



How you want to be treated.

PHC Annual Performance Report *2006/2007*

Holy Family Hospital • Mount St. Joseph Hospital • St. Paul's Hospital • St. Vincent's Hospitals • Youville Residence

Last revised: July 3, 2007



Hot dates

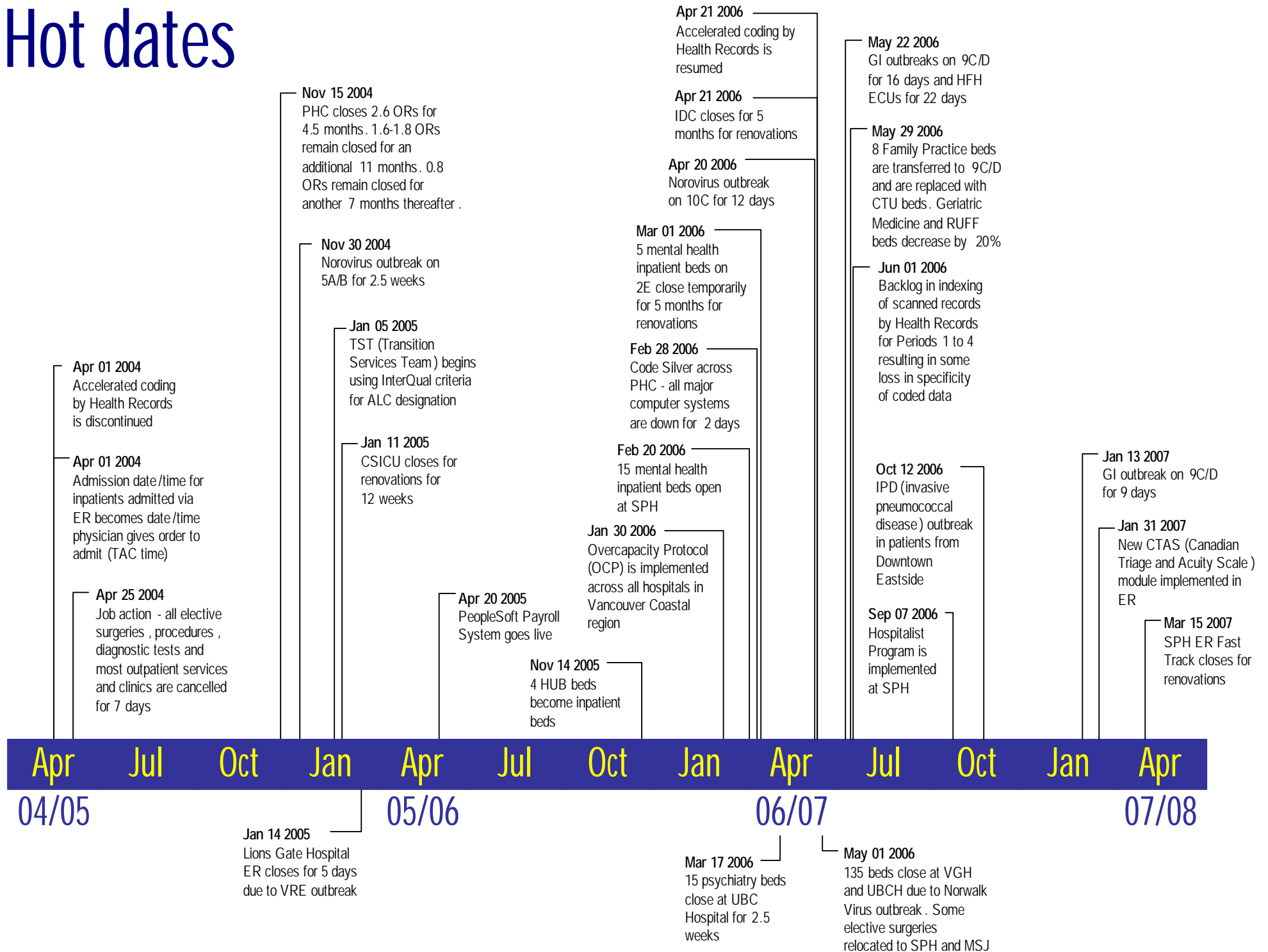


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Performance summary

Strategic Directions Goal	Status	Indicator Name	Comments	Page Ref.
Provide excellent care & service	●	1.1. Complication rate for diagnostic cardiac catheterization	Rate is stable. Rate is within the comparator range.	10
	●	1.2. Aspirin administration rate for AMI and suspected AMI	Rate is stable. Target is being met.	10
	●	1.3. In-hospital mortality rate for community-acquired pneumonia	Rate is stable. Rate is within the comparator rate.	11
	◆	1.4. AMA rate for HIV/AIDS patients	Rate is stable.	11
	●	1.5. Rate of receipt of adequate hemodialysis	Rate has shifted in undesired direction. Target is being met.	12
	◆	1.6. Rate of adequate renal function at 6 months post-kidney transplant	Rate is stable. Target is not being met; gap between rate and target is not significant.	12
	●	1.7. Unplanned readmission rate for mental health & addictions	Rate is stable. Target is being met.	13
	□	1.8. Residential care indicators – Placeholder	Indicators are currently under review.	13
	◆	1.9. Resident overall satisfaction rate	Rate has improved over previous survey year. Target is not met in most recent year; gap between rate and target is not significant.	14
	●	1.10. Resident family overall quality rate	Rate has deteriorated over previous survey year. Target is met in most recent survey year.	14
	●	1.11. Emergency patient satisfaction rate	Target is met.	15
	◆	1.12. Acute inpatient satisfaction rate	Rate has performed on a par with comparator.	15
	●	1.13. Ambulatory oncology satisfaction rate	Rate has performed at the optimal level.	16
	◆	1.14. HSMR (hospital standardized mortality ratio)	Ratio has deteriorated over previous year.	16
	●	1.15. In-hospital deaths per 100 patients in CMGs with less than 1% mortality	Rate is stable. Target is being met.	17
	◆	1.16. In-hospital fracture rate per 1,000 patients aged 65 years and older	No change in rate over previous year. Target is not met in most recent year; gap between rate and target is not significant.	17
	●	1.17. Influenza immunization rate for residents	No change in rate over previous year. Target is met in most recent year.	18
	■	1.18. Influenza immunization rate for staff	Rates have deteriorated over previous year. Targets are not being met; gaps between rates and targets are significant.	18
	●	1.19. Unplanned readmission rate for CHF (congestive heart failure)	Rate is unstable. Target is being met.	19
	●	1.20. Unplanned readmission rate for diabetes	Shift in desired direction has ended. Target is being met.	19
Improve health services	■	1.21. Average wait time in ED for admitted patients	Rate is stable since shift in the desired direction. Target is not being met; gap between rate and target is significant.	20
	◆	1.22. % admitted patients who leave ED within 10 hours of decision to admit time	Rate is decreasing. Target is not being met; gap between the rate and target is not significant.	20
	■	1.23. Proportion of ED patients seen by physician within target times	Rate is unstable for CTAS 2, stable for CTAS 3. Targets are not being met; gaps between rates and targets are significant.	21
	■	1.24. Surgical cancellation rate	Rate is unstable. Target is not being met; gap between rate and target is significant.	21
	◆	1.25. % hip replacement patients receiving surgery within targeted wait time	Rate is unstable. Target is not being met; gap between rate and target is not significant.	22
	◆	1.26. % knee replacement patients receiving surgery within targeted wait time	Rate is deteriorating. Target is not being met; gap between rate and target is not significant.	22
	◆	1.27. % oncology mastectomy patients receiving surgery within targeted wait time	Rate is stable. Target is not being met; gap between rate and target is not significant.	23
	◆	1.28. Median wait time for CABG (coronary artery bypass graft)	Rate is stable. Target is not being met; gap between rate and target is not significant.	23

Performance summary



Strategic Directions Goal	Status	Indicator Name	Comments	Page Ref.	
Provide excellent care & service	■	1.29. % acute LOS (length of stay) compared to ELOS (expected length of	End to the shift in the desired direction. Action point is being exceeded.	24	
		1.30. % ALC census days	Rate is improving. Target is not being met; gap between rate and target is significant.	24	
		1.31. % mental health & addictions ALC discharge days	Rate is unstable. Target is not being met; gap between actual and target is not significant.	25	
		1.32. SDC (same day care) opportunities	Opportunities exist to achieve the national 75%ile outpatient rates.	25	
	Improve business operations	◆	1.33. Cumulative net surplus (deficit)	Target is not met; gap between actual and target is not significant.	26
		◆	1.34. Current ratio	Target is not being met; gap between ratio and target is not significant.	26
		●	1.35. Administrative and support costs as % of total expenses	Rate has improved over previous fiscal year (mainly due to definition change). PHC is outperforming the comparator.	27
		●	1.36. Non-Ministry of Health Services revenues as % of total revenues	No change in rate over previous fiscal year. PHC is outperforming the comparator.	27
		●	1.37. Occupancy rate	Rate has improved over previous fiscal year. Target is being met.	28
		●	1.38. % actual inpatient days to planned inpatient days	No change in rate over previous fiscal year. Target is being met.	28
Live our mission every day	□	2.1. % positive responses to survey items related to Spirituality	Insufficient data for colour assignment.	29	
		2.2. % positive responses to survey items related to Integrity	Insufficient data for colour assignment.	29	
		2.3. % positive responses to survey items related to Trust	Insufficient data for colour assignment.	30	
		2.4. % positive responses to survey items related to Respect	Insufficient data for colour assignment.	30	
Create an environment that attracts & retains the best people	◆	3.1. RN vacancy rate	Rate is stable.	31	
	◆	3.2. % sick hours	No change in rate over previous fiscal year. Target is not being met; gap between rate and target is not significant.	31	
	■	3.3. % overtime hours	Rate has deteriorated slightly over previous fiscal year. Target is not being met; gap between rate and target is significant.	32	
	●	3.4. WCB MSI (musculoskeletal injury) incidence rate for direct care areas	Rate is improving. Target is being met.	32	
	●	3.5. WCB incidence rate	Rate is improving. Target is being met.	33	
	●	3.6. % days of work lost due to injury for direct care areas	Rate has shifted in the desired direction.	33	
	●	3.7. WCB claims cost	Rate has shifted in the desired direction.	34	
	◆	3.8. WCB experience rating adjustment	Rate has deteriorated over previous year. Target is not met in most recent year; gap between rate and target is not significant.	34	
	●	3.9. Grievances filed rate	Shift in the desired direction has ended.	35	
Support research & new knowledge integration	◆	4.1. Total annual research funding	Funding has decreased over previous fiscal year.	36	

Indicator status legend (refer to page 7 for status assignment rules):

● Continue to monitor	◆ Review required	■ Action required	□ Not available
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A day in the life of PHC



At PHC, on an average weekday:

- 64 patients are admitted to an acute inpatient bed
- 3 patients are admitted to an acute rehabilitation bed
- 5 babies are born
- 1 resident moves into one of our residential care homes
- 214 people visit our EDs, 30 of whom are eventually admitted to hospital as an inpatient
- 61 people go home or are transferred from our acute inpatient sites
- 2 people pass away at our acute inpatient sites
- 3 people go home or are transferred from our acute rehabilitation site
- 5 babies go home
- 1 resident passes away or moves out of one of our residential care homes
- At midnight:
 - There are 508 patients in an acute inpatient bed; 17 are in intensive care, 10 are on the palliative care unit
 - There are 65 patients in an acute rehabilitation bed
 - There are 12 newborns
 - There are 667 residents in our residential care homes
- 87 people have major surgery in one of our main ORs or procedure rooms; 59 have major surgery on an outpatient basis and 28 on an inpatient basis

Note:

The above data were compiled by calculating the average volumes occurring on weekdays (Monday to Friday) in FY 06/07. Various data sources were used, including:

- ADT Admission, Census, and Discharge Cubes
- CCIMS extract
- ORMIS Cube



Background

Introduction

This document is intended to provide a broad view of organizational performance with an emphasis on the performance for the fiscal year 2006/07.

Since its original release in February 2004, the PHC Performance Report has undergone several iterations, each iteration contributing to the improvement of the report in terms of its completeness and relevance to organizational priorities. Major changes and developments that have occurred since the last release of the report in July 2006 are:

- The undertaking of the **BSC Renewal Project**, a comprehensive review of the corporate BSC that has involved an internal evaluation by its primary users, an external environmental scan, and expert consultation. This work has proceeded under the direction of the SLT Council for Excellence Working Group.
- The addition of HSMR (hospital standardized mortality ratio) to the set of patient safety indicators.
- Redevelopment of the StatsCard, which tracks statistics and volumes of import and is accessible via the Commitment to Excellence intranet site.

PHC Balanced Scorecard Online

The online PHC Balanced Scorecard enables leaders and other stakeholders to monitor the performance of the indicators from their desktops. The online PHC Balanced Scorecard can be accessed via the Commitment to Excellence hyperlink on the PHC intranet homepage. The Balanced Scorecard is one of the options in the Data section. Users are able to either view the performance of an individual indicator at the corporate level, or drill down to greater levels of detail (to program/care team or cost centre, depending on the indicator) for selected indicators.

Balanced Scorecard

The balanced scorecard provides a comprehensive framework for evaluating the overall performance of an organization by including both financial and non-financial perspectives. Traditionally, the measure of the success of organizations has been based on financial performance without consideration of performance measures relative to the organization's ability to live its mission or achieve its strategic, non-financial goals. Originally designed for use in the private sector, the use of the balanced scorecard by health care organizations is increasing due to its relevance in managing the many different aspects of performance within the health care setting.



A balanced scorecard measures organizational performance from four different perspectives: the financial, the customer, internal business processes, and learning and growth. The traditional four-perspective approach to the balanced scorecard has been adapted to better align with PHC's five **Strategic Directions**:

- 1 Provide excellent care & service
- 2 Live our mission every day
- 3 Create an environment that attracts & retains the best people
- 4 Support research & new knowledge integration
- 5 Achieve strategic growth

Background



Selection of PHC Performance Indicators

The selection of the performance indicators presented in this report is the result of the efforts of three PHC groups: the **Clinical Indicators Working Group (CIWG)**, the **Senior Leadership Team (SLT) Council for Excellence Working Group**, and the **Patient Safety Committee**. Additional indicators have been adopted from the VCH Balanced Scorecard.

The **Clinical Indicators Working Group (CIWG)** was established with the purpose of defining a set of clinical indicators for PHC to measure the quality of clinical care at the corporate level for the five populations of emphasis identified by the Strategic Directions Group:

- People with Cardio-Pulmonary Risks and Illnesses
- People with Complex Medical/Social Needs (formerly Urban Health)
- People with Mental Illness
- People with Specialized Needs in Aging
- People with Renal Risks and Illnesses

The role of the **SLT Council for Excellence Working Group** in this regard is to 1) define a set of corporate indicators and performance targets, and 2) assign accountability for indicator results analysis. The overarching principles that guide the selection of indicators are the following:

1. PHC performance indicators reflect the unique mission, vision, and values of this organization
2. PHC performance indicators meet the following criteria:
 - Promote improvement
 - Are simple and relevant to PHC priorities, goals, and initiatives
 - Are as specific as possible (with reference to location, time frame, patient group, etc.)
 - Reflect a mixture of process and outcome measures
 - The data required to construct the indicator is readily available and reliable
3. PHC performance indicators will evolve over time with learning, the finalization of organizational strategic directions and goals, as well as the ongoing improvement of our information systems
4. PHC performance indicators are aligned with those of the Ministry of Health and the VCH

The aim is also to select a set of indicators that collectively address the following dimensions of quality: effectiveness, safety, timeliness, equitability, patient-centredness, and efficiency. **Appendix B - Dimensions of quality matrix** (page 38) lists the selected indicators and the dimension(s) of quality each indicator addresses.

The third group, the **Patient Safety Committee**, was formed to lead the improvement of patient and resident safety across the organization and has been engaged in the development of patient safety indicators.

Report Content

This report is presented in five sections, each section corresponding to one of PHC's Strategic Directions. Within each section, the following information for each indicator is presented:

- **Indicator definition** – a description of the indicator (for details regarding the method of calculation and inclusion/exclusion criteria for each indicator, refer to **Appendix C – Technical notes**)
- **Indicator specifications** – additional information pertaining to the indicator (refer to following section for an explanation)
- **Run chart** – the data for the indicator plotted over time (refer to following section for an explanation of run charts)
- **Analysis** – an interpretation of the indicator results
- **Next steps** – a summary of the proposed follow-up actions or actions in progress for the indicator



Indicator specifications

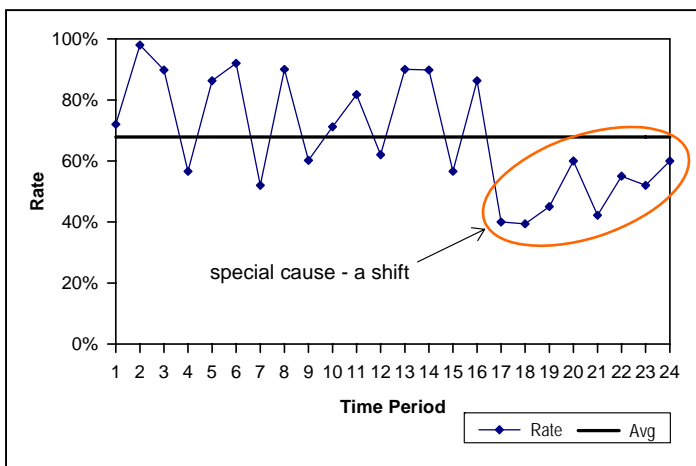
The following table provides an explanation of the specifications that are provided for each indicator.

