253) Hernia Repair, Open Approach	31	10.5	0.337
(C701) Electroconvulsive Therapy (ECT)	27	1.2	0.045
(C466) Dilation/Curettage And Endometrial Ablation	17	4.5	0.263
(C210) Vascular Access	15	4.5	0.300
(C316) Release Flexor Tendon, Finger	9	1.6	0.180
(C351) Complete And Partial Mastectomy	8	3.5	0.443
(C323) Soft Tissue Intervention Extremity	8	2.4	0.305
(C465) Tubal Ligation	5	1.4	0.281
(C463) Other Male Reproductive Intervention	4	1.3	0.316
All Other CACs	37	10.5	0.283
Grand Total	1,699	280.8	0.165

4.7 Use of Manitoba Hospitals by Kenora District Residents

The population-based utilization rates shown previously in this report are based on analysis of Ontario data.

The population-based utilization rates shown previously in this report are based on analysis of Ontario CIHI data combined with Ontario population estimates. As noted, they do not include hospitalization of Ontario residents outside Ontario hospitals.

Because of the proximity of the Kenora District to Manitoba, and tertiary acute care in Winnipeg hospitals, many Kenora residents rely on Winnipeg for hospital care, as opposed to the NW LHIN regional services available in Thunder Bay. To assess the impact of this on Kenora District utilization rates, we obtained summaries of CIHI data for Ontario residents discharged from Manitoba hospitals from the Manitoba Department of Health. To protect confidentiality and privacy, the data was only released at an aggregate level, and could not be included in the analyses based on detailed Ontario hospitalization data.

Exhibit 62: Highest Volume CMGs for Kenora District Residents Hospitalized in Manitoba in 2016/17

Case Mix Group	Kenora District	Rainy River District
502-Hysterectomy w Non Mal Dx	28	11
321-Unilateral Knee Replacement	24	<5
806-Convalescence	20	9
576-Normal Newborn Sing Vag Deliv	17	<5
320-Unilateral Hip Replacement	13	<5
562 Vag Birth w Anaes. and Non-Major Interv	12	<5
565 Vag Birth w/o Anaes w/o Non-Maj Interv	12	<5
162-Cardiac Valve Replacement	11	<5
557 Antepartum Diagnosis treated Medically	10	8
577-Normal NB Mult/C-Sect Deliv	10	<5
182-Bypass/Extract Vein/Art Limb	9	<5
739-Red/Fix/Rp Up Bdy ex Fix/Rp Sh	8	-
747-Reduction/Fix/Repr Ankle/Foot	8	<5
086-Oral Cavity/Pharynx Intv	7	-
226-Non-Maj Excis/Rep Upp GI,Plnd	7	<5
501-Hysterectomy with Malignancy	7	-
507-Rep/Bra/OthInt FmRpSy excTb/Ov	7	<5
559 Primary Caesarean Section, no induction	7	<5
560 Caes. Section w uterine scar, no induction	7	<5
563 Vag Birth w Anaes. w/o Non-Major Interv	7	<5

The acute care CMGs for which Kenora District residents were most frequently hospitalized in Manitoba are shown in the table below. For any CMGs with fewer than 5 annual cases, the actual case volume is supressed (i.e. it will just show "<5"). Many of the high-volume CMGs are surgical or birthing related, with the

notable exception of the 3rd highest volume CMG, "Convalescence". The convalescence cases may reflect patients who were originally admitted for a surgical procedure, but who have remained in acute care for convalescence.

The highest volume individual program clusters for Kenora District residents in Manitoba acute care hospitals were Gastro/Hepatobiliary, Obstetrics, and Orthopaedics.

Exhibit 63: Inpatient Hospitalization of Kenora District Residents in Manitoba Hospitals by PCC and Patient Age Group

PCC	0 to 19	20 to 49	50 to 74	75 +	Total
Other	120	137	160	50	467
Gastro/Hepatobiliary	30	97	170	28	325
Obstetrics	35	234	15	-	284
Orthopaedics	45	77	138	22	282
Urology	19	51	185	10	265
Ophthalmology	16	21	173	52	262
Otolaryngology	54	32	34	45	165
Neonatology	155	-	-	-	155
Cardiology	11	19	76	37	143
General Surgery	17	43	54	6	120
Dental/Oral Surgery	89	8	***<5***	***<5***	97
Gynaecology	***<5***	56	36	***<5***	92
Pulmonary	55	11	26	***<5***	92
TOTAL	**646**	**786**	**1,067**	**250**	**2,749**

Kenora District residents also rely on Manitoba hospitals for day surgery, including for procedures (e.g. Cataract removal) that might be done at LWDH.

Exhibit 64: Highest Volume Day Surgery CACs Groups for Kenora District Residents Treated in Manitoba in 2016/17

Comprehensive Ambulatory Classification (CAC)	Kenora District	Rainy River District
C457 Cystoscopy (Bladder Inspection)	49	23
C060 Cataract Removal/Lens Insertion	48	33
C259 Biopsy Lower Digestive System	40	13
C466 Dilation/Curettage and Endometrial Ablation	35	12
C283 Other Hepatobiliary Intervention	33	14
C310 Open Fixation/Fusion without Graft	29	<5
C251 Inspection Digestive Tract	27	16
C456 Other Minor Lower Urinary Tract Intervention	22	13
C455 Lower Urinary Tract Intervention	20	9
C260 Biopsy Esophagus, Stomach	20	<5
C303 Other Lower Limb Intervention	19	6
C208 Percutaneous Transluminal Cardiac Intervention	19	<5
C206 Coronary Angiography	19	6
C109 Dental/Peridontal Intervention	19	<5
C064 Vitrectomy/Retinal Release	17	12
C453 Destr Calculi ESWL (Extracorp. Appr.) Upper Urin Tract	16	7
C305 Shoulder Intervention	16	<5
C101 Tonsillectomy/Adenoidectomy	15	6
C470 Termination of Pregnancy	14	11

5.0 Clinical Efficiency

5.1 Clinical Efficiency Approach

Reduce reliance on inpatient beds through shifts of inpatient procedures to ambulatory care and reductions in inpatient lengths of stay.

Benchmarking of clinical efficiency has been used to assess the opportunity for LWDH to reduce reliance on inpatient beds through shifts of inpatient procedures to ambulatory care and reductions in inpatient lengths of stay.

The performance of LWDH was compared to the set of peer hospitals. The peer hospitals were selected to be similar in size and clinical complexity to LWDH.

- Peer performance is based on 2016/17 data reported to CIHI and the MOHLTC by peer hospitals listed below;
- LWDH performance is based on LWDH-specific ED, day surgery and inpatient acute care data (for clinical service profiles) obtained from MOHLTC IntelliHealth system;
- Clinical efficiency performance uses provincial benchmarks derived from 2016/17 Ontario data, and compares LWDH FY2016/17 performance vs. the provincial benchmarks;
- Adult mental health analyses based on 2016/17 OMHRS data from IntelliHealth;
- Where available and noted Q1 2017/18 data is presented.

To support the clinical efficiency analysis, peer hospital data has been grouped using CMG+.

The peer hospital data available to support the clinical efficiency analysis reported here have been grouped using CMG+. Using CMG+, clinical complexity is measured by a combination of factors such as comorbidity, flagged interventions, and out-of-hospital procedures. The combination of these factors creates a "Resource Intensity Level" (RIL) for each case. The RIL indicate the overall multiplicative effect on the case resource use, i.e. the "Resource Intensity Factor" (RIF):

- RIL 0 – RIF <1 (for out of hospital cases)
- RIL 1 – RIF =1 (no factor adjustment)
- RIL 2 – RIF between 1 and 2
- RIL 3 – RIF greater than 2, but equal to or less than 3
- RIL 4 – RIF greater than 3, but equal to or less than 5
- RIL 5 – RIF greater than 5, but equal to or less than 10
- RIL 6 – RIF greater than 10 (capped at 35)

With CMG+, there are 9 age categories:

- Neonate: 0 days, 0 to 7 days, 8 to 28 days
- Paediatric: 29 to 354 days, 1 to 7 years, 8 to 17 years
- Adult: 18 to 59 years, 60 to 79 years, 80 plus years

Exhibit 65: Peer Hospitals for Clinical Efficiency Benchmarking

Hospital Site	LHIN	Beds							% Occupancy						
		MED	SURG	CMS	ICU	OBS	PAE	Total	MED	SURG	CMS	ICU	OBS	PAE	Total
Sth Br. Grey - Walkerton	South West	0	0	25	0	6	0	31	0%	0%	63%	0%	29%	0%	57%
Hanover And District	South West	0	0	23	2	2	1	28	0%	0%	64%	25%	30%	0%	57%
Temiskaming Hospital	North East	0	0	40	3	5	0	48	0%	0%	61%	68%	42%	0%	59%
Winchester District	Champlain	0	0	25	4	8	0	37	0%	0%	67%	53%	47%	0%	61%
Lake-Of-The-Woods Dis.	North West	18	0	25	4	8	0	55	81%	0%	78%	59%	11%	0%	68%
Renfrew Victoria Hospital	Champlain	0	0	28	3	0	0	31	0%	0%	72%	73%	0%	0%	72%
West Parry Sound HC	North East	0	0	56	6	2	1	65	0%	0%	75%	78%	40%	14%	73%
Strathroy Middlesex	South West	27	0	23	4	0	0	54	88%	0%	67%	68%	0%	0%	78%
Pembroke Regional	Champlain	53	13	0	7	7	0	80	84%	72%	0%	67%	75%	0%	80%
St. Joseph's, Elliot Lake	North East	17	0	27	6	1	2	53	103%	0%	86%	59%	28%	11%	85%
Kirkland & District Hospital	North East	0	0	32	6	0	0	38	0%	0%	91%	53%	0%	0%	85%
Perth & SF - Perth	South East	0	0	44	4	0	0	48	0%	0%	86%	84%	0%	0%	86%
Sioux Lookout MYW	North West	0	0	43	0	5	4	52	0%	0%	48%	0%	49%	25%	87%
Leamington District	Erie St. Clair	0	0	40	3	3	0	46	0%	0%	96%	46%	53%	0%	90%
Perth & Smiths Falls - SF	South East	0	0	30	4	4	0	38	0%	0%	101%	91%	48%	0%	94%
Norfolk General Hospital	HNHB	47	16	0	6	5	2	76	121%	50%	0%	96%	35%	0%	96%
Huronia District Hospital	Nth. Sim. Musk.	0	0	60	6	3	0	69	0%	0%	101%	81%	21%	0%	96%
Musk. Alg. - Bracebridge	Nth. Sim. Musk.	0	0	36	4	2	1	43	0%	0%	105%	81%	23%	2%	97%
Collingwood Gen. & Mar.	Nth. Sim. Musk.	0	0	63	5	0	0	68	0%	0%	101%	78%	0%	0%	100%
Musk. Algonq. - Huntsville	Nth. Sim. Musk.	0	0	28	5	3	1	37	0%	0%	115%	76%	25%	2%	100%
Dryden Regional	North West	0	0	31	0	0	0	31	0%	0%	102%	0%	0%	0%	102%
Riverside - Laverendrye	North West	0	0	23	3	2	2	30	0%	0%	125%	35%	44%	20%	104%
Northumberland Hills	Central East	0	0	46	6	6	0	58	0%	0%	122%	70%	41%	0%	108%

The Hospital reports that the bed numbers reported in the MOHLTC bed census reports (as represented in the exhibit above) are incorrect. LWDH reports that there are 20 medical beds (rather than 18), 5 obstetrics beds (rather than 8); the total bed count should therefore be 54. LWDH should correct their bed census reporting.

Recommendation

It is recommended that:

(25) The VP Corporate Services & Chief Financial Officer should work with the LHIN and agree to report the bed capacity that is actually available at the hospital.

"Best quartile" benchmarks were established for each combination of CMG/RIL/Age where at least one hospital had 30 cases or more

"Best quartile" benchmarks were established for each combination of CMG/RIL/Age using data from all Ontario hospitals. Only those combinations of CMG/RIL/Age where at least one hospital had at least 30 cases will have a benchmark established. This approach limits the impact of anomalous performance targets based on low case volumes.

The best quartile benchmarks are the percent use of ambulatory procedures where one quarter of hospitals (with at least 25 cases) have a higher percent use of ambulatory care (and three quarters of hospitals are lower) and the acute length of stay where one quarter of hospitals have a shorter length of stay (and three quarters of hospitals have longer). The acute length of stay benchmarks and the opportunities to reduce lengths of stay exclude ALC days. The analyses only consider the acute portion of the length of stay in hospital.

For the day surgery analyses, estimates of opportunity are based on benchmarks from Ontario hospitals, by "CACS" and patient age, for:

- Hospitals with at least 25 IP/DS cases per year in CACS and patient age combination
- Elective inpatient surgical admissions, with LOS less than 4 days
- Day surgery cases that weren't immediately admitted to IP care

Benchmarks are calculated at "best practice" (i.e. most aggressive use of ambulatory care) and "best quartile" (i.e. the percent ambulatory care where one quarter of hospitals have a higher rate, and three quarters have a lower rate).

5.2 Clinical Efficiency Findings

5.2.1 Opportunities to Increase Use of Day Surgery

LWDH and most of its peer hospitals are maximizing the use of day surgery

The following table presents the potential to shift inpatient procedures to day surgery for LWDH and peer hospitals based on "Best Practice" and "Best Quartile" benchmarks. As can be seen, there is very little opportunity to significantly reduce use of IP days for surgery via further shifts to day surgery for LWDH and peers.

The opportunity to shift Inpatient procedures for LWDH is limited to 7 cases; the potential inpatient days to save is 9. LWDH performs among the best of the peer sites on this measure; no peer site has any significant opportunity. Most hospitals are already maximizing the use of day surgery.

Exhibit 66: 2016/17 Potential to Shift Inpatient procedures to Day Surgery for LWDH & Peer Hospitals – Based on "Best Practice" & "Best Quartile" Benchmarks

Hospital Site	Actual 2016/17			"Best Practice" BMs			"Best Quartile" BMs		
	DS Cases	IP Candidates	% Day Surg.	Cases Shift to DS	% IP Candidates to Shift	IP Days to Save	Cases Shift to DS	% IP Candidates to Shift	IP Days to Save
Strathroy Middlesex	4,761	602	89%	161	27%	205	144	24%	182
Pembroke Regional	4,552	363	93%	196	54%	241	168	46%	211
Norfolk General	4,367	184	96%	109	59%	142	76	41%	101
Northumberland Hills	4,248	179	96%	109	61%	196	87	49%	138
Winchester DM	4,039	233	95%	136	58%	146	86	37%	91
Leamington DM	4,095	52	99%	25	48%	37	14	27%	17
Collingwood Gen.	3,699	331	92%	56	17%	71	36	11%	49
Musk. Alg. - Bracebridge	3,815	120	97%	67	56%	113	56	47%	93
Musk. Algonq. - Huntsville	3,400	72	98%	46	63%	64	42	59%	58
Perth & SF - Smiths Falls	2,736	346	89%	53	15%	93	32	9%	54
West Parry Sound HC	2,479	213	92%	34	16%	54	32	15%	49
Perth & SF - Perth	2,127	118	95%	11	9%	19	10	8%	16
St. Joseph's, Elliot Lake	2,032	8	100%	4	48%	5	4	45%	5
Lake-Of-The-Woods District	1,660	73	96%	7	9%	9	7	9%	9
Temiskaming Hospital	1,596	14	99%	10	68%	16	9	64%	14
Hanover & District Hospital	1,574	31	98%	16	51%	26	15	47%	24
Kirkland & District Hospital	1,475	108	93%	39	36%	52	37	34%	47
Dryden Regional	1,159	163	88%	37	23%	66	36	22%	63
Renfrew Victoria Hospital	1,271	26	98%	14	52%	25	12	48%	22
Sioux Lookout MYW	1,163	31	97%	10	34%	12	9	30%	11
Riverside HCF Laverendrye	941	96	91%	7	7%	8	6	6%	7
South Br. Grey - Walkerton	752	11	99%	3	26%	4	3	26%	4
Huronia District Hospital	-	16	0%	-	0%	-	-	0%	-
Grand Total	57,941	3,390	94%	1,148	34%	1,604	921	27%	1,263

5.2.2 Opportunities to Reduce Inpatient Lengths of Stay

LWDH has an opportunity to achieve reductions in lengths of stay for its acute inpatients.

Comparisons show the theoretical percentage of inpatient days that could be saved if LOS benchmarks ("best practice" and 75th percentile) were achieved across the board.

- Smaller percentage of days to save means the hospital is already close to achieving benchmark performance.
- No hospital can achieve all of the benchmarks.

Exhibit 67: 2016/17 Length of Stay Reduction Opportunities for LWDH & Peer Hospitals – Based on "Best Practice" & "Best Quartile" Benchmarks

Hospital Site	2016/17 Actual			Days to Save @ BM		% of "Typical" Days to Save		Resulting LOS	
	"Typical" Cases	"Typical" Days	"Typical" LOS	"Best Practice"	"Best Quartile"	"Best Practice"	"Best Quartile"	"Best Practice"	"Best Quartile"
Pembroke Regional	4,551	18,365	4	1,490	1,311	8.1%	7.1%	3.7	3.7
Norfolk General Hospital	3,345	14,994	4.5	1,455	1,262	9.7%	8.4%	4	4.1
Huronia District Hospital	3,175	17,074	5.4	1,421	1,210	8.3%	7.1%	4.9	5
Collingwood Gen. & Marine	4,252	16,527	3.9	1,328	1,103	8.0%	6.7%	3.6	3.6
Northumberland Hills Hospital	3,680	14,033	3.8	1,153	931	8.2%	6.6%	3.5	3.6
Strathroy Middlesex	2,291	10,556	4.6	926	786	8.8%	7.4%	4.2	4.3
Perth & Smiths Falls - SF	1,799	7,351	4.1	872	789	11.9%	10.7%	3.6	3.6
Dryden Regional	1,141	4,991	4.4	845	762	16.9%	15.3%	3.6	3.7
Winchester District Memorial	2,868	8,447	2.9	760	630	9.0%	7.5%	2.7	2.7
Perth & Smiths Falls - Perth	1,194	6,823	5.7	734	638	10.8%	9.3%	5.1	5.2
Lake-Of-The-Woods District	1,620	6,462	4	707	626	10.9%	9.7%	3.6	3.6
Musk. Algonq. - Bracebridge	1,852	7,861	4.2	684	586	8.7%	7.5%	3.9	3.9
Sioux Lookout Meno-Ya-Win	1,868	6,894	3.7	650	595	9.4%	8.6%	3.3	3.4
West Parry Sound HC	1,928	8,266	4.3	627	560	7.6%	6.8%	4	4
Temiskaming Hospital	1,726	7,083	4.1	599	534	8.5%	7.5%	3.8	3.8
Renfrew Victoria Hospital	850	6,623	7.8	586	521	8.8%	7.9%	7.1	7.2
Leamington District Memorial	2,411	11,556	4.8	570	467	4.9%	4.0%	4.6	4.6
Musk. Algonq. - Huntsville	2,184	8,307	3.8	538	416	6.5%	5.0%	3.6	3.6
St. Joseph's, Elliot Lake	1,100	5,596	5.1	492	448	8.8%	8.0%	4.6	4.7
South Bruce Grey - Walkerton	1,311	4,032	3.1	475	440	11.8%	10.9%	2.7	2.7
Riverside HCF - Laverendrye	1,188	5,007	4.2	445	398	8.9%	7.9%	3.8	3.9
Kirkland & District Hospital	999	5,004	5	411	359	8.2%	7.2%	4.6	4.6
Hanover And District Hospital	927	4,123	4.4	119	97	2.9%	2.3%	4.3	4.3
Grand Total	48,260	205,975	4.3	17,886	15,468	8.7%	7.5%	3.9	3.9

LWDH could expect to reduce typical inpatient days by approximately 11%.

At best practice benchmarks, LWDH could expect to reduce typical inpatient days by approximately 11% (approximately 700 days, or 2 beds). This represents a greater opportunity than the majority of the peer sites. The great majority of this opportunity is concentrated within 5 Program Cluster Categories as can be seen in the exhibit below:

PCCs with the greatest opportunity to reduce length of stay.

- Other Internal Medicine
- Cardiology
- Pulmonary
- Gastro/Hepatobiliary
- General Surgery

Exhibit 68: LWDH PCCs with the greatest opportunities to reduce length of stay – Based on "Best Practice" & "Best Quartile" Benchmarks

Program Cluster Category	2016/17 Actual			Days to Save @ BM		% of "Typical" Days to Save		Resulting LOS	
	"Typical" Cases	"Typical" Days	"Typical" LOS	"Best Practice"	"Best Quartile"	"Best Practice"	"Best Quartile"	"Best Practice"	"Best Quartile"
Other Internal Medicine	193	1,122	5.8	202	200	18.0%	17.8%	4.8	4.8
Cardiology	170	767	4.5	115	98	15.0%	12.7%	3.8	3.9
Pulmonary	134	561	4.2	86	61	15.4%	10.8%	3.5	3.7
Gastro/Hepatobiliary	209	790	3.8	79	68	9.9%	8.7%	3.4	3.5
General Surgery	120	659	5.5	70	62	10.6%	9.3%	4.9	5
Obstetrics	186	355	1.9	29	26	8.1%	7.4%	1.8	1.8
Endocrinology	56	227	4.1	28	28	12.3%	12.3%	3.6	3.6
Orthopaedics	74	328	4.4	22	11	6.6%	3.4%	4.1	4.3
Other Reasons	41	256	6.2	18	18	6.9%	6.9%	5.8	5.8
Neonatology	187	359	1.9	15	15	4.2%	4.2%	1.8	1.8
Urology	53	193	3.6	15	11	7.7%	5.7%	3.4	3.4
Neurology	72	253	3.5	10	10	4.1%	4.1%	3.4	3.4
Otolaryngology	34	90	2.6	8	8	9.4%	9.4%	2.4	2.4
Psychiatry	24	58	2.4	8	8	14.2%	14.2%	2.1	2.1
Non-Acute	22	271	12.3	2	2	0.8%	0.8%	12.2	12.2
Vascular Surgery	2	25	12.5	-	-	0.0%	0.0%	12.5	12.5
Gynaecology	6	10	1.7	-	-	0.0%	0.0%	1.7	1.7
Nephrology	15	57	3.8	-	-	0.0%	0.0%	3.8	3.8
Plastic Surgery	5	28	5.6	-	-	0.0%	0.0%	5.6	5.6
Thoracic Surgery	-	-	-	-	-	-	-	-	-
Neurosurgery	6	17	2.8	-	-	0.0%	0.0%	2.8	2.8
Haematology	11	36	3.3	-	-	0.0%	0.0%	3.3	3.3
Grand Total	1,620	6,462	4	707	626	10.9%	9.7%	3.6	3.6

CMGs with the greatest opportunity to reduce length of stay.

The Case Mix Groups with the greatest opportunity to reduce length of stay are:

- Dementia
- COPD
- Heart Failure

These three CMGs represent almost 45% of the total opportunity.

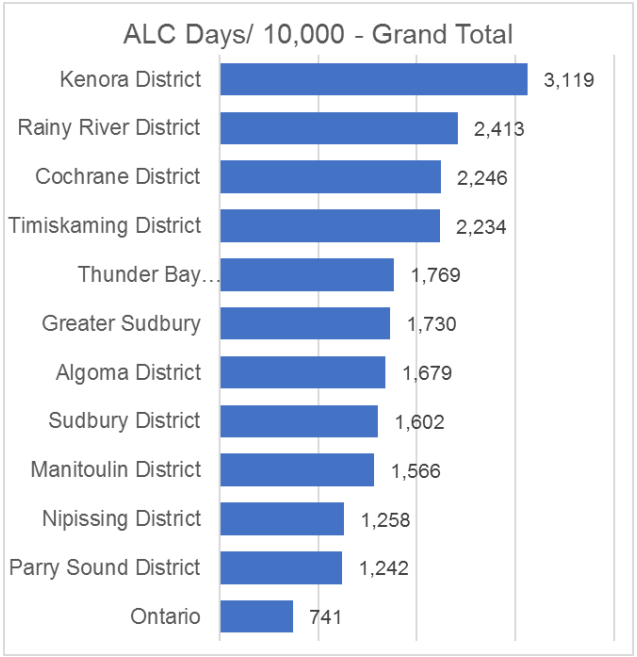
Exhibit 69: LWDH CMGs with the greatest opportunities to reduce length of stay – Based on "Best Practice" & "Best Quartile" Benchmarks

Case Mix Group	2016/17 Actual			Days to Save @ BM		% of "Typical" Days to Save		Resulting LOS	
	"Typical" Cases	"Typical" Days	"Typical" LOS	"Best Practive"	"Best Quartile"	"Best Practive"	"Best Quartile"	"Best Practive"	"Best Quartile"
670-Dementia	12	337	28.1	179	179	53.1%	53.1%	13.2	13.2
139-Chronic Obstructive Pulmon Dis	43	218	5.1	68	45	31.1%	20.5%	3.5	4
196 Heart Failure w/o Cor. Angiogram	40	220	5.5	55	42	24.9%	19.0%	4.1	4.5
257-Symptom/Sign Digestive System	40	119	3	32	27	26.7%	22.4%	2.2	2.3
175-PCI w MI/Shock/Arrest/Hrt Fail	21	112	5.3	29	29	25.5%	25.5%	4	4
287-Disorder of Pancreas exc Mal	37	133	3.6	27	25	20.7%	18.7%	2.9	2.9
223-Op Lrg Int/Rec Res wo Col,Plnd	9	75	8.3	26	26	34.7%	34.7%	5.4	5.4
437-Diabetes	23	77	3.3	24	24	31.8%	31.8%	2.3	2.3
202 Arrhythmia w/o Coronary Angiogram	39	120	3.1	23	19	19.2%	15.6%	2.5	2.6
321-Unilateral Knee Replacement	57	119	2.1	22	11	18.2%	9.3%	1.7	1.9
138-Viral/Unspecified Pneumonia	46	180	3.9	18	15	10.0%	8.5%	3.5	3.6
811-General Symptom/Sign	40	253	6.3	18	18	6.9%	6.9%	5.9	5.9
654-Other/Unspecified Septicemia	10	67	6.7	16	16	23.7%	23.7%	5.1	5.1
249-Non-Severe Enteritis	30	110	3.7	16	13	14.2%	12.1%	3.1	3.2
278-Lap Cholecystect w/wo CBD Expl	8	26	3.3	13	13	50.7%	50.7%	1.6	1.6
All Other CMGs	1,165	4,296	3.7	142	125	3.3%	2.9%	3.6	3.6
Grand Total	1,620	6,462	4	707	626	10.9%	9.7%	3.6	3.6

5.3 Discharge Dispositions and Alternate Level of Care

In fiscal year 2016/17, residents of the Kenora District discharged from acute care hospital had the highest ratio of ALC days per population of all Ontario counties, four times the provincial average.

Exhibit 70: 2016/17 ALC Days per 10,000 Age/Gender Standardized Population



Among the peer hospitals, in 2016/17 LWDH had the 2nd highest percent of days for medical/surgical discharges from acute care beds coded as alternate level of care days, 38.8%.

Exhibit 71: 2016/17 Medical/Surgical Discharge Activity by LWDH and Peer Hospitals

Hospital	Inpatient Cases			Inpatient Days			Avg. ALC LOS
	Total	ALC	% ALC	Total	ALC	% ALC	
Collingwood Gen. & Marine	3,710	237	6.4%	23,825	7,073	29.7%	29.8
Dryden Regional	1,210	22	1.8%	10,885	2,471	22.7%	112.3
Georgian Bay General	3,666	255	7.0%	24,904	4,720	19.0%	18.5
Hanover And District Hospital	995	21	2.1%	5,933	966	16.3%	46.0
Kirkland & District Hospital	1,276	66	5.2%	10,042	3,409	33.9%	51.7
Lake-Of-The-Woods District	1,764	101	5.7%	14,961	5,799	38.8%	57.4
Leamington District Memorial	2,316	127	5.5%	15,809	3,699	23.4%	29.1
Muskoka Algonquin	4,435	230	5.2%	26,062	4,394	16.9%	19.1
Norfolk General Hospital	3,273	82	2.5%	23,701	4,562	19.2%	55.6
Northumberland Hills Hospital	3,277	148	4.5%	18,717	2,531	13.5%	17.1
Pembroke Regional	3,717	206	5.5%	23,260	4,102	17.6%	19.9
Perth & Smiths Falls	3,048	192	6.3%	26,256	8,220	31.3%	42.8
Renfrew Victoria Hospital	1,103	28	2.5%	14,350	2,912	20.3%	104.0
Riverside HCF	1,174	64	5.5%	10,340	3,832	37.1%	59.9
Sioux Lookout Meno-Ya-Win	1,351	75	5.6%	13,856	4,233	30.5%	56.4
South Bruce Grey	641	27	4.2%	4,925	808	16.4%	29.9
St. Joseph's, Elliot Lake	1,382	76	5.5%	17,246	7,509	43.5%	98.8
Strathroy Middlesex	2,510	133	5.3%	14,954	2,749	18.4%	20.7
Temiskaming Hospital	1,308	35	2.7%	13,302	3,486	26.2%	99.6
West Parry Sound HC	2,030	103	5.1%	15,777	5,867	37.2%	57.0
Winchester District Memorial	1,613	45	2.8%	7,779	298	3.8%	6.6
Grand Total	45,799	2,273	5.0%	336,884	83,640	24.8%	36.8
LWDH Rank (of 21)	11	10	4	11	5	2	6

No discharges from LWDH to Complex Continuing Care.

In 2016/17, 37.4% of all LWDH days for acute care discharges were ALC days. There were no discharges from LWDH to Complex Continuing Care and only 2 patients were discharged to Inpatient rehabilitation.

5.2% of patients were discharged to LTC and represented 64.2% of all ALC days.

Only 5.2% of patients (114) were discharged to Long-Term Care, but these patients used 29.4% of all days, and accounted for 64.2% of all ALC days.

Exhibit 72: LWDH 2016/17 Cases, Days & ALC Days by Discharge Disposition: All

Discharge Disposition	IP Cases			IP Days			% of Total in Disch. Disp.			
	All	ALC	% ALC Cases	Total	ALC	% ALC Day	Cases	ALC Cases	Days	ALC Days
Acute	171	4	2.3%	916	259	28.0%	7.8%	3.8%	5.7%	4.3%
CCC	-	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%
Died	85	37	43.5%	1,583	1,045	66.0%	3.9%	35.6%	9.8%	17.4%
Home	1,475	20	1.4%	5,865	395	6.7%	67.4%	19.2%	36.5%	6.6%
Home Care	309	19	6.1%	2,908	455	15.6%	14.1%	18.3%	18.1%	7.6%
LTC	114	24	21.1%	4,732	3,866	81.7%	5.2%	23.1%	29.4%	64.2%
Other	11	-	0.0%	24	-	0.0%	0.5%	0.0%	0.1%	0.0%
Psych	22	-	0.0%	47	-	0.0%	1.0%	0.0%	0.3%	0.0%
Rehab	2	-	0.0%	6	-	0.0%	0.1%	0.0%	0.0%	0.0%
Grand Total	2,189	104	4.8%	16,081	6,020	37.4%	100%	100%	100%	100%

Exhibit 73: LWDH 2016/17 Cases, Days & ALC Days by Discharge Disposition: Medicine

Discharge Disposition	IP Cases			IP Days			% of Total in Disch. Disp.			
	All	ALC	% ALC Cases	Total	ALC	% ALC Day	Cases	ALC Cases	Days	ALC Days
Acute	139	4	2.9%	821	259	31.5%	9.4%	4.5%	6.5%	5.0%
CCC							0.0%	0.0%	0.0%	0.0%
Died	81	35	43.2%	1,394	956	68.6%	5.5%	39.3%	11.0%	18.5%
Home	956	17	1.8%	4,315	341	7.9%	64.4%	19.1%	34.2%	6.6%
Home Care	184	13	7.1%	2,027	354	17.5%	12.4%	14.6%	16.1%	6.8%
LTC	99	20	20.2%	4,023	3,271	81.3%	6.7%	22.5%	31.9%	63.1%
Other	6	-	0.0%	16	-	0.0%	0.4%	0.0%	0.1%	0.0%
Psych	18	-	0.0%	26	-	0.0%	1.2%	0.0%	0.2%	0.0%
Rehab	2	-	0.0%	6	-	0.0%	0.1%	0.0%	0.0%	0.0%
Grand Total	1,485	89	6.0%	12,628	5,181	41.0%	100%	100%	100%	100%

Medicine discharges in 2016/17 accounted for 41.0% of all ALC days.

Medicine discharges in 2016/17 accounted for 41.0% of all ALC days. Medicine discharges for patients ultimately discharged to LTCH represented 63.1% of the medicine ALC days.

Surgery discharges accounted for 26.5% of all ALC days in 2016/17.

Surgery discharges accounted for 26.5% of all ALC days in 2016/17, however only 4.3% of surgical discharges had any ALC days. 62.1% of all ALC days for Surgery discharges were for the 3 patients ultimately discharged to LTCH.

Exhibit 74: LWDH 2016/17 Cases, Days & ALC Days by Discharge Disposition: Surgery

Discharge Disposition	IP Cases			IP Days			% of Total in Disch. Disp.			
	All	ALC	% ALC Cases	Total	ALC	% ALC Day	Cases	ALC Cases	Days	ALC Days
Acute	26	-	0.0%	89	-	0.0%	9.3%	0.0%	3.8%	0.0%
CCC							0.0%	0.0%	0.0%	0.0%
Died	4	2	50.0%	189	89	47.1%	1.4%	16.7%	8.1%	14.4%
Home	112	1	0.9%	709	44	6.2%	40.1%	8.3%	30.4%	7.1%
Home Care	124	6	4.8%	878	101	11.5%	44.4%	50.0%	37.6%	16.3%
LTC	11	3	27.3%	465	384	82.6%	3.9%	25.0%	19.9%	62.1%
Other	2	-	0.0%	3	-	0.0%	0.7%	0.0%	0.1%	0.0%
Psych	-	-		-	-		0.0%	0.0%	0.0%	0.0%
Rehab	-	-		-	-		0.0%	0.0%	0.0%	0.0%
Grand Total	279	12	4.3%	2,333	618	26.5%	100%	100%	100%	100%

LWDH has the second highest percentage of ALC days.

LWDH had the 11th highest Medicine discharge case volume; yet the second highest percentage of ALC days of the peer hospital sites and the third highest number of ALC days.

Exhibit 75: Inpatient Cases, Days, and ALC For LWDH and Peer sites - Medicine

Hospital Site	IP Cases			IP Days		
	All	ALC	% ALC Cases	Total	ALC	% ALC Day
Collingwood Gen. & Marine	2,811	182	6.5%	18,937	6,097	32.2%
Dryden Regional	905	21	2.3%	9,693	2,413	24.9%
Hanover And District Hospital	867	20	2.3%	5,306	850	16.0%
Huronia District Hospital	3,289	233	7.1%	22,575	4,479	19.8%
Kirkland & District Hospital	1,021	59	5.8%	8,023	2,731	34.0%
Lake-Of-The-Woods District	1,485	89	6.0%	12,628	5,181	41.0%
Leamington District Memorial	1,955	113	5.8%	13,466	3,335	24.8%
Musk. Algonq. - Bracebridge	1,754	105	6.0%	11,231	1,912	17.0%
Musk. Algonq. - Huntsville	1,938	100	5.2%	11,017	2,047	18.6%
Norfolk General Hospital	2,676	79	3.0%	21,010	4,459	21.2%
Northumberland Hills Hospital	2,739	127	4.6%	16,142	2,292	14.2%
Pembroke Regional	2,957	182	6.2%	20,383	3,811	18.7%
Perth & Smiths Falls - Perth	1,264	71	5.6%	12,435	3,746	30.1%
Perth & Smiths Falls - SF	979	96	9.8%	8,119	2,717	33.5%
Renfrew Victoria Hospital	1,014	27	2.7%	13,334	2,867	21.5%
Riverside HCF - Laverendrye	1,005	58	5.8%	9,306	3,686	39.6%
Sioux Lookout Meno-Ya-Win	1,190	66	5.5%	12,272	3,760	30.6%
South Bruce Grey - Walkerton	594	27	4.5%	4,718	808	17.1%
St. Joseph's, Elliot Lake	1,206	71	5.9%	15,645	7,240	46.3%
Strathroy Middlesex	1,505	101	6.7%	10,895	2,301	21.1%
Temiskaming Hospital	1,139	31	2.7%	11,298	3,274	29.0%
West Parry Sound HC	1,502	84	5.6%	12,266	4,942	40.3%
Winchester District Memorial	1,282	44	3.4%	6,982	284	4.1%
Grand Total	37,077	1,986	5.4%	287,681	75,232	26.2%
LWDH Rank (1 is high)	11	10	6	9	3	2

LWDH has the third lowest percentage of med/surg patients referred to home care.

At total of 61% of LWDH medical/surgical patients were discharged home (versus to another Institutional setting) in 2016/17; this is the second highest rate of discharge home among peer hospital sites. However, LWDH had the third lowest percentage (17%) among peer sites of Med/Surg discharges sent home without referral to home care. This compares to 21% for Riverside, 28% for Dryden. Sioux Lookout was the lowest among peer hospital sites at 4%.

Exhibit 76: Discharge Disposition of Med/Surg cases for LWDH and Peers

Hospital Site	Med/ Surg Disch.	% Distribution of Med/Surg Discharges by Discharge Disposition								
		Home	Home Care	Acute	LTC	Died	Rehab	CCC	Other	Psych
Collingwood Gen. & Marine	3,710	54%	23%	6%	7%	4%	2%	0%	2%	1%
Dryden Regional	1,210	53%	28%	7%	3%	7%	0%	0%	1%	0%
Hanover And District Hospital	995	52%	19%	12%	11%	6%	0%	0%	0%	0%
Huronia District Hospital	3,666	43%	27%	7%	6%	6%	5%	3%	1%	2%
Kirkland & District Hospital	1,276	52%	23%	10%	9%	4%	1%	0%	1%	1%
Lake-Of-The-Woods District	1,764	61%	17%	9%	6%	5%	0%	0%	0%	1%
Leamington District Memorial	2,316	43%	21%	8%	16%	6%	6%	0%	0%	0%
Musk. Algonq. - Bracebridge	2,146	50%	23%	10%	8%	6%	0%	2%	1%	1%
Musk. Algonq. - Huntsville	2,289	49%	27%	9%	5%	4%	1%	1%	3%	1%
Norfolk General Hospital	3,273	56%	16%	5%	8%	4%	0%	9%	1%	0%
Northumberland Hills Hospital	3,277	44%	24%	8%	6%	8%	9%	0%	0%	0%
Pembroke Regional	3,717	59%	19%	5%	6%	4%	4%	2%	1%	0%
Perth & Smiths Falls - Perth	1,546	47%	23%	7%	14%	9%	0%	0%	0%	0%
Perth & Smiths Falls - SF	1,502	40%	31%	6%	13%	9%	0%	0%	0%	1%
Renfrew Victoria Hospital	1,103	38%	31%	4%	9%	7%	4%	1%	7%	0%
Riverside HCF - Laverendrye	1,174	54%	21%	11%	8%	5%	0%	0%	0%	1%
Sioux Lookout Meno-Ya-Win	1,351	80%	4%	11%	1%	3%	0%	1%	0%	0%
South Bruce Grey - Walkerton	641	40%	21%	17%	11%	7%	1%	1%	2%	0%
St. Joseph's, Elliot Lake	1,382	49%	24%	13%	5%	8%	1%	0%	0%	0%
Strathroy Middlesex	2,510	42%	32%	6%	10%	6%	3%	0%	1%	0%
Temiskaming Hospital	1,308	52%	23%	11%	6%	7%	0%	0%	0%	0%
West Parry Sound HC	2,030	53%	22%	6%	6%	6%	4%	0%	0%	1%
Winchester District Memorial	1,613	58%	22%	6%	5%	5%	0%	3%	0%	0%
Grand Total	45,799	51%	23%	8%	7%	6%	3%	1%	1%	1%
LWDH Rank (1 is high)	11	2	21	9	16	17	19	18	13	3

To place the LWDH discharge disposition percentages in the overall provincial context, the table below shows the average percent discharge disposition for medical/surgical discharges from Ontario hospitals by LHIN.

Exhibit 77: 2016/17 Percent Distribution of Acute Care Medical/Surgical Discharges by Disposition by LHIN

Hospital LHIN	Med/ Surg Disch.	% Distribution of Med/Surg Discharges by Discharge Disposition								
		Home	Home Care	Died	LTC	Acute	Rehab	CCC	Other	Psych
Central	70,516	60.5%	20.8%	4.4%	5.3%	2.7%	3.5%	2.2%	0.4%	0.2%
Central East	85,470	54.1%	21.7%	6.2%	5.7%	4.4%	4.7%	2.0%	0.8%	0.3%
Central West	38,053	54.6%	28.4%	4.8%	4.9%	3.3%	2.8%	0.6%	0.2%	0.3%
Champlain	84,003	58.3%	20.3%	4.5%	5.5%	4.7%	3.8%	2.0%	0.6%	0.3%
Erie St. Clair	38,257	51.2%	25.2%	5.6%	5.7%	4.2%	5.6%	1.4%	0.6%	0.3%
HNHB	100,249	51.4%	26.3%	4.8%	5.3%	4.5%	2.5%	4.1%	0.6%	0.4%
Miss. Halton	55,713	56.9%	23.6%	5.1%	3.7%	3.0%	4.6%	2.2%	0.6%	0.2%
North East	48,761	54.3%	23.6%	5.4%	4.4%	7.6%	2.1%	1.6%	0.4%	0.6%
North West	22,600	57.7%	20.2%	4.1%	3.4%	7.3%	2.1%	4.2%	0.6%	0.4%
Nth. Simcoe Musk.	29,897	51.6%	26.9%	5.0%	5.8%	5.6%	2.1%	0.8%	1.3%	0.9%
South East	34,972	51.5%	27.9%	5.4%	4.6%	4.5%	3.0%	1.8%	0.9%	0.3%
South West	77,852	50.4%	28.3%	4.6%	5.8%	5.9%	2.3%	1.5%	0.8%	0.5%
Toronto Central	132,283	64.1%	18.3%	3.6%	2.8%	3.3%	5.5%	1.9%	0.2%	0.2%
Waterloo Well.	39,323	49.1%	31.0%	4.3%	4.4%	4.9%	3.2%	1.6%	1.0%	0.5%
Grand Total	857,949	55.7%	23.6%	4.8%	4.8%	4.5%	3.7%	2.1%	0.6%	0.4%
North West Rank (1 is high)	14	4	13	13	13	2	14	1	9	6

NWLHIN hospitals have the lowest rate of discharge of inpatients to rehabilitation beds.

Overall, the hospitals in the North West LHIN have the 2nd lowest percent of acute care medical/surgical discharges coded as having been referred to home care. Only the Toronto Central LHIN hospitals (where funding was shifted from home care to hospital ambulatory clinics for rehabilitation) has a lower rate.

The North West LHIN hospitals have the lowest rate of discharge of medical/surgical inpatients to designated rehabilitation beds. While the overall rate of discharge of North West LHIN medical/surgical inpatients to a complex continuing care (CCC) bed is the highest in the province, LWDH patients are never discharged to a CCC bed.

ALC days account for 81.3% of the length of stay for patients discharged to LTC.

For Medicine patients discharged to LTCH, the peer average percentage ALC days is 61.6%; LWDH had the third highest percentage among the peer hospital sites at 81.3%. LWDH had the 15th highest number of patients discharged to LTCH, but the second highest number of ALC days.

Exhibit 78: Inpatient Cases, Days, and ALC For LWDH and Peer sites – Medicine – Discharged to LTC

Hospital Site	IP Cases			IP Days		
	All	ALC	% ALC Cases	Total	ALC	% ALC Day
Collingwood Gen. & Marine	210	43	20.5%	4,218	2,940	69.7%
Dryden Regional	33	8	24.2%	1,659	1,331	80.2%
Hanover And District Hospital	102	10	9.8%	1,235	532	43.1%
Huronia District Hospital	221	21	9.5%	2,453	1,007	41.1%
Kirkland & District Hospital	101	13	12.9%	2,249	1,519	67.5%
Lake-Of-The-Woods District	99	20	20.2%	4,023	3,271	81.3%
Leamington District Memorial	340	36	10.6%	3,948	2,013	51.0%
Musk. Algonq. - Bracebridge	154	14	9.1%	1,400	468	33.4%
Musk. Algonq. - Huntsville	108	14	13.0%	1,176	513	43.6%
Norfolk General Hospital	245	21	8.6%	4,151	1,963	47.3%
Northumberland Hills Hospital	197	17	8.6%	1,955	1,067	54.6%
Pembroke Regional	192	27	14.1%	2,334	902	38.6%
Perth & Smiths Falls - Perth	181	30	16.6%	4,203	2,385	56.7%
Perth & Smiths Falls - SF	149	32	21.5%	2,749	1,623	59.0%
Renfrew Victoria Hospital	94	11	11.7%	2,857	1,307	45.7%
Riverside HCF - Laverendrye	89	18	20.2%	3,391	2,744	80.9%
Sioux Lookout Meno-Ya-Win	7	2	28.6%	519	197	38.0%
South Bruce Grey - Walkerton	71	19	26.8%	1,361	694	51.0%
St. Joseph's, Elliot Lake	64	13	20.3%	5,254	4,549	86.6%
Strathroy Middlesex	188	27	14.4%	2,633	1,234	46.9%
Temiskaming Hospital	80	18	22.5%	3,572	2,654	74.3%
West Parry Sound HC	105	17	16.2%	3,144	2,568	81.7%
Winchester District Memorial	74	9	12.2%	478	58	12.1%
Grand Total	3,104	440	14.2%	60,962	37,539	61.6%
LWDH Rank (1 is high)	15	9	9	5	2	3

5.4 Non-Acute Hospital Beds

The analyses presented previously in this report show that:

- Kenora District residents have the highest rate of use of ALC days in acute care beds in the province, four times the provincial average;
- Medical/surgical patients discharged from LWDH have 38.8% of their inpatient days coded as ALC (i.e. non-acute, waiting for access to care); and
- In 2016/17, no LWDH inpatients were transferred to a chronic care bed, and only two patients were transferred to an inpatient rehab bed.

Kenora District patients are not getting access to rehabilitation beds.

Some of the high rate of Medicine and ALC for Kenora District patients can be attributed to the lack of availability of dedicated rehabilitation beds. Residents of Kenora use less than half of the Inpatient Rehabilitation (per population) than residents of Thunder Bay, and also less than residents of Rainy River. This suggests that Kenora District patients are not getting access to rehabilitation beds in other hospitals (or understandably, do not want to travel away from home for IP rehabilitation).

Kenora hip fracture patients get virtually no inpatient rehab; this is contrary to the latest evidence.

Kenora hip fracture patients get virtually no inpatient rehabilitation; this is contrary to the latest evidence. LWDH reports, however, that rehabilitative care is provided in medical beds, and this would account for some of the apparent over-utilization of Medicine Days

Exhibit 79: 2016/17 Inpatient Rehabilitation DAYS in Ontario Hospitals per 10,000 age/gender standardized population

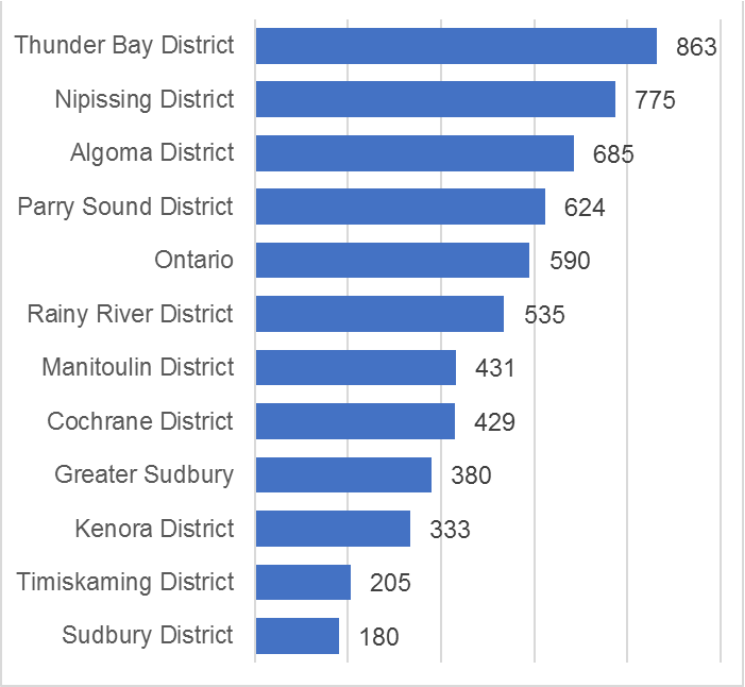
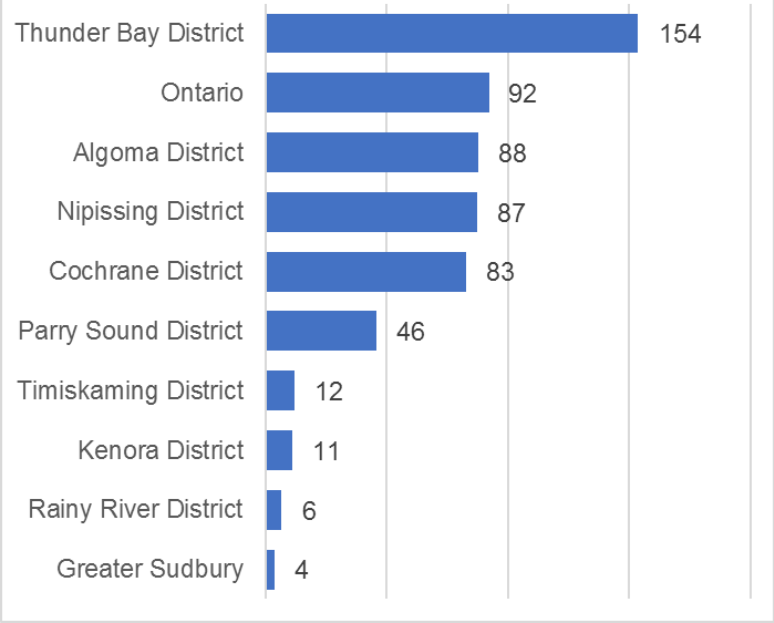


Exhibit 80: 2016/17 Inpatient Rehabilitation DAYS in Ontario Hospitals for Hip Fracture per 10,000



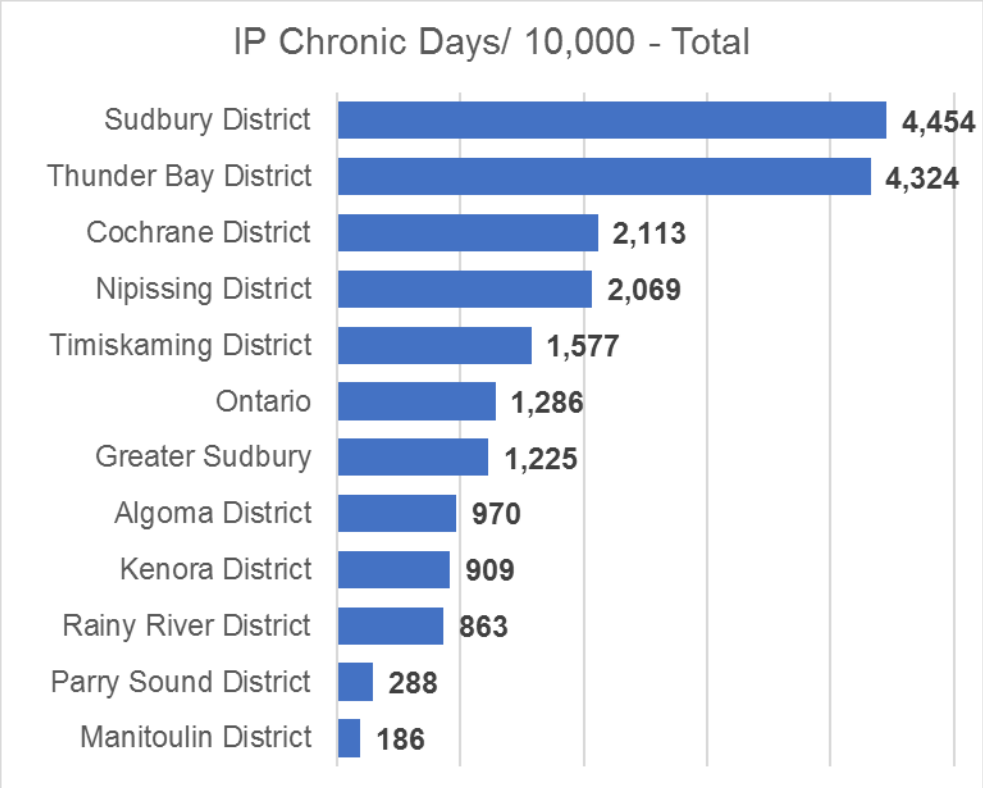
Utilization of chronic care beds by Kenora District residents was less than one quarter the rate of Thunder Bay District residents.