Specification	Description	
Type	PHC	The indicator is unique to PHC
	PHC = VCH	The indicator is also included in the VCH Balanced Scorecard and is defined in the same way
	PHC ≠ VCH	The indicator is also included in the VCH Balanced Scorecard but defined differently
Report Frequency	The unit of reporting (e.g. fiscal period, calendar month)	
Preferred Trend	↓	A decrease in the level of performance is the desired trend for the indicator
	↑	An increase in the level of performance is the desired trend for the indicator
Target	The desired level of performance for the indicator	
Comparator	The level of performance for a comparison organization/entity	
Summary Symbol	See Indicator Status Legend on page 7	

Run charts

Wherever possible and relevant, the data in this report have been presented as run charts. A run chart is a performance improvement tool used to understand variation in a process. Run chart theory is based on the premise that two kinds of variation exist: the kind that is inherent in the process (*common-cause variation*) and the kind that is caused by some external influence (*special cause variation*). Run charts aid in the detection of special causes variation. The four following tests can be applied to a chart to determine the presence of a special cause (Note: As a general rule of thumb, the minimum number of useful observations (i.e., data points) that are needed to construct a run chart is 15):

- Test 1: Too many/too few runs** – A run is one or more consecutive data points on the same side of the center line. Depending on the number of data points available, there is a range of the number of runs one would expect to see from a common cause process. If there are too few or too many runs than expected, this suggests the presence of special causes of variation. For a chart with 15 useful observations the number of runs one expects to see is 4 to 12.
- Test 2: A trend** – A trend has occurred when there is an unusually long series of consecutive increases or decreases in the data. For a dataset with 20 or less useful observations, what constitutes an “unusually long series” is 6 or more data points all increasing or decreasing, and for a dataset with more than 20 useful observations, 7 or more data points.
- Test 3: A shift** – A shift has occurred in the process when a run contains too many data points. 7 or more data points in a run is considered “too many” for a dataset with less than 20 useful observations, and 8 or more data points in a run for 20 or more useful observations.
- Test 4: A pattern** – When 14 or more points form a zig-zag pattern.








When any of the above test conditions are met, this suggests the presence of a special cause, and therefore requires further investigation into the nature of the special cause.

Background







Chart colour-coding

This report adheres to the following colour-coding conventions for most run charts presented:

-  PHC actual
-  PHC average
-  Target
-  Action point
-  Comparator

Indicator status legend

A status symbol is assigned to each indicator based on the following rules:

	Continue to monitor	Target is being met ↳ OR, if no target is defined, PHC is outperforming comparator ↳ OR, if no comparator is defined, a shift is observed in the desired direction
	Review required	Action point is not exceeded, but target is not being met ↳ OR, if no action point is defined, target is not being met (gap between actual and target is not "significant") ↳ OR if no target is defined, comparator is on a par with or is outperforming PHC (gap between actual and comparator is not "significant") ↳ OR, if no comparator is defined, the indicator is stable or a shift is observed in the undesired direction
	Action required	Action point is exceeded ↳ OR, if no action point is defined, target is not being met (gap between actual and target is "significant") ↳ OR, if no target is defined, comparator is outperforming PHC (gap between actual and comparator is "significant")
	Not available	Any of these conditions are met: <ul style="list-style-type: none"> ▪ Indicator has not yet been defined or is currently under review ▪ Data is currently unavailable ▪ Neither a target nor comparator is defined and there is insufficient data for trend analysis

Report Limitations

The selection of indicators is limited by the availability and quality of data currently collected by existing information systems and thus the indicators presented here are not necessarily the best indicators of organizational performance. Comments related to data limitations for specific indicators can be found in **Appendix C – Technical notes**.

Next Steps

This document is a work in progress in both its form and content. Related work that is planned or currently underway are:

- The completion of the BSC Renewal Project.
- Migration of the improved functionality of the StatsCard to the online BSC.
- Provision of further support to the Indicator Leaders in developing their role in the analysis of indicator performance.

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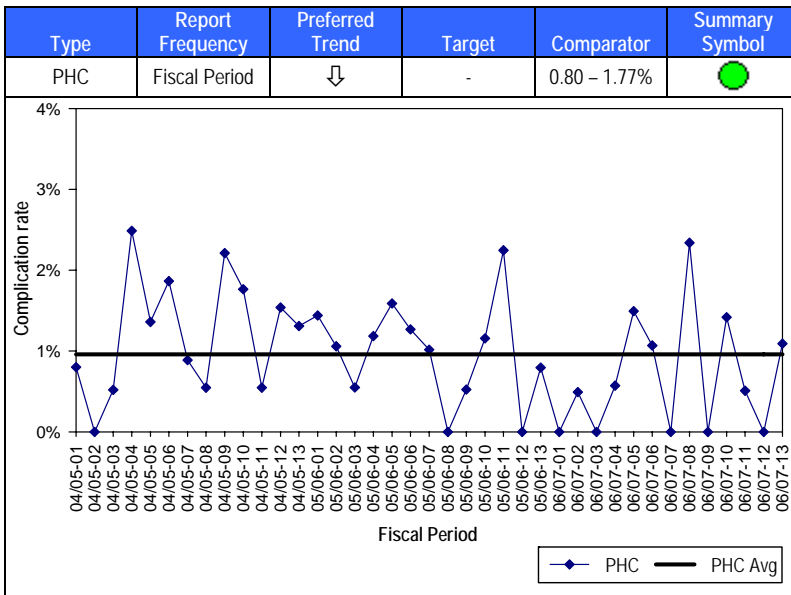
Provide excellent care & service

People with
Cardio-Pulmonary
Risks & Illnesses

1.1. Complication rate for diagnostic cardiac catheterization

Definition

The proportion of inpatient and outpatient cases that underwent diagnostic cardiac catheterization that also experienced a complication post-procedure.



Analysis

The complication rate for diagnostic cardiac catheterization is stable with an average of 1.0% for the period shown. The average rate is within the comparator complication rates cited in the literature, which range from 0.80% to 1.77%.

Next Steps

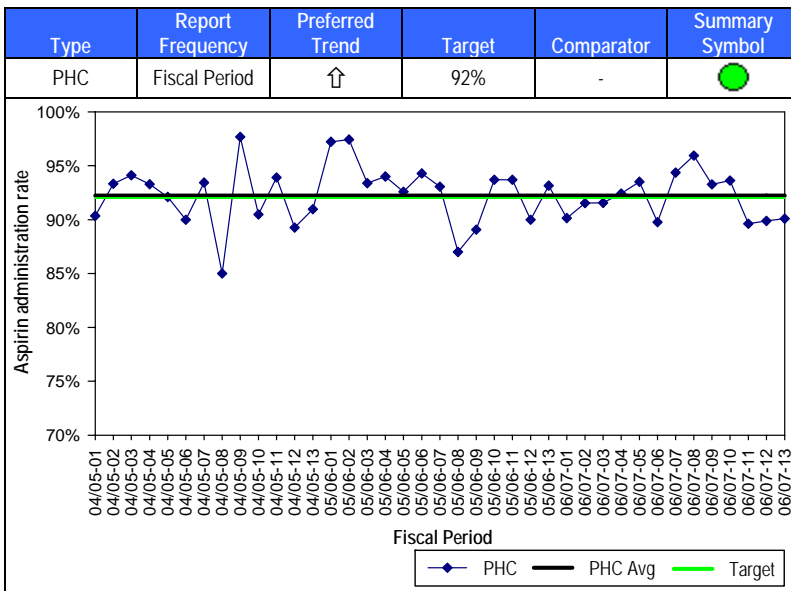
Continue to monitor the progress of this indicator.

People with
Cardio-Pulmonary
Risks & Illnesses

1.2. Aspirin administration rate for AMI and suspected AMI

Definition

The proportion of inpatient cases with a most responsible, Type 1, or Type 2 diagnosis of acute myocardial infarction (AMI) or suspected AMI that received a scheduled regular dose of aspirin during hospitalization.



Analysis

The aspirin administration rate for AMI and suspected AMI is stable with an average of 92.2%, which meets the target of 92%. The aspirin administration rate for the Heart Centre, the program designated as the most responsible for 76% of all AMI and suspected AMI cases, is 97.4%.

Next Steps

Continue to monitor the progress of this indicator.

Provide excellent care & service



1.3. In-hospital mortality rate for community-acquired pneumonia

People with Cardio-Pulmonary Risks & Illnesses

Definition

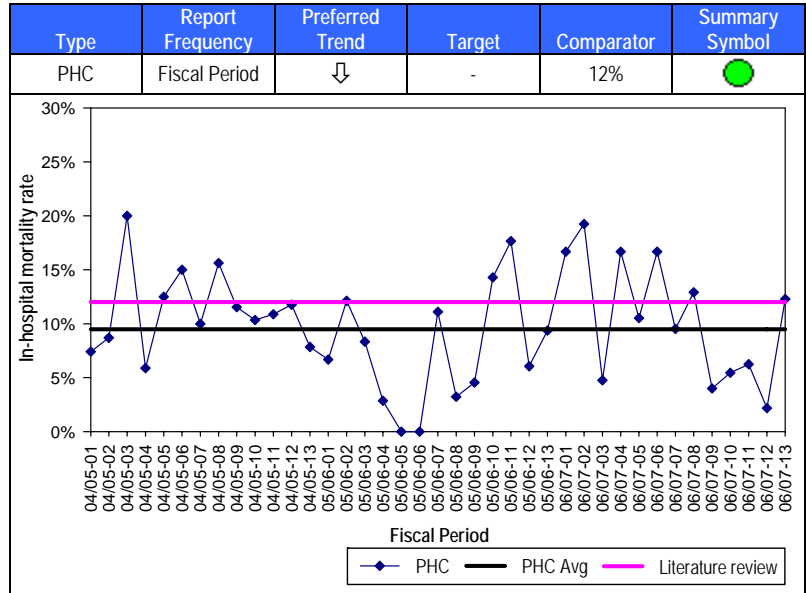
The proportion of inpatient cases with a most responsible diagnosis of community-acquired pneumonia that died in hospital.

Analysis

The overall in-hospital mortality rate is 9.5% for the entire time period shown, which is within the rate found in the literature of 12%. In P9 and P10-06/07, SPH saw a marked increase in the number of cases of IPD (invasive pneumococcal disease) in patients from the downtown east side with compromised immune systems due to pre-existing health issues. Most of the patients with IPD were younger than 65 years and responded well to treatment. The number of pneumonia cases included in the calculation of this indicator doubled in these periods for patients less than 65 years old. A large number of these patients developed septicemia and a number of them were cared for in the ICUs. Given this outbreak, the overall pneumonia mortality rates were a significant achievement by the health care team.

Next Steps

In collaboration with the Communicable Disease Control division at VCH, consider vaccinating patients (flu vaccine and pneumovax) who may be at risk in the next outbreak in the fall. Continue to monitor the progress of this indicator.



1.4. AMA rate for HIV/AIDS patients

People with Complex Medical/Social Needs

Definition

The proportion of total HIV positive inpatient cases that signed themselves out of hospital against medical advice (AMA).

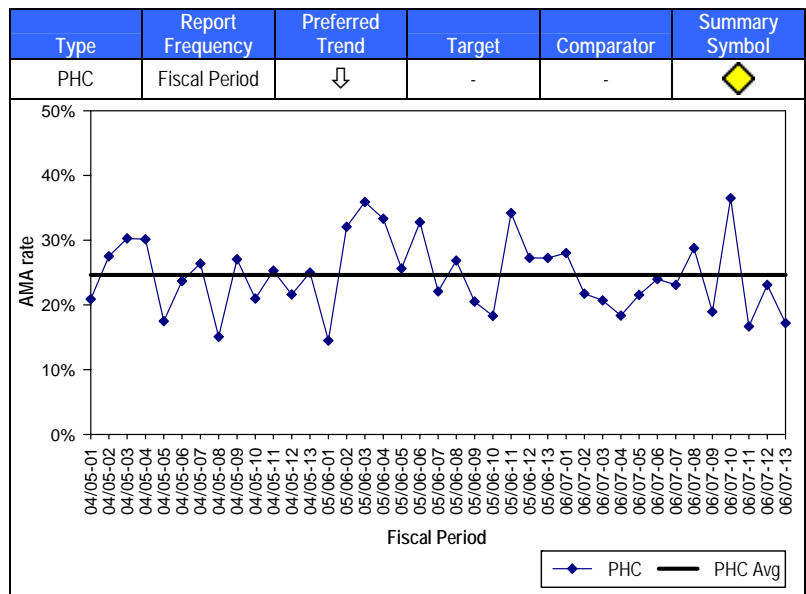
Analysis

The AMA rate for patients with HIV/AIDS is stable and high with an average of 24.6% for the time period shown. The rate is greatly influenced by HIV/AIDS patients who are also IV drug users, comprising approximately a third of the HIV/AIDS patient population. IV drug users exhibit AMA rates that are almost three times as that of non-IV drug users.

Various initiatives have been implemented to encourage patients to remain in hospital for the full duration of their treatment. The HIV/AIDS Program collaborated with the Ministry of Human Resources to ensure that patients receiving social assistance do not receive a reduction for the time spent in hospital. In addition, a process was set up by which welfare cheques could be delivered to the hospital. A transitional care unit for IV drug users, called the CTCT (Community Transitional Care Team), opened in May 2005 in the downtown eastside. Despite these efforts, there has not been a concomitant improvement in the performance of this indicator.

Next Steps

This indicator is under review.



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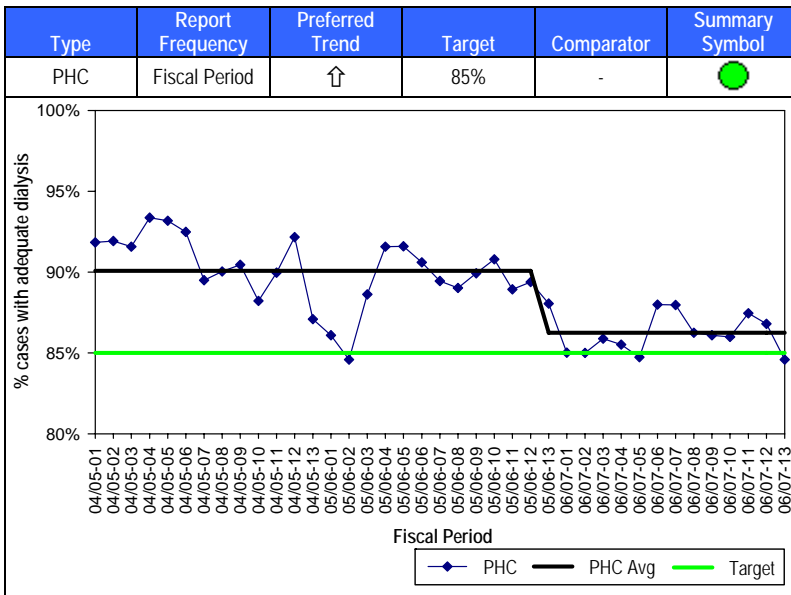
Provide excellent care & service

People with Renal Risks & Illnesses

1.5. Rate of receipt of adequate hemodialysis

Definition

The proportion of dialysis patients receiving adequate hemodialysis (defined as a percent reduction of urea, or PRU, measurement equal to or above 0.65).



Analysis

The rate of receipt of adequate hemodialysis is unstable with a shift in the undesired direction starting in P13-05/06. This shift in performance coincides with a change made in the dialyzers, the machines used for performing dialysis, following the expiry of the previous dialyzer contract. The selection of the new dialyzer membrane was part of a regional initiative and involved the examination of existing data and data obtained from a trial performed at VGH, neither of which indicated the new membrane would be associated with lower performance levels. Although the hemodialysis adequacy rate has fallen following the acquisition of the new membrane, the target of 85% is still being met with an average rate of 86.3% following the start of the shift.

Next Steps

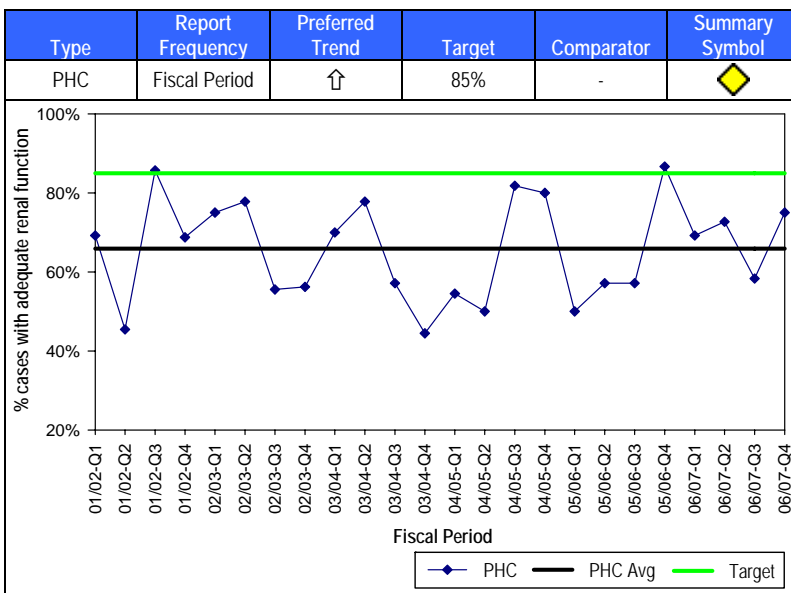
Discussions with the vendor have occurred and a new dialyzer membrane has been selected. The change to the new membrane is currently in process.

People with Renal Risks & Illnesses

1.6. Rate of adequate renal function at 6 months post-kidney transplant

Definition

The proportion of all kidney recipients with adequate renal function (defined as glomerular filtration rate equal to or above 50 mL/min) at 6 months post-transplant surgery.



Analysis

The average rate of adequate renal function at 6 months post-kidney transplant surgery is 65.9%. The rate is stable but is not meeting the 85% target. The factors driving this are multi-factorial but predominantly reflect the quality of the donor kidney, which is beyond the control of the transplant team once the decision is made to utilize the kidney.

Next Steps

This indicator requires revision as the Renal team has limited ability to improve the outcome.

Provide excellent care & service



1.7. Unplanned readmission rate for mental health & addictions



Definition

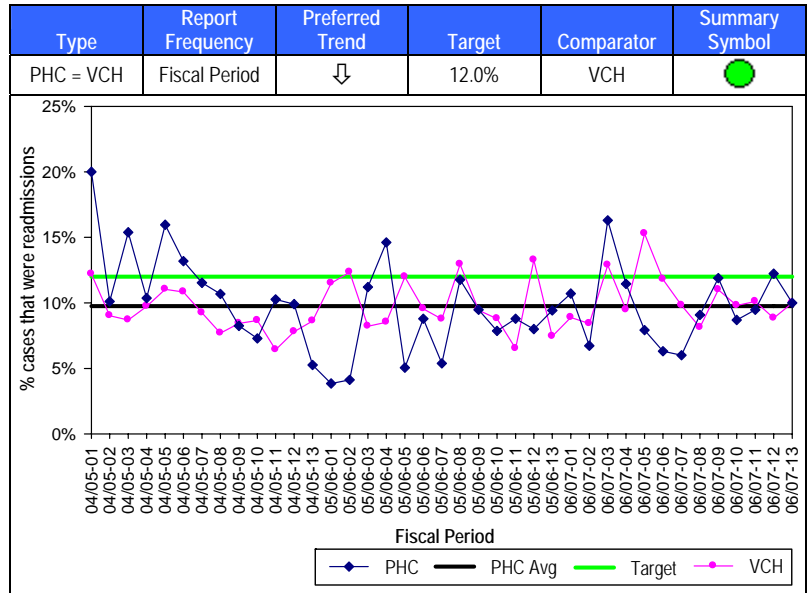
The proportion of total inpatients with a most responsible mental health or addictions diagnosis and between the ages of 15 and 64 that were readmitted to the same facility within 28 days.

Analysis

9.8% of mental health and addictions patients were unplanned readmissions within 28 days of their previous inpatient admission. The rate is stable and is meeting the target rate of 12%. PHC is performing on a par with VCH.

Next Steps

Continue to monitor the progress of this indicator.



1.8. Residential care indicators – Placeholder

Residential care indicators are currently under review for inclusion in the corporate BSC.



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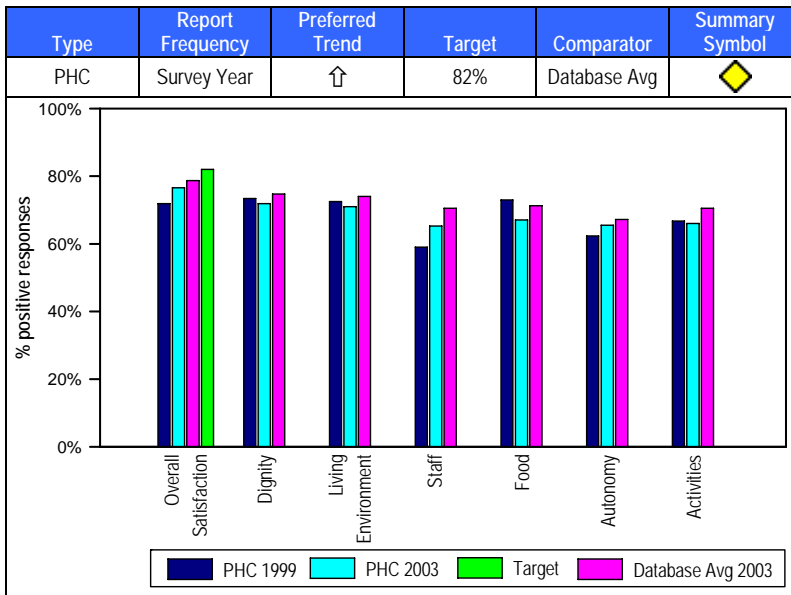
Provide excellent care & service

Patient-Centredness

1.9. Resident overall satisfaction rate

Definition

The proportion of total responses that were positive from residents for NRC+Picker Long Term Care Resident Survey questions about the quality of care provided.



Analysis

The % positive responses for the Long Term Care Resident Survey item pertaining to overall satisfaction was 76.6% in survey year 2003. Although this constitutes an improvement over the 71.9% achieved in survey year 1999, the 2003 result is lower than the target of 82%, which was adopted in 2006. PHC's level of performance is below the average rate of 78.7% for Canadian residential care facilities in the survey database.

Next Steps

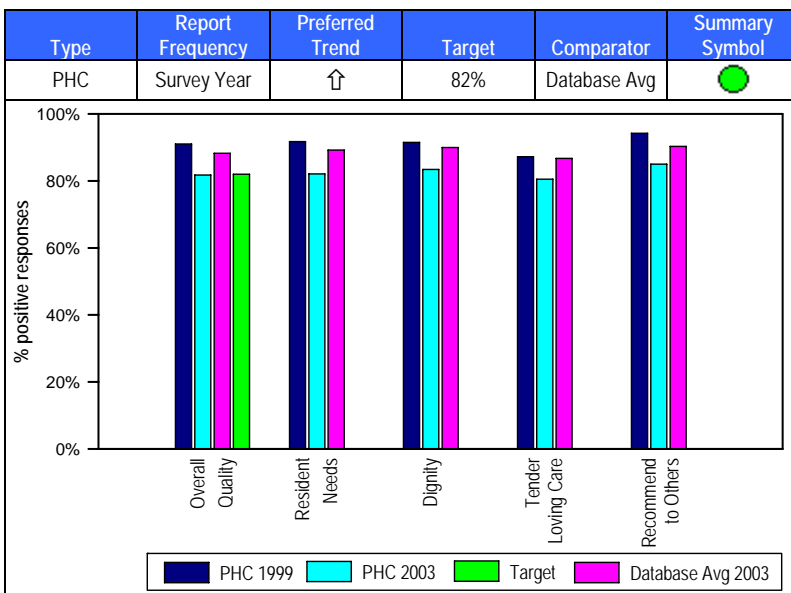
Several steps have and are being taken to improve the quality of care and life in our care homes. These include, for example, changes to our staffing model including increased staffing levels, better physician services, and continued focus on the Eden Alternative philosophy. In addition, regular measurement of satisfaction with food services is being conducted to assist with improvements in this area. Continue to monitor our progress with this overall satisfaction indicator following the next survey.

Patient-Centredness

1.10. Resident family overall quality rate

Definition

The proportion of total responses that were positive from residents' families for NRC+Picker Long Term Care Family Survey questions about the quality of care provided.



Analysis

The % positive responses for the Long Term Care Family Survey item pertaining to overall quality was 81.7% in survey year 2003. This constitutes a decrease from the previous survey year's result of 91.0%, however, it still meets the target of 82%, which was set in 2006. PHC's level of performance is below the average rate of 88.2% for Canadian residential care facilities in the survey database.

Next Steps

Several steps have and are being taken to improve the quality of care and life in our care homes. These include, for example, changes to our staffing model including increased staffing levels, better physician services, and continued focus on the Eden Alternative philosophy. In addition, regular measurement of satisfaction with food services is being conducted to assist with improvements in this area. Continue to monitor our progress with this overall satisfaction indicator following the next survey.

Provide excellent care & service



1.11. Emergency patient satisfaction rate



Definition

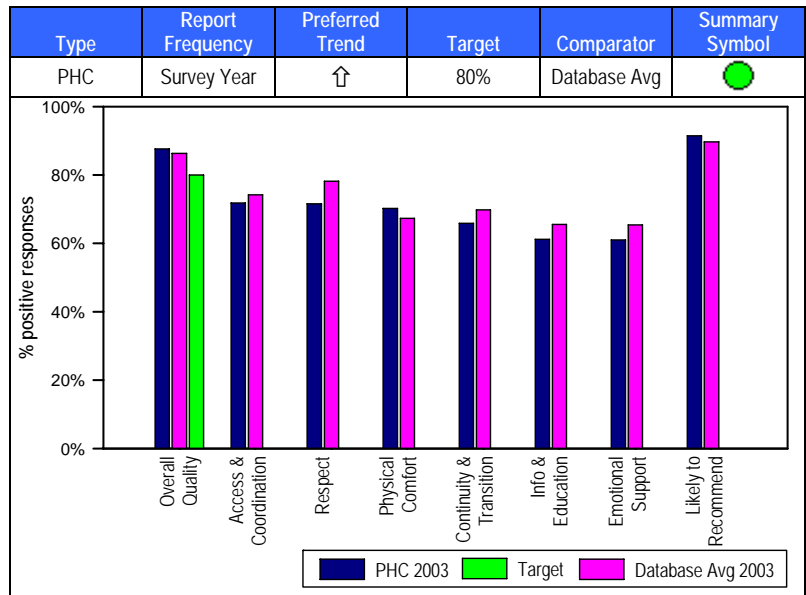
The proportion of total responses that were positive from ED patients for the NRC+Picker Emergency Department Satisfaction Survey questions about the quality of care provided.

Analysis

The proportion of all responses for the survey item related to Overall Quality that were positive was 87.6%. This meets the target of 80% and is on a par with the average of all Canadian EDs included in the survey database. Opportunities for improvement (relative to the database average) lie in the following dimensions: respect for patients/patients' preferences, emotional support, and information & education.

Next Steps

The BC Patient Satisfaction Steering Committee has moved forward with continuous surveying in the ER sector in response to the mandatory reporting requirements for ED wait time and patient satisfaction indicators identified in the Government Letter of Expectations. Continue to monitor the progress of this indicator.



1.12. Acute inpatient satisfaction rate



Definition

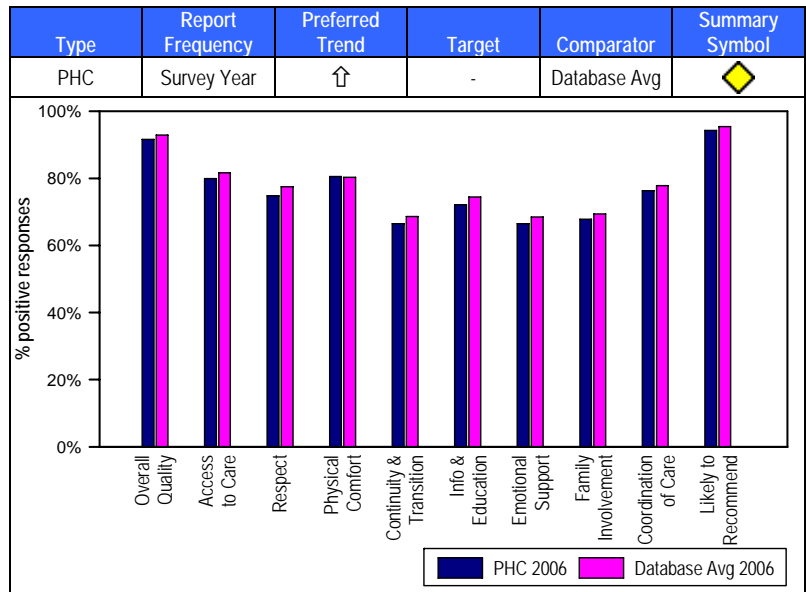
The proportion of total responses that were positive from acute inpatients for the NRC+Picker Acute Inpatient Satisfaction Survey questions about the quality of care provided.

Analysis

The % positive responses to the Acute Inpatient Satisfaction Survey item pertaining to overall quality was 91.6%. This is slightly lower than the database average of 92.9%, although the difference is not statistically significant. PHC's level of performance was either slightly below or the same as the database average for all of the other dimensions shown. Again, none of the differences were statistically significant.

Next Steps

Set a target. SLT is reviewing an analysis of cross-sector survey results for PHC that showed the dimension of Emotional Support as the lowest performing dimension with the greatest correlation to overall satisfaction and has engaged Change Initiatives to determine if and what actions could/should be taken across units of accountability. Continue to monitor the progress of this indicator.



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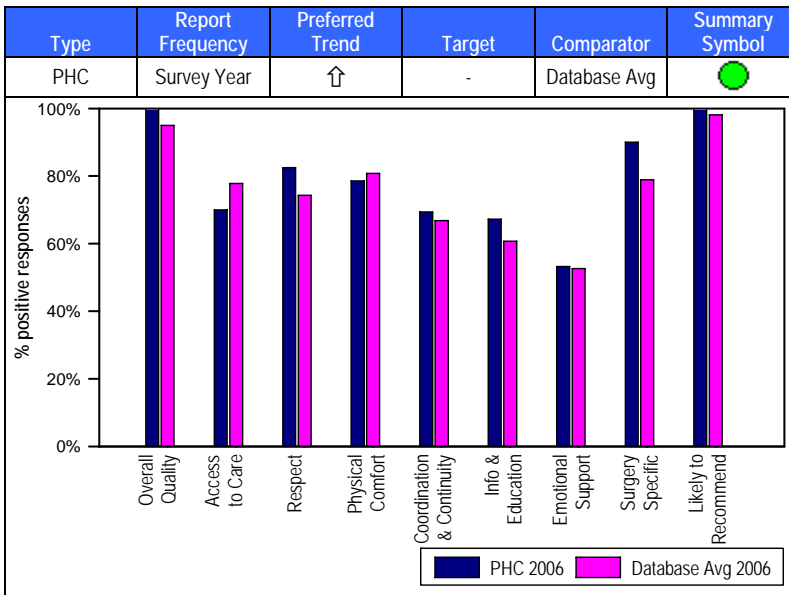
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Patient-Centredness

1.13. Ambulatory oncology satisfaction rate

Definition

The proportion of total responses that were positive from ambulatory oncology patients for the NRC+Picker Ambulatory Oncology Satisfaction Survey questions about the quality of care provided.



Analysis

The % positive responses to the Ambulatory Oncology Satisfaction Survey question pertaining to overall quality was 100.0%, which was higher than the Canadian Community Hospitals average of 95.0%. SPH either matched or exceeded the database average for all dimensions except Access to Care, although the differences were not statistically significant. The % positive scores in the Emotional Support dimension were the lowest. The range of scores at the item/question level was 21.4% to 78.6% with 4 of 8 questions scoring 25% or less.

Next Steps

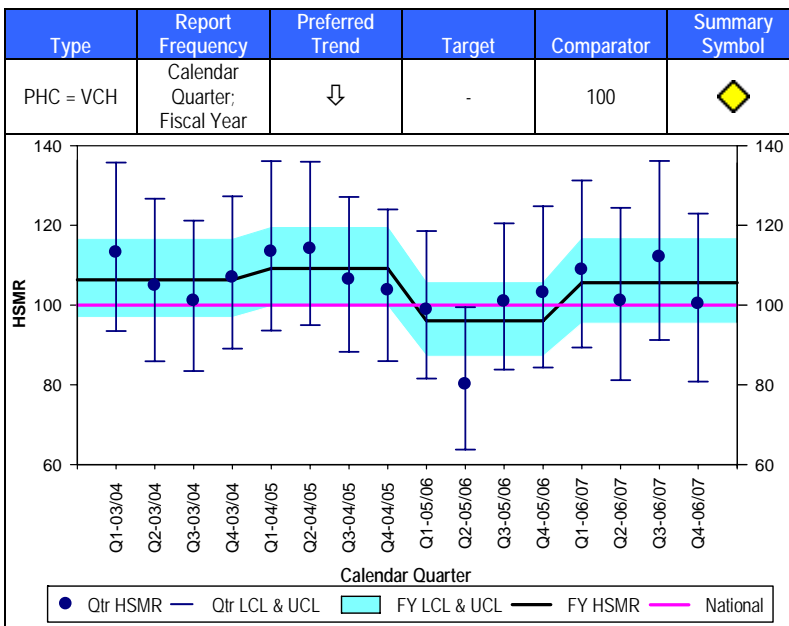
Set a target. SLT is reviewing an analysis of cross-sector survey results for PHC that showed the dimension of Emotional Support as the lowest performing dimension with the greatest correlation to overall satisfaction and has engaged Change Initiatives to determine if and what actions could/should be taken across units of accountability. Continue to monitor the progress of this indicator.

Safety

1.14. HSMR (hospital standardized mortality ratio)

Definition

The ratio of the actual number of acute in-hospital deaths to the expected number of in-hospital deaths in CMGs (case mix groups) accounting for 80% of inpatient mortality nationally.



Analysis

The HSMR (hospitalization standardized mortality ratio) for PHC for FY 06/07 is 105.6, which indicates that PHC's actual number of deaths exceeds the expected number of deaths based on the national mortality experience. This constitutes a deterioration over the previous fiscal year's HSMR of 96. The comparator ratio of 100 is being exceeded.

Next Steps

Continue implementation of the Safer Healthcare Now! initiatives. Set a target for this indicator.