Prior to 2011/12, LWDH reported 10 of their inpatient beds as chronic or complex continuing care beds. The designation of these 10 beds was changed to acute care in 2011/12. We understand that this change in designation was partially driven by the LWDH wish to avoid the administrative burden of regular assessment and classification of the patients in these beds using the Continuing Care Reporting System (CCRS) Resource Utilization Group (RUG) client assessment tool.

Lack of local access to chronic beds appears to be a barrier to use of the chronic care.

In 2016/17, the rate of utilization of inpatient chronic care beds by Kenora District (and Rainy River District) residents was less than one quarter the rate of utilization by Thunder Bay District residents. Lack of local access to chronic beds appears to be a barrier to use of the chronic level of care.

Exhibit 81: 2016/17 Inpatient Chronic DAYS in Ontario Hospitals per 10,000 age/gender standardized population



Access to the rehabilitative level of bedded care has been emphasized as an important component of the Ontario health system.

Access to the rehabilitative level of bedded care has been emphasized as an important component of the Ontario health system through the work of the Ontario Rehabilitative Care Alliance (RCA). The North West LHIN is a member of the RCA and in May 2017 published its "Rehabilitation and Complex Continuing Care Capacity Plan". The executive summary of that report stated (emphasis added):

"Rehabilitative care is defined as "a broad range of interventions that result in the improved physical, mental and social wellbeing of those suffering from injury, illness or chronic disease." The importance of rehabilitation within the global context of healthcare has been well documented. In light of the ongoing changes and increased demand placed on the healthcare system, it has become increasingly important to identify optimal care practices and efficiencies. In the North West Local Health Integration Network (LHIN), the above average burden of chronic diseases and musculoskeletal disorders, combined with a widely dispersed population, present a unique challenge to providing equitable access to high quality rehabilitative care. In order to meet this challenge, ***the North West LHIN is committed to ensuring all aspects of rehabilitative care within the region are delivered within an integrated system, including care provided as close to home as possible.***"

Under the RCA planning guidelines, there are clear expectations and standards for the care that is expected to be provided in each level of bedded rehabilitative care. The table below describes the characteristics of patients requiring complex medical management who would normally be found in Chronic beds.

Exhibit 82: Rehabilitative Care Alliance (RCA) Definitions Framework for the Complex Medical Management Level of Bedded Rehabilitative Care

Characteristics		Short Term Complex Medical Management	Long Term Complex Medical Management
Functional Trajectory		Stabilization & Progression	Maintenance
Patient Characteristics	*Level of Care - Goal*	• To provide medically complex and specialized services *to avoid further loss of function, increase activity tolerance and progress patient* so that the patient may be able to go home OR may be able to be discharged to another level of (rehabilitative) care wherever possible.	• To provide medically complex and specialized services over an extended period of time *to maintain, slow the rate of or avoid further loss of function* where "in the opinion of the attending physician, the patient requires chronic/complex continuing care and is, and will continue to be more or less a permanent resident in the hospital".
	Target Population	Patients who: • Are medically complex, with long-term illnesses or disabilities typically requiring: o Ongoing medical / nursing support; o Skilled, technology-based care not available at home or in long-term care facilities. o Assessment and active care management by specialized interprofessional teams. • On admission, typically have limited physical and/or cognitive capacity to engage in a rehabilitative care program due to medical complexity. However, it is believed that the patient has restorative potential and that this level of care will provide the opportunity to optimize restorative potential where possible and assess the patient's rehabilitative care needs following further stabilization of medical condition.	
	Functional Characteristics	Patients: • Are medically stable (although the patient may be at risk for an acute exacerbation) such that there is a clear diagnosis/prognosis; co-morbidities have been established; there are no undetermined acute medical issues (e.g. excessive shortness of breath, congestive heart failure); vital signs are stable; medication needs have been determined; and there is an established plan of care;16 however, some patients may experience temporary fluctuations in their medical status, which may require changes to medications/plan of care.	

Characteristics		Short Term Complex Medical Management	Long Term Complex Medical Management
Functional Trajectory		Stabilization & Progression	Maintenance
		Patients: • Require skilled nursing and medical care that cannot be met on an ongoing basis in other levels of rehabilitative care • For whom it is anticipated as their medical condition and tolerance improves, that they will be able to engage in limited rehabilitative activities (e.g. regain sitting balance, improve upper/lower extremity strength and coordination, increase transfers and functional mobility, assess and train patient/caregiver on optimal positioning, learning how to sequence activities through functional tasks, self-care with assistance, being up/walking for short periods)	Patients: • Require skilled nursing and medical care that cannot be met on an ongoing basis in LTC or other community setting • For whom it is anticipated, due to limited physical and/or cognitive capacity, that the degree of additional functional gain will be low
	Estimated Average LOS	• Up to 90 days	• Will remain in this level because the patient's functional status/medical care needs cannot otherwise be met in the community.
	Discharge Indicator	• Medical/functional recovery so as to allow patient to safely transition to the next level of rehabilitative care or an alternative level of care environment. • Patients who are unable to transition to another level of care and require ongoing care will be considered for transition to a long-stay level of care.	• The patient is designated to be more or less a permanent resident in the hospital and will remain until the medical/functional status changes so as to allow the patient to safely transition to another level of care or to the community.
Medical/Allied Health Resources	*Medical Care*	Physician assessment on admission. 24/7 on-call physician	
		• Access to scheduled physician care/daily medical oversight as clinically necessary	• Access to weekly physician follow-up/oversight • Up to 8 monitoring visits per month22
	Nursing Care	• Requires nursing care > 3 hours/day	
	Therapy Care	• Regulated health professionals available to maintain and maximize cognitive, physical, emotional and functional abilities through limited rehabilitative activities (e.g. regain sitting balance, improve upper extremity strength and coordination, increase transfers and functional mobility, assess and train patient/caregiver on optimal positioning, learning how to sequence activities through functional tasks, self-care with assistance, being up/walking for short periods)	• Regulated health professionals are available to maintain and optimize cognitive, physical, emotional and functional abilities
	Intensity of Therapy	• Up to 1 hour of rehabilitative activities as tolerated based on the patient's medical condition/tolerance.	• Regulated health professionals are available to maintain and optimize cognitive, physical, emotional and functional abilities
Reporting Tools		• CCRS-CCC	

The LWDH should re-designate 10 acute care beds as Chronic beds and offer care to patients in these beds that meets the RCA guidelines. The current patterns of use of bedded rehabilitative care by Kenora District residents shows that they do not have the same access to bedded rehabilitative care as the residents of Thunder Bay District.

While it is important in smaller hospitals to maintain a bed base that is flexible, we believe LWDH has opportunities to designate some of its acute med/surg beds more appropriately and cohort patients based on the level of care required; this should be done with appropriate changes in staffing levels and mix.

Recommendations

It is recommended that:

(26) The CEO should request, and the North West LHIN should support, the formal re-designation of 10 LWDH acute beds to Chronic beds. This should be done in conjunction with recommendation 42 (section 6.3) to review the entire bed map at LWDH to identify a bed configuration that will best meet the needs of patients.

(27) The North West LHIN, to support the implementation of its Rehabilitation and Complex Continuing Care Capacity plan, should ensure that Kenora residents have as equitable access to inpatient rehabilitation beds as residents of Thunder Bay.

6.0 Operating Efficiency

2016/17 performance of LWDH functional centres was compared with benchmark performance of the selected peer hospitals.

We compared 2016/17 (and the previous 3 years) performance of LWDH functional centres with the benchmark performance of selected peer hospitals. The performance benchmarks were derived from the statistical distribution (range) of peer hospital performance in 2016/17.

- Best Quartile: 25 % perform better, 75% perform worse
- Median: 50% perform better; 50% perform worse
- Worst Quartile: 75% perform better; 25 % perform worse

LWDH functional centre performance was compared to the performance of the following peer hospitals. The peer hospitals were selected because of similarities in size and range of clinical services.

Exhibit 83: Peer Hospitals for Analysis of Operating Efficiency

CODE	PEER HOSPITAL NAME
CGMH	640 Collingwood General and Marine Hospital
DRHC	647 Dryden Regional Health Centre
SJGH	650 St Joseph's General Hospital Elliott Lake
HDH	676 Hanover and District Hospital
KLDH	696 Kirkland and District Hospital
ESHC	704 Erie Shores HealthCare
GBGH	726 Georgian Bay General Hospital
PRH	763 Pembroke Regional Hospital Inc.
RV	788 Renfrew Victoria
NGH	804 Norfolk General Hospital
SMGH	814 Strathroy Middlesex General Hospital
WDMH	882 Winchester District Memorial Hospital
TH	888 Temiskaming Hospital
RHCF	900 Riverside Health Care Facilities Inc.
PSFDH	928 Perth and Smiths Falls District Hospital
NHH	940 Northumberland Hills Hospital
SBGHC	946 South Bruce Grey Health Centre
SLMHC	964 Sioux Lookout Meno-Ya-Win Health Centre
MAH	968 Muskoka Algonquin Healthcare

The overall benchmarking results suggest that:

- LWDH could theoretically achieve $6.60 million in savings (17.2%) from 2016/17 net operating costs if it could achieve the peer best quartile screening target[10] in all functional centres.

- LWDH could theoretically achieve $4.46 million in savings (11.7%) from 2016/17 net operating costs if it could achieve the peer median[11] quartile screening target in all functional centres.

LWDH could achieve $6.60 million in savings (17.2%) from 2016/17 net operating costs if it matched peer best quartile in all areas.

The theoretical savings represents the total theoretical adjustment required for those functional centres performing above the Best Quartile (BQ) and Median percentile screening targets to achieve the screening target. Results[12] are summarized in the following table.

Exhibit 84: LWDH Overall Benchmarking Results

Overall Benchmarking Results	2015/16		2016/17	
	FTEs	Net Total $	FTEs	Net Total $
Actual FTEs and Net Operating Costs	288.1	$36,898,655	283.9	$38,130,275
Calculated (Theoretical) Screening Potential @ Best Quartile	(67.3)	($6,878,524)	(63.2)	($6,602,376)
Percentage Change		(18.6%)		(17.3%)
Calculated (Theoretical) Screening Potential @ Median	(47.8)	($4,816,801)	(42.9)	($4,455,744)
Percentage Change		(13.1%)		(11.7%)

In practice, no hospital can perform at the best quartile in all areas.

In practice, no Canadian hospital can perform at the best quartile in all areas and therefore can never expect to achieve 100% of the total BQ theoretical savings target.

The following exhibit presents the overall LWDH screening percentage at BQ and median compared to the range of screening percentages for the peer hospitals. As can be seen, in comparison to the LWDH peer group of hospitals:

- LWDH's screening at the peer group BQ (17.3%) is just above (higher) than the peer group median
- LWDH's screening at the peer group Median (11.7) is just above (higher) than the peer group median

Broadly, these results suggest that LWDH has marginally greater opportunity to identify savings than do the peer facilities. A comparison to the screening results for each individual peer hospital are also presented.

[10] Productivity and "net cost" based performance measures are compared at peer best quartile performance. Variable Non-Labour costs are compared at peer median performance. Depreciation, Equipment and Medical Staff costs are maintained are not benchmarked.

[11] Productivity, "net cost" based performance measures are compared at peer median performance. Variable Non-Labour costs are compared at peer median performance. Depreciation, Equipment and Medical Staff costs are maintained are not benchmarked.

[12] Marketed Services, Fund Type 2 and Other Vote Functional Centres are excluded

Exhibit 85: 2016/17 Comparisons of BIG Number Screening Percentage - Median and Best Quartile Scenarios (% Reduction in Net Operating Costs)

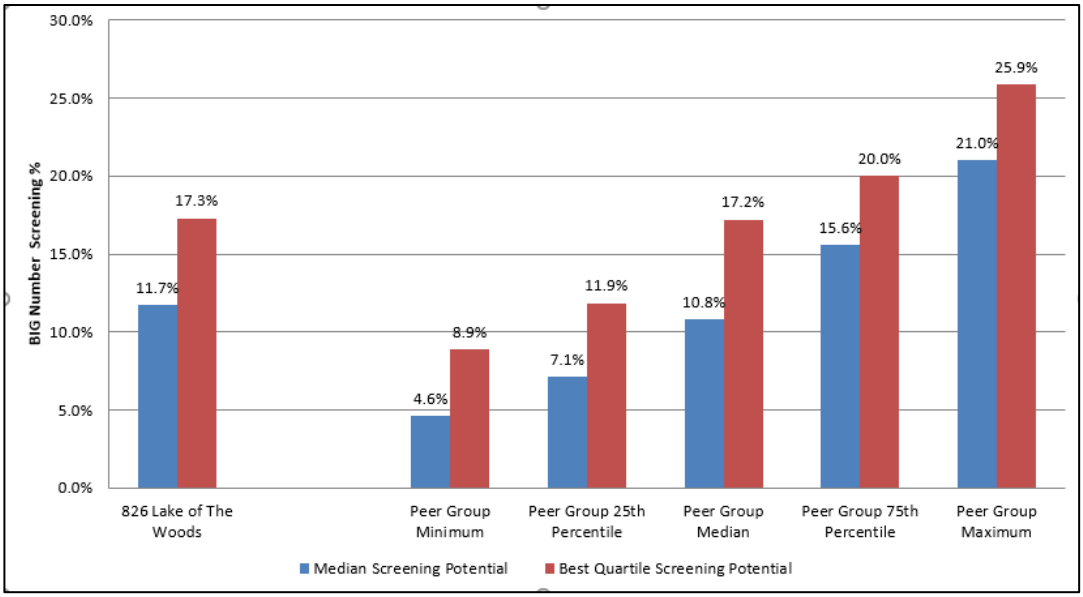
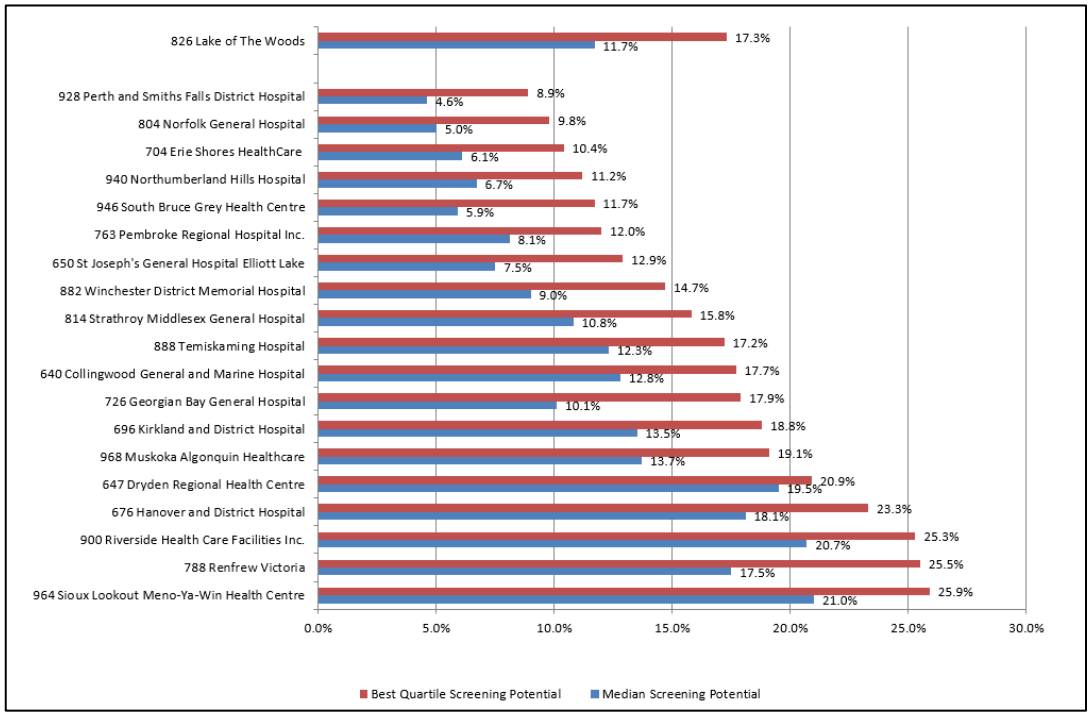


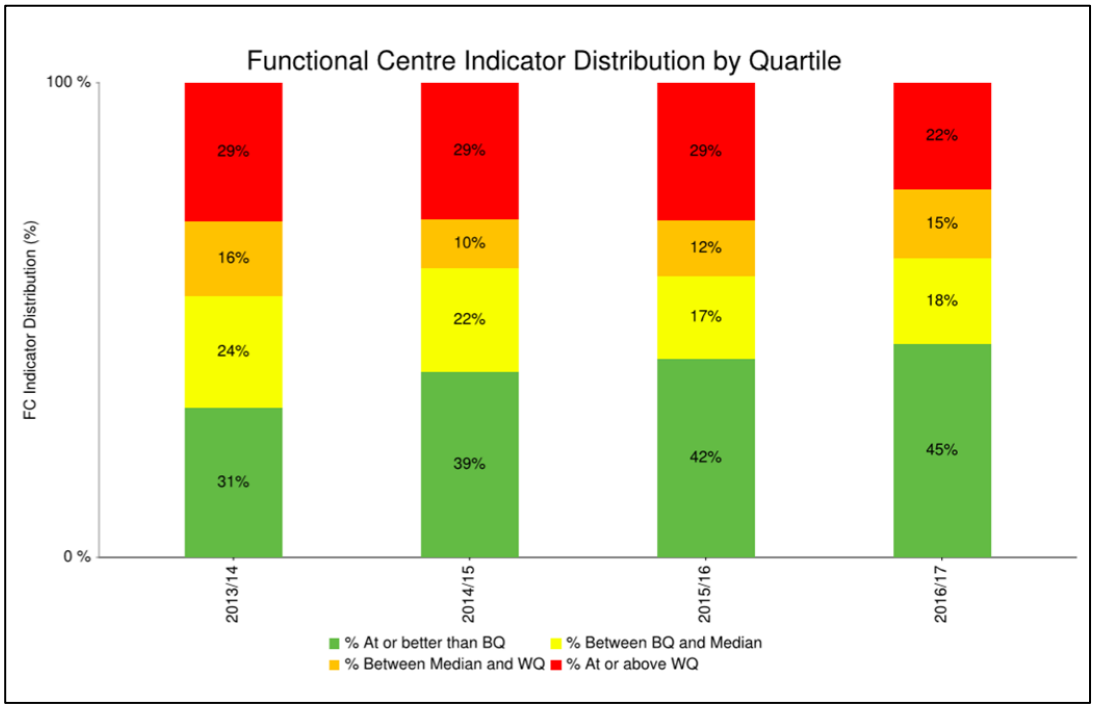
Exhibit 86: 2016/17 Comparisons of Calculated (Theoretical) Screening Potential - Median and Best Quartile Scenarios (% Reduction in Net Operating Costs)



In addition to the overall screening potential, our benchmarking analysis also calculates individual functional centre performance compared to peer hospital performance. Using these functional centre specific results, we can assess overall performance by looking at the proportion of functional centres operating within each quartile. As can be see, in 2016/17, most LWDH functional centres (63%) are operating at or better than the median performance of the peer hospitals; this represents an increase from 55% in 2013/14.

Exhibit 87: LWDH Functional Centre Performance Distribution by Peer Performance Quartile

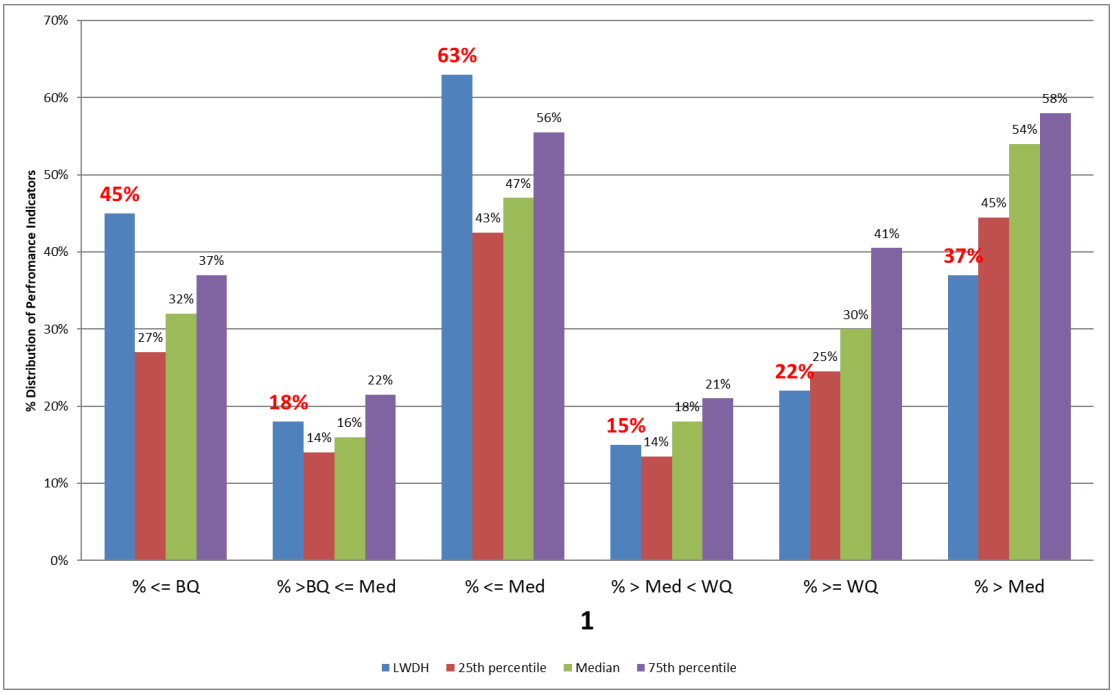
Most LWDH functional centres operate at or better than the median performance of the peer hospitals and many are operating at or better than the best quartile



Among the peer hospitals:

- LWDH has the 2nd highest/best % of indicators at or better than median
- LWDH has the 3rd highest/best % of indicators at or better than best quartile
- LWDH has the 3rd lowest/best % of indicators at or above the median
- LWDH has the 6th lowest/best % of indicators at or above the75th percentile

Exhibit 88: LWDH Functional Centre Performance Distribution by Peer Performance Quartile13



LWDH has been provided on-line access to the BIG Healthcare operational efficiency tools to conduct its own benchmarking analysis'.

As part of the Operational Review engagement, LWDH was provided with access to the BIG Healthcare on-line operational efficiency tools with 2016/17 data. Access to the BIG Healthcare Peer Benchmark Report Series on-line tools will allow LWDH to conduct its own benchmarking analysis and compare functional centre operating performance with Ontario peer hospitals. Multiple peer groups can be established[14], results are available on-line and reports can be downloaded as needed.

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[13] Productivity Indicators: worked hours per day/visit/attendance/workload unit/other for most direct care departments;

VNL Non-Drug Indicators: variable non-labour non-drug costs per day/visit/attendance/workload unit for most direct care departments;

Net Cost Based Indicators: Gross Operating Costs less recoveries, depreciation/equipment & medical staff costs;

- Net operating cost per workload for plant-related functional centres, Food Services, Personnel, Renal Dialysis; and
- Net operating costs as a percentage of direct care net operating costs, for corporate and some other services.

The calculation of peer performance ranges includes the removal of statistical outliers for productivity and net cost based indicators. Outliers are not removed for VNL Non-Drug indicators as the peer median performance is used for each screening scenarios.

[14] A comprehensive list of the more than 115 Ontario member hospitals is available on our website

6.1 Lines of Enquiry: Opportunities for Improvement in Operating Efficiency

Peer performance[15] comparisons are used as directional drivers to provide an indication of potential opportunities. The comparisons are not intended to be the answer nor the performance target; rather they identify potential opportunities to be further investigated.

For departments that do not report workload, the ratio of net operating costs to direct care net costs is used as a performance measure.

Note that for some of the administrative and support areas there are currently no appropriate specific/common workload measures that can be used to accurately measure and compare the department's performance and as such the ratio of net operating costs[16] to direct care net operating costs[17] is used. Comparisons based on these types of measures do not represent a direct linear relationship between inputs and outputs and are used as a relative indicator of performance. In smaller organizations relatively minor changes to either the input or output component can have a significant impact on these measures and subsequent comparisons.

Not all areas of the hospital were selected for review. Those areas selected included: 1) areas where the benchmarking comparisons suggested that there might be an opportunity for improvement in operating efficiency and/or cost reduction[18]; 2) areas that represented a significant component of their operations; and 3) areas specifically identified by the hospital for investigation.

The areas chosen for onsite visits (interviews with unit managers, tour of the units, and drop in sessions for feedback from front-line staff) and highlighted in this report are:

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[15] Productivity Indicators: worked hours per day/visit/attendance/workload unit/other for most direct care departments;

VNL Non-Drug Indicators: variable non-labour non-drug costs per day/visit/attendance/workload unit for most direct care departments;

Net Cost Based Indicators: Gross Operating Costs less recoveries, depreciation/equipment & medical staff costs;

- Net operating cost per workload for plant-related functional centres, Food Services, Personnel, Renal Dialysis; and
- Net operating costs as a percentage of direct care net operating costs, for corporate and some other services.

The calculation of peer performance ranges includes the removal of statistical outliers for productivity and net cost based indicators. Outliers are not removed for VNL Non-Drug indicators as the peer median performance is used for each screening scenarios.

[16] Net operating costs = gross operating costs less external recoveries, less depreciation/equipment costs and less any medical staff costs.

[17] Direct care areas: Nursing (Inpatient, Outpatient, Community) & Diagnostic and Allied Health areas (excludes administration areas).

[18] Given the challenges of recruitment and retention faced with most small Northern Ontario Hospitals we generally focused on the screening results using the peer median performance scenario.