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1.15. In-hospital deaths per 100 patients in CMGs with less than 1% mortality



Definition

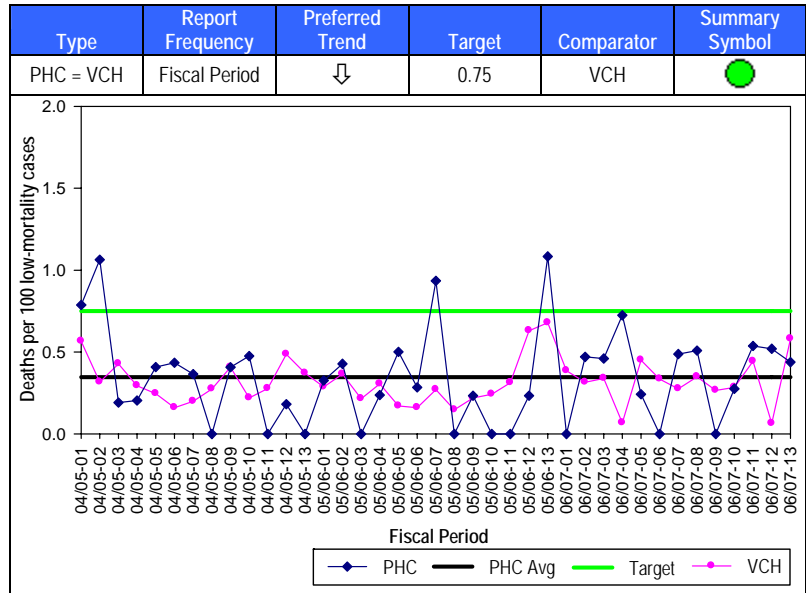
The number of in-hospital deaths per 100 patients in "low mortality" case mix groups (CMGs). "Low mortality" CMGs are defined as those CMGs with less than 1% mortality based on national Discharge Abstract Database data for FY 03/04.

Analysis

There have been an average of 0.35 in-hospital deaths per 100 cases in low-mortality CMGs for the time period shown. With an average of 437 cases meeting the indicator criteria per period, this translates into an average of 1.5 deaths in low-mortality CMGs experienced per period. The rate is stable and the target of 0.75 deaths per 100 cases is being met in most periods. PHC has been performing on a par with VCH.

Next Steps

Continue to monitor the progress of this indicator.



1.16. In-hospital fracture rate per 1,000 patients aged 65 years and older



Definition

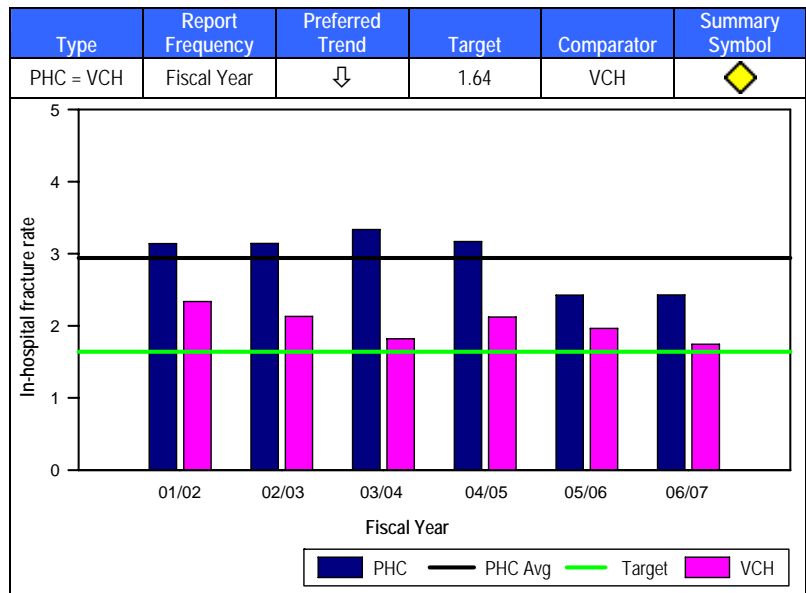
The number of patients with at least one in-hospital fracture per 1,000 patients aged 65 years and older. Excludes fractures of the bone following orthopaedic implant and minor fractures.

Analysis

There were 2.4 in-hospital fractures per 1,000 patients aged 65 years and older for FY 06/07, which does not meet the target rate of 1.64. This constitutes no change from the previous fiscal year's rate. VCH has been outperforming PHC.

Next Steps

Initiatives that are planned or underway include: the development of SAFESTEP, a collection of evidence-based interventions aimed at reducing injurious falls, which will be posted on all patient units, the addition of 2 trigger questions to the admitting Patient Biography to identify which patients require a Falls Risk Assessment, and the development of the Quick Mobility Screen to assist nurses in mobilizing patients safely from their beds.



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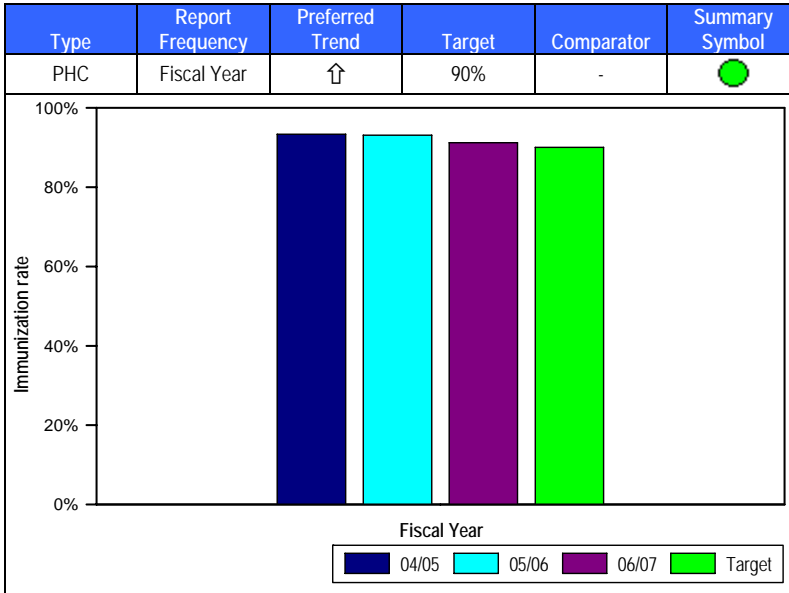
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Safety

1.17. Influenza immunization rate for residents

Definition

The proportion of all residents who received an influenza vaccination.



Analysis

The influenza immunization rate for residents for FY 06/07 is 91.2%, which meets the target of 90%. The immunization rate adjusted for refusals is 96.0%. The rate has been relatively stable over the time period shown.

**Note: Data collection on immunization refusals commenced in FY 06/07. There are no data on refusals available for previous fiscal years.*

Next Steps

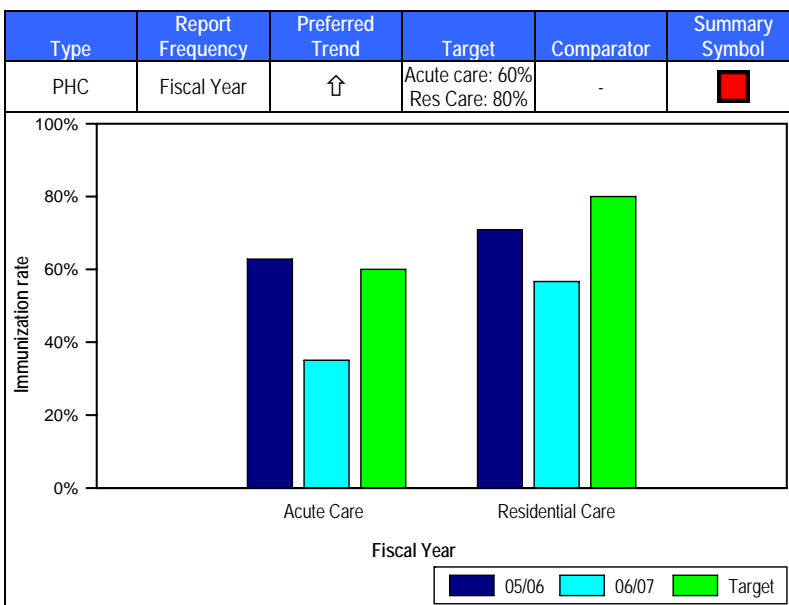
Continue to monitor the progress of this indicator.

Safety

1.18. Influenza immunization rate for staff

Definition

The proportion of all full-time, part-time, and casual staff working in acute and residential care who received an influenza vaccination during the flu season.



Analysis

Influenza immunization rates for staff have declined in FY 06/07 from 62.8% to 35.1% for acute care and from 70.9% to 56.6% for residential care. Neither target is being met.

**Note: Data may not be directly comparable between fiscal years due to changes in data collection procedures.*

Next Steps

Change definition to adhere to the definition used by the BC Centre for Disease Control.

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1.19. Unplanned readmission rate for CHF (congestive heart failure)



Definition

The proportion of all patients with a most responsible diagnosis of CHF (congestive heart failure) that were unplanned readmissions within 28 days of their previous inpatient hospital stay.

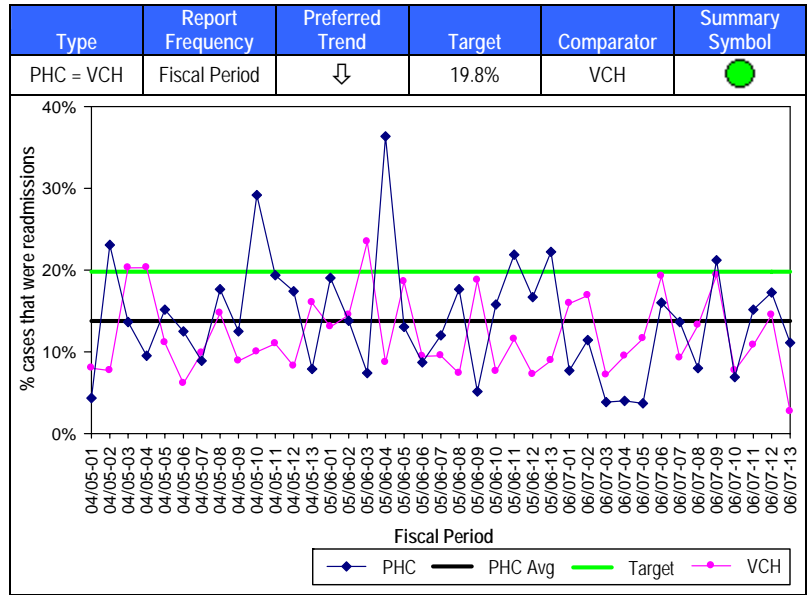
Analysis

13.8% of congestive heart failure patients were unplanned readmissions within 28 days of their previous inpatient admission, which meets the target of 19.8%. The rate is unstable with the data point at P4-05/06 exceeding the upper control limit. This is likely due to the low case counts (a median of 26 cases) experienced per fiscal period. PHC is performing on a par with VCH.

**Note: Meaningful analysis is made difficult due to the low case counts observed per fiscal period.*

Next Steps

Continue to monitor the progress of this indicator.



1.20. Unplanned readmission rate for diabetes



Definition

The proportion of all patients with a most responsible diagnosis of diabetes that were unplanned readmissions within 28 days of their previous inpatient hospital stay.

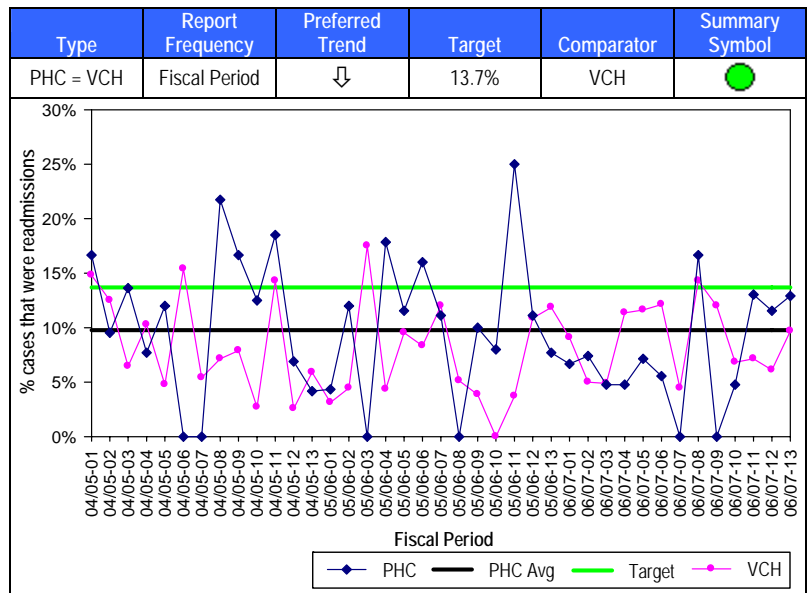
Analysis

9.8% of patients with diabetes were unplanned readmissions within 28 days of their previous inpatient admission, which meets the target rate of 13.7%. The rate is unstable with a shift in the desired direction occurring from P13-05/06 to P7-06/07. P8-06/07 saw the end to the shift. PHC has been outperforming VCH.

**Note: Meaningful analysis is made difficult due to the low case counts observed per fiscal period.*

Next Steps

Continue to monitor the progress of this indicator.



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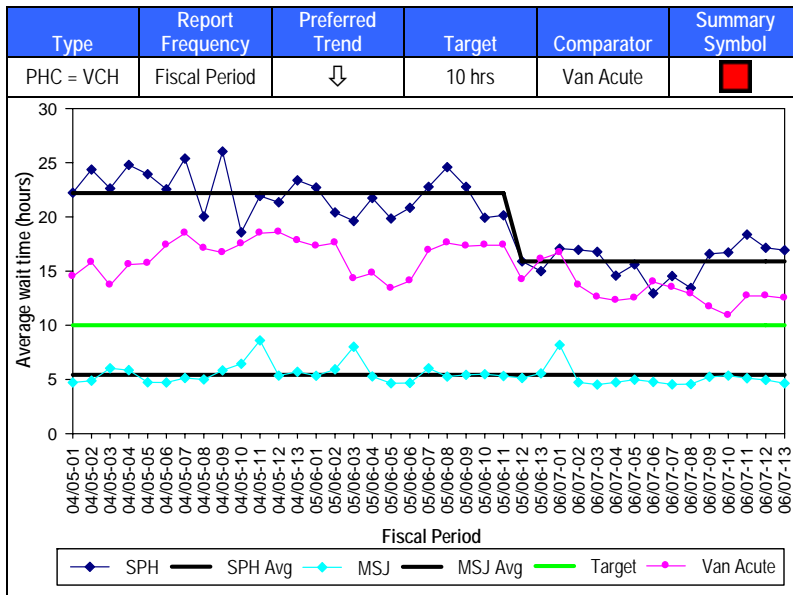
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Timeliness

1.21. Average wait time in ED for admitted patients

Definition

The average number of hours elapsed from the time of triage to either a) time of transfer from the ED to an inpatient bed OR b) time of discharge from ED, for all patients admitted through the ED.



Analysis

The average wait time in ED for admitted patients for SPH has experienced a shift in the desired direction starting in P12-05/06. This indicates that the Overcapacity Protocol, which was implemented at this time, may have had a positive impact. The average wait time since the start of the shift is 15.9 hours. The target of 10 hours, however, is still not being met in any fiscal period. Vancouver Acute has been outperforming SPH. MSJ has been consistently meeting the target with an average ED wait time of 5.4 hours.

The two programs with the longest average wait times at SPH are Medicine and Mental Health. However, the average ED wait times for both programs have experienced a shift in the desired direction. The average wait times for the two programs following the shift are 12.5 hours for Medicine and 47.1 hours for Mental Health. Due to the magnitude of Mental Health's wait time, it has a significant impact on SPH's overall average ED wait time. If Mental Health were excluded from the calculation, SPH's average wait time from the start of the shift in P12-05/06 would be 10.6 hours.

Next Steps

Initiatives that are planned or underway at both SPH and MSJ include:

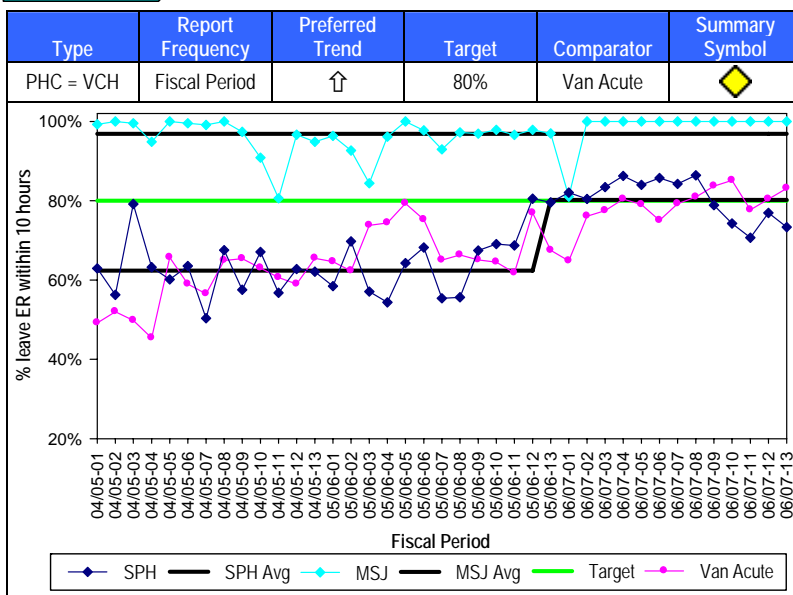
ED clinical and process improvements, daily bed meetings, program response plans, bed reallocation, the Overcapacity Protocol, Mental Health Contingency planning, and streamlining the delivery of diagnostic imaging services. Continue to work collaboratively with Mental Health and Medicine Programs to facilitate timely admission to the appropriate clinical area.

Timeliness

1.22. % admitted patients who leave ED within 10 hours of decision to admit time

Definition

The proportion of all patients admitted through the ED who leave the ED within 10 hrs of the decision to admit time.



Analysis

The overall % of admitted patients who leave the ED within 10 hours of their decision to admit time has shifted in the desired direction starting in P12-05/06 for SPH. The average rate following the start of the shift is 80.2%. The target is not being met in the five most recent periods. Overall, SPH has been outperforming Vancouver Acute. The rate for MSJ has also shifted in the desired direction starting in P2-06/07 with an average of 100.0% for the time period following the shift. MSJ has been consistently meeting the target.

The two programs with the greatest impact on the indicator's performance for SPH are Medicine and Mental Health. The rate for Medicine has experienced a shift in the desired direction with an average rate of 88.6% following the start of the shift. Although there is no shift observed for Mental Health, the data suggest there has been some improvement in the last 15 periods with most of the data points falling above the average. The average for this period of time is 18.1% as compared to an average of 7.6% for the previous period of time.

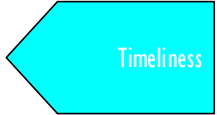
Next Steps

See Average wait time in ED for admitted patients indicator for Next Steps.

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1.23. Proportion of ED patients seen by physician within target times



Definition

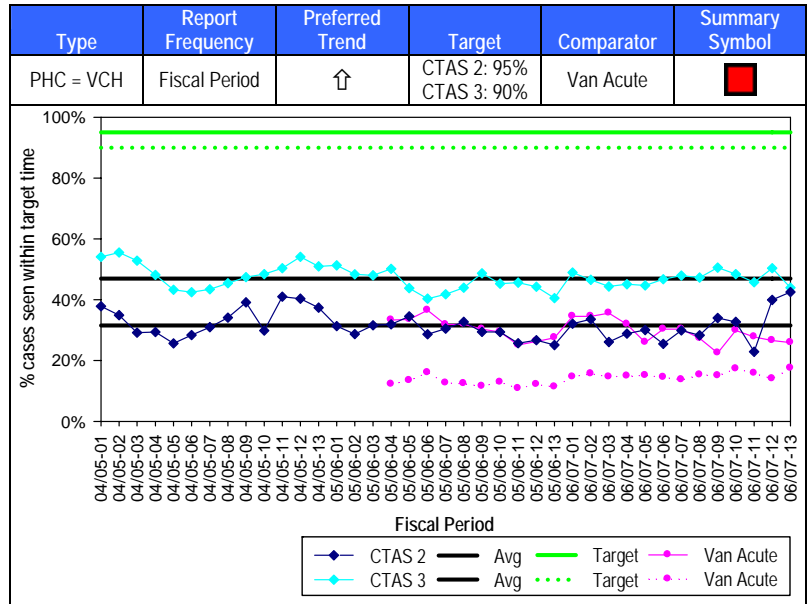
The proportion of Canadian Emergency Department Triage & Acuity Scale (CTAS) level 2 and 3 ED patients seen by a physician within target times of 15 minutes and 30 minutes, respectively.

Analysis

The average proportion of patients seen by a physician within target times for CTAS levels 2 (target of 15 minutes) and 3 (target of 30 minutes) is 31.5% and 47.0%, respectively. The rate for CTAS level 2 is exceeding the upper control limit for the last two periods shown, which may indicate that it is improving. The rate for CTAS level 3, after experiencing a shift in the desired direction starting at the end of FY 04/05, has returned to previous levels and has remained relatively stable. Neither rate's target is being met. PHC is either outperforming (CTAS level 3) or performing on a par with (CTAS level 2) Vancouver Acute.

Next Steps

Initiatives that are planned or underway include: the implementation of express registration for CTAS level 2 and 3 patients, streamlining of Registration Clerk duties, alerting physicians of incoming CTAS level 2 patients, posting of the triage algorithm, which clarifies patient flow and triage responsibilities, reinforcing triage training/education, and the implementation of the Electronic Bed Board, which will indicate when target times have been exceeded. Decentralization of the registration process is also under consideration.



1.24. Surgical cancellation rate



Definition

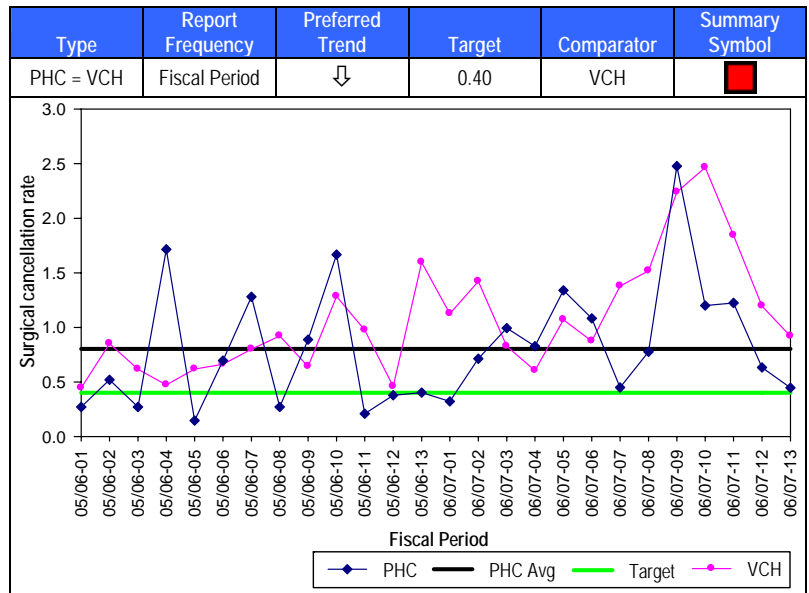
The number of surgical cases cancelled after publication of the final slate due to bumping by an urgent/emergent case or lack of inpatient or critical care bed expressed as a rate of the total number of scheduled inpatient and same day care cases.

Analysis

The average surgical cancellation rate for the time period shown is 0.80 cancellations per 100 surgical cases. This exceeds the target rate of 0.40. Year-to-date, the main driver of the high cancellation rate has been CSICU/cardiac staffing issues. The peak of 2.48 seen in P9-06/07 can also be attributed to the IPD (invasive pneumococcal disease) outbreak in the downtown eastside. An increase in the number of orthopaedic trauma patients due to record snowfall also contributed to this peak. PHC has been outperforming VCH.

Next Steps

This indicator is currently being reviewed by RSEC (Regional Surgical Executive Council).



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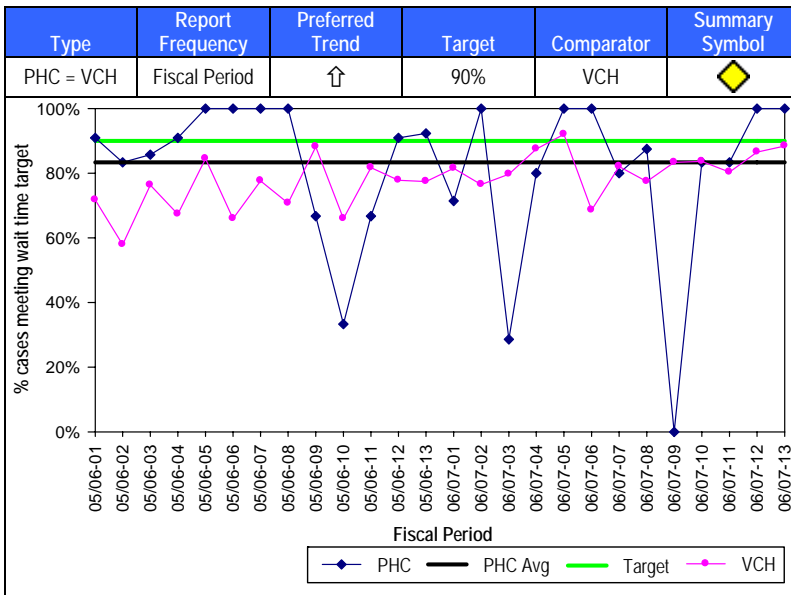
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Timeliness

1.25. % hip replacement patients receiving surgery within targeted wait time

Definition

The proportion of patients who underwent hip replacement surgery who received surgery within 26 weeks of their booking card receipt date. Excludes revisions.



Analysis

Overall, 83.3% of elective hip replacement surgeries were performed within 26 weeks of the booking card receipt date, which is slightly below the target of 90%. The rate is volatile mainly due to the low case counts (median of 6) per period. In April 2006, the Centre for Surgical Innovation opened at UBCH for the fast tracking of hip and knee surgeries. As a result, high volume surgeons are performing more of their less complex cases at the new Centre. This has contributed to decreasing case counts for hip replacement surgery at PHC. PHC has been performing on a par with VCH.

**Note: There was only 1 hip replacement case in P9-06/07 during which the rate dropped to 0%.*

Next Steps

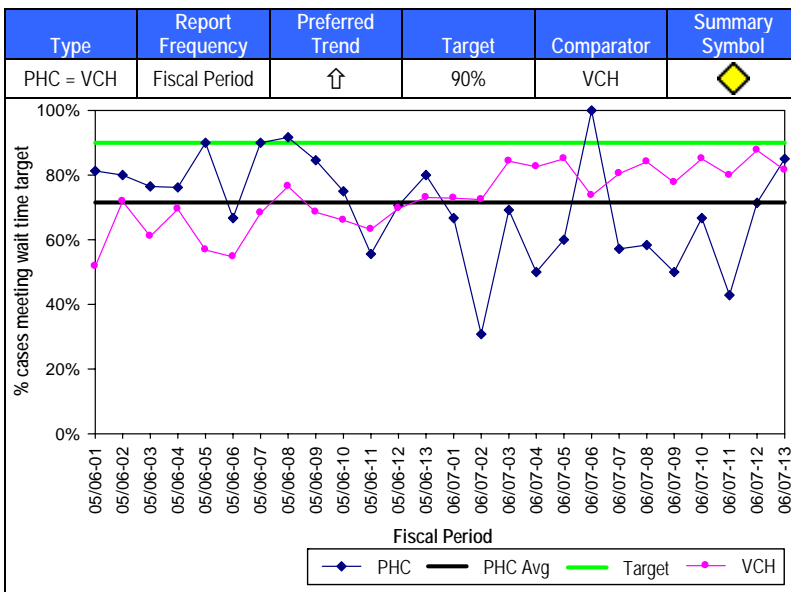
100 hip replacement cases have been budgeted for FY 07/08, which constitutes a reduction of 50 cases from the FY 06/07 budget. Continue to monitor the progress of this indicator.

Timeliness

1.26. % knee replacement patients receiving surgery within targeted wait time

Definition

The proportion of patients who underwent knee replacement surgery who received surgery within 26 weeks of their booking card receipt date. Excludes revisions.



Analysis

Overall, 71.5% of elective knee replacement surgeries were performed within 26 weeks of the booking card receipt date. The target of 90% is not being met. The rate is volatile mainly due to the low case counts (median of 12 cases) per period. Although there is no shift detected, the data suggest that the rate has declined in FY 06/07 with most data points falling below the mean during this period of time. In April 2006, the Centre for Surgical Innovation opened at UBCH for the fast tracking of hip and knee surgeries. As a result, high volume surgeons are performing more of their less complex and shorter wait cases at the new Centre. This has contributed to decreasing case counts and increasing wait times for knee replacement surgery at PHC. VCH has been outperforming PHC.

Next Steps

140 knee replacement cases have been budgeted for FY 07/08, which constitutes a reduction of 70 cases from the FY 06/07 budget. Continue to monitor the progress of this indicator.

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1.27. % oncology mastectomy patients receiving surgery within targeted wait time



Definition

The proportion of patients who underwent oncology mastectomy surgery who received surgery within 21 days of their booking card receipt date.

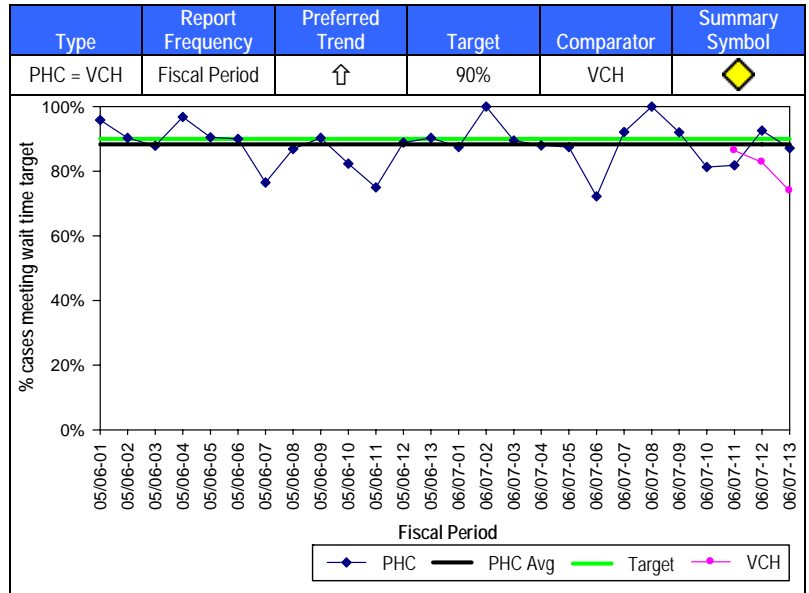
Analysis

The % of oncology mastectomies being performed within 21 days of the booking card receipt date is stable with an average of 88.3%, which is slightly below the target of 90%. PHC has been outperforming VCH in the three periods for which comparator data is available.

**Note: The target wait time for oncology mastectomies was revised by RSEC (Regional Surgical Executive Council) from 14 days to 21 days in P11-06/07. Data for PHC have been updated retrospectively to reflect the revised target. VCH, however, has opted to only apply the revised target to data from P11-06/07 onwards.*

Next Steps

A regional review of the care of mastectomy patients is in progress. VCH hospitals are collaborating with BCCA to create a seamless, coordinated system, which will ultimately result in faster access for patients.



1.28. Median wait time for CABG (coronary artery bypass graft)



Definition

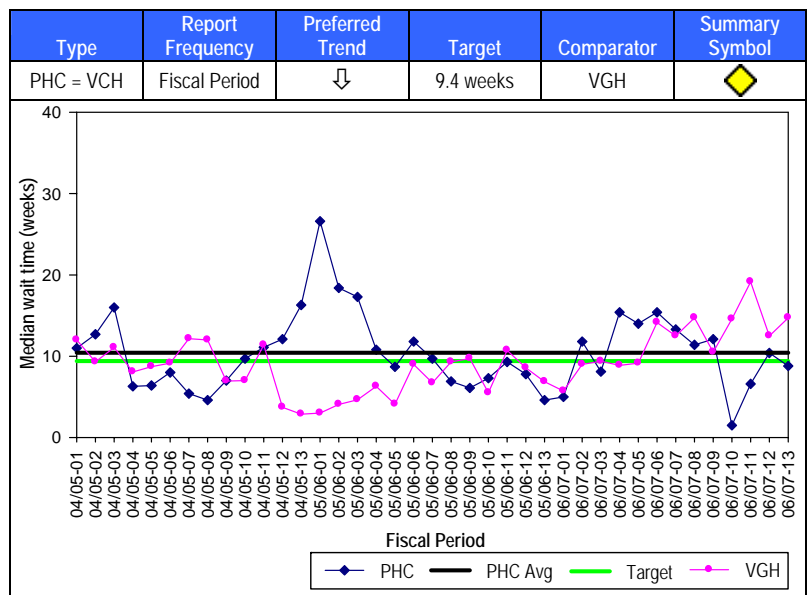
The median number of weeks elapsed from the surgery booking date to the surgery date for patients who underwent coronary artery bypass graft (CABG) surgery.

Analysis

The average of the median wait times for elective CABG surgery is 10.4 weeks for the time period shown. Median wait times have been relatively stable since mid-FY 05/06, with the exception of a temporary increase experienced from P4 to P9-06/07. The proportion of CABG surgeries that were performed on an elective basis was volatile during this period of time at times reaching lows of 30-35%, and may have contributed to the increase. The target wait time of 9.4 weeks is not being met in most of the recent periods. PHC has been outperforming VCH, whose median wait time for elective CABG surgery has been increasing over the last two fiscal years.

Next Steps

Continue to monitor the progress of this indicator.



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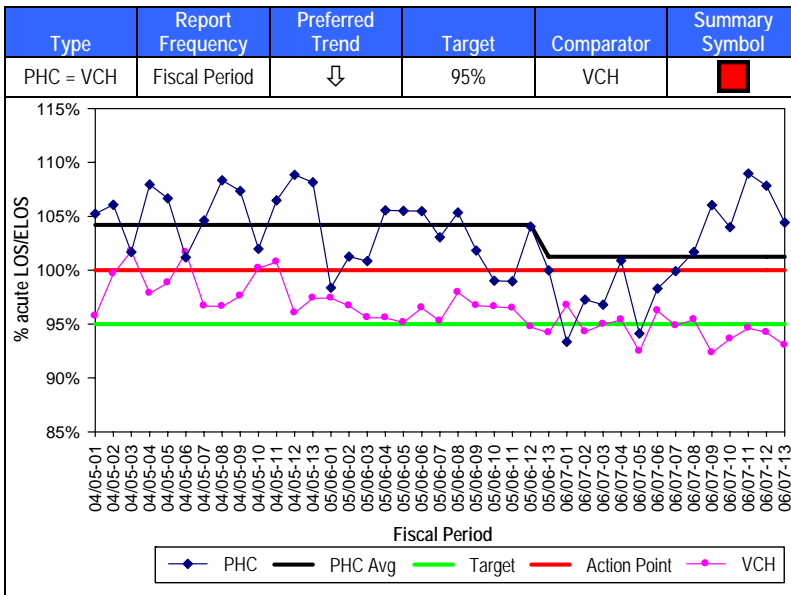
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Effectiveness

1.29. % acute LOS (length of stay) compared to ELOS (expected length of stay)

Definition

The actual length of stay (LOS) as compared to the expected length of stay (ELOS), expressed as a percentage. Includes only typical cases and excludes newborns, stillbirths, HFH, and ALC days.