Administration and Support Services:

- General Administration
- Finance
- Information Systems
- Admitting & Communications
- Health Records
- Environment Services
- Materials Management
- Food Services

Inpatient and Outpatient Services:

- 3E medicine/surgery
- ICU services
- 2E medicine
- Birthing services
- Mental Health services
- Emergency Department
- Ambulatory clinic services
- Nursing Administration, discharge/utilization

Diagnostic & Therapeutic Services:

- Clinical Laboratories
- Medical Imaging
- Pharmacy Services
- Physiotherapy

6.2 Administrative and Support Services

6.2.1 General Administration

The General Administration functional centre encompasses a wide range of areas/functions[19] that include: Executive Offices, Utilization Management, Public Relations, Planning & Development, Privacy Office, Risk Management and Infection Control, Quality Assurance, Internal Audit, and French Language Services. Hospitals are not required to report at these lower levels, only in the aggregate. Larger hospitals with sufficient critical mass are able to establish dedicated resources and report these lower level areas/functions, whereas in smaller hospitals such as LWDH, these functions are not discrete in themselves and are distributed across the resources reported with General Administration. For example, LWDH does not have a Public Relations Department/Officer and this function is the responsibility of the CEO (and others as required) to meet LWDH needs.

[19] As per the Ontario Hospital Reporting Standards

The performance indicator for General Administration is "Net Cost[20] as a Percentage of Direct Care Net Costs".

Exhibit 89: LWDH General Administration's Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Net Cost%Direct Care excl Eq/Med	5.39%	4.85%	5.78%	5.91%	9.7%

Functional Centre Data	4 Year Actual				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Workload Measure:					
Direct Care Costs excl Equipment/Med Staff	20,327,172	20,665,759	19,750,629	19,395,366	-4.6%
Worked Hours	9,904	9,808	10,234	9,818	-0.9%
Benefit Hours	2,322	2,211	2,558	2,247	-3.2%
Total Paid Hours	12,226	12,019	12,792	12,065	-1.3%
Total FTEs	**6.27**	**6.16**	**6.56**	**6.19**	**-1.3%**
Net Cost excl Eq/Med	$ 1,096,294	$ 1,002,244	$ 1,142,007	$ 1,147,129	4.6%

Exhibit 90: Peer Hospitals General Administration Services Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Net Cost%Direct Care excl Eq/Med	2.57%	3.62%	4.81%	5.29%	5.75%

In 2016/17 LWDH General Administration's performance indicator was the highest (worst) among peer hospitals.

In 2016/17 LWDH General Administration's performance indicator was the highest (worst) amongst its peers[21] and has increased by 9.7% over the past 3 years. This 9.7% increase is a combined result of the following:

- LWDH's Direct Care Net Costs decreased by 4.6% over the past 3 years (yearly average decrease of 1.2%).
- General Administration's Net Costs increased by 4.6% over the past 3 years (yearly average increase of 1.2%)
- General Administration's external recoveries[22] decreased by 82.4% over the past 3 years (yearly average decrease of 27.5%)

As noted earlier, for smaller hospitals relatively minor changes to either the input or output component can have a significant impact on these measures and comparisons. Also of note is that among the peer comparators there are various shared administrative/management service models in operation and a few of the

[20] Net Costs = Gross costs less external recoveries, depreciation/equipment & medical staff costs.

[21] There were 2 peer hospitals not included in the peer performance range as they were removed as statistical outliers with performance indicators more than twice that of LWDH.

[22] External recoveries (for services provided to other organizations, entities) are netted out of the department's operating costs for benchmarking purposes.

peers have higher direct care costs than LWDH allowing for better economies of scale thereby resulting in a lower performance indicator percentage.

To achieve median performance, LWDH would need to reduce[23] net expenses by 17.6% ($214,088). To achieve best quartile performance, net expenses would need to be reduced by 36.5% ($444,187).

Approximately 80% of the General Administration expenditures are staffing/compensation related. To achieve either the median or best quartile screening targets based solely on variable non-labour costs (VNL) is not possible (approximately $250,000 in VNL costs were incurred in 2016/17 a reduction of 12.2% over the last 3 years). Legal fees account for approximately 50% of the VNL costs and over 10% of the department's net operating costs (excluding depreciation and medical staff expenses) in 2016/17. In comparison to peer hospitals, LWDH's legal costs are significantly higher as shown in the following exhibits.

In comparison to peer hospitals, LWDH's legal costs are significantly higher.

Exhibit 91: LWDH Legal Fees

LWDH Legal Fees	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Professional Fees - Legal	$29,937	$50,949	$140,134	$121,596	306.2%
Legal Fees % General Admin Net Costs	2.73%	5.08%	12.27%	10.60%	288.2%

Exhibit 92: Peer Hospital Legal Fees

	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Legal Fees % General Admin Net Costs	0.00%	1.97%	2.72%	5.55%	14.30%

As discussed in Chapter 3 of this report, the current environment and working relationships have contributed to the rise in LWDH's legal costs. It is anticipated that these will decrease as conditions improve. We have estimated a potential savings of $100,000 in legal fees.

Staffing in General Administration has remained relatively consistent since 2013/14 and total compensation costs have increased by 6.2% over this time period (yearly average increase of about 2%). As in most Ontario hospitals, executive compensation has been frozen over this period. Staffing reported in the General Administration functional centre includes:

[23] Net expenses are reduced through reducing expenditures and/or increasing external recoveries. In 2013/14 recoveries from telephone rentals and phone cards were being incorrectly reported in the Administration functional centre and have since been correctly reported in the Communications functional centre.

- President/CEO
- 1 Executive Assistant
- 1 Administrative Assistant
- Infection and Prevention Control Practitioner
- Risk Manager
- 2 Vice Presidents:
    - VP, Patient Services & Chief Nursing Officer
    - VP, Corporate Services & Chief Financial Officer

The VP Mental Health and Addictions is not reported in General Administration, as it is part of the Community Mental Health and Addictions program.

The Executive Assistant provides clerical support to the CEO and Board and the Administrative Assistant provides clerical support to the Vice Presidents and Medical Directors (3), and to other senior staff[24] as needed.

The scope and breadth of the VP portfolios appear to be appropriate and consistent with peer hospitals, including the CEO's who also has direct reports.

Based on our on-site observations and interviews, the General Administration staffing and costs appear reasonable to support a stand alone organization the size and scope of services as LWDH. To achieve further cost efficiencies LWDH likely needs to investigate and pursue opportunities to consolidate/integrate services.

Recommendation

It is recommended that:

(28) LWDH should reduce legal fees by $100,000.

6.2.2 Finance Department

The performance indicator for the Finance Department is "Net Cost"[25] as a Percentage of Direct Care Net Costs".

Exhibit 93: LWDH Finance Department's Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Net Cost%Direct Care excl Eq/Med	2.02%	1.75%	1.67%	1.70%	-15.5%

[24] There is minimal if any clerical support in many of the LWDH administrative and support departments.

[25] Net Costs = Gross costs less external recoveries, depreciation/equipment & medical staff costs.

Exhibit 94: Peer Hospitals Information Systems Records Department Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Net Cost%Direct Care excl Eq/Med	1.31%	1.67%	2.28%	2.51%	3.20%

In 2016/17 LWDH Finance Department's performance indicator is at the peer best quartile and better than the peer median. The performance indicator has decreased (ie., improved) by 15.5% since 2013/14 as a combined result of the following:

In 2016/17 LWDH Finance Department's performance indicator is at the peer best quartile.

- LWDH's Direct Care Net Costs decreasing by 4.6% over the past 3 years (yearly average decrease of 1.2%).
- Finance's Net Costs decreasing by 19.3% over the past 3 years (yearly average decrease of 6.4%).
- Finance's external recoveries[26] increasing by 93.9% over the past 3 years (yearly average increase of 31.1%).

To achieve the best quartile and median screening targets LWDH would need to reduce the Finance department's net operating costs by 36.6% ($6,542).

Finance is overseen by the Manager of Finance/Health Records/Patient Registration/Communications. For reporting purposes, 50% of the Manager is reported in Finance department. Additional Finance staffing includes the following:

- 2 Accounts Receivable Clerks
- 1 Accounts Payable Clerk
- 1 Payroll Clerk
- 1 Senior Clerk

Key findings include the following:

- Services are provided Monday to Friday
- External recoveries include accounting and billing for the Emergency Physicians' AFA, administration of the Inpatient/Internal Medicine Program funding and administration of for the Central Ambulance Communication Centre.
- Staff provide cross coverage for vacations, admitting, switchboard, materials management. Hours are not charged to the respective areas where the coverage is provided.
- Ormed financial systems are utilized effectively

[26] External recoveries (for services provided to other organizations, entities) are netted out of the department's operating costs for benchmarking purposes.

There are no opportunities for savings in Finance.

Our review of the Finance staffing appears appropriate, in terms of size, staff categories and scope of services for a hospital the size of LWDH. From on our on-site interviews and analysis of information there are no opportunities for additional savings in this area.

6.2.3 Information Systems

The performance indicator for Information Systems is "Net Cost"[27] as a Percentage of Direct Care Net Costs".

Exhibit 95: LWDH Information Systems Department's Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Net Cost%Direct Care excl Eq/Med	1.87%	1.74%	2.09%	2.00%	7.0%

Exhibit 96: Peer Hospitals Information Systems Department Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Net Cost%Direct Care excl Eq/Med	2.38%	3.59%	3.95%	4.92%	5.88%

Information Systems performance is less than the peer minimum.

These peer comparisons indicate that the Information System's performance is less than the peer minimum. Comparisons of information systems performance are difficult and subject to interpretation. A lower percentage indicator does not necessarily suggest that sufficient resources are not being devoted to support an organization nor does a large percentage indicator necessarily reflect an over expenditure. The peer performance range also excludes outliers to calculate a statistical reliable peer range. Five peers were excluded from the peer range all with lower performance indicators than LWDH. It is also not possible to determine the scope of systems applications and technologies implemented.

The performance indicator used for these comparisons excludes depreciation and equipment costs (to account for differences in accounting for these types expenses) and also nets out recoveries received from providing services externally.

LWDH is a member of the regional information systems network.

LWDH is a member of the regional information systems network that is a shared service between Thunder Bay Regional Health Sciences Centre and St. Joseph's Care Group. The costs to staff and operate the regional network are centralized at TBRHSC who in turn charges the members, such as LWDH, with annual support fees. As such, these fees are often (and in LWDH's case) reported as equipment related expenses and as a result are not included in the performance indicator; thereby contributing to a lower calculated performance indicator. Other hospitals not operating in a shared network manner would have operating costs distinct

[27] Net Costs = Gross costs less external recoveries, depreciation/equipment & medical staff costs.

from equipment related costs and thereby would be included in the performance indicator. Whether or not the fees being paid by the regional partners are appropriate was not within the scope of this project.

Information Systems performance is at the peer median when depreciation/equipment costs are included.

When depreciation/equipment costs are considered as part of the performance comparison calculation, LWDH's performance is at the peer group median.

Exhibit 97: LWDH Information Systems Department's Performance – Including Dep/Equip

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Net Cost%Direct Care incl Eq/Med	4.7%	5.5%	5.4%	6.5%	36.8%

Exhibit 98: Peer Hospitals Information Systems Department Performance28 – Including Dep/Equip

	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Net Cost%Direct Care incl Eq/Med	2.9%	4.3%	6.5%	7.9%	11.0%

To achieve the peer groups best quartile performance level LWDH would need to reduce information systems total net operating costs by approximately 34% ($424,276). To realize these savings LWDH would need to significantly curtail their current investments in information technology and systems which could have significant adverse impacts to overall hospital operations.

In our experience smaller hospitals being part of networks such as this have access to systems and applications that would otherwise be cost prohibitive for them if they were to pursue these on their own. While LWDH benefits from access to systems that perhaps they likely could not afford on their own, as a member of network they are also share in the challenges of balancing the unique needs of each organization and the resources available. For example, the regional Meditech® system was implemented in 1999 and like many other Meditech® based organizations, the regional service is faced with significant upgrade costs to migrate to a more advanced clinical system and to continue to receive support/upgrades from the vendor. There will be a need to invest in enhanced technologies and system upgrades in the future.

There are no opportunities to reduce costs in Information Systems.

Based on our discussions, observations and analysis of information there are no opportunities to reduce costs in Information Systems.

[28] In calculating the peer performance range including depreciation/equipment costs, no statistical outliers were required to be removed.

6.2.4 Admitting and Communications

The Manager of Finance oversees Admitting and Communications (Switchboard). While these departments are required to be reported separately, the areas work in conjunction with one another providing coverage between areas and across functions. As such, staff are reported in their "home" functional centres rather than tracking and allocating resources by function/departments.

Each area is briefly discussed in the following sections.

6.2.4.1 Admitting (Registration)

Admitting/Registration is provided 7 days per week. Three shifts are provided Monday to Friday from 0700 to 2100. On weekends, coverage is provided for 5.5 hours per day that focuses on the ED. After hours admitting /registration is provided by staff in Communications (Switchboard).

The workload measure for Admitting is the number of Inpatient Registrations + 10% of the OP Registrations + Bookings. The performance indicators for Admitting are:

- Worked hours per Workload Measure
- Variable Non-Labour Non-Drug Cost per Workload Measure.

Exhibit 99: LWDH Admitting Department's Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Worked Hours/Workload	7.9671	1.0795	1.0049	0.9205	-88.4%
Var NL non-drug$/Workload	$ 16.62	$ 1.64	$ 1.18	$ 1.13	-93.2%

Exhibit 100: Peer Hospitals Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Worked Hours/Workload	0.7099	1.0613	1.5211	2.2407	2.9878
Var NL non-drug$/Workload	$ 0.00	$ 1.24	$ 2.00	$ 3.36	$ 4.94

Admitting Department's performance is better than the peer best quartile.

In 2016/17, LWDH Admitting Department's performance indicators were better than the peer best quartile of peer hospitals. Note that the registration workload performed by the Communications department during after-hours are included in the total department workload however the hours associated with this workload is reported under Communications.

There are no opportunities to reduce costs in Admitting.

Based on our discussions, observations and analysis of information there are no opportunities to reduce costs in Admitting.

6.2.4.2 Communications (Switchboard)

Communications (Switchboard) coverage is provided 24 hours 7 days per week. In addition to switchboard responsibilities the Communications Department serves as reception, registration for after hours, parking pass distribution, alarm monitoring and video security surveillance. Note that there is no on-site security presence at LWDH.

The performance indicator for Communications (Switchboard) is "Net Cost"[29] as a Percentage of Direct Care Net Costs".

Exhibit 101: LWDH Communication Department's Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Net Cost%Direct Care excl Eq/Med	1.55%	1.98%	2.08%	1.98%	27.2%

Exhibit 102: Peer Hospitals Communication Department Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Net Cost%Direct Care excl Eq/Med	0.67%	0.86%	0.97%	1.60%	1.82%

In 2016/17 the Communication department's performance was the highest (worst) of the peer groups and has increased by 27.2% since 2013/14. To achieve the best quartile and median screening targets LWDH would need to reduce the Communications department's 2016/17 net operating costs by 13.2% ($215,993) and 5.3% ($211,575) respectively.

In 2016/17 the worked hours reported in Communications were 8,904. The minimum worked hours required to provide a 24/7 service coverage is 8,760. The Manager has plans to further utilize nighttime communications staff when electronic health records scanning/archiving is introduced.

There are no opportunities to reduce costs in communications.

Based on our discussions, observations and analysis of information there are no opportunities to reduce costs in Communications.

6.2.5 Health Records

The performance indicator for Health Records is "Net Cost as a Percentage of Direct Care Net Costs".

[29] Net Costs = Gross costs less external recoveries, depreciation/equipment & medical staff costs.

Exhibit 103: LWDH Health Records Department's Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Net Cost%Direct Care excl Eq/Med	2.81%	2.99%	2.65%	2.69%	-4.3%

Exhibit 104: Peer Hospitals Heath Records Department Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Net Cost%Direct Care excl Eq/Med	1.67%	2.47%	2.92%	3.54%	4.53%

Health Records performance is between peer best quartile and median.

These peer comparisons indicate that the Health Record's performance is between the peer best quartile and median performance levels. To achieve the best quartile screening target LWDH would need to reduce the Health Record department's 2016/17 net operating costs by 7.9% ($41,362).

The Manager of Finance oversees the day-to-day operations of the Health Records department. Health Records provides transcription, coding and health records clerical services. Services are provided Monday to Friday. Staffing includes the following:

- 2 Transcriptionists
- 3 Coders (1 – Emergency, 1 – Day Surgery/Hemodialysis, 1 – Inpatients)
- 2 Clerical

Key findings include the following:

- Additional summer time staffing is provided to handle increased volumes of workload in transcription and clerical.
- At the time of this review there was approximately a 3-week backlog for day surgery/hemodialysis coding and 60-day backlog for inpatient discharge coding.
- There is currently no electronic scanning/archiving of patient records though there are plans to move forward with this. The Manager believes these functions can be absorbed with existing staffing (including use of Admitting/Communications staff).
- A back-end voice recognition system is used for transcription, whereby transcriptionists later edit the dictated report for accuracies.

Implementation of Front-End Speech Recognition Technology can provide further benefits.

While the current back-end speech recognition approach improves transcriptionists' efficiency and report turnaround, further efficiencies can be made by moving to a front-end speech recognition platform. These front-end systems encourage physicians to self-edit their reports as they dictate them.

Significant benefits can be realized from effectively using both back-end and front-end speech recognition platforms:

- Reducing document turnaround times;
- Reducing traditional transcription costs, help compensate for transcriptionist shortages and peak periods of activity;
- Improving physician productivity;
- Real time EMR integration with front-end technology; and
- Enhancing patient care through increased clinical record accuracy, inclusiveness and access.

Adoption of a front-end speech recognition platform would contribute to further efficiencies but would not be available in the short term and would require capital investment.

Like many Northern Ontario hospitals, LWDH is challenged with the recruitment and retention of qualified Health Records staff. Staff are typically trained internally and it is not uncommon for staff to leave to pursue opportunities elsewhere. Services are provided by in-house staff as the current collective agreements prohibit outsourcing.

A regional approach to providing transcription services should be pursued.

Given the difficulties in recruiting and retaining transcriptionists, a strategic review should be undertaken to identify the best service delivery model to meet the current and future needs of LWDH. This review should take into consideration in-house versus external provided services, use of technologies as well as considering a regional approach to transcription services.

There are no opportunities to reduce costs in Health Records.

Based on our discussions, observations and analysis of information there are no opportunities to reduce costs in Health Records.

Recommendation

It is recommended that:

(29) The VP, Corporate Services and Finance should undertake a strategic review of Transcription Services, as well as considering a regional approach to transcription services.

6.2.6 Environmental Services

Environmental Services encompasses: Housekeeping, Laundry and Linen, Plant Operations and Maintenance and Parking. A single Manager oversees the day-to-day management of these services. Approximately 2 years ago the Manager of Plant Operations and Maintenance retired and the position was not filled and the Manager of Housekeeping was given responsibility for Plant Operations and Maintenance. The Vice President of Corporate Services has taken on many of the capital/equipment related sourcing and procurement activities previously performed by the Director of Plant Operations and Maintenance.

There are no clerical/secretarial resources within Environmental Services and when needed, the Administrative Assistant may provide this support.

6.2.6.1 Housekeeping

The performance indicator for Housekeeping is "net cost per square metre maintained".

Exhibit 105: LWDH Housekeeping Department's Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Net Cost exclg Depn/Med per Square Metre	$ 80.97	$ 75.59	$ 74.61	$ 72.56	-10.4%

Exhibit 106: Peer Hospitals Housekeeping Department Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Net Cost exclg Depn/Med per Square Metre	$ 55.81	$ 65.72	$ 76.57	$ 96.17	$ 121.43

Housekeeping performance is between peer best quartile and median.

These peer comparisons indicate that the department's performance is between the peer best quartile and median performance levels. To achieve the best quartile screening target, LWDH would need to reduce the Housekeeping department's 2016/17 net operating costs by 9.4% ($116,331). Housekeeping's net cost per square metre has reduced by 10.4% since 2013/14.

Observations include the following:

- As noted earlier, the Manager of Housekeeping also oversees Laundry & Linen, Plant Operations and Maintenance and Parking Services.
- Core Housekeeping staffing is comprised of Housekeeping Aides and Janitors. Aides focus on standard housekeeping activities and cleaning whereas the Janitor's activities include wall washing, floor buffering, waste removal, waxing, etc. Janitors are also responsible for weekend soiled laundry pick up. Terminal cleaning is split between the Aides and Janitors.
- The Manager does the scheduling. Aides provide coverage from 0700 – 2000 (with staggered shifts), and Janitors provide coverage from 0700 – 2100 hours (with 2 shifts). Part time staff are casuals, with no guarantee of hours and it was reported that the number of call-ins are significant.
- Casual pool staff are cross trained with Food Service functions.
- Overtime hours are better (less) than the peer best quartile performance and sick hours are just above the peer best quartile performance.
- Many hospitals have moved away from separate Housekeeping job classifications and have consolidated functions into a single staff category. This provides increased scheduling flexibility and streamlining of job assignments/functions.

- Housekeeping services are provided to St. Joseph's Health Centre (4 nights per week) and the Morningstar Detox Centre (casual cleaning). Recoveries are received for the housekeeping services provided (based on hours of service provided).

There are no opportunities to reduce costs in housekeeping.

Based on our discussions, observations and analysis of information there are no opportunities to reduce costs in Housekeeping at this time.

6.2.6.2 Plant Operations and Maintenance

The performance indicator for Plant Operations and Maintenance is "net cost per square metre maintained"[30].

Exhibit 107: LWDH Plant Operations and Maintenance Department's Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Net Cost exclg Depn/Med per Square Metre	$ 21.02	$ 22.56	$ 21.06	$ 17.89	-14.9%

Exhibit 108: Peer Hospitals Plant Operations and Maintenance Department Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Net Cost exclg Depn/Med per Square Metre	$ 25.55	$ 37.36	$ 41.26	$ 49.65	$ 57.98

Plant Operations & Maintenance performance is less than the peer group minimum.

These peer comparisons indicate that the department's performance is less than the peer minimum performance level. The performance indicator improved by 14.9 % in 2016/17 primarily as a result of the retirement of the Manager of Plant Operations and Maintenance with no replacement.

An off-site (unmanned) plant is maintained (together with Laundry Services) consisting of 3 boilers and one chiller. Observations include the following:

Facilities management expertise is lacking.

- As noted earlier, the Manager retired approximately 2 years ago and the Housekeeping Manager was given responsibility for these services. The VP of Corporate Services also has taken on many of the capital/equipment related sourcing and procurement activities. At this time there is no in-house facilities management specific expertise to provide management of scheduled and unscheduled maintenance, grounds maintenance, in-house renovations and building operations systems.
- Current staffing consists of the following:

[30] Utility costs are excluded from these comparisons.

- 1 Electrician
- 1 Plumber
- 2 General Maintenance workers

On-site coverage is provided from 0630 to 1600 Monday to Friday (3 staggered shifts). Stand-by coverage is provided by 1 (rotating) staff member after hours.

- Plant Operations and Maintenance services are provided to St. Joseph's Health Centre and the Morningstar Detox Centre (casual cleaning). Recoveries are received for the services provided.
- An on-line maintenance worker order system is utilized.
- Currently Biomedical Engineering services report to the Director of Information Systems. This is an unusual reporting relationship as Biomedical Engineering in smaller facilities typically reports through the Plant Operations and Maintenance. The majority (16 of 19) of peer hospitals did not report a separate Biomedical Engineering department and may be reporting these services (either in-house or external contracting) under the Plant Operations and Maintenance.

Based on our discussions, observations and analysis of information there are no opportunities to reduce costs in Plant Operations and Maintenance.

There are no opportunities to reduce costs in Plant Operations and Maintenance.

There is a need for LWDH to invest in facilities management expertise either through in-house staffing or through a purchased service relationship with another hospital. This recommendation is not intended to diminish the efforts and work currently done by those responsible for these services. However, from a risk management perspective it is important that the required specific expertise is available to manage and maintain plant operations in complex facilities such as hospitals.

There is a need to invest in facilities management expertise.

The VP Corporate Services should also consider realignment of the Biomedical Engineering department to report through the Plant Operations and Maintenance portfolio. There are synergies to be gained through ensuring that the appropriate skills are used for the appropriate work, preventative maintenance routines are followed, etc.

Recommendations

It is recommended that:

(30) The VP Corporate Services should either recruit a Manager of Plant Operations and Maintenance or establish a shared management service with another hospital for these services.

(31) The VP Corporate Services should realign the reporting of the Biomedical Engineering Department to Plant Operations and Maintenance.

6.2.6.3 *Laundry & Linen*

The performance indicator for Laundry & Linen is "net cost per kilogram".

Exhibit 109: LWDH Laundry & Linen Cost Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Net Cost excl Eq/Med per Kg	$ 2.23	$ 2.02	$ 1.95	$ 2.10	-6.0%

Exhibit 110: Peer Hospitals Laundry & Linen Cost Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Net Cost excl Eq/Med per Kg	$ 1.23	$ 1.48	$ 1.58	$ 1.78	$ 2.35

Laundry & Linen costs are above the peer worst quartile.

These peer comparisons indicate that these costs are above the peer worst quartile performance levels. To achieve the best quartile and median screening targets LWDH would need to reduce Laundry & Linen costs by 27.0% ($111,261) and 22.6% ($92,918) respectively.

Observations include the following:

- Laundry services are provided on-site in a separate building from the hospital. This requires a vehicle and staff to transport laundry between the main hospital building and the laundry building, contributing to higher transportation costs.
- Services are also provided to St. Joseph's Health Centre and the Morningstar Detox Centre. Recoveries are received for the services provided. Approximately $7,000 in recoveries were reported for external services in 2016/17 and it is unclear if this covers the cost of the laundry services provided.
- Staffing consists of 4 full time laundry aides (Monday – Friday) and 1 seamstress 2 days per week. The seamstress repairs uniforms, linens, blankets, etc.
- A new chemicals contract has been negotiated that will result in savings of $1,400 – $2,400 per month.

Recommendation

It is recommended that:

(32) The Manager of Finance and Manager of Housekeeping should ensure that all costs are being recovered for externally provided laundry services.

6.2.6.4 Plant Security

There are currently no on-site staffed security services at LWDH.