Analysis

After experiencing a shift in the desired direction in the beginning of FY 06/07, the % acute LOS compared to ELOS has returned to previous levels. The average since the start of the shift is 101.2%. The action point is being exceeded in recent periods. VCH is consistently outperforming PHC.

The programs that have been able to reduce and/or sustain their % acute LOS/ELOS below the action point of 100% are: Acute Services, Elder Care, Heart Centre, HIV/AIDS, Renal, and Surgery. The programs that continue to exceed the action point are Medicine and Mental Health.

Next Steps

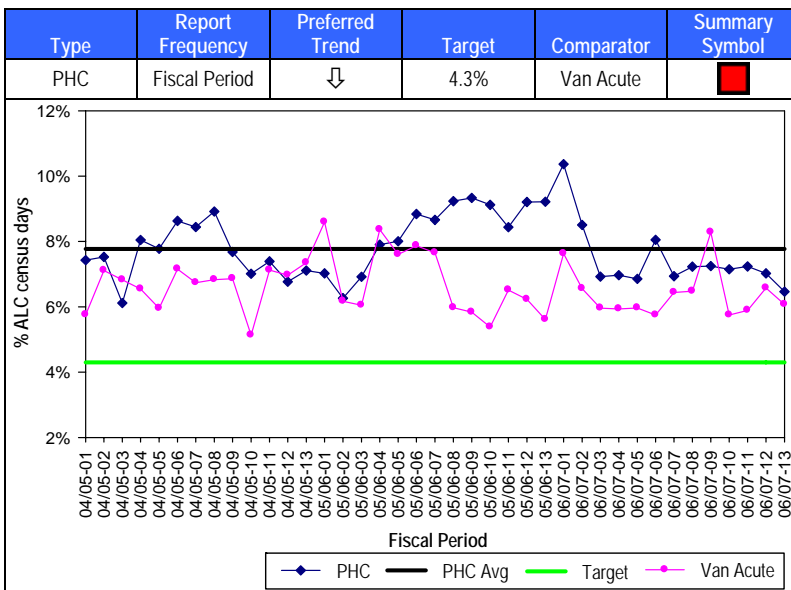
Revisit the programs that have been unable to achieve or sustain improvements. Continue submitting care management improvement proposals to potential funding sources.

Effectiveness

1.30. % ALC census days

Definition

Proportion of all acute and rehab inpatient census days experienced in a fiscal period that are designated as alternate level of care (ALC). Includes HFH and excludes newborns.



Analysis

The % ALC census days is 7.8% for the entire period shown. Although there is no shift, the data suggest that the rate has decreased with the majority of data points falling below the mean for the last 11 fiscal periods. However, the target of 4.3% is consistently not being met. Overall, Vancouver Acute has been outperforming PHC.

Next Steps

A target has been set to complete the paperwork required for residential care transfer within 3 working days for 90% of cases. An electronic version of the paperwork has been implemented and the TST (Transition Services Team) has assumed the responsibility for completing the paperwork. PHC is continuing with joint planning and decision-making with Vancouver Community.

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1.31. % mental health & addictions ALC discharge days



Definition

Proportion of all inpatient days experienced by patients with a most responsible mental health or addictions diagnosis AND between the ages of 15 and 64 that were designated as alternative level of care (ALC).

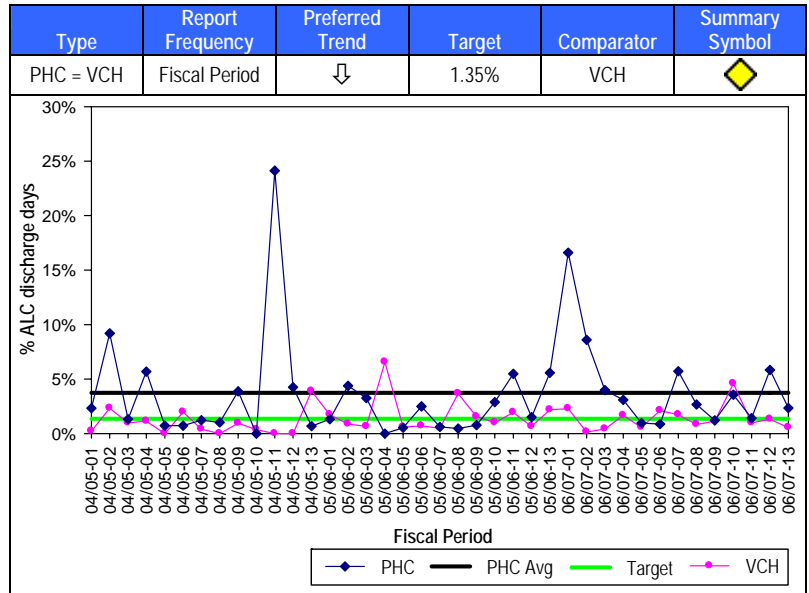
Analysis

The % mental health and addictions ALC discharge days is 3.7% for the entire period shown, which does not meet the target of 1.35%. The rate is unstable, which is largely the result of using discharge days as the basis for calculating this indicator (see *Note below). Overall, VCH is outperforming PHC.

**Note: Long stay cases with a high proportion of their days of stay designated as ALC can result in spikes in the data.*

Next Steps

See % ALC census days indicator for Next Steps.



1.32. SDC (same day care) opportunities



Definition

The # of IP cases that could potentially be treated on an OP basis to achieve the national 75%ile for:

- a) the 20 day procedure groups (DPGs) with the highest number of IP cases that could potentially be treated on an OP basis
- b) the 20 DPGs with the highest combined OP and potential IP case volumes

Analysis

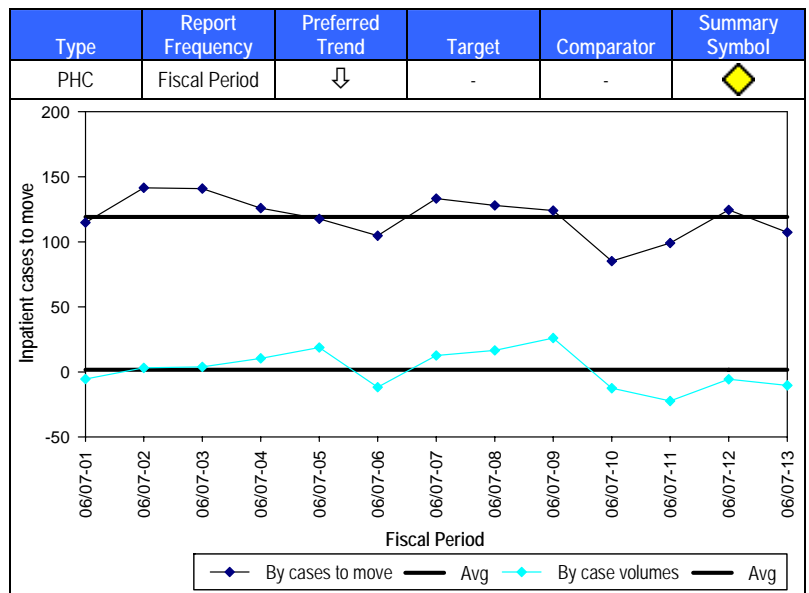
For the 20 DPGs (day procedure groups) with the greatest potential to shift inpatient cases to an outpatient setting (By cases to move) an average of 119 inpatient cases could potentially be shifted per period to achieve the national 75%ile. Assuming an average length of stay of 1.5 days for these inpatient cases, this translates into a savings of 178.5 bed days or 6.4 beds per period if the shift were achieved. The 3 DPGs with the greatest opportunities to shift are: DPG 85 (D and C and other Uterus Intervention), DPG 66 (Mastectomy - Partial), and DPG 23 (Major Intervention on Oral Cavity/Pharynx/Glottis).

For the 20 DPGs with the highest combined OP and IP case volumes (By case volumes) an average of 1.7 inpatient cases could potentially be shifted per period to achieve the national 75%ile.

**Note: In FY 06/07 CIHI implemented a new DPG grouping methodology for same day care cases. The new methodology groups cases into 101 DPGs as compared to the previous 77 DPGs. As a result, the indicator has been recalibrated. There are not enough data points available for trend analysis.*

Next Steps

Continue to monitor the progress of this indicator.



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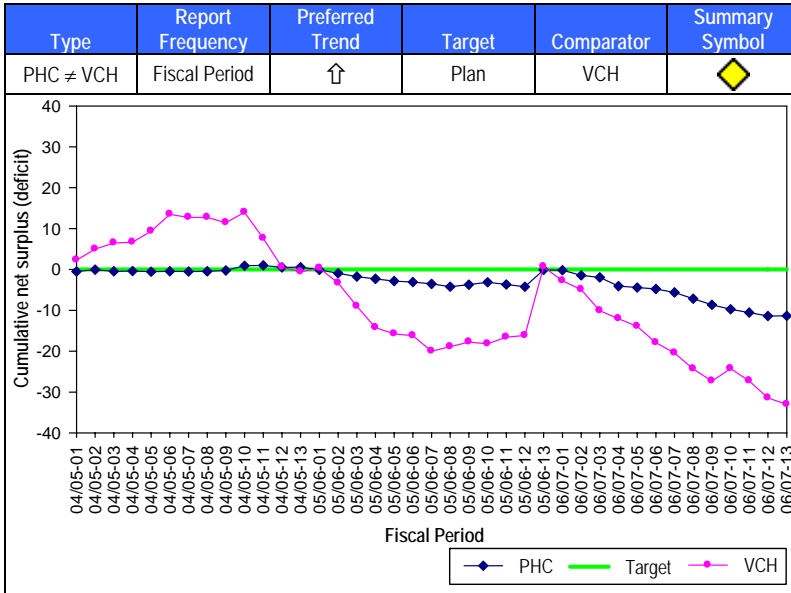
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Efficiency

1.33. Cumulative net surplus (deficit)

Definition

The cumulative year-to-date net surplus (deficit) where the net surplus (deficit) is calculated after retirement allowances.



Analysis

PHC ended FY 06/07 with a cumulative net deficit of \$11.4 million. This does not meet the target of a balanced budget. VCH also found itself in a deficit position at the end of the fiscal year with a cumulative net deficit of \$33.1 million.

**Note: The FY 06/07 financial results are pre-audit.*

Next Steps

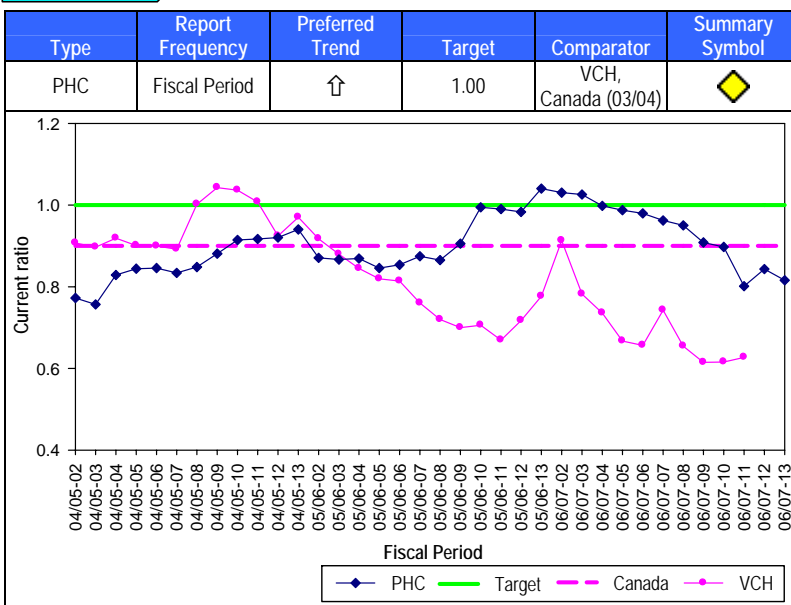
Continue to monitor the progress of this indicator against the FY 07/08 budget plan.

Efficiency

1.34. Current ratio

Definition

Current assets divided by current liabilities.



Analysis

PHC's current ratio at P13-06/07 is 0.82 and is lower than the current ratio of 1.04 at P13 of the previous fiscal year. The decrease relates mainly to a reduction in cash, which is a direct result of the unfunded deficit of \$11.4 million experienced for the year. The 0.82 ratio implies that current assets are short of meeting current liabilities. The target of 1.00 is not being met in recent fiscal periods. PHC has been consistently outperforming VCH in FY 06/07.

**Note: There are no data available for P1 of FYs 03/04 to 06/07 as financial reports were not prepared for these periods.*

Next Steps

Arrangements have been made to secure short term cash inflow if required. Continue to monitor the progress of this indicator.

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1.35. Administrative and support costs as % of total expenses



Definition

The proportion of total expenses incurred for administrative and support services (excludes Information Systems).

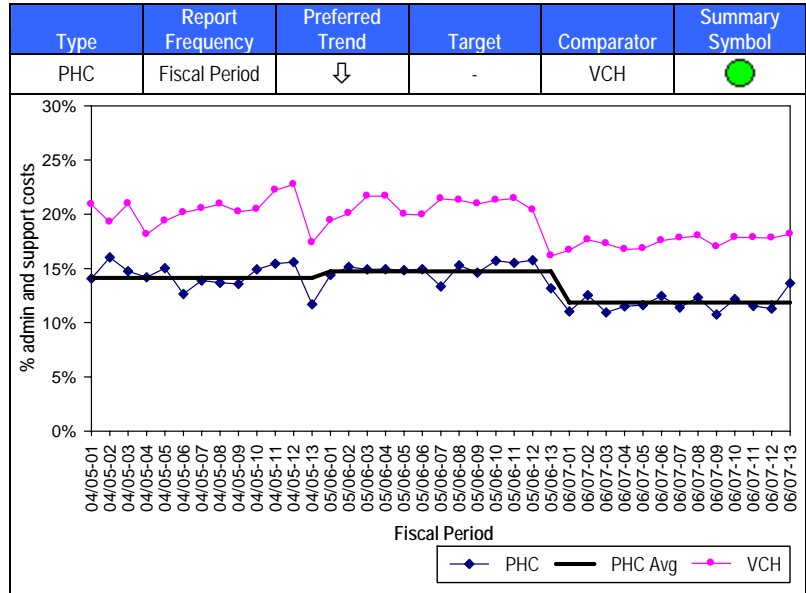
Analysis

The average administrative and support costs as a % of total expenses for FY 06/07 is 11.9%. The improvement seen over the previous fiscal year is mainly due to the remapping of accounts resulting from definition changes made by the Ministry (see *Note). PHC has been consistently outperforming VCH.

**Note: Data has been restated back to FY 03/04 to remap accounts under the current Ministry definition. During FY 06/07 certain Referred Out accounts were removed from inclusion under Administrative and Support costs resulting in lower costs as a % of total expenses across all health authorities.*

Next Steps

Continue to monitor the progress of this indicator.



1.36. Non-Ministry of Health Services revenues as % of total revenues



Definition

The proportion of total revenues derived from non-Ministry of Health Services sources.

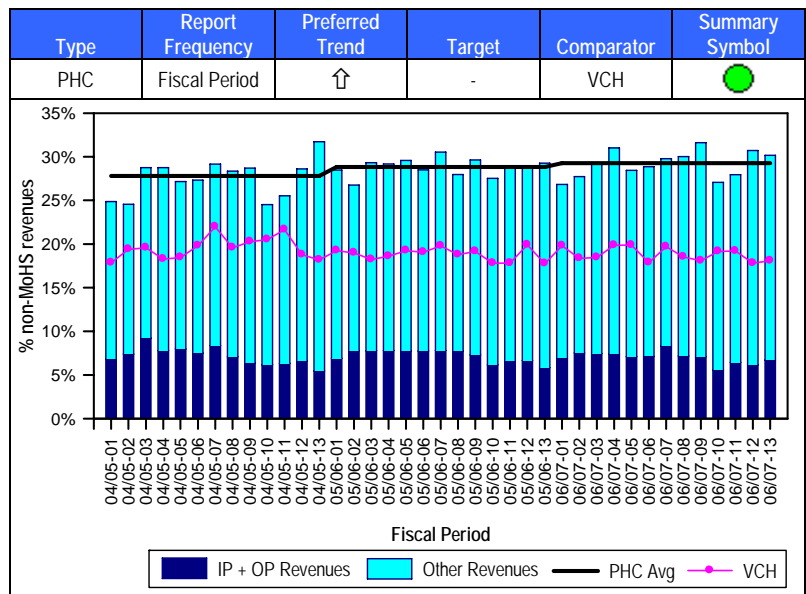
Analysis

The overall non-Ministry of Health Services (MoHS) revenues as a % of total revenues for FY 06/07 is 29.3%. This constitutes no change over the proportion achieved in the previous fiscal year. PHC has been consistently outperforming VCH.

**Note: Some of the revenues from other sources (i.e., non-MOHS revenues) are flow-through revenues in that they are offset by a similar amount in expenditures.*

Next Steps

Continue to monitor the progress of this indicator.