There are currently no on-site staffed security services at LWDH, Morningstar or Community Programs. Doors are locked from 2300 to 0600. A card access system is used for entry and a panic button is being considered/evaluated for use. Video monitors are used by Communications (Switchboard) staff for surveillance. The lack of on-site security, particularly in the Emergency Department at nights has been an operational and risk management issue at the hospital for many years.

Security needs must consider various factors, such as: location of the hospital; the size of the hospital; and the types of patients receiving treatments. Hospitals must provide a safe and secure environment for staff, visitors and patients. Nine of the 18 peer hospitals report a distinct Security functional centre. This does not suggest that the other peer hospitals do not provide a security presence, as it is not uncommon for small hospitals to contract these services and report these costs as a non-labour expense under Plant Operations and Maintenance. Of the 65 Schedule 1 Mental Health hospital facilities in Ontario, the available data suggests that only 4 of these facilities do not have a security presence.

There is a need to provide on-site security coverage.

We support the need for 24/7 security services at LWDH. This issue is also discussed below (section 6.3.5) in relation to the Schedule 1 Psychiatric services. To provide one guard 24/7 requires 8,760 coverage hours on an annual basis. At a purchased service cost of $25 per hour this equates to an annual cost of $219,000. Further investigation and analysis is required to confirm the need for on-site security coverage 24/7; night security coverage may be sufficient.

Recommendation

It is recommended that:

(33) The CEO should initiate a plan to provide appropriate on-site security services.

6.2.7 Materials Management

The performance indicator for Materials Management is "Net Cost as a Percentage of Direct Care Net Costs". As per the Ontario Hospital Reporting Standards these costs include purchasing, logistics, stores and reprocessing. Reprocessing services are discussed under Chapter 7 of this report.

Exhibit 111: LWDH Materials Management Department's Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Net Cost%Direct Care excl Eq/Med	2.38%	1.99%	2.37%	2.77%	16.2%

Exhibit 112: Peer Hospitals Materials Management Department Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Net Cost%Direct Care excl Eq/Med	1.93%	2.38%	2.86%	3.30%	4.64%

Materials Management performance is between peer best quartile and median

These peer comparisons indicate that the performance of Materials Management's is between the peer best quartile and median performance levels. To achieve the best quartile screening target, LWDH would need to reduce the Materials Management department's 2016/17 net operating costs by 12.5% ($76,726) from across all areas reported under Materials Management.

Observations related to purchasing, stores and distribution include:

- Minimal staffing is in place, consisting of 1 Storekeeper for Materials Management; the balance of the staff work in MDR.
- During the current OR renovations, OR supply has been integrated in the main stores and will continue to be distributed from this location.
- A mixture of exchange carts and top up supply systems are utilized. Areas are replenished twice per week.
- A Procurement Committee is in place and efforts are made to standardize.
- On-line requisitioning is available through the ORMED Financial system.
- LWDH participates in the North Supply Chain Group and uses MedBuy contracts. Medical Mart is the primary vendor with deliveries received once per week.

The following exhibits provide a comparison of LWDH's medical surgical supply costs (excluding prosthetics, orthotics, etc.) as a percentage of direct care net costs.

Exhibit 113: LWDH Med/Surg Supply Cost as as a Percentage of Direct Care Net Costs

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Med/Surg Supplies % Direct Care Net Costs	4.84%	4.90%	5.23%	4.88%	0.8%

Exhibit 114: Peer Hospital Med/Surg Supply Cost as a Percentage of Direct Care Net Costs

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Med/Surg Supplies % Direct Care Net Costs	2.41%	4.73%	6.38%	7.33%	9.47%

There are no opportunities to reduce costs in purchasing, stores and distribution.

LWDH med/surgical costs are just above the peer best quartile.

Based on our discussions, observations and analysis of information there are no opportunities to reduce costs in the purchasing, stores, logistics and distribution components of Materials Management.

6.2.8 Patient & Non-Patient Food Services

The performance indicator for Food Services is "net cost per patient day". In this analysis both patient food services and non-patient food service functional centres are combined to account for differences in how hospitals allocate and report non-patient food service costs. All revenues and recoveries are netted[31] out to provide the net cost per patient day for providing food services at LWDH.

Exhibit 115: LWDH Food Services Cost Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Net Cost excl Eq/Med per Pt Day	$ 63.70	$ 58.54	$ 66.17	$ 61.06	-4.1%

Exhibit 116: Peer Hospitals Food Services Cost Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Net Cost excl Eq/Med per Pt Day	$ 37.19	$ 48.68	$ 51.32	$ 55.43	$ 75.41

Food Service performance is between peer worst quartile and peer maximum.

These peer comparisons indicate that these costs are between the peer worst quartile and peer maximum performance level. To achieve the best quartile and median screening targets LWDH would need to reduce Food Service costs by 19.7% ($220,025) and 15.5% ($173,127) respectively.

LWDH operates full service kitchen creating approximately 90% of food items from scratch. A Manager oversees the day-to-day operations and is supported with 2 part-time supervisors (3 days per week each).

Observations include the following:

- With the exception of food tray delivery to and from the patient bedside, the department is responsible for the complete patient food service cycle: ordering, production, platting, cart deliver/pickup, tray delivery/pickup, ware washing.
- There is a two-week no choice menu cycle. Consideration should be giving to moving to a one-week menu cycle.
- A room service option was implemented in 2015 for regular textured diets. Not all patients use this option and belt lines for tray assembly are still used. Room service tray delivery is by Food Services staff.
- Purchasing is through Sysco and Health Pro. Sysco deliveries are provided twice per week.
- Internal catering costs were reported as significant and resulting in wastage. In 2016/17 $15,630 in food costs were charged to other departments (these

[31] Depreciation and equipment costs are also excluded.

charges exclude labour costs). 11 of the 19 peers reported no internal catering charges.

- Nourishment (floor supplies) costs are reported as $6,000 - $8,000 per month ($72,000 - $96,000 annually). Items include sandwiches, milk, cookies, crackers, etc. There is opportunity to reduce these costs through the amount provided.
- The Cafeteria operates Monday to Friday from 0900 to 1400. The Manager believes that it may be operating at a break-even basis. Two aides staff the cafeteria between 0730 – 1530 (staggered shifts).
- Food costs are split 60/40 between hospital and cafeteria. On-site observations identified that many staff bring their meals.
- Vending was reported as a good revenue generating service. However the location of the vending machines do not promote easy access.
- In our experience it is difficult for many hospitals to directly operate cafeterias at a break-even point, much less create a profit.
- Meals on Wheels services is provided 5 days per week at a charge of $6 per meal. It uncertain if this covers the costs of providing this service. Member enrollment was reported as decreasing.
- An evening family tray service is provided at a nominal fee. It is uncertain if these fees cover the costs of providing this service.

A complete review of Food Services is warranted. The current operation is inefficient in relation what peer hospitals achieve and the service does not justify the expense. Other hospitals have made changes such as enhancing vending; discontinuing, limiting or outsourcing cafeteria and / or patient food services; introducing branded options; and combining efforts with other local organizations (LTC Homes). A full review of service options should be undertaken.

There are opportunities to reduce Food Service Costs.

Based on our discussions, observations and analysis of information it appears that Food Services has opportunities to reduce costs and achieve the peer median level of performance (a savings of $173,127)

Recommendation

It is recommended that:

(34) The VP Corporate Services and Manager of Food Services should undertake a review of food services and develop a plan to reduce costs and/or increase revenues by $173,000 and achieve the peer median performance level of $51.23 per patient day.

6.3 Inpatient and Outpatient Services

For each of these areas we reviewed:

- organization/management processes,
- facilities/equipment, and
- staffing/productivity.

The following sections provide a summary of our review and recommendations for the services noted above.

6.3.1 3E Medicine / Surgery

3E is a 25-bed mixed med/surg unit.

3E is a 25-bed unit that provides care to acute medicine patients and surgical patients. The surgical care unit includes day surgery patients coming from Recovery Room and additionally once per month orthopedic care for joint replacements done by a visiting surgeon Mondays and Tuesdays. This unit had approximately 83% occupancy or 20 beds occupied per day in 2016/17.

Exhibit 117: LWDH 3E Med/Surg Functional Centre Summary

Functional Centre Data	4 Year Actual				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Workload Measure:					
Patient Days	6,876	7,618	7,177	7,605	10.6%
Worked Hours	47,759	47,303	47,348	47,750	0.0%
Benefit Hours	7,759	8,618	8,193	7,326	-5.6%
Total Paid Hours	55,518	55,921	55,541	55,076	-0.8%
Total FTEs	**28.47**	**28.68**	**28.48**	**28.24**	**-0.8%**

The unit, like many in older hospitals, has challenges with the physical facility, particularly for the storage of supplies and equipment. The hallway is full of equipment as there is no other place to conveniently store such items. Rooms are small and make it difficult for moving patients in and out of the rooms.

The staffing model for this unit includes a hospital attendant; this role is actually split between both the second and third floor. There would be advantage to patient care if the attendant role was a personal support worker role (PSW) or PSW trained. This would contribute to increased flexibility in care assignment. The unit appears to have an appropriate mix of RN/RPN compared to peers. When the census in the ICU is low, staff from the ICU help on 3E but appropriately do not take a patient assignment so that they are available to return to the ICU as required.

Recommendation

It is recommended that:

(35) The VP Patient Care and the Manager should ensure a process to transition the Hospital Attendant Role to a PSW role.

Exhibit 118: LWDH 3E Productivity Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Worked Hours/Patient Day	6.9458	6.2094	6.5972	6.2788	-9.6%
Var NL non-drug$/Patient Day	$ 16.87	$ 18.74	$ 16.79	$ 16.04	-5.0%
Drug$/Patient Day	$ 27.17	$ 27.94	$ 21.97	$ 23.45	-13.7%

The following table presents the productivity achieved by the LWDH peer hospitals.

Exhibit 119: LWDH 3E Peer Productivity Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Worked Hours/Patient Day	4.9954	5.6518	6.1029	6.7908	7.2019
Var NL non-drug$/Patient Day	$ 14.21	$ 18.10	$ 22.85	$ 27.49	$ 34.83
Drug$/Patient Day	$ 13.90	$ 17.29	$ 18.85	$ 20.40	$ 24.82

3E performance is between peer median and worst quartile performance.

As can be seen, this unit is performing close to the median performance of its peers. One staff member from the ICU, however, acts as a float and generally works on 3E. Therefore the hours on this unit are somewhat understated. The worked hours per patient day on this unit should be equivalent to the peer median.

Concern was expressed regarding the amount of clerical support available to the unit. When reviewing the peer reports it appears that there is approximately the same number of hours for this type of role at peer hospitals as is currently used on this unit. There may be advantage to examining a change in hours of coverage for the unit clerk role. A later start time may be advantageous in matching the resource to when the majority of the workload appears.

It was reported that overtime increases in the winter months related to staff required to accompany patients on transfers out and often get stranded due to weather issues. Although overtime does increase, overall the unit is performing at best quartile of its peers on this measure of overtime. The issue with this comparison is that there were only 2 comparators who reported overtime hours in their MIS report.

Recommendation

It is recommended that:

(36) The VP Patient Care and the Manager for the 3E should develop and implement a plan to achieve median productivity performance of 6.1 worked hours/patient day.

6.3.2 Medical Surgical ICU

The ICU is a 4-bed unit adjacent to 3E.

The ICU is a 4-bed unit adjacent to 3E. It provides medical and surgical intensive care and support to patients who may need to be transferred out for more tertiary care. The unit had occupancy of just over 50% in 2016/17. Information for this unit is only reported separately for the past year.

Exhibit 120: LWDH ICU Functional Centre Summary

Functional Centre Data	4 Year Actual				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Workload Measure:					
Patient Days	0	0	0	775	N/A
Worked Hours	0	0	0	17,671	N/A
Benefit Hours	0	0	0	4,252	N/A
Total Paid Hours	0	0	0	21,923	N/A
Total FTEs	**0.00**	**0.00**	**0.00**	**11.24**	**N/A**

This unit, like 3E, has challenges with the physical facility, particularly for the storage of supplies and equipment. On this unit the problem is worse because of the need for more geri-chairs, mobility aids, etc. Rooms have lifts but there are issues associated with privacy because of the location of the life track and the bed curtains. The hallway is full of equipment as there is no other place to conveniently store such items. Rooms are small and make it difficult for moving patients in and out of the rooms.

The size of this unit and the lower number of days than peers contributes to lower productivity compared to peers. The workload, staffing and productivity performance for the ICU is presented in the following table. Other comparisons of the staffing and cost characteristics of the peer hospitals are available on-line through the BIG Benchmarking database.

Exhibit 121: LWDH ICU Productivity Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Worked Hours/Patient Day	0.0000	0.0000	0.0000	22.8013	N/A
Var NL non-drug$/Patient Day	$ 0.00	$ 0.00	$ 0.00	$ 24.30	N/A
Drug$/Patient Day	$ 0.00	$ 0.00	$ 0.00	$ 125.35	N/A

The following table presents the productivity achieved by the LWDH peer hospitals.

Exhibit 122: LWDH ICU Peer Productivity Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Worked Hours/Patient Day	11.2392	12.6753	14.7319	17.1526	21.2182
Var NL non-drug$/Patient Day	$ 4.42	$ 35.64	$ 48.30	$ 60.11	$ 95.95
Drug$/Patient Day	$ 21.63	$ 43.27	$ 51.03	$ 59.57	$ 69.89

ICU performance is higher than the maximum of peer hospitals.

As can be seen, the ICU is performing above the worst quartile and maximum performance of its peers. As mentioned, the size of this unit and the number of days will make it difficult to achieve median performance. Most of the peers had a significantly higher number of patient days. This makes it possible to be more efficient when a minimum staffing level is required. We looked at a peer with a similar number of days and note the worked hours/patient day are similar at 21.2195 wkd hrs/pt. day. There may be additional factors contributing to the higher hours at LDWH:

- there are more nurse manager hours reported than peers. It is important to ensure the nurse manager hours are reported or divided between all the units/departments that the manager covers.

The unit is staffed with 2 RNS 24/7. One staff stays in the unit while the other staff acts as a float and generally works on 3E or other areas to assist with workload. Since the hours on 3E are recorded in the ICU, this contributes to making the ICU appear inefficient and 3E appear more efficient. This is an appropriate approach to staffing a 4 bed ICU; it is staffed for 12 hrs per patient day. The ability to achieve this efficiency level (which is appropriate for this type of ICU and best quartile of peers) is completely dependent on the demand for the service.

Recommendation

It is recommended that:

(37) The VP Patient Care and the VP Corporate Services Manager should ensure that nurse manager hours are reported or divided between all the units/departments that the manager covers.

6.3.3 2E Medicine

2E is an 18-bed unit that provides medical care to less acute medical patients.

2E is an 18-bed unit that provides medical care to less acute medical patients as well as chronic patients, ALC patients and rehabilitation patients. It also provides service in 2 of the beds to pediatric patients. This is a heavy care unit and requires an appropriate level of staffing and skill mix.

It was reported that this unit often has adolescent mental health patients admitted here due to the difficulty and appropriateness of admitting these patients to the mental health unit. They generally require 1:1 care that is often difficult to arrange. There is no psychiatric staff available for these patients; adolescent psychiatry services are not available on-site or via-telehealth. As reported in section 4.4, residents of Kenora District have highest rate of utilization of inpatient days in acute beds for Psychiatry; more than 4 times the provincial average rate, and 50% higher than Rainy River and Thunder Bay. In 2016/17, LDWH had 37 discharges of psychiatric patients from an acute (i.e. non-psych) bed. Only 8% of these patients were paediatric patients (compared to 10% for all of the acute care peer hospitals), and only 5% were geriatric patients (compared to 11% for all of the acute care peer hospitals). It may be, however, that when adolescent mental health patients admitted here, the coding does not represent a psychiatric diagnosis; coding practices should be investigated. LWDH does have a very different age profile in psychiatric beds compared to psychiatric peer facilities. As noted in section 4.4 on psychiatric utilization, in mental health beds, 23% of LWDH discharges in 2016/17 were age 19 or younger (compared to only 11% for the overall peer group), and 12% were age 55 or older (compared to 21% for the peer group).

Exhibit 123: LWDH 2E Functional Centre Summary

Functional Centre Data	4 Year Actual				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Workload Measure:					
Patient Days	5,889	6,869	5,697	6,006	2.0%
Worked Hours	44,443	45,290	38,103	41,138	-7.4%
Benefit Hours	8,197	8,275	7,959	7,864	-4.1%
Total Paid Hours	52,640	53,565	46,062	49,002	-6.9%
Total FTEs	**26.99**	**27.47**	**23.62**	**25.13**	**-6.9%**

In 2015, the Birthing Services were moved to the 2nd floor and staffing on 2E was reduced in anticipation of using obstetrical staff to fill the need. This can be seen in the total worked hours in the table above. This proved to be very difficult for the 2E staff and the obstetrical staff. The following exhibit shows the changes in 2014/15 and 2015/16 in sick time and overtime.

Exhibit 124: LWDH 2E Sick and Overtime Performance

Other Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Sick Hrs. %	6.87%	8.74%	7.98%	6.85%	-0.3%
Overtime Hrs. %	0.35%	0.99%	2.03%	2.73%	676.3%
Orientation Hrs. %.	2.34%	1.22%	3.42%	4.95%	111.6%

In 2017, there was recognition of the need to improve the staffing level to address some of the challenges noted above and an RPN role was added to 2E. This allowed for an improvement in patient care for both medicine and obstetrics. The concern is that this measure is temporary until March of 2018. We examined the staffing mix on this unit and note that there is approximately 52% RN to RPN ratio; this is at the median performance of peers for 2016/2017.

The workload, staffing and productivity performance for 2E is presented in the following table. Other comparisons of the staffing and cost characteristics of the peer hospitals are available on-line through the BIG Benchmarking database.

Exhibit 125: LWDH 2E Productivity Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Worked Hours/Patient Day	7.5468	6.5934	6.6883	6.8495	-9.2%
Var NL non-drug$/Patient Day	$ 11.37	$ 9.08	$ 7.99	$ 8.02	-29.5%
Drug$/Patient Day	$ 15.47	$ 13.60	$ 12.24	$ 11.56	-25.3%

The following table presents the productivity achieved by the LWDH peer hospitals.

Exhibit 126: LWDH Peer Productivity Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Worked Hours/Patient Day	4.4874	4.8464	5.3328	5.7052	6.1394
Var NL non-drug$/Patient Day	$ 8.72	$ 15.39	$ 17.05	$ 22.47	$ 36.55
Drug$/Patient Day	$ 6.32	$ 8.26	$ 14.02	$ 17.26	$ 19.80

2E performance is higher than the maximum of peer hospitals.

As can be seen, the performance of 2E is above the worst quartile and maximum performance of peer hospitals. Most of the peers in this comparison group had significantly more patient days than 2E. The size of this unit and the lower number of days than peers contributes to lower productivity compared to peers. In our experience, 18-bed medical units are very difficult to staff efficiently.

Given the issues and environment on this unit, it is recommended that the additional RPN role be extended to ensure appropriate quality of care for the type of patients being cared for here. This should be done until a review the entire bed map at LWDH to identify a bed configuration that will best meet the needs of patients can be completed (recommendation 43). As noted in section 5.4, we believe LWDH has opportunities to designate some of its acute med/surg beds more appropriately and cohort patients based on the level of care required; this should be done with appropriate changes in staffing levels and mix.

Recommendation

It is recommended that:

(38) The VP Patient Care and the Manager for 2E should temporarily continue a staffing rotation that includes the hours of RPN that were added in 2017.

6.3.4 Birthing Services

There are 5 rooms on the second floor allocated to obstetrical services. There is space for nursery and triage. There are also ambulatory obstetrical services provided on this unit.

During this review, we received the most comments and feedback regarding the challenges faced by the obstetrical services at LWDH since 2015.

During this review, we received the most comments and feedback regarding the challenges faced by the obstetrical services at LWDH since 2015. For purposes of this report, we highlight the key themes below:

- Two NRP (neonatal resuscitation program) nurses are required for the obstetrical service.
- In 2015, the obstetrical services were moved from the 4th floor to the 2nd floor as part of hospital efforts to improve efficiencies. There was a reduction in staffing on the medicine unit and one of the two obstetrical staff was given a patient assignment on 2E. This approach failed as it meant that it would be difficult or impossible for the obstetrical nurse to interrupt care on 2E to respond to immediate needs on the obstetrical service when necessary.
- Efforts have been made to cross train obstetrical staff to work on 2E. Fewer staff from 2E have been cross trained to work in obstetrics than planned. From the reviewer's perspective, this is an unusual mix for cross training. Generally cross training would occur with a surgical service such as recovery room, day surgery, or critical care, etc. The organization should give consideration to changing the cross training for obstetrics with the OR/PARR and/or Day Surgery.
- In early 2017, the hospital recognized the challenges in this model and allocated additional RPN hours to 2E temporarily. (As noted above we believe this measure should not be temporary.) Obstetrical staff now appropriately assist on 2E but are not given a patient assignment.
- There is a general perception among staff and physicians that the quality of the obstetrical services has declined since the move and that this has resulted in fewer deliveries/patient days. The changes in the obstetrical service coincided with, and / or precipitated, a number of retirements and a resultant loss of a number of experienced obstetrical nurses. Recruitment and retention of new nurses has been generally unsuccessful. Turnover has been an issue as new staff have started to receive education and subsequently left the organization because they feel unprepared and not supported. It is difficult to train/mentor new nurses when there are an insufficient number of births to gain experience. There has been some discussion of making an arrangement

with a higher volume provider to allow for newer nurses to get enough delivery experience as part of their orientation. This has not yet been implemented / realized. The hospital is strongly encouraged to make this happen so that there can be adequate number of trained staff to ensure a safe environment for birthing.

- This unit, along with 2E, has suffered from the lack of a permanent manager for about 1 year. A new manager started in the fall of 2017 and has already put some practices into place and given attention to operations (such as equipment) that has been lacking for some time.
- Being combined with a medical unit causes risk management concerns with respect to infection control, safety and privacy. There are MRSA patients, patients with addiction problems and wandering patients impacting the obstetrical area either by being admitted to the obstetrical rooms or being close by. There is no way currently to secure the care area or impede the flow of traffic through the unit. During the onsite review it was noted that 2E had just been cleared from a gastrointestinal outbreak the previous week. This impacts obstetrics as well. There is a current (10/05/2017) "Admission Criteria for Non-Obstetrical Patients to the Maternity Unit" policy in place to act as a guideline. It is interesting to note that patients not appropriate for admission are admitted to obstetrics or on the same floor where there is no/little opportunity to separate the space.
- There are safety concerns with the space and rooms. There are often tripping hazards in the rooms during a delivery because of the location of plugs, etc. When the delivery cart is in the room, staff cannot maneuver from one side of the bed to the other. The family chair must be removed and there is often not enough room for the family to be present. This is of concern as it is not always possible to be culturally sensitive given the physical space available.
- Medical staff report that the birthing rooms on the Medicine Unit are too small to permit MOREOb guidelines to be met and lament their lack of involvement in planning during the renovations.
- There is lack of storage space for equipment unique to obstetrics.
- There is a general challenge with communication between the various parties. There is a sense that front-line staff, including physicians, that suggestions to administration regarding many items, and in particular this move, have only been sporadically responded to. Administration believes they have been responsive to the concerns of staff and have provided substantial communication to staff. From the reviewers' perspective, these variations in perception highlight issues with communication and interaction.
- The move of obstetrics to the 2nd floor has assisted in improving communication with the OR, but generally communication does not appear to be good between front line providers and administration.
- The activity associated with the Birthing Services is found in the table below. The hospital reports that the reduction in patient days arises from including only obstetrical cases; medical patients are no longer treated in the maternity beds.

Exhibit 127: LWDH Birthing Services Functional Centre Summary

Functional Centre Data	4 Year Actual				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Workload Measure:					
Patient Days	1,055	1,068	1,132	773	-26.7%
Worked Hours	18,097	17,905	14,323	9,010	-50.2%
Benefit Hours	2,275	3,667	2,512	2,519	10.7%
Total Paid Hours	20,372	21,572	16,835	11,529	-43.4%
Total FTEs	**10.45**	**11.06**	**8.63**	**5.91**	**-43.4%**

While the patient day reduction may be explained by no longer treating medical patients in maternity beds, there appears to have also been a reduction in deliveries at LWDH as measured by Newborn Admissions.

Exhibit 128: LWDH Newborn Admissions by Fiscal Year

Fiscal Year	Newborn Admissions
2009/10	248
2010/11	242
2011/12	227
2012/13	240
2013/14	179
2014/15	203
2015/16	235
2016/17	177

The workload, staffing and productivity performance for the Birthing Program are presented in the following table. Other comparisons of the staffing and cost characteristics of the peer hospitals are available on-line through the BIG Benchmarking database.

Exhibit 129: LWDH Birthing Program Productivity Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Worked Hours/Patient Day	17.1536	16.7650	12.6528	11.6559	-32.0%
Var NL non-drug$/Patient Day	$ 61.15	$ 32.01	$ 61.17	$ 42.33	-30.8%
Drug$/Patient Day	$ 16.33	$ 17.42	$ 15.57	$ 15.07	-7.7%

The following table presents the productivity achieved by the LWDH peer hospitals.

Exhibit 130: LWDH Peer Productivity Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Worked Hours/Patient Day	7.0367	8.9539	11.0258	12.0366	14.1310
Var NL non-drug$/Patient Day	$ 27.16	$ 45.66	$ 52.33	$ 71.01	$ 88.11
Drug$/Patient Day	$ 1.12	$ 14.89	$ 16.89	$ 28.02	$ 95.45

Birthing service performance is close to the median of peer hospitals.

As can be seen, even with all the challenges noted above, in 2016/17 this unit is functioning near median performance of the peers. We examined sick, overtime and orientation hours to determine if the challenges noted above could be quantified. It is apparent that LWDH Birthing Services are operating close to or above worst quartile performance of peers on these indicators. While high orientation hours are an indication of successful recruitment, high overtime and sick hours are often indicative of a poor working environment.

Exhibit 131: LWDH Birthing Services and Peer Performance for Sick, Overtime and Orientation

Other Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Sick Hrs. %	2.31%	4.54%	2.28%	6.72%	191.2%
Overtime Hrs. %	1.27%	4.82%	4.67%	5.25%	314.7%
Orientation Hrs. %.	0.75%	6.73%	3.97%	8.92%	1,095.6%

Other Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Sick Hrs. %	0.00%	5.14%	6.16%	8.30%	16.44%
Overtime Hrs. %	0.00%	3.62%	4.44%	5.14%	13.55%
Orientation Hrs. %.	0.00%	2.53%	3.57%	5.26%	23.02%

The organization is commended for recruiting a new manager with obstetrical experience to provide leadership to this program and to 2E. This manager will require support in the implementation of the recommendations noted here and leading a renewed environment emphasizing proper communications.