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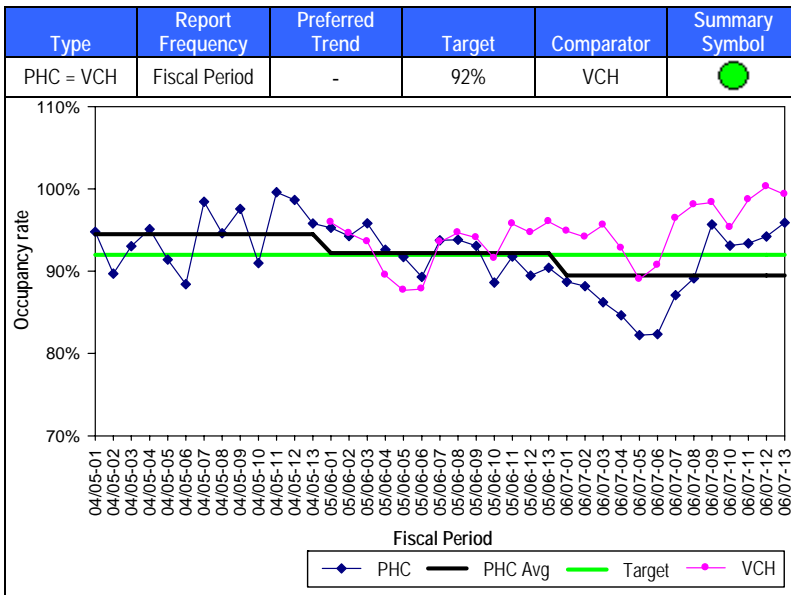
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Effectiveness

1.37. Occupancy rate

Definition

The number of inpatient days divided by the number of available bed days (as calculated by multiplying the number of inpatient beds available by the number of days in the fiscal period). Excludes HFH and newborns.



Analysis

The average occupancy rate for FY 06/07 is 89.5%, which meets the target of 92%. PHC has outperformed VCH - VCH's occupancy rate has exceeded the target for most periods in FY 06/07.

Next Steps

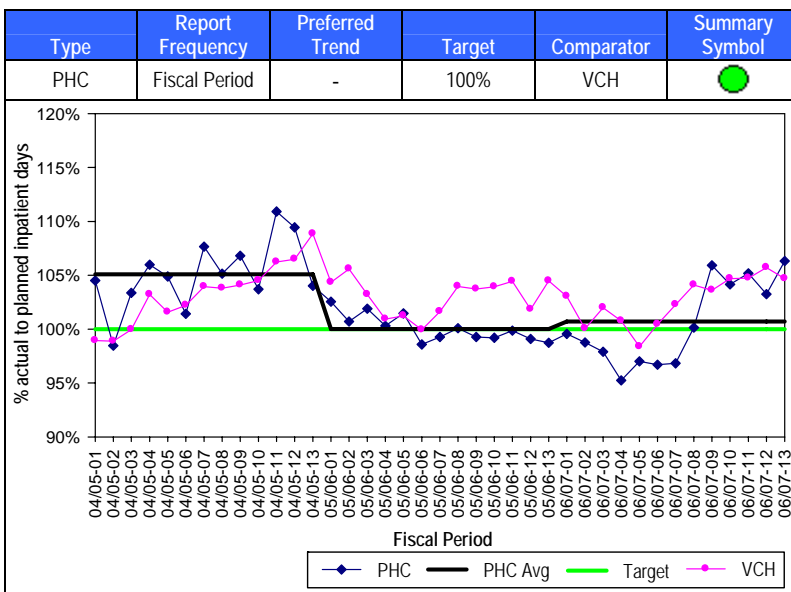
Continue to monitor the progress of this indicator.

Effectiveness

1.38. % actual inpatient days to planned inpatient days

Definition

The actual inpatient days compared to planned inpatient days for SPH, SVH, MSJ, and HFH, expressed as a percentage. This excludes newborns and stillbirths. Planned inpatient days have been adjusted for seasonal bed closures.



Analysis

The % actual inpatient days to planned inpatient days for FY 06/07 is 100.7%, which is within the target of 100%. VCH's actual inpatient days exceeded its planned inpatient days with an overall % actual inpatient days to planned inpatient days of 104.7% for the fiscal year.

Next Steps

Continue to monitor the progress of this indicator.

Live our mission every day



2.1. % positive responses to survey items related to Spirituality

Definition

Proportion of responses that were positive for selected items on the Acute Inpatient, Emergency Department, Ambulatory Oncology, Long Term Care Resident, and Living Our Mission Every Day Staff Surveys.

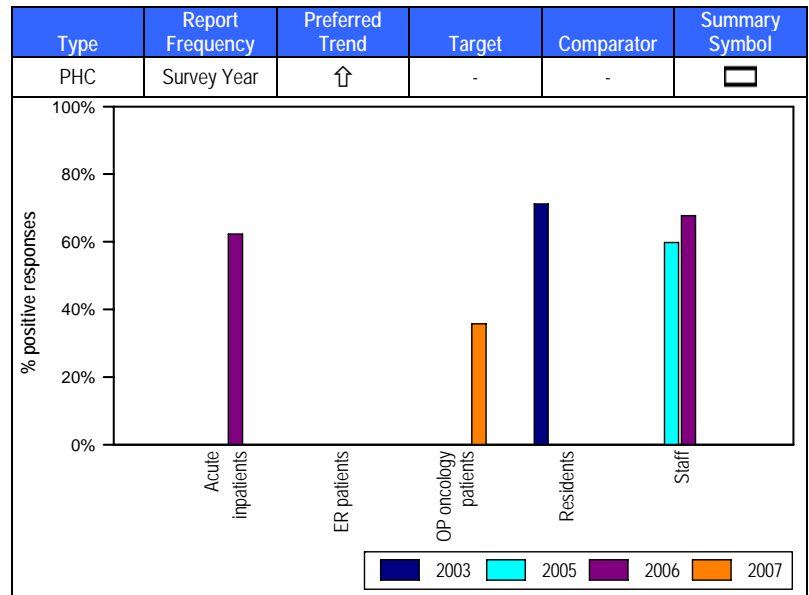
Analysis

62.3% of acute inpatients, 35.7% of ambulatory oncology patients, and 71.2% of residents responded positively that their spiritual needs were met. In 2006, 67.8% of staff responded positively that spirituality is nurtured within PHC. This is a slight increase from the previous year's result of 59.8%.

**Note: There are survey items that are either under development or are being pursued for addition to the existing surveys.*

Next Steps

Revise target (originally set at 90%) in consultation with internal experts. Continue to monitor the progress of this indicator.



2.2. % positive responses to survey items related to Integrity

Definition

Proportion of responses that were positive for selected items on the Acute Inpatient, Emergency Department, Ambulatory Oncology, Long Term Care Resident, Long Term Care Resident Family, and Living Our Mission Every Day Staff Surveys.

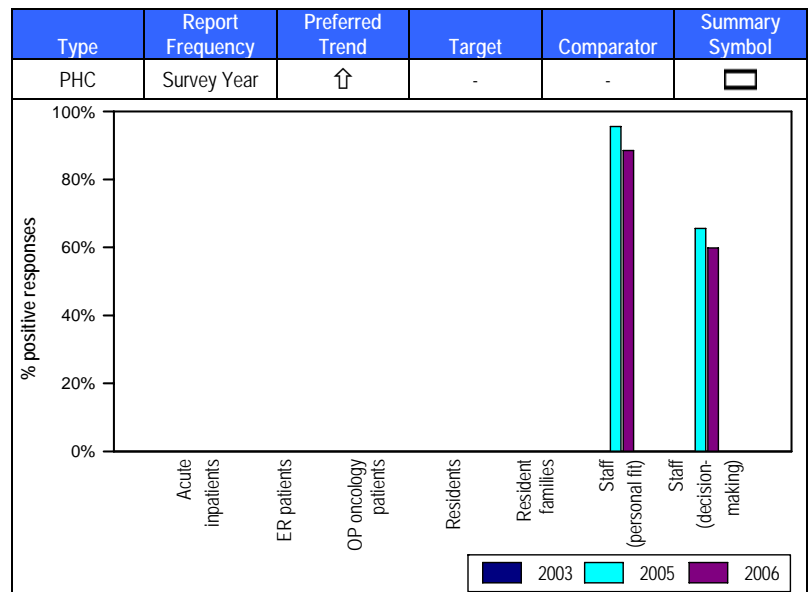
Analysis

In 2006, 88.5% of staff responded positively that the values of PHC fit with who they are as a person and 59.9% responded positively that the values of PHC impact decision-making in their area of work. These results constitute slight decreases from the previous year's results of 95.6% and 65.6%, respectively.

**Note: There are survey items that are either under development or are being pursued for addition to the existing surveys.*

Next Steps

Revise target (originally set at 90%) in consultation with internal experts. Develop integrity related question for inclusion in future patient and resident surveys. Continue to monitor the progress of this indicator.



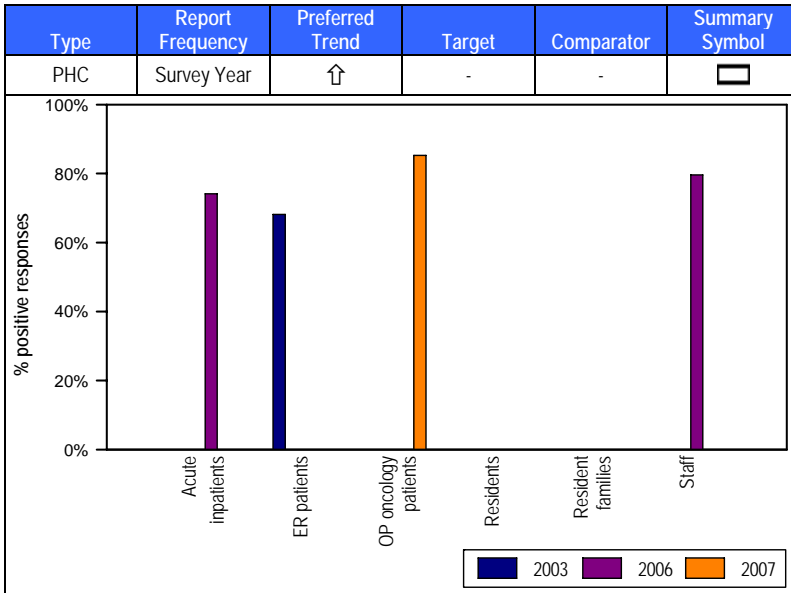
2

Live our mission every day

2.3. % positive responses to survey items related to Trust

Definition

Proportion of responses that were positive for selected items on the Acute Inpatient, Emergency Department, Ambulatory Oncology, Long Term Care Resident, Long Term Care Resident Family, and Living Our Mission Every Day Staff Surveys.



Analysis

74.1% of acute inpatients, 85.2% of ambulatory oncology patients, and 68.2% of ER patients responded positively that they had confidence and trust in the nurses and doctors treating them. In 2006, 79.6% of staff responded positively that they had confidence and trust in the people with whom they work.

**Note: There are survey items that are either under development or are being pursued for addition to the existing surveys.*

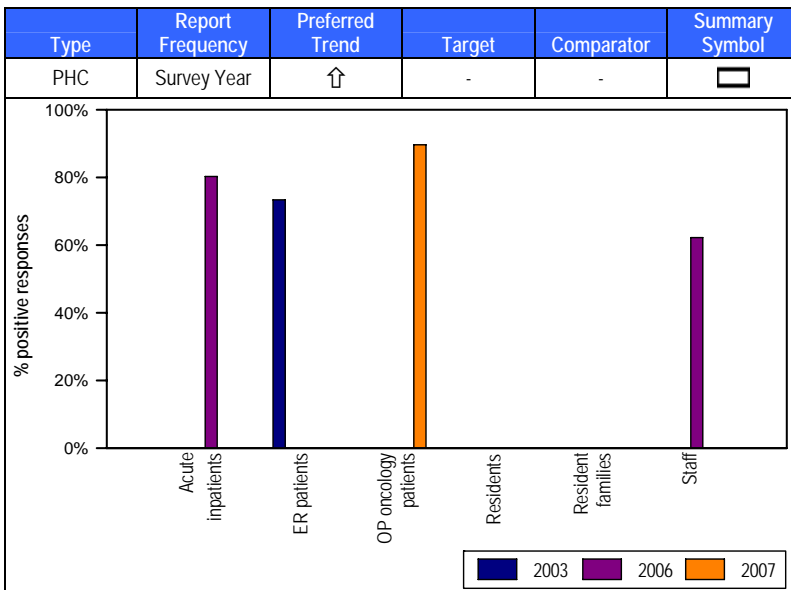
Next Steps

Revise target (originally set at 90%) in consultation with internal experts. Continue to monitor the progress of this indicator.

2.4. % positive responses to survey items related to Respect

Definition

Proportion of responses that were positive for selected items on the Acute Inpatient, Emergency Department, Ambulatory Oncology, Long Term Care Resident, Long Term Care Resident Family, and Living Our Mission Every Day Staff Surveys.



Analysis

80.3% of acute inpatients, 89.7% of ambulatory oncology patients, and 73.3% of ER patients responded positively that staff treated them with dignity and respect. In 2006, 62.2% of staff responded positively that a respect for the dignity of every person permeates PHC.

**Note: There are survey items that are either under development or are being pursued for addition to the existing surveys.*

Next Steps

Revise target (originally set at 90%) in consultation with internal experts. Continue to monitor the progress of this indicator.

Create an environment that attracts & retains the best people



3.1. RN vacancy rate

Definition

The number of unfilled posted RN positions, including full time, part time, temporary full time, and temporary part time positions, on the last day of the fiscal period, expressed as a proportion of annual budgeted RN FTEs.

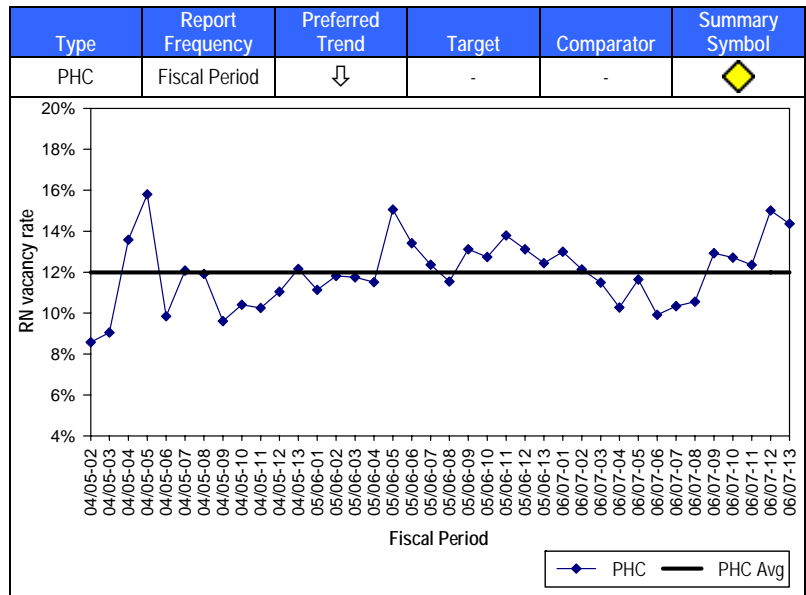
Analysis

The RN vacancy rate is stable for the time period shown with an average of 12.0%. The increase seen in the vacancy rate in P12 and P13-06/07 may be the result of the change in the data collection process that was implemented at this time (see below *Note).

**Note: Due to job action, there is no vacancy data available for P1-04/05. Starting in P12-06/07, the data collection method for capturing vacancies changed from a manual to automated process.*

Next Steps

This indicator is currently under review.



3.2. % sick hours

Definition

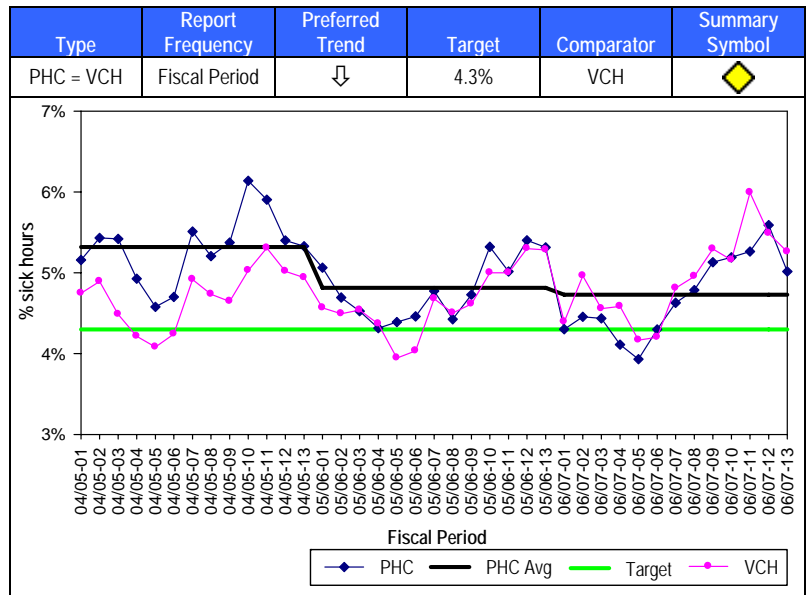
The number of paid sick hours expressed as a percentage of productive hours.

Analysis

The % sick hours for FY 06/07 is 4.7%. The target of 4.3% is not being met in most fiscal periods. There has been little change from the sick hours rate of 4.8% experienced in FY 05/06. PHC has been outperforming VCH in the current fiscal year.

Next Steps

Strategies/initiatives aimed at reducing sick time include: individualized action plans for the top 20 cost centres, improved access to data, a tool kit for leaders, and an innovative/responsive scheduling initiative.