There are a number of recommendations that should be implemented to ensure quality patient care and staff safety and retention.

Recommendations

It is recommended that:

(39) The VP Patient Care and the Manager for Birthing Services should explore and implement a process for cross training with surgical services rather than the medical service.

(40) The VP Patient Care and the Manager for Birthing Services should implement as soon as possible an agreement and process with a high volume obstetrical service to provide delivery experience for new staff as part of a retention strategy.

(41) The VP Patient Care and the Manager for Birthing Services should conduct an evaluation of the amalgamation of obstetrics and Medicine to determine what possibilities exist to ensure that improvements in the service can be made and determine what can be done to reduce risks that are apparent in the current situation.

(42) The CEO and VP Patient Care should develop a process to improve communication and collaboration across care areas.

(43) The CEO and VP Patient Care should develop a process to review the entire bed map at LWDH to identify a bed configuration that will best meet the needs of patients. This should be informed by the utilization data presented in chapters 4 and 5 and in conjunction with recommendations 26 and 27, Section 5.4.

6.3.5 Mental Health Services

The inpatient mental health service at LWDH is the largest provider of mental health services in the NW LHIN outside of Thunder Bay.

The inpatient mental health service at LWDH is the largest provider of mental health services in the NW LHIN outside of Thunder Bay. It is a Schedule 1 service with 14 inpatient beds. There is 1 seclusion room. There is physical space for more beds but 2 rooms have flooding issues and are generally not used. There is no intensive care area on this unit for monitoring patients that require this level of care. The unit would benefit from renovations to make it safer and more effective for patient care.

There have been some changes made to ensure a safer staff space and additional cameras/monitoring equipment put in place. In 2014 there was a major renovation done to the inter-professional staff work area. This was an approximate $400,000 renovation that provided a physical barrier, (plexi-glass), to protect staff in the event of a potentially violent patient. Renovations in this area are challenging, however, due to the cost associated with abatement of the asbestos that is present. For example, to install a toilet and sink in the seclusion room the cost was over $13,000.

In Kenora, there is no youth crisis service and no adult crisis response capacity. The current approach involves a rotation of community providers to respond to crisis in ED on days. After hours there is a crisis response service for adults that is run out of Dryden. There is a 42-bed residential withdrawal treatment centre staffed by attendants, with support from physicians and social workers, and managed by the VP Mental Health and Addictions.

Child / adolescent psychiatry in the NW LHIN is limited to 8 beds in Thunder Bay.

There is no child/adolescent psychiatrist in the NW LHIN. There are 8 beds in Thunder Bay but these are difficult to access because they are generally at

capacity. There have been a significant number of youth suicides in the area. When admission is necessary and the mix of patients on the mental health unit is not appropriate for a child/adolescent, they are generally admitted to the 2nd floor pediatric area with 1:1 staffing.

There is a lack of capacity for psycho-geriatric patients in the community that is part of a larger issue of lack of LTC capacity. As a result, some psycho-geriatric patients are admitted to the psychiatric beds.

There is also increasing use of fentanyl, crystal meth, etc. and escalating violent behaviours in the ED and on the units. There is no security presence in the hospital to deal with these concerns and there have been a number of significant staff injuries. In the view of many interviewees, this is a major contributor to a suboptimal Organizational Culture and to staff turnover that contributes to critical nursing shortages. It is raised by many as an example of management inaction. Given the nature of the admissions in a Schedule 1 facility and those related to alcohol and drug use, the hospital must ensure the presence of a security service at a minimum after hours, but preferably 24/7. Of the 65 Schedule 1 hospital facilities in Ontario, the available data suggests that only 4 of these facilities do not have a security presence.

There is no security presence in the hospital to deal with escalating violent behaviours in the ED and on the psychiatric unit.

There are 2 psychiatrists and a GP that provide coverage to the unit. Psychiatry provides outreach to Sioux Lookout, Red Lake, Fort Francis and Dryden. This assists with continuity of care when patients are admitted to the inpatient unit.

It was reported that there has been a significant issue with nursing recruitment to this unit. There are likely many factors associated with this, but there would be benefit to examining the mix of full-time/part-time positions. It may be difficult to change the ratio given the small size of the unit but a formal review should be done. We also reviewed the staffing model for this unit and note the presence of a Hospital Attendant. Although there is some merit in this role on this type of unit, there may be additional benefit to the unit to consider changing this role to an RPN to gain the benefit of the additional skill and training.

In January of 2017 LWDH submitted a $1.5M HSIP to the Northwest LHIN, for 24 /7 mental health crisis response service at the LWDH Emergency Department. This HSIP requested 9 additional Mental Health Therapists to address the high numbers of high-risk youth that were accessing emergency department services. The HSIP was not funded.

LWDH has been advocating with the Northwest LHIN, the Ministry of Child & Youth Services, FIREFLY, and the Kenora Chiefs Advisory to create a Youth Mobile Crisis Response Service and a community-based Youth Stabilization residence. This advocacy has lead toward the Kenora Chiefs Advisory putting in a proposal for both services. As well, LWDH assistance lead toward the Kenora Chiefs Advisory providing youth crisis response 6 p.m. to midnight at LWDH.

Recommendations

It is recommended that:

(44) The VP Mental Health and Addictions and the Manager Mental Health Services should evaluate the role of Hospital Attendant and RPN to determine the best role for patient care on this unit.

(45) The VP Mental Health and Addictions and the Manager Mental Health Services should evaluate the ratio of full-time to part-time staff to assist in recruitment.

(46) The CEO and the VP Mental Health and Addictions should work with the LHIN to review the accessibility to and potential need for Child and Adolescent psychiatric capacity and the potential ability for LWDH to meet such demands.

(47) The CEO and the VP Mental Health and Addictions should investigate with the LHIN the requirements for both youth and adult crisis response capacity.

The following table provides a summary of the workload and staffing for this unit.

Exhibit 132: LWDH Mental Health Functional Centre Summary

Functional Centre Data	4 Year Actual				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Workload Measure:					
Patient Days	3,034	2,926	2,623	2,933	-3.3%
Worked Hours	29,255	28,378	27,579	28,695	-1.9%
Benefit Hours	5,118	7,036	7,482	5,667	10.7%
Total Paid Hours	34,373	35,414	35,061	34,362	0.0%
Total FTEs	**17.63**	**18.16**	**17.98**	**17.62**	**0.0%**

The workload, staffing and productivity performance of the Mental Health Unit is presented in the following table. Other comparisons of the staffing and cost characteristics of the peer hospitals are available on-line through the BIG Benchmarking database.

Exhibit 133: LWDH Mental Health Productivity Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Worked Hours/Patient Day	9.6424	9.6986	10.5143	9.7835	1.5%
Var NL non-drug$/Patient Day	$ 6.82	$ 6.11	$ 11.53	$ 7.82	14.7%
Drug$/Patient Day	$ 4.09	$ 3.34	$ 2.45	$ 2.64	-35.4%

The following table presents the productivity achieved by the LWDH peer hospitals. For the purposes of this analysis, we have used the Psychiatric Peer Hospitals[32].

Exhibit 134: LWDH Mental Health Peer Productivity Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Worked Hours/Patient Day	4.9698	5.6502	6.2478	6.8286	8.0079
Var NL non-drug$/Patient Day	$ 3.65	$ 4.98	$ 5.62	$ 8.51	$ 18.99
Drug$/Patient Day	$ 3.98	$ 5.35	$ 9.22	$ 10.86	$ 13.11

As can be seen, the labour productivity of the LWDH unit is above the peer maximum. Given the small size of the unit and the physical layout of the unit it will be very difficult to achieve median performance.

The productivity performance of this unit is appropriate given the nature of the patient population and the challenges of the physical facility.

6.3.6 Emergency Department (ED)

The ED provides services in an area comprised of 12 stretcher/exam table bays. There is a cast room with stretcher and 2-3 hallway stretchers. The department has significant triage and registration issues because of the physical layout of the area. There is a lack of ability to view the waiting room, lack of confidentiality, concerns with infection control at 1st level triage and patients are walking to admitting away from the triage area for registration.

The ED has just under 20,000 visits per year and approximately 16 FTEs.

Exhibit 135: LWDH ED Functional Centre Summary

Functional Centre Data	4 Year Actual				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Workload Measure:					
Visits (Face-Face & Non Face-Face) + Patient Days*4	19,089	18,670	18,761	19,004	-0.4%
Worked Hours	29,382	28,247	27,427	27,829	-5.3%
Benefit Hours	3,342	2,934	4,119	3,376	1.0%
Total Paid Hours	32,724	31,181	31,546	31,205	-4.6%
Total FTEs	**16.78**	**15.99**	**16.18**	**16.00**	**-4.6%**

The area of Kenora increases in population during the summer months and staffing is adjusted to meet the seasonal changes. The workload, staffing and

[32] Timmins & District Hospital has been excluded from this analysis since the MIS Trial Balance data was unavailable.

productivity performance of the ED is presented in the following table. Other comparisons of the staffing and cost characteristics of the peer hospitals are available on-line through the BIG Benchmarking database.

Exhibit 136: LWDH ED Productivity Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Worked Hours per Equiv Visit	1.5392	1.5130	1.4619	1.4644	-4.9%
Var NL non-drug$ per Equiv Visit	$ 8.01	$ 7.93	$ 7.87	$ 8.72	8.8%
Drug$ per Equiv Visit	$ 3.95	$ 3.79	$ 3.56	$ 3.68	-6.8%

The following table presents the productivity achieved by LWDH peer hospitals.

Exhibit 137: LWDH Peer Hospital ED Productivity Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Worked Hours per Equiv Visit	0.9691	1.1248	1.2421	1.5072	1.7491
Var NL non-drug$ per Equiv Visit	$ 5.68	$ 7.89	$ 9.25	$ 10.44	$ 13.89
Drug$ per Equiv Visit	$ 1.85	$ 3.95	$ 4.71	$ 5.47	$ 7.97

Emergency operational performance is between the median and worst quartile of peer hospitals.

As can be seen the ED is performing between the median and worst quartile of its peers. There are factors that may be contributing to the higher number of hours and therefore lower productivity compared to peer hospitals:

- In 2016/17, there was a 0.5 Palliative Care staff Monday to Friday and a 0.5 Sexual Assault staff; this was a one-time and short-term accommodation for modified work;
- the issues of staffing up for summer months creates challenges with scheduling such that there may be overlaps etc. which can affect the total hours; and
- the challenges of the physical facility with respect to triage, etc.

The organization should report the Palliative Care hours in the medicine or med/surg cost centre.

In examining the department and looking at peers, we believe it is appropriate to set peer median productivity as the performance target. This is to account for differences in the peer comparators related to scope of services, patient types, etc. and also to recognize the challenges associated with the triage area etc. Additionally there is recognition that seasonal visit volume changes create challenges for recruitment and scheduling.

If the hospital were to operate at the median performance it would mean a reduction of approximately 4,200 worked hours annually from the reported

2016/17 level. If the hours for the 0.5 FTEs noted above are removed there is a need to reduce approximately 2200 hours from current levels.

Recommendation

It is recommended that:

(48) The Manager for the ED should develop and implement a plan to achieve median productivity performance of 1.2421 worked hours/equivalent visit.

6.3.7 Ambulatory Clinic Services

There are a number of ambulatory services provided by the hospital, some of which are funded for specific purposes such as dialysis and chemotherapy. As part of this review we did not examine these clinic activities. We looked at only the general ambulatory care clinic. This clinic provides service 6 hours/day 5 days/week. Visits are for follow-up/diversion from an ED visit rather than admit or to facilitate early discharge for patients. It includes minor procedures, wound care, daily dressing changes, IV treatment, injections, catheter changes, non-chemo infusions, etc.

Exhibit 138: LWDH Clinic General Functional Centre Summary

Functional Centre Data	4 Year Actual				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Workload Measure:					
Visits (FF & Non FF)	6,949	7,716	6,904	6,887	-0.9%
Worked Hours	2,519	2,936	2,838	3,628	44.0%
Benefit Hours	183	305	447	408	123.0%
Total Paid Hours	2,702	3,241	3,285	4,036	49.4%
Total FTEs	**1.39**	**1.66**	**1.68**	**2.07**	**49.4%**

The workload, staffing and productivity performance of the ACC General is presented in the following table. Other comparisons of the staffing and cost characteristics of the peer hospitals are available on-line through the BIG Benchmarking database.

Exhibit 139: LWDH Clinic General Productivity Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Worked Hours/Visit	0.3625	0.3805	0.4111	0.5268	45.3%
Var NL non-drug$/Visit	$ 2.68	$ 4.05	$ 3.97	$ 3.07	14.3%
Drug$/Visit	$ 1.58	$ 2.70	$ 3.12	$ 3.53	123.8%

The following table presents the productivity achieved by LWDH peer hospitals.

Exhibit 140: LWDH Clinic General Peer Productivity Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Worked Hours/Visit	0.5879	1.4174	1.9071	2.9952	5.6200
Var NL non-drug$/Visit	$ 5.90	$ 6.85	$ 8.56	$ 14.03	$ 26.27
Drug$/Visit	$ 6.27	$ 6.27	$ 6.27	$ 6.27	$ 6.27

General ambulatory clinic performance is below the minimum of peer hospitals.

As can be seen, the clinic is performing better than the best quartile. The total visits may include some visits that are not part of the clinic; LWDH reports that the visits include Visiting Specialist Clinic volumes. The visits for ADC in 2016/17 were 2,069. The organization should validate the information reported contains the appropriate visits only.

The clinic is appropriately staffed with an RN and a clerk. The clinic does not have permanent funding and receives the current funding from the LHIN on an annual basis. This situation has existed for a number of years. There would be advantage to the LWDH to have permanent funding allocated to this clinic. Its role in diverting visits from ED, preventing admissions and facilitating early discharge is important.

Recommendation

It is recommended that:

(49) The CEO and VP Nursing should work with the NW LHIN to secure permanent funding for the General Ambulatory Clinic.

6.3.8 Nursing Administration

There are a number of challenges that the hospital is facing that nursing administration is focused on:

- One year ago there was a significant staffing challenge. Since the spring of 2017 the hospital has hired 30-35 nurses. They are building up the nursing resource team (float pool).
- There is always a need to have more staff during the summer months and there are always challenges with new graduates who are waiting for licensing from the College of Nurses.
- Recruitment of specialty services has been an ongoing issue as well as maintenance of competency for specialties. Some arrangements have been made with Thunder Bay for OR staff to gain appropriate experience.
- Education modules have been developed for ICU, ED, and OR. There is a plan to use a similar model for Obstetrics.
- There is a sense that the organization cannot adapt to change given its size. Expectations for nursing to be able to respond are challenging because of the small size and lack of supports for the department. There are limited educator hours available.

The organization is commended for appointing a number of new managers in the past 12-18 months. There is enthusiasm and new thinking in this group. The administration will need to provide support to this group of managers to ensure their success.

The summary data used for comparison purposes for this functional centre is noted in the table below.

Exhibit 141: LWDH Nursing Administration Functional Centre Summary

Functional Centre Data	4 Year Actual				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Workload Measure:					
IP + OP Nursing Direct Costs excl Equipment/Med Staff	15,258,418	15,367,183	14,654,862	14,291,085	-6.3%
Worked Hours	20,582	19,559	19,742	19,248	-6.5%
Benefit Hours	3,835	4,819	5,166	5,161	34.6%
Total Paid Hours	24,417	24,378	24,908	24,409	0.0%
Total FTEs	**12.52**	**12.50**	**12.77**	**12.52**	**0.0%**

The workload, staffing and productivity performance of Nursing Administration is presented in the following table. Other comparisons of the staffing and cost characteristics of the peer hospitals are available on-line through the BIG Benchmarking database.

Exhibit 142: LWDH Nursing Administration Productivity Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Net Cost%IP+OP Nurs excl Eq/Med	7.80%	8.01%	8.94%	8.91%	14.2%

The following table presents the productivity achieved by LWDH peer hospitals

Exhibit 143: LWDH Nursing Administration Peer Productivity Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Net Cost%IP+OP Nurs excl Eq/Med	2.09%	3.02%	3.77%	5.15%	7.10%

Nursing Administration performance is above the worst quartile and the maximum of peer hospitals.

As can be seen, LWDH nursing administration is performing well above the worst quartile of peers. There are a number factors that may be contributing to this:

- The nursing administration functional centre has a significant number of both RN and RPN hours reported for Unit Producing Personnel (UPP) and Management and Operational Support (MOS) hours. This is significantly different than most of the peers. The UPP hours are likely those attributed to

float staff; these hours should instead be recorded where the float staff work. Other MOS hours reported would include the staffing office clerk.

- The majority of MOS RN hours reported are likely those associated with the nursing supervisor position. The nursing supervisor role is a 24/7 role. It is unusual to see nursing supervisors on the day shift. These roles are generally evening and weekend positions intended to cover management functions when they are not present. With an organization like LWDH, it is quite appropriate to have this type of coverage after hours. During the site visit, when asking about the role of the nursing supervisor, a common theme expressed was "they are the only ones that know what is going on in the whole hospital" and "they are needed for the staffing office". The organization should consider a different model for daytime coverage of the hospital. For example, in some organizations, nurse managers and administration take call on a weekly rotation for hospital wide issues. LWDH should give consideration to this type of model and reduce the hours for nursing supervisor on days and use the savings elsewhere, for example for onsite security. It is estimated that approximately 2920 hours could be saved by eliminating the day shift.
- The staffing office receives support from the nursing supervisor. The organization should examine what this support is and if there is another way to ensure the service is provided. For example, it may be more beneficial to have a full or part of a clerical FTE to do the work. If there was a full FTE the role may also be used to provide administrative support to the front line manager group.

Recommendations

It is recommended that:

(50) The VP Patient Services should develop a process to eliminate the presence of the nursing supervisor on days.

(51) The VP Patient Service and VP Corporate Services should ensure that hours for Unit Producing Personnel (UPP) recorded in Nursing Administration, are instead recorded where the associated staff are working.

6.4 Diagnostic and Therapeutic Services

6.4.1 Laboratory

LWDH Clinical Laboratories on-site services encompass:

- Main Laboratory Services (including Collection, Chemistry, Hematology, and Transfusion Services);
- Pathology Services; and
- Microbiology Services.

The performance indicators for the Laboratory Services are:

- Worked hours[33] per service recipient workload unit.
- Variable non-labour non-drug costs per service recipient workload unit.

The exhibits below presents the total Laboratory Performance of LWDH and the peer performance ranges.

Exhibit 144: LWDH Total Laboratory Services Performance

Functional Centre Data	4 Year Actual				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Workload Measure:					
Service Recipient Workload Units	473,965	525,198	1,001,557	1,024,473	116.1%
Worked Hours	31,430	31,697	31,145	31,136	-0.9%
Benefit Hours	5,918	7,084	7,650	7,053	19.2%
Total Paid Hours	37,348	38,781	38,795	38,189	2.3%
Total FTEs	**19.15**	**19.89**	**19.89**	**19.58**	**2.3%**
Worked Hours/SR Wkld Unit	0.0663	0.0604	0.0311	0.0304	-54.2%
Var NL non-drug$/SR Wkld Unit	$ 1.24	$ 1.24	$ 0.67	$ 0.72	-41.8%

Exhibit 145: Peer Laboratory Services Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Worked Hours/SR Wkld Unit	0.0285	0.0377	0.0400	0.0461	0.0717
Var NL non-drug$/SR Wkld Unit	$ 0.64	$ 1.35	$ 1.52	$ 2.32	$ 3.31

Total Clinical Laboratory performance is better than the peer best quartile.

Total Laboratory performance in 2016/17 and 2015/16 is better than the peer best quartile. In 2013/14 and 2014/15 the reported performance was above the peer worst quartile. While the staffing levels have remained stable over the past four years, the workload units reported had a significant increase in 2015/16 and 2016/17.

MIS workload reporting needs to be improved.

It was not within the scope of this review to verify the accuracy of LWDH's workload unit reporting, nor the data reported the peers. It is also difficult to ascertain this from just reviewing the MIS data reported. However, a review of workload data collection systems appears warranted.

Observations include the following:

- Lab services consist of core laboratory, transfusion, microbiology and pathology.
- Lab services are provided 24/7. The majority of shifts are 12 hours with some 8 hours shifts.

[33] Medical Staff are not included in the performance indicators.

- Laboratory staff provide most specimen collection services. Nurses in the OR, ED and ICU collect specimens when necessary.
- Nursing provides point of care glucose and urinalysis testing for ED and Community patients. Quality assurance is provided by the laboratory.

There are no opportunities to reduce Clinical Laboratory Costs.

Based on our discussions, observations and analysis of information it appears there are no further opportunities to reduce current Laboratory costs.

Recommendation

It is recommended that:

(52) The Laboratory Manager should undertake a review of workload collection practices and ensure that workload is collected accurately and comprehensively.

6.4.2 Medical Imaging

Medical Imaging services at LWDH encompass the following modalities:

- General Radiology, Bone Mineral Density
- Computed Tomography
- Ultrasound

The performance indicators[34] for the Medical Imaging are:

- Worked Hours per Patient Care Workload Unit.
- Variable Non-Labour Non-Drug Costs per Patient Care workload Unit.

Exhibit 146: LWDH Diagnostic Imaging Combined Functions Workload and Performance

Functional Centre Data	4 Year Actual				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Workload Measure:					
Service Recipient Workload Units	566,657	502,658	497,529	504,172	-11.0%
Worked Hours	20,509	21,356	21,007	21,446	4.6%
Benefit Hours	3,492	3,814	3,577	3,201	-8.3%
Total Paid Hours	24,001	25,170	24,584	24,647	2.7%
Total FTEs	**12.31**	**12.91**	**12.61**	**12.64**	**2.7%**
Worked Hours/SR Wkld Unit	0.0362	0.0425	0.0422	0.0425	17.5%
Var NL non-drug$/SR Wkld Unit	$ 0.15	$ 0.11	$ 0.11	$ 0.09	-42.9%

[34] Medical Staff are not included in the performance indicators.

Exhibit 147: Peer Diagnostic Imaging Combined Functions Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Worked Hours/SR Wkld Unit	0.0221	0.0325	0.0360	0.0366	0.0411
Var NL non-drug$/SR Wkld Unit	$ 0.09	$ 0.17	$ 0.22	$ 0.37	$ 1.15

A performance comparison at a rolled-up level (i.e., all modalities/services combined) in smaller hospitals helps to minimize the differences in reporting practices among similar sized peers. For example, at LWDH, CT call-in hours are not reported in the CT functional centre however the workload is reported in CT. This would make comparisons in CT misleading.

Medical imaging department's labour productivity is the highest (worst) of the peer group and the non-labour performance is at the peer minimum.

The overall department's 2016/17 worked hours per service recipient workload unit is the highest of the peer group. The variable non-labour indicator is at the peer minimum. To achieve the best quartile and median productivity screening targets LWDH would need to reduce Diagnostic Imaging costs by 11.0% ($287,901) and 7.2% ($188,748) respectively.

Prior to 2014/15, the departments productivity was at the peer median performance level. Since 2013/14 the department's reported workload has decreased by 11.0% and staffing has remained relatively constant since that time. The department was not certain if it was using the most current workload measurement systems. The conversion to the regional Meditech information system occurred approximately 3 year ago and maintenance of the data is done centrally for the region. A review of workload data collection systems appears warranted.

Observations include the following:

- A working Manager oversees the day-to-day operation of the department. Three days per week are office workdays and 2 days per week are providing Ultrasound.
- There is one Senior Tech who also serves as the Radiation Protection Officer.
- Radiology and CT services are provided 24/7. From 2400 – 0730 on-call coverage is available. Ultrasound is provided M-F, with on-call available after 1600 and on weekends.
- Evening, weekend and on-call staff are all cross trained to perform CT if needed. Techs all rotate through CT.
- Patient registration, transcription and patient portering is provided within the department.
- PACS is utilized and is unique to LWDH. Other NW Ontario hospitals utilize a different PACS. PACS administration is shared between the Manager, Senior Tech and Secretary.
- Ultrasound has a high overtime usage due to staff shortages in area and high call-back demand. There is a current maternity leave that is resulting in overtime.

There are opportunities to improve Diagnostic Imaging performance to the median of peers.

Based on our discussions, observations and analysis of information it appears there appear to be opportunities to improve the efficiency of Diagnostic Imaging. Opportunities include reducing overtime; reducing the amount of call-back required in ultrasound by looking at staggered shifts to better meet demand; and integrating PACS with the rest of the NWLHIN.

Recommendations

It is recommended that:

(53) The Diagnostic Imaging Manager should undertake a review of workload collection practices and ensure that workload is collected accurately and comprehensively.

(54) The Diagnostic Imaging Manager should develop and implement a plan to achieve median productivity performance of 0.0360 worked hours per Patient Care Workload Unit.

(55) The Diagnostic Imaging Manager should investigate an integrated PACS with the other NW Ontario hospitals.

6.4.3 Pharmacy Services

The performance indicators for the Pharmacy Services are:

- Worked hours per patient care workload unit.
- Variable non-labour non-drug costs per patient care workload unit

Exhibit 148: LWDH Pharmacy Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Worked Hours/SR Wkld Unit	0.0170	0.0225	0.0234	0.0199	17.3%
Var NL non-drug$/SR Wkld Unit	$ 0.03	$ 0.05	$ 0.19	$ 0.06	78.3%

Exhibit 149: Peer Pharmacy Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Worked Hours/SR Wkld Unit	0.0116	0.0169	0.0190	0.0218	0.0263
Var NL non-drug$/SR Wkld Unit	$ 0.04	$ 0.07	$ 0.09	$ 0.23	$ 0.69

Pharmacy performance is just above the peer median.

These peer comparisons indicate that the labour productivity is just above the peer median performance level. To achieve the best quartile and median screening targets LWDH would need to reduce Pharmacy staffing by 15.2% (0.75 FTES, $69,429) and 4.6% (0.22 FTEs, $20,814) respectively.

The non-labour comparisons indicate that the performance is better than the peer median.

A Manager of Pharmacy oversees the department, who is also a working Pharmacist (50/50 split). Additional staffing includes the following:

- 1 full time Pharmacist (job shared position with 2 people)
- 1 full time Technician
- 3 – 0.6 full time Technicians

Observations include the following:

- On-site staffing is available Monday to Friday, from 0800 – 1600.
- One pharmacist is on-call from 1600 – 0800 weekdays and 24 hours on weekends. Pharmacists take turns on-call one week at time (including the Manager).
- Automated drug dispensing cabinets are available on all units and the Emergency except the OR / PACU where there is no cabinet.
- A formulary is in place, auto-substitution policies are in effect and patients own medications are used if they are non-formulary.
- Technicians do all IV preparations, and all are certified except for one.
- A formal drug utilization committee/process is not in place. There are policies exist for IV to PO stepdown and auto-stop.
- The Pharmacy participates in MedBuy contracts and most medications are on contract Sole source drugs may not be on contracts.
- LWDH participates in CPDN (consolidated pharmaceutical distribution network) that allows for the streamlining of ordering, delivering and payment of medications.
- Drug deliveries can be next day from Winnipeg and within 2 days from CPDN.

There are no opportunities to reduce Pharmacy costs.

Based on our discussions, observations and analysis of information it appears there are no further opportunities to reduce current Pharmacy services.

6.4.4 Physiotherapy

The performance indicators for the Physiotherapy Services are:

- Worked hours per attendance.
- Variable non-labour non-drug costs per attendance

Exhibit 150: LWDH Physiotherapy Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Worked Hours/Attendance	0.9681	0.9841	0.9305	0.8759	-9.5%
Var NL non-drug$/Attendance	$ 1.11	$ 1.52	$ 1.10	$ 1.21	9.0%

Exhibit 151: Peer Physiotherapy Performance

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Worked Hours/Attendance	0.6567	0.7988	1.1104	1.2309	1.8438
Var NL non-drug$/Attendance	$ 0.05	$ 0.23	$ 0.47	$ 1.32	$ 3.49

These peer comparisons indicate that the labour productivity is just between the peer best quartile and median performance level. To achieve the best quartile screening target LWDH would need to reduce Physiotherapy staffing by 8.8% (0.66 FTES, $58,269).

Physiotherapy's performance is between the peer best quartile and median.

The variable non-labour performance is near the worst quartile and to achieve the median performance screening target, LWDH would need to reduce non-labour costs by 61.3% ($10,502). This magnitude of opportunity likely suggests reporting anomalies.

Observations include the following:

- Physiotherapy services are overseen by the Manager of Rehab Services who is also responsible for Occupational Therapy, Speech Language Pathology, Fracture Clinic and Wound Clinic.
- On-site staffing is available Monday to Friday, from 0800 – 1600. No weekend coverage is provided.
- Most services are provided one to one.
- Rehab for joint replacement patients is provided by the CCAC.
- Services are provided with a mix of Physiotherapists to Assistants (65/35).

There are no opportunities to reduce Physiotherapy costs.

Based on our discussions, observations and analysis of information it appears there are no further opportunities to reduce current Physiotherapy services.

7.0 Peri-operative Services

An in-depth analysis of peri-operative services.

As part of this engagement, the Steering Committee requested an in-depth analysis of peri-operative services. Sullivan Healthcare Consulting Canada (SHC) performed a review of the surgery program, and the effectiveness of selected peri-operative areas with respect to the benchmark findings of BIG Healthcare (BIG). The purpose of this review was to:

- Identify program strengths and weaknesses;
- Validate the initial findings and opportunities of the BIG benchmarking study; and
- Provide specific recommendations to achieve the stated opportunities where applicable.

A combination of data analysis, management and staff interviews, and observations.

SHC utilizes a combination of data analysis, management and staff interviews, and observations (cases, patient flows, etc.) to identify current best practices and determine opportunities for improvement where applicable. The SHC approach is to determine appropriate coverage needs based on current activity – procedure volumes and patient episodes, and apply staffing standards in accordance with industry standards and effective nurse to patient ratios. The report is provided based on what the consulting staff site visits; what we saw, were told and observed.

The following departments were identified for review: operating rooms, pre-operative area, PACU, pre-surgical screening, and Medical Device Reprocessing Department (MDRD). The following peri-operative program elements were identified for review:

- Governance and Leadership
- Surgery Management and Staffing
- Clinical Practices
- Scheduling and Pre-surgical Screening
- Surgery Supply Chain and MDRD

7.1 OR Governance and Leadership

An OR Committee with membership that represents best practice.

LWDH has established an OR committee made up of the Department Head for Surgical Services, Chief Anaesthetist (or Anaesthetist Advocate), Patient Care Administrator, Manager of Surgical Services and MDRD, OR Team Leader, and General Practice Representative (also Department Head for OB). The membership represents best practice with respect to good surgical program governance, however the individuals/groups appear to work independently, and decisions do not appear to be made based on demonstrated best practice. From the perspective of nursing, OR governance is viewed as ineffective and surgeon-driven. From the perspective of surgery, OR governance is driven by nursing

who have a "my way only" attitude. Both surgeons and nurses report that administration has attempted to moderate between these positions, but has failed to provide effective leadership. Overall, the governance structure lacks balance, and evidence-based decision-making. Anaesthetists have failed to take any type of leadership role as they have stated there is no incentive to do so.

The governance structure lacks balance, and evidence-based decision-making.

There is a significant lack of core policies commonly found in surgical programs that guide the operational aspects of the operating room, and outlining the procedures to follow and the consequences for non-compliance. Much of this was also identified in the Peri-operative Improvement Expert Coaching Team improvement plan.

A significant lack of core policies commonly found in surgical programs.

There is a lack of specific critical surgical services provided at LWDH: specifically in the areas of orthopaedics, plastics, and anaesthesia services. A variety of reasons were suggested as to why required services in these areas were not being provided ranging from:

- lack of administrative vision;
- restricted operating-room schedule / resources to schedule appropriate capacity and access;
- recruitment interference by current practitioners.

A lack of surgical services provided at LWDH: in the areas of orthopaedics, plastics, and anaesthesia.

Multiple interviewees reported an overall lack of vision for the peri-operative program and expressed significant concerns regarding the management styles and capabilities of leaders in administrative, surgeon/practitioner leadership, anaesthesia, and nursing areas. Much of the consultation was spent listening to parties from all areas attempt to place the blame for current condition of the program on one or more of the other parties. Due to past events and prior leadership, the overall culture is perceived by the consultants as toxic, with significant emphasis in many interviews of "this person did/said this at that time." The consultation engagement was not of adequate time or depth to be able to validate any or all of these assertions; we conclude that there is likely some culpability on all parties for the current state of the program. Many of the leadership positions currently in place are slated to retire in early to mid-2018, providing an opportunity to leave the past behind and start with a fresh slate based on community-driven patient care needs and data-driven best-demonstrated practice.

Reorganization of the governance and OR structure / process is required.

Reorganization of the governance and OR structure / process is required to create the infrastructure needed to achieve the operational improvements recommended in this report and to establish a patient centric program with a positive working environment for surgeons, anesthesiologists, and OR colleagues.

An effective OR governance structure is essential to a well-run OR program. Key elements of an effective structure include:

- Active and balanced participation from all groups in the surgical program (surgeons, nursing, and anesthesiology);
- Clear, documented, consistent, and communicated policies containing consequences and enforcement mechanisms;
- A core group of individuals (the Perioperative Executive Committee – PEC) who will actively manage perioperative resources, enforce policies, resolve conflicts, and act as the executives of the surgery program. This is an administrative operational committee reporting to the hospital senior leadership and responsible for linking the strategic plan of the organization to surgical services objectives; and
- Strong and immediately available physician leadership that can enforce policy in the moment in the perioperative program.

Recommendation

It is recommended that:

(56) The CEO and VP Patient Services should immediately establish a Perioperative Executive Committee (PEC) with representation from surgery, nursing, and anesthesiology and a mandate to manage perioperative resources, enforce policies, resolve conflicts, and act as the executives of the surgery program.

A Perioperative Executive Committee responsible for the operations of the surgical program.

The PEC should be charged with day-to-day responsibility and accountability for the operations of the overall surgical program for the hospital and for the development and enforcement of policies. All enforcement must be done peer-to-peer, with each group dealing with its respective discipline. This group should initially meet at least every two weeks, and more often as issues require. Responsibilities include:

- Define and monitor a perioperative strategic plan that targets services and surgeons for growth and is consistent with the hospital's overall strategic plan;
  - Service growth will be integral to ensure the ability to secure adequate resources to provide anesthesia services and cover call.
- Provide operational responsibility and authority for all aspects of the surgical program.
- Ensure the program operates without silos or communication gaps.
- Develop and approve policies to guide the management of the peri-operative program, and ensure the policies contain the enforcement mechanisms and consequences for noncompliance. Specifically, policies regarding schedule planning, administration, and block management require development and implementation.
- Enforce all policies and apply consequences.
- Set coverage plans that are guaranteed and balanced by both anesthesiology and nursing. This includes determining closures and coverage reductions for summer, March break, Christmas/New Year's Day, or at other times due to budget constraints;

    - Ensure the coverage plans include adequate capacity for all anesthesia requirements in the hospital;
    - Develop an allocation formula for allocating closure time, using the following priorities:
        - Surgeons taking leave/holiday during the closure period;
        - Non-publicly funded elective procedures;
        - Surgeons who are exceeding their volume budgets YTD; and
        - Surgeons without QBP or CCO targets.
- Develop and communicate all allocations for OR block time for each individual surgeon;
    - Develop allocations that are consistent with the overall mission of the hospital and historical demand;
        - Specifically explore the potential to expand orthopedic volumes in the region;
    - Set minimum utilization levels to maintain a block;
    - Incorporate T2 wait lists and MOHLTC/CCO targets into the block allocation methodology;
    - Incorporate efficiency and productivity. Surgeons who are able to accomplish greater numbers of similar cases, given equivalent resources, should get priority over others for additional block time.
- Develop recommendations for operational budgets and communicate them to the hospital.
- Review perioperative performance metrics and progress toward annual targets, and take appropriate action when progress is not met or sustained over time.
- Intervene with each discipline in a coordinated manner, ensuring that there is a common message, approach, and expectation.
- Provide a mechanism for communication of performance to each discipline;
    - Publish performance metrics for all constituents to ensure that change initiatives are sustained. Example surgeon scorecards are contained in the Surgery Management Reports that will be provided separately.
- Develop and approve coordinated plans for the implementation of process change, and expect accountability from each member for agreed-upon actions.
- Ensure that communication about issue follow-up is provided back to physicians so that the progress and updates are understood by all groups.
- Ensure that quality is maintained in all aspects of perioperative programming.
- Review all after-hours and weekend volume to ensure appropriateness and consistency with the coverage plan.
- Manage financial performance targets and capacity goals.

7.2 Surgery Management and Staffing

Manager, Surgical Services, MDRD and OR renovation.

Surgery Management consists of a Manager, Surgical Services and MDRD (non-union) and a Team Leader (union). In addition to being responsible for the daily operations of the surgical department (including staff scheduling, management, and discipline), the manager is currently acting as the project manager for the

current OR renovation. The manager's office is located away from the surgery department, and many of the OR physicians and staff reported the manager to not be visible enough within the department. Some physicians expressed the desire to have the manager provide direct staffing support (breaks, call, etc.), however this would not be appropriate use for the role.

Co-manager during renovation period.

To provide additional support to the manager during the renovation period, another person has been appointed as co-manager of the department to assist with operational issues. Staff feedback to the consultants was that this person listens to their issues, and is effective in follow up and resolution. However, some staff expressed confusion in regard to the second manager role as to where responsibility falls.

OR Team Leader.

An OR Team Leader position is in place to coordinate daily operations. Unfortunately, this role has the authority to change the order of cases on the morning of surgery. Such changes are often required to address flow, equipment and instrument issues; these types of issues should be addressed well ahead of the morning of surgery. The schedule should be reviewed and finalized well before the afternoon before (or morning of) surgery, and all resource conflicts or timing issues should be resolved

Morale in the department is poor; sick time has risen dramatically over the past two years.

Nursing staff reported they felt some of their colleagues are manipulating the environment, putting up roadblocks (i.e. delaying going to break, then saying they haven't had time for a break). Many are clearly anti-management, and unsupportive of any initiatives brought forward by management. There is significant internal conflict between staff; many people have their own agenda. Overall, morale in the department is poor. Recent data regarding sick time may represent a primary indicator of staff dissatisfaction, as BIG benchmarking indicates:

Exhibit 152: LWDH Operating Room and Peer Performance for Sick, Overtime and Orientation

LWDH Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Sick Hrs. %	6.29%	4.27%	8.84%	17.83%	183.6%
Overtime Hrs. %	7.70%	9.35%	7.13%	6.65%	-13.7%
Orientation Hrs. %.	0.63%	0.58%	0.37%	2.68%	323.4%

Peer Hospital Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Sick Hrs. %	1.28%	2.50%	3.33%	6.99%	10.78%
Overtime Hrs. %	1.18%	3.62%	5.92%	8.79%	21.51%
Orientation Hrs. %.	0.00%	1.39%	2.41%	3.17%	8.77%

As can been seen, sick time has increased dramatically over the previous two years and is well above the maximum of peer hospitals.

For perioperative staffing determination, SHC utilizes a combination of data analysis, management and staff interviews, and observations (cases, patient flows, etc.) to identify current best practices and determine opportunities for improvement where applicable. The SHC approach is to determine appropriate coverage needs based on current activity – procedure volumes and patient episodes, and apply staffing standards in accordance with industry standards and effective nurse to patient ratios. SHC also determines appropriate leadership and support positions based on SHC best practice experience and benchmark data. For paid time off (PTO) SHC has applied 17 percent, consistent with Canadian national averages. The number of patient episodes by functional area was extracted from actual case data provided to SHC for the period between April 1, 2016 and March 31, 2017. A separate report has been provided displaying multiple areas of performance regarding LWDH surgical case activity (volumes by service, covered room utilization, block utilization, case start time accuracy, case duration estimation accuracy, case time intervals with benchmark comparisons, etc.), some of which will be referenced / presented in this report. The full report has been provided under separate cover to the Operational Review Steering Committee. The findings regarding case mix and case time intervals have an impact on the interpretation of the staffing assessment presented below.

Staffing for peri-operative services covering the OR, pre-surgical screening, pre-operative area, and PACU as provided by LWDH includes:

- Manager Surgical Services & MDR: 1.0 FTE charged: 0.5 OR, 0.5 MDR;
- Clerk: 1.0 FTE charged: 0.75 OR, 0.25 Pre-op Clinic;

Current OR Staffing.

- RNS: 6.4 FTE, budgeted to OR Inpatient 5.2, Day Surgery 1.0, 0.2 Relief and consisting of:
  - Team Lead RN 1.0 FTE
  - Other RNs : 2 FT (2.0 FTE), 5 PT (3.2 FTE), 0.2 FTE Vacation & Sick Coverage
- RPN: 0.6 FTE budgeted to the Pre-Op Clinic
- Standby 16 hours/day X 2 M-F, 24 hours/day X 2 Saturday, Sunday, Stats

1 room every day and 2 rooms one day per week.

Currently, the OR coverage plan provides for 1.2 rooms per weekday (1 room every day and 2 rooms one day per week), from 7:00 AM to 3:00 PM or 48 hours per week. ORNAC standards provide for 2.5 worked hours per hour of coverage in the OR when performing standard surgical procedures. This would equate to 120 hours per week of coverage, which equates to 3.2 working FTEs for the OR (120 hours/37.5 hours per full time worker per week). Add average paid time off percentage of 17 percent and this equates to 3.8 FTEs to staff the OR suites for performing cases.

Over 32 percent of the cases performed in the OR at LWDH are dental or endoscopy cases.

Over 32 percent of the cases performed in the OR at LWDH are dental or endoscopy cases. The Peri-operative Improvement Expert Coaching Team had identified these as targets for potential reduced staffing: one nurse per room. Furthermore, SHC timeline by procedure data run for LWDH (see LWDH data

report) indicates the majority of common procedures performed in the OR take longer than those performed at peer hospitals across Canada. These factors negatively impact the demand on staffing at LWDH.

An average of 8 surgical procedures per weekday.

Per SHC data, LWDH performs an average of 8 surgical procedures per weekday. This forms the basis to determine the staffing requirements for the pre-surgical screening area, pre-op area, and PACU. It is understood that fluctuations in volumes can occur in these areas, and productivity expectations are adjusted accordingly.

Pre-surgical screening requires between 30 and 45 minutes per patient.

The OR allocates a total of 0.6 FTEs for the pre-op clinic process, which also provides surgery scheduling. If the scheduling process minimally takes ten minutes per patient to take a booking, and the pre-op screening process were to minimally take 20 minutes to screen the patient and provide proper education, then the 0.6 allocation would be adequate. However, SHC experience indicates that a good pre-surgical screening process requires between 30 and 45 minutes per patient to be thorough. It was reported that the individual in this position has been working on a full time basis over the past few months.

Two nurses cover the pre- and post-operative area daily. The average length of stay (LOS) for patients in the preoperative area is 90 minutes for surgical procedures and 60 minutes for endoscopy and other minor procedures. The average nurse to patient ratio for the preoperative process is 1:3, per SHC experience. The average post-operative LOS per patient is 1 hour per inpatient and 2 hours per outpatient[35]. SHC estimates that the pre/post area will have an average of four patients between the hours of 9:00 AM and 2:00 PM, requiring a minimum of 2 RNs to support the patient preparation and recovery process. Furthermore, additional support (RPN or aide) may be required to provide transportation assistance or other hands-on support during breaks and lunch relief.

The following exhibit presents LWDH operational performance in relation to peer hospitals:

LWDH performance of 6.556 worked hours per case is close to the worst quartile of peer hospital performance.

Exhibit 153: LWDH Operating Room and Peer Performance

Performance Indicators	Actual Performance				
	2013/14	2014/15	2015/16	2016/17	% Change (Y1 - Y4)
Worked Hours/Case	6.3415	6.5121	5.8985	6.5560	3.4%
Var NL non-drug$/Case	$ 184.31	$ 181.20	$ 186.67	$ 177.37	-3.8%
Drug$/Case	$ 46.03	$ 41.29	$ 25.53	$ 30.31	-34.1%

Performance Indicators	2016/17 Peer Performance Range				
	Minimum	Best Quartile	Median	Worst Quartile	Maximum
Worked Hours/Case	3.7987	5.2615	5.8168	7.5893	9.6815
Var NL non-drug$/Case	$ 94.67	$ 178.62	$ 197.02	$ 255.80	$ 1,161.86
Drug$/Case	$ 19.54	$ 28.83	$ 36.90	$ 52.12	$ 314.83

[35] We did not measure or collect actual ALOS data from LWDH, the standard average LOS for outpatients having surgery is 120 minute, except for endoscopy / eye cases which can be less.

Supply and drug costs are close to the best quartile of peer performance.

As can be seen LWDH performance of 6.556 worked hours per case is close to the worst quartile of peer hospital performance. Supply and drug costs are close to the best quartile which is consistent with the observation that over 32 percent of the cases performed in the OR at LWDH are dental or endoscopy cases.

Recommendations

It is recommended that:

(57) The VP Patient Services should relocate the office of the Manager, Surgical Services and MDRD to be proximal to the OR, and ensure the manager has significant visibility and interaction with the perioperative staff.

(58) The VP Patient Services should require that the role of Manager, Surgical Services and MDRD implements:

- **Weekly staff meetings / in-services;**
- **Daily Huddles; and**
- **Daily rounds.**

(59) The VP Patient Services and Manager, Surgical Services and MDRD, should redefine the OR Team Leader role to be that of a Control Desk Coordinator, and develop daily functions and expectations for this role to ensure consistency and reliability to ensure proper and efficient flow of patients throughout the perioperative process, and troubleshoot when issues arise.

Address the internal conflict among OR staff and improve the morale in the department.

These recommendations will begin to address the internal conflict among OR staff and improve the morale in the department. The Manager, Surgical Services and MDRD will be responsible for the success of the development and implementation of the revised Team leader role. Overall, this position is first responsible for ensuring proper and efficient flow of patients throughout the perioperative process, and troubleshooting when issues arise. The Team Leader will be aware of the status of all patients in each area, and promote efficient throughput (i.e. if the OR is running ahead of schedule, the Team Leader will ensure the pre-op area is getting the next patient ready on time). The Team Leader will also provide break coverage when necessary. The Team Leader will hold a 15-minute daily huddle with the Manager, Surgical Services and MDRD and an anaesthesia representative to review schedules 1-5 days out each day to ensure patients are properly prepared, and to solidify surgery schedules. Surgery schedules should not be changed on the day of surgery with the exception for true urgent or emergent cases. Consider having the Team Leader role be a rotating role among the RNs. This is appropriate given the size of the program; normally running no more than 2 rooms per day.

The completion of the renovation in conjunction with added management visibility and operational activity (relocation of the manager's office, Team

Leader role development, etc.) will negate the need to continue with the second management support position. The current manager is planning to retire in the spring of 2018. The successor should be someone who has strong leadership qualities that can promote both team-building and solid staff development.

Recommendations

It is recommended that:

(60) The VP Patient Services and Manager, Surgical Services and MDRD, should eliminate the co-manager role.

(61) The VP Patient Services and the Manager, Surgical Services and MDRD should target median performance of peer hospitals to achieve 5.8 worked hours per case.

(62) The VP Patient Services and the Manager, Surgical Services and MDRD should consider booking endoscopy and dental cases on specific days, and change the staffing compliment to match the industry requirement.

(63) The VP Patient Services and the Manager, Surgical Services and MDRD should formally change the RPN position performing booking and pre-surgical testing from 0.6 FTEs to 1.0 FTEs.

To support the current coverage plan, staffing for the peri-operative areas should be as follows:

Exhibit 154: LWDH Proposed maximum peri-operative Staffing

Position	OR Daily	Pre/Post Daily	Presurgical Screening	Total FTEs
Manager	1.0			1.0
Clerk	0.75		0.25	1.0
Team Leader	1.0 (half time productive)			1.0
RN	2.25 (1 room) 4.5 (2 rooms)	2.0		6.0
RPN		1.0 (when 2 rooms running)	1.0	1.5

When running one room the requirement for OR staffing is considerably less than when running two rooms.

The OR requirement assumes the current OR theatre hours of operation of 7:00 AM to 3:00 PM, running one room on four of the five weekdays, and a second room on the fifth day of the week. The RN requirement varies depending on whether one or two rooms are running. Normally, per ORNAC standards, 2.5 worked hours per hour of surgery are applied for room coverage. However since the Team Leader role is considered productive (allocated half time productive in

this model), the variable has been reduced to 2.25 as the Team Leader allocation is additional to this amount.

It should be noted that when running one room the requirement for OR staffing is considerably less than when running two rooms. This is important as OR staff currently consider staffing to be short any day there are less than seven nurses assigned throughout the perioperative areas. In fact SHC recommends that 5-6 RN FTEs are sufficient for staffing the perioperative areas when running only one surgical theatre. When running two theatres, the requirement meets 7 RN FTEs, and potentially exceeds this requirement depending on pre- and post-operative LOS.

Other improvements to improving efficiency and/or increase capacity.

There are other factors impacting efficiency within the ORs however that also could reduce staffing requirements and/or increase capacity, as follows:

- 42% of first cases start late (see **LWDH Surgery Management Reports, Page 18**).
- SHC case data indicates that of the 11 most common cases performed at LWDH, 7 take more than double the time than that of the target 75th percentile comparative performer (see **LWDH Surgery Management Reports, Section 7 – starting page 35**).
  - Note: it was reported that staff tended to stretch out cases to fit the day; there was no one attempting to facilitate efficient throughput.
  - An exception is noted with total knee cases, where performance actually represents best in the SHC database. It was reported that the physician (a visiting orthopedic surgeon) is responsible for driving the efficiency. This represents the potential of what can be accomplished at LWDH when proper motivation and oversight is applied.
- As previously stated, a significant number of the cases currently performed at LWDH are endoscopy cases and dental procedures. These procedures require a much lower nursing compliment (one nurse per room).

It is through addressing these efficiency issues that LWDH can maximize staffing effectiveness, and begin to bridge the gap between their current overtime usage, sick time usage and worked hours per case and the median and best quartile competitor values.

7.3 Clinical Practices

The expectation of the training program is unrealistic.

Orientation and training is through AORN Periop 101 including performance labs and exams; staff are supposed to complete the didactic module then follow up with clinical experience. Management reports that this is facilitated consistently by the manager. The expectation of the training program is unrealistic:

- After 3 months new staff are expected to take call; if there are concerns with clinical competency, call is delayed or call is taken with an experienced ‘buddy’;

- There is no structure in the training program; no guidance, no consistent preceptor, inconsistent evaluation of new staff (management reports that there are a limited number of senior nurses to fulfill the preceptor role);
- In-service time was reported as provided inconsistently;
- There is a lack of standardization and consistency in practice among seasoned staff, which causes confusion among new staff. All staff are not consistently following ORNAC standards, "everyone doing their own thing"; and
- There is also a lack of education in the PACU area; no course or ACLS required.

Recommendations

It is recommended that:

(64) The VP Patient Services should consider the development of a perioperative educator role to support all areas in the perioperative environment including OR, pre-op, PACU, and MDRD.

(65) The VP Patient Services and Manager, Surgical Services and MDRD, should develop a competency-based orientation program for all perioperative areas.

(66) The VP Patient Services and Manager, Surgical Services and MDRD, should review standards of practice in all areas and develop qualification standards for staff to perform competently in those areas (i.e. ACLS for all nurse who rotate through PACU).

7.4 Scheduling and Pre-surgical Screening

Scheduling policies guiding the scheduling process, schedule administration, and block utilization are lacking.

Scheduling of cases is done primarily by the RPN who also works in the pre-op clinic (PAS/PAT). This person is also provided part-time (approximately 0.25 FTE) clerical support. LWDH was required to participate in the implementation of the Novari scheduling system as part of a region wide initiative. This software is to be used for all booking within the region and allows centralized regional booking of Orthopedics. There is no current interface with their current Meditech system and it is used as the primary tool for scheduling, pre-operative preparation, and wait list management. Observations include:

- Scheduling policies guiding the scheduling process, schedule administration, and block utilization are lacking.
- There is no protocol for managing urgent and emergent cases, and it was reported that often cases are added on that run past the covered room plan that are not considered true urgent cases.
- Utilization of the covered room plan is within acceptable ranges, between 75% and 90% during peak operating hours (see **LWDH Surgery Management Reports, page 7**). However, the issues regarding case time

intervals and staff "stretching out cases" needs to be considered when looking at this data. Furthermore, there does not appear to be any initiative in place to ensure first cases are started on time. As previously stated, there is currently no one driving efficiency in the OR and making sure cases are expedited when possible.

- There is no plan-ahead process to review the upcoming slates and ensure that case order, resource availability, and patient preparedness is all in proper order. As previously stated, the OR Team Leader was reported as often rearranging cases on the day of surgery. This further impacts resources, especially in the pre- and post-operative areas as it increases patient LOS. This process also has the potential of negatively impacting patient satisfaction.
- Block utilization is 52% (16-17 FY). None of the six block holders meets the recommended threshold of 80% utilization; only one surgeon is at 75%, the rest are between 29% and 62% (see **LWDH Surgery Management Reports, pages 3-4**).
- Telephone pre-screening is recorded as performed on 100% of patients; this is in alignment with best practice. Comments from staff suggest that this is not actually the case; this must be recorded to book the OR and it is therefore recorded whether complete or not. Questions are asked according to a screening tool /script. However, there is no online patient questionnaire for pre-op screening. Pre-admission appointments are set up with anesthesia based on information obtained during the telephone screening, and are booked two weeks in advance of procedure. All colonoscopy patients are attempted to be seen or called the day before to guarantee the prep is done correctly.

Recommendations

It is recommended that:

(67) The VP Patient Services should charge the Perioperative Executive Committee with the development of policies defining the scheduling process, schedule administration, and block schedule management and utilization.

(68) The Manager, Surgical Services and MDRD, should develop an urgent emergent policy and case classification system.

(69) The Manager, Surgical Services and MDRD, and the OR Team Lead should establish a daily huddle to review the next day's surgery slate, and to review the schedules of cases five days out.

(70) The Manager, Surgical Services and MDRD, should charge the OR Team Lead role with primary responsibility for managing efficiency and patient flow throughout the OR, with the visible support of the Manager.

(71) The VP Patient Services and Manager, Surgical Services and MDRD, should develop an online patient questionnaire to provide patients with the opportunity to pre-fill out required information prior to the telephone screening, thus creating a verification process versus an information collection process.

Some of the policies that should be established include by the Perioperative Executive Committee include:

- Schedule close time of 12:00 noon the day before. All cases booked after are considered add-on cases;
- Block release of 7 days in advance, all services; and
- Block utilization must be 75% or greater, or else blocks are subject to review/revision.

Ontario already has established case classifications that can be used as a guide.

Ontario already has established case classifications that can be used as a guide for determining where cases performed at LWDH should fall. For example, all elective pre-planned C-section procedures should be booked within the GYN block; and only urgent/emergent cases should bump elective procedures/blocks.

The daily huddle will finalize schedules to ensure cases flow.

The purpose of the daily huddle will be to finalize schedules to ensure cases flow in the most efficient and effective manner. This review should only take about 10 or 15 minutes, and be attended by the Team Leader, an anaesthetist, the pre-surgical screening RPN, and the Manager. The review of the next day's schedule will primarily be for identifying any patients still missing any critical chart elements or tests required before surgery. All flow and equipment issues should have been identified and dealt with at this point, which is the purpose of the further look ahead. The schedule for the next day is at this point solidified, and subject to change only if there is an emergent case that requires a case to be bumped according to established protocol.

As previously recommended, the allotment for booking and pre-surgical screening should be increased to 1.0 FTEs. As the program grows, the requirements for this role (and all staffing) should be monitored. Essentially, every 8-10 cases per day equates to approximately 1.0 FTE of booking and pre-surgical screening/education work when considering all activities, breaks and PTO.

7.5 Surgical Supply Chain and MDRD

LWDH utilizes Meditech for their hospital-wide information system, OR management system (ORM), and supply chain. They utilize the intraoperative module of ORM for patient charting. However, they do not utilize the preference card component of ORM. Instead, they have built their preference cards in Excel. This precludes the ability to automate inventory management in the OR, and to easily perform case costing.

There is a Procurement Committee that is responsible for new product introduction and evaluation. The committee consists of department managers,

finance, education, stores, surgeons (ad hoc), etc. A form is used to capture product cost, anticipated usage, clinical benefit, and item replacing. This is congruent with best practice.

Nurses pick cases, restock OR theatres and manage specialty supplies. High dollar items are reordered by the Manager, Surgical Services and MDRD. This is typical of a rural hospital setting. There is consideration being given for the development of an exchange cart system for OR theatre restocking.

Stores has one person who works in the warehouse. MDRD has 4 people per day scheduled: 1 in the decontamination area, 1 in assembly/wrapping/sterilization area, and 2 responsible for stocking the floors and other hospital departments. For the surgery department, this means that MDRD on average provides 1.8 worked hours per case to perform instrument and endoscope reprocessing. Given current case mix and responsibilities, this allocation is sufficient. However, if LWDH increases the number of orthopaedic cases performed and/or increases the services provided by MDRD (i.e. case carts or OR inventory management), the worked hours per case factor would need to be increased.

MDRD is going through significant renovations, along with the entire OR. Consultant review of renovation plans indicate that the new design should provide adequate space and proper flow for the MDRD. Storage space for back-up supplies in the OR has been amalgamated to the stores area during the renovation, which has not had any noticeable impact on supply availability or access.

Recommendations

It is recommended that:

(72) The Manager, Surgical Services and MDRD, should implement use of the ORM preference card module, and utilize that module to plan resources, pick cases, intraoperatively record items used/develop a bill of materials, and perform case costing.

(73) The Manager, Surgical Services and MDRD, should proceed with the plan to implement an exchange cart system for OR theatre supply replenishment.

(74) The Manager, Surgical Services and MDRD, should ensure that stores items amalgamated during construction should remain in one location, to minimize inventory and decrease restocking of multiple locations.

8.0 Summary of Savings Opportunities

Proposed clinical and operational improvement initiatives that will result in added costs and/or cost savings.

The following table presents a listing of the proposed operational improvement initiatives that will result in added costs and/or cost savings. The estimated costs and savings are also provided. It should be noted that savings from improvements in operating efficiency are savings from actual expenses in 2016/17 (the last complete fiscal year).

As can be seen, we have estimated that the operational review savings will provide the hospital with net savings of $0.5 million from 2016/17 expense levels.

The planned timing of the savings identified is discussed in the next chapter.

Exhibit 155: Estimated Savings and Costs by Operational Improvement Initiative

Report Section	Recommendation	Responsible Functional Centre	Proposed Improvement Initiative	Total Savings Target
3.1	4	Board	Governance training for each Board member	25,000
3.2	15,16	Board	Resources for additional medical chief and Physician enagement	100,000
6.2	28	General Admin	reduce legal fees	(100,000)
6.2	31	Plant Operations	Invest in management	75,000
6.2	33	Security services	Establish on-site security services	275,000
6.2	34	Food services	Achieve median performance of peers	(173,000)
6.3	36	Inpatient 3E	Achieve median performance of peers	(75,000)
6.3	47	Emergency	Achieve median performance of peers	(250,000)
6.3	49	Nurisng Admin	Eliminate Nursing Supervisor on days	(110,000)
6.4	53	Diagnostic Imaging	Achieve median performance of peers	(190,000)
7.2	59	Surgical Services	Eliminate co-manager position	(75,000)
7.2	60	Surgical Services	Achieve median performance of peers	(115,000)
7.2	62	Surgical Services	Increase booking and pre-surgical screening staffing (0.4FTEs)	25,000
7.3	63	Surgical Services	Perioperative educator role	75,000
			Total of Savings Opportunities	(513,000)

9.0 Hospital Improvement Plan

This section of our report presents our proposed Hospital Improvement Plan that is intended to provide a clear and achievable path to:

- Balance the hospital's operating budget;
- Sustain a balanced operating budget into the future;
- Achieve a sufficient operating surplus, to position the Hospital to meet its capital investment requirements; and
- Ensure that the hospital is able to meet its HSAA obligations.

9.1 Requirement for Cost Reductions

LWDH will need to break-even and support equipment and building renewal.

The hospital needs to reduce its operating costs to: 1) balance its operating position; and 2) support renewal of its equipment and buildings. LWDH is forecasting a break-even operating position and an accounting deficit of approximately $400,000 in 2017/18. This, in essence, mirrors the 2016/17 financial results. This occurs in the context of the base funding increase received in 2017/18 and numerous measures implemented to reduce operating costs over the last several fiscal years. A break-even operating position will not allow renewal of equipment and buildings; an accounting surplus is required.

Total net assets over the most recent 6-year period have declined from $8M to $5.2M. Even with the balanced operating forecast in 2017/18, the current ratio is expected to fall below 1 and net assets are forecast to fall further to $4.6M. Within this environment, capital replacement and infrastructure renewal have been limited and curtailed. As discussed, roughly $3M in HIRF grants have been received over the last 6 years.

LWDH will need to identify at least $700k each year to meet inflationary pressures.

The hospital is also annually challenged with inflationary pressures. The hospitals annual expenses (excluding other votes and programs and depreciation) are approximately $35M; if annual across-the-board inflation of 2% is assumed, LWDH will need to identify at least $700,000 in cost reductions or revenue increases each year simply to meet annual inflationary pressures.

Revenue increases are not enough to cover inflationary pressures.

As discussed in Chapter 2, revenue increases over the last 6 years have been tied to service / volume expectations; global/HBAM funding available for operations has declined over this period. With recent changes in HSFR that identify LWDH as a small hospital and not subject to HBAM, this should change on a go-forward basis. If LHIN global funding is therefore assumed to increase 1% annually, this will represent approximately $250,000 annually in new revenue for LWDH. Netted against inflation, LWDH will still need to identify approximately $450,000 annually ($700 - $250) to maintain the balanced operating position projected in 2017/18. This still does not address the hospitals requirements for capital renewal; there remains an accounting deficit of approximately $400,000 annually.

Simplified deficit projection.

The following table presents a simplified deficit projection with no operational savings initiatives implemented. In this projection we have assumed:

- No programmatic / volume based funding changes; such changes should largely be neutral to the bottom-line as revenues should offset expenses;
- Non-programmatic / volume based funding will increase 1% annually;
- Total operating expenses will increase at 2% annually.

In this scenario, it is evident that the LWDH deficit will increase annually by approximately $450,000. With no action taken, these assumptions will see the operating deficit grow to $1.8M and the accounting deficit grow to $2.2M by fiscal 2021/22.

Exhibit 156: Simplified Deficit Projection - no savings initiatives implemented

	Forecast **2017/18**	Projection **2018/19**	Projection **2019/20**	Projection **2020/21**	Projection **2021/22**
Revenue					
LHIN Global & HBAM	25,457,868	25,712,447	25,969,571	26,229,267	26,491,560
Other	25,660,438	25,660,438	25,660,438	25,660,438	25,660,438
	51,118,306	51,372,885	51,630,009	51,889,705	52,151,998
Expenses					
Operating expenses	34,877,072	35,574,613	36,286,106	37,011,828	37,752,064
Other	16,237,671	16,237,671	16,237,671	16,237,671	16,237,671
	51,114,743	51,812,284	52,523,777	53,249,499	53,989,735
Operating Revenue less Expenses (Deficiency)	3,563	(439,400)	(893,768)	(1,359,794)	(1,837,738)
Net Building Depreciation	(409,320)	(410,000)	(410,000)	(410,000)	(410,000)
Surplus/(Deficiency) of Revenue over Expenses	(405,757)	(849,400)	(1,303,768)	(1,769,794)	(2,247,738)

9.2 Implementing the Hospital Improvement Plan

The LWDH Senior Management, MAC and Board should review this report, the recommendations and the detailed benchmarking and analyses' that supports the recommendations. Based on that review, the hospital should determine the timing for implementation of each recommendation and review their plan with the LHIN. We have assumed that all recommendations will be accepted and implemented expeditiously. We have made suggestions of timing and priorities; as this is

contingent of management capacity, however, management should establish their own more specific plan.

9.3 Communicating the Hospital Improvement Plan

Develop and implement a communication plan

It will be critical for the Hospital to develop and implement a communication plan supporting the elements of the Hospital Improvement Plan. The hospital will need to communicate the seriousness of its fiscal situation and the plan to address and resolve the problem. It will need to craft specific messages addressing the interests and concerns of its key stakeholders including patients, hospital staff, other Health Service Providers in the LHIN, the LHIN, communities in its catchment area, first nations communities, local civic governments and local Members of Provincial (and federal) Parliament.

9.4 Timing of Operational Improvement Savings Initiatives

In section 8, we estimated that the operational review recommendations that involve savings and investments will provide the hospital with net savings of approximately $0.5 million from 2016/17 expense levels. For each of the estimated savings or costs of operational improvement initiatives, we have provided a suggested timing for implementation and realization of the savings. Single decision initiatives can be implemented immediately; recommendations that require working towards a peer median efficiency level can be expected to take more time. The following table presents our suggested timing.

Exhibit 157: Timing of Estimated Savings and Costs by Operational Improvement Initiative

Rep. Sect.	Rec.	Responsible Functional Centre	Proposed Improvement Initiative	Total Savings Target	2018/19	2019/20	2020/21
3.1	4	Board	Governance training for Board members	25,000	25,000		
3.2	15,16	Board	Resources for additl chief & Phys enage	100,000	100,000		
6.2	28	General Admin	reduce legal fees	(100,000)	(25,000)	(75,000)	
6.2	31	Plant Operations	Invest in management	75,000	75,000		
6.2	33	Security services	Establish on-site security services	275,000	275,000		
6.2	34	Food services	Achieve median performance of peers	(173,000)	(86,500)	(86,500)	
6.3	36	Inpatient 3E	Achieve median performance of peers	(75,000)	(75,000)		
6.3	47	Emergency	Achieve median performance of peers	(250,000)	(83,333)	(83,333)	(83,333)
6.3	49	Nursing Admin	Eliminate Nursing Supervisor on days	(110,000)	(110,000)		
6.4	53	Diagnostic Imaging	Achieve median performance of peers	(190,000)	(95,000)	(95,000)	
7.2	59	Surgical Services	Eliminate co-manager position	(75,000)	(75,000)		
7.2	60	Surgical Services	Achieve median performance of peers	(115,000)	(57,500)	(57,500)	
7.2	62	Surgical Services	Increase bookg and pre-surg screen staff	25,000	25,000		
7.3	63	Surgical Services	Perioperative educator role	75,000	75,000		
			Total of Savings Opportunities	(513,000)	(32,333)	(397,333)	(83,333)

Incorporating these operational improvement initiatives and proposed timing into the simplified deficit projection, it is evident that the projected deficit is reduced; with the implementation of the initiatives in this timeframe, the operating deficit grows to $1.3M (vs. $1.8M) and the accounting deficit grows to $1.7M (vs. $2.2M) by fiscal 2021/22.

After implementation of all of the identified initiatives, there remains a significant operating and accounting deficit.

While the deficit is reduced with the implementation of the operational improvement initiatives, it is evident that even with the implementation of all of the identified initiatives there remains a significant operating and accounting deficit in each of the next four fiscal years. Further, working capital and net assets also continue to deteriorate. To fully achieve a balanced budget, LWDH would need to realize approximately an additional $450,000 in savings or additional funding every year (the net amount required to cover inflation) for the foreseeable future.

Exhibit 158: Simplified Deficit Projection - savings initiatives implemented

	Forecast **2017/18**	Projection **2018/19**	Projection **2019/20**	Projection **2020/21**	Projection **2021/22**
Revenue					
LHIN Global & HBAM	25,457,868	25,712,447	25,969,571	26,229,267	26,491,560
Other	25,660,438	25,660,438	25,660,438	25,660,438	25,660,438
	51,118,306	51,372,885	51,630,009	51,889,705	52,151,998
Expenses					
Operating expenses	34,877,072	35,574,613	36,253,773	36,581,515	37,229,812
Other	16,237,671	16,237,671	16,237,671	16,237,671	16,237,671
	51,114,743	51,812,284	52,491,444	52,819,186	53,467,483
Operating Revenue less Expenses (Deficiency)	3,563	(439,400)	(861,435)	(929,481)	(1,315,486)
Net Building Depreciation	(409,320)	(410,000)	(410,000)	(410,000)	(410,000)
Surplus/(Deficiency) of Revenue over Expenses	(405,757)	(849,400)	(1,271,435)	(1,339,481)	(1,725,486)
Identified Savings	0	(32,333)	(397,333)	(83,333)	0
Revised deficit	(405,757)	(817,067)	(874,102)	(1,256,148)	(1,725,486)

63% of LWDH functional centres already operate at or better than the median performance of peer hospitals.

As noted previously in section 2.7 and section 6.0, before any operational improvement initiatives are pursued, LWDH already achieves overall operational efficiency levels at the median of its peer group. As has been discussed, in 2016/17, most LWDH functional centres (63%) operated at or better than the median performance of the peer hospitals; this represents an improvement since 2013/14 (when 55% of functional centres were operating at or better than median performance). With the implementation of the operational improvement initiatives recommended in this report, overall LWDH efficiency performance can be expected to improve further to between the best quartile and median of its peer hospitals. Operational efficiency should be continually monitored to assess the impact of savings initiatives and relative performance in relation to peer performance levels. Some recommendations have not been quantified in this analysis but can be expected to generate further savings opportunities in the future; for example, as LWDH reviews its bed map and makes necessary adjustments to skill levels and mix, additional savings should be realized. Such recommendations, however will take significant effort and time to realize while involving agreement and assessment from the LHIN and other stakeholders. Therefore, while these recommendations have not been quantified here, they can be quantified in the future as they become better defined. Quantification will be facilitated through the access provided as part of this review to LWDH to the BIG benchmarking database.

Additional operational efficiency cost reductions may be quantified as longer-term recommendations are implemented.

Some recommendations were not quantified and management may identify its own savings.

There may also be savings associated with some recommendations in this report that have not been explicitly quantified. Such recommendations as regional transcription, external laundry recoveries, integrated PACS with other NW hospitals and access to improved mental health crisis response may all result in further cost savings as such items are further investigated. Further investigation is required, however, to quantify such efforts. There may also be initiatives that management identifies independently that will yield cost savings or revenue increases. As the hospital moves forward with such investigations, specific savings targets should be assessed and monitored by the Board and communicated with the LHIN.

Cost savings from structural changes to the health system in Kenora are not anticipated in the short-term.

There are some structural challenges within Kenora, as discussed earlier in this report that would also result in hospital cost reductions. These would include such systemic changes as improved access to home care, greater access to LTC, improved access to mental health services, additional or more intensive system partnerships and a broader range of surgical activity. We have recommended that each of these items be pursued, however, we would not anticipate cost reductions arising from these items in the short-term. Such items need to be incorporated in the strategic planning of the hospital.

We have not made any cost reduction assumptions associated with such items (further operational efficiencies / structural changes / unquantified recommendations / management items) in part because many of these are longer-term in nature, require further investigation to quantify and, further we felt that

management capacity would be already absorbed with the shorter-term recommendations.

Further cost reductions of the magnitude to balance in the time horizon would require service reductions.

We feel that over the time horizon considered, if further cost reductions of the magnitude required to balance were to be identified, they would need to come from service reductions. We have not included any service reductions as part of the proposed Hospital Improvement Plan initiatives. Previous chapters have identified the patient care needs being served by LWDH. We feel that the services that LWDH is providing now are required to serve the population and have identified potential areas for increased rather than decreased service (mental health, surgery, rehabilitation). Further, the difficulties inherent in expecting patients to travel for care (and the likelihood that care would be inaccessible if they did travel), and the impact on physician recruitment, would likely result in cost increases for the system should LWDH choose to reduce services.

However, if the LHIN/MOHLTC does not provide additional funding, the hospital will need to immediately pursue service reductions to alleviate the inevitable financial pressures on the organization. It will also need to aggressively pursue horizontal integration opportunities and changes to its care processes. These additional initiatives are described later in this report.

9.5 Savings from Clinical and Operational Improvement Initiatives and Required Funding

Only with a commitment from the LWDH Board to:

- Achieve its forecasted balanced operating position in 2017/18;
- Implement the identified operational improvement initiatives and other recommendations;
- Continue looking for internally identified operational improvements;
- Work with other providers to identify opportunities for synergies;
- Generate a surplus to maintain the current building as long as required;
- Initiate a strategic planning process with an emphasis on the clinical services required to appropriately serve the population of Kenora and the potential to develop regional programs supported by the LHIN (e.g. surgery, Mental health, rehabilitation); and
- Community engagement in the development of the strategic plan.

With specific commitments from the LWDH Board, the LHIN / MoHLTC should provide additional base funding of $1.75M.

the LHIN/MOHLTC should provide the hospital with a base funding increase in 2018/19 of $1.75M. The combination of the hospitals aggressive pursuit of savings and additional funding from the LHIN would address the operating results and allow it to address building maintenance challenges into 2021/22. These have been incorporated below into the simplified projection.

We feel that an investment of this magnitude by the LHIN will provide the hospital with the financial foundation to:

- Balance the hospital's operating budget;
- Sustain a balanced operating budget into the future;
- Achieve a sufficient accounting surplus, to position the Hospital to meet its capital investment requirements; and
- Ensure that the hospital is able to meet its HSAA obligations.

This investment will also give LWDH the financial certainty and foundation to address the variety of cultural challenges identified in this report and begin working constructively with its community towards a new Health Service Campus for Kenora.

Exhibit 159: Simplified Deficit Projection - savings initiatives and recommended funding implemented

	Forecast **2017/18**	Projection **2018/19**	Projection **2019/20**	Projection **2020/21**	Projection **2021/22**
Revenue					
LHIN Global & HBAM	25,457,868	27,462,447	27,737,071	28,014,442	28,294,586
Other	25,660,438	25,660,438	25,660,438	25,660,438	25,660,438
	51,118,306	53,122,885	53,397,509	53,674,880	53,955,024
Expenses					
Operating expenses	34,877,072	35,574,613	36,253,773	36,581,515	37,229,812
Other	16,237,671	16,237,671	16,237,671	16,237,671	16,237,671
	51,114,743	51,812,284	52,491,444	52,819,186	53,467,483
Operating Revenue less Expenses (Deficiency)	3,563	1,310,600	906,065	855,694	487,541
Net Building Depreciation	(409,320)	(410,000)	(410,000)	(410,000)	(410,000)
Surplus/(Deficiency) of Revenue over Expenses	(405,757)	900,600	496,065	445,694	77,541
Identified Savings	0	(32,333)	(397,333)	(83,333)	0
Revised deficit	(405,757)	932,933	893,398	529,027	77,541

9.6 Monitoring Implementation of HIP

The LWDH Board should receive regular monthly reports on progress towards implementing each recommendation.

The LWDH Board should receive regular monthly reports on progress towards implementing each recommendation of the Hospital Improvement Plan. Additionally, the Board should monitor key metrics related to the plan; specific metrics for each recommendation are discussed in the sections preceding each recommendation. The Board should ensure that targeted levels of performance are being achieved for each. The metrics should also include the following:

- Selected Clinical and Quality Metrics
  - Monthly MAC Reports
  - Accessibility to mental health services
  - Emergency Room wait times
  - Wait times for Diagnostic procedures
  - Sick time and overtime
  - Recruitment activities (vacancies / turnover / exit interview results)
- Operations
  - Functional Centre Productivity Performance
  - Operating Costs vs. Budget/HIP Targets
  - Progress on integrated / regional service development
- Finance
  - Operating Surplus
  - Working Capital and operating credit lines
  - Comprehensive infrastructure renewal plan
- Administrative
  - HSAA Obligations
  - LHIN Commitments and Program discussions

The LWDH Board itself must also implement the governance recommendations contained within this report. Specifically recommendations 3 through 22 need to be addressed immediately.

9.7 Implications of No Additional Funding

As has been discussed in the preceding sections of this chapter, we have recommended that LWDH aggressively pursue the identified savings opportunities. But, because these savings efforts will be insufficient to establish a sustainable future for the hospital, we have also recommended an increase in base funding. We assume that the LHIN and the MOHLTC will recognize the need for a funding increase for LWDH. However, if such an increase is not available to LWDH and it is required to live within existing levels of funding, there are a number of steps that will need to be taken immediately to reduce expenses.

The additional initiatives will likely need to include the following:

- Accelerating horizontal integration;
- More aggressively pursuing operational improvements; and

- Reducing clinical services.

9.7.1 Accelerating Horizontal Integration

More aggressively pursue integration opportunities and consider broader integration options.

LWDH will need to pursue integration opportunities more aggressively than suggested in the sections above. While we have suggested a number of possible areas for integration, Management would need to immediately investigate and prepare appropriate business cases associated with cost savings from more regional integration opportunities in such areas as transcription, clinical engineering, diagnostic imaging as well as shared senior administrative roles within the NW LHIN. LWDH will also need to seek economies of scale and scope through horizontal integration of its administration, management and, finally, governance with other hospitals in NW Ontario.

9.7.2 More Aggressive Operational Efficiencies

Best Quartile Operational Targets.

Recognizing the lack of economies available to LWDH, we have made most of our operational efficiency recommendations based on the median performance of peer hospital. In the absence of funding, however, best quartile targets would need to be sought. The overall difference between median and best quartile targets are presented in section 6.0. Detailed functional centre level best quartile operational targets are available to the hospital through its subscription to the BIG Benchmarking tools made available as part of this review.

9.7.3 Reducing Clinical Services

Any service that is curtailed will require patients to travel; this would entail additional expenses while simultaneously limiting access.

From the perspective of further reducing operating costs through service reductions, it is important to note that the hospital has very few discretionary clinical services. Any service that is curtailed will require patients to travel; this would entail additional expenses while simultaneously limiting access. Further, as noted, the difficulties inherent in expecting patients to travel for care (and the likelihood that care would be inaccessible if they did travel), and the impact on physician recruitment, would likely result in cost increases for the system should LWDH be required to significantly curtail services.

Despite these challenges, without additional funding, LWDH will need to consider selective service and volume reductions. Areas that can be somewhat controlled by the hospital are related to elective services and in particular ambulatory clinics/services and elective surgery.

Ambulatory clinics that might be considered for serious reductions in activity or elimination are those where the service might be more appropriately provided in the physician's office rather than the hospital. These include ophthalmology and endoscopy.

Finally, while timing will be a challenge, alternatives to hospital care for ALC patients would need to be more aggressively pursued.