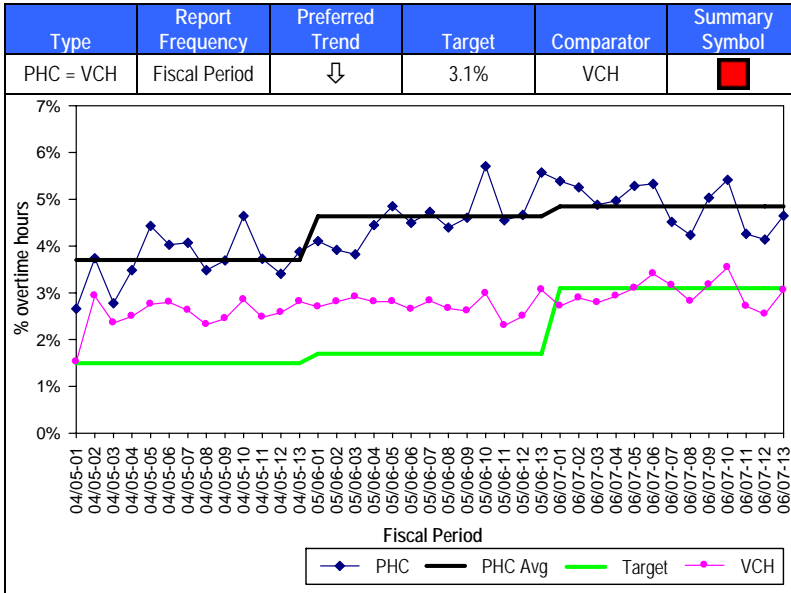
3

Create an environment that attracts & retains the best people

3.3. % overtime hours

Definition

The proportion of total productive hours that are overtime hours.



Analysis

The % overtime hours for FY 06/07 is 4.8%. This is a slight increase from the overtime rate of 4.6% experienced in FY 05/06. The target of 3.1% is not being met in any fiscal period. VCH is consistently outperforming PHC.

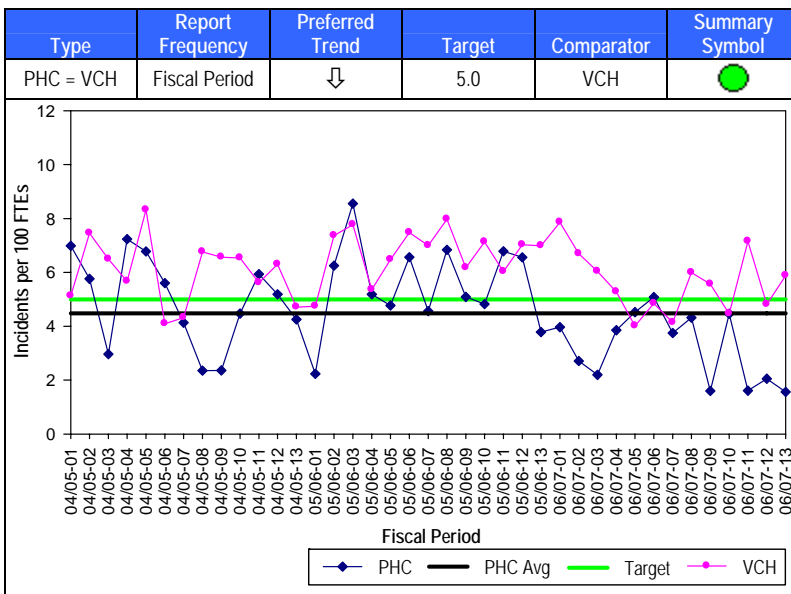
Next Steps

Strategies/initiatives aimed at reducing overtime use include: an hours of care review, the implementation of vacation guidelines and relief lines, overhiring, the development of a Patient Care Attendant (PCA) pool, a scheduling improvement initiative, a rotation review, the development of an algorithm to support decision-making related to overtime, and improved access to data.

3.4. WCB musculoskeletal injury (MSI) incidence rate for direct care areas

Definition

The number of approved WCB musculoskeletal injury (MSI) incidents per 100 productive hour FTEs for direct care areas.



Analysis

The overall MSI incidence rate for direct care areas is 4.5 incidents per 100 productive hour FTEs for the time period shown. Although there is no shift downward, the data suggest the MSI incidence rate has declined in FY 06/07 with the majority of data points falling below the mean. Various initiatives may have contributed to the improvement, including: the installation of more ceiling lifts in FY 06/07, the implementation of the Ceiling Lift Coaching Project at HFH, and the introduction of sliding sheets on SPH units. The target rate of 5.0 is consistently being met. PHC has been outperforming VCH.

Next Steps

More ceiling lifts will be installed in FY 07/08. It is anticipated that the Ceiling Lift Coaching Project will be expanded to another residential care site in FY 07/08. Continue to monitor the progress of this indicator.

Create an environment that attracts & retains the best people



3.5. WCB incidence rate

Definition

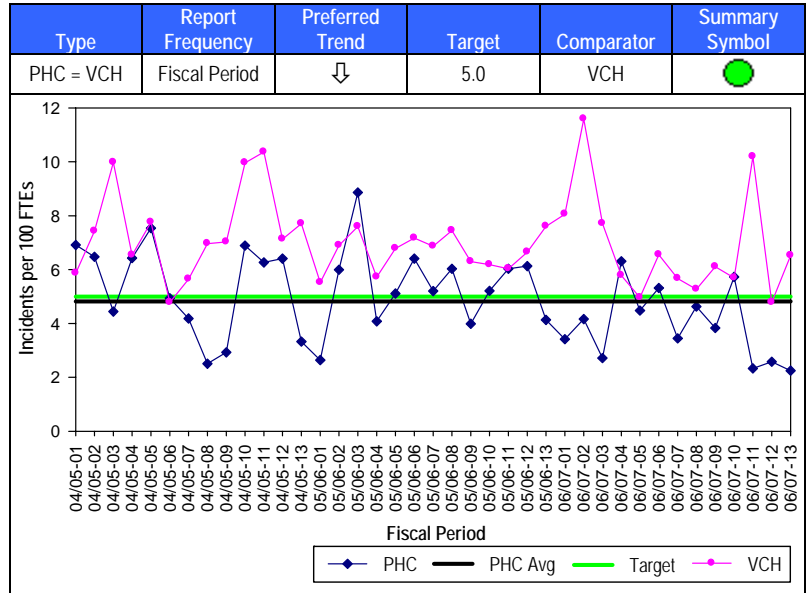
The number of approved WCB time-loss injury incidents per 100 productive hour FTEs for all areas.

Analysis

The overall WCB incidence rate for the entire time period shown is 4.8 time-loss incidents per 100 productive hour FTEs. The data suggest that there has been some improvement in FY 06/07 with the majority of data points falling below the mean. Various initiatives may have contributed to the improvement, including: the installation of more ceiling lifts in FY 06/07, the implementation of the Ceiling Lift Coaching Project at HFH, and the introduction of sliding sheets on SPH units. The target rate of 5.0 is being met in most of the recent periods. PHC has been outperforming VCH.

Next Steps

See **WCB musculoskeletal injury (MSI) incidence rate for direct care areas** indicator for Next Steps.



3.6. % days of work lost due to injury for direct care areas

Definition

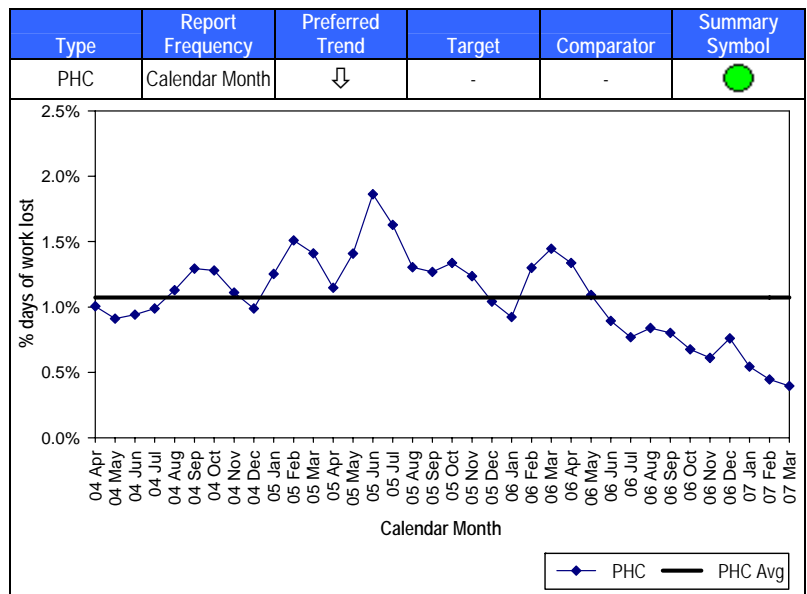
The number of days of work lost due to injuries for direct care areas divided by the total number of budgeted days.

Analysis

The overall rate for the % days of work lost due to injury in direct care areas has shifted in the desired direction with an average of 0.67% following the shift. A decrease in both the rate of injuries (see **WCB MSI incidence rate for direct care areas** and **WCB incidence rate** indicators) and their severity have likely contributed to this result. Additionally, WCB has been shifting the burden of lost time to LTD (long term disability).

Next Steps

Continue to monitor the progress of this indicator.



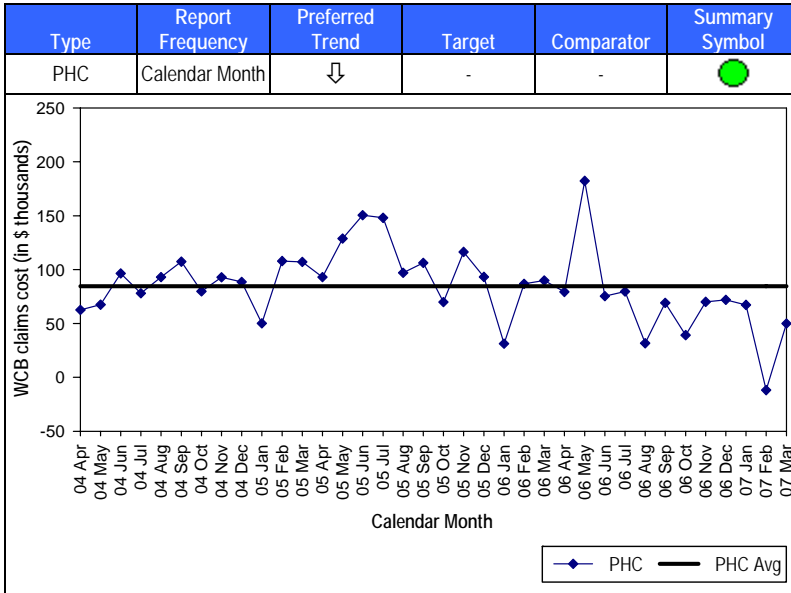
3

Create an environment that attracts & retains the best people

3.7. WCB claims cost

Definition

The total dollars invoiced for WCB claims, regardless of cause and area of work, during the month, adjusted to reflect a 30-day month.



Analysis

WCB claims costs have shifted in the desired direction starting in June 2006. This coincides with the shift in the desired direction also seen in the % days of work lost due to injury for direct care areas indicator.

**Note: The -\$12,000 claims costs for February 2007 were the result of "relief of cost" adjustments credited to PHC. A "relief of cost" adjustment is made to decrease the burden to the employer when it is deemed that an injury has been enhanced by reason of a pre-existing disease, condition or disability.*

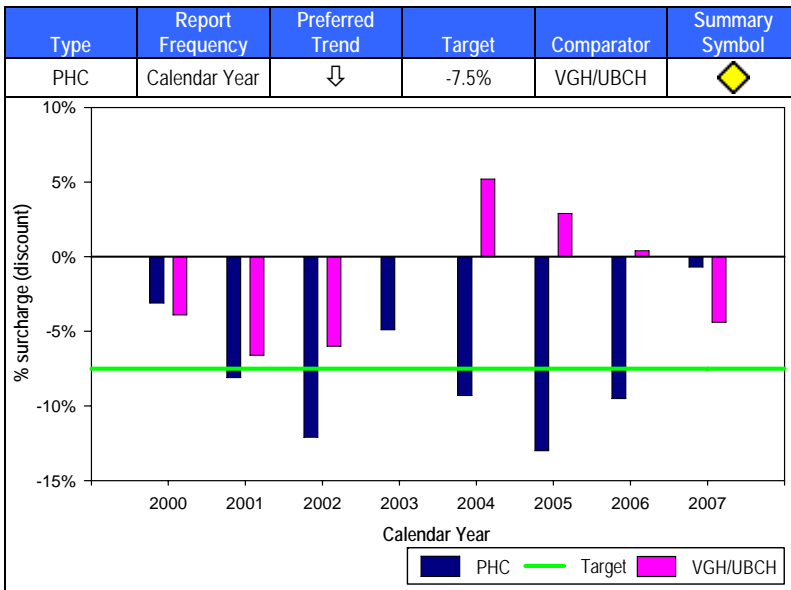
Next Steps

Continue to monitor the progress of this indicator.

3.8. WCB experience rating adjustment

Definition

The surcharge/discount applied to the WCB base rate (amount charged per \$100 of assessable earnings) based on PHC's injury costs (for both acute care and residential care sites) relative to the provincial acute care classification unit average.



Analysis

For 8 consecutive years PHC has achieved a discount to its WCB base rate, indicating that PHC has incurred lower injury costs relative to the acute care rate group average. The discount achieved by PHC for 2007 is 0.7%, which is below the target of 7.5%. This may have been the result of the increase in WCB claims costs experienced in 2005. PHC was outperformed by VGH/UBCH in the most recent year.

**Note: In the past, PHC as a whole has been part of the acute care rate group. However, a recent audit has seen PHC reclassified into 4 different rate groups: acute care, residential care, rehabilitation care, and community health support.*

Next Steps

Continue to monitor the progress of this indicator.

Create an environment that attracts & retains the best people



3.9. Grievances filed rate

Definition

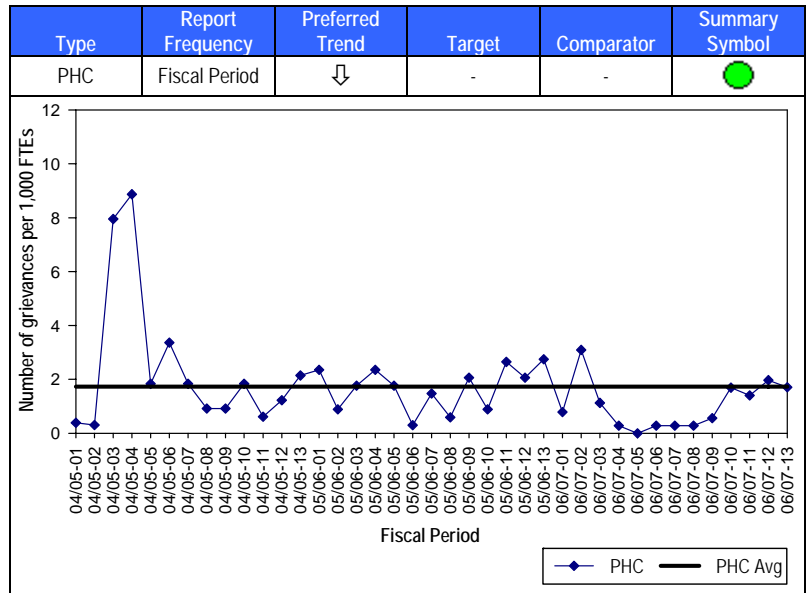
The number of grievances filed by unionized staff per 1,000 annual budgeted FTEs. Includes HSA, BCNU, HEU and IUOE.

Analysis

For the time period shown, there has been an average of 1.7 grievances filed per 1,000 FTEs for unionized staff. The rate is unstable with spikes seen in P3-04/05 and P4-04/05, which correspond to the periods during which food services were outsourced across PHC sites. Additionally, the rate has shifted in the desired direction during most of FY 06/07 with a return to previous levels in the most recent fiscal periods. The shift in the desired direction corresponds to the time following the ratification of the 2006-2010 Collective Agreements, and the increase in the rate at the end of FY 06/07 is the result of multiple grievances filed for the same issue.

Next Steps

A proactive approach will be taken by ensuring awareness of initiatives that affect staff so issues can be addressed and resolved during the implementation process before grievances are filed. Continue to monitor the progress of this indicator.



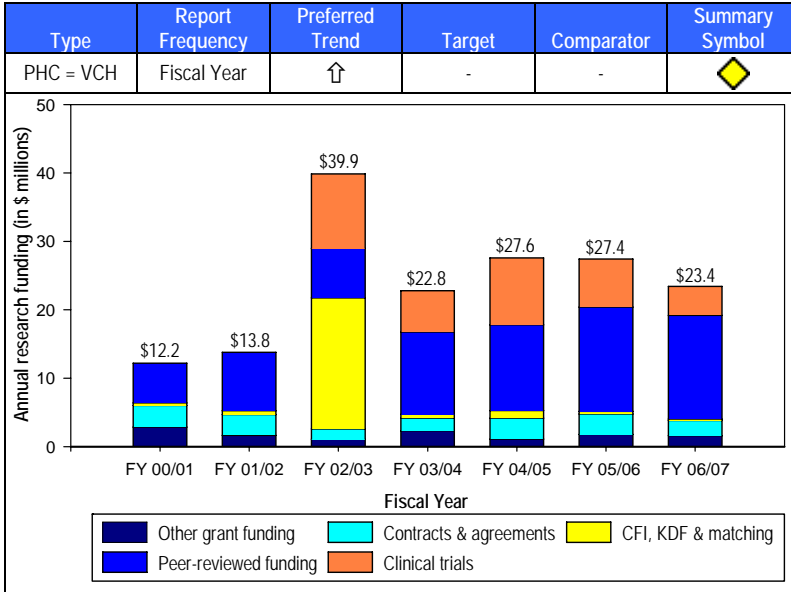
4

Support research & new knowledge integration

4.1. Total annual research funding

Definition

Total research funding received through successful grant applications and industry-sponsored contracts by funding type (Contracts and agreements; CFI, KDF and matching funds; other grants; and peer-reviewed funding as per Michael Smith Foundation for Health Research (MSFHR) definition) by fiscal year.



Analysis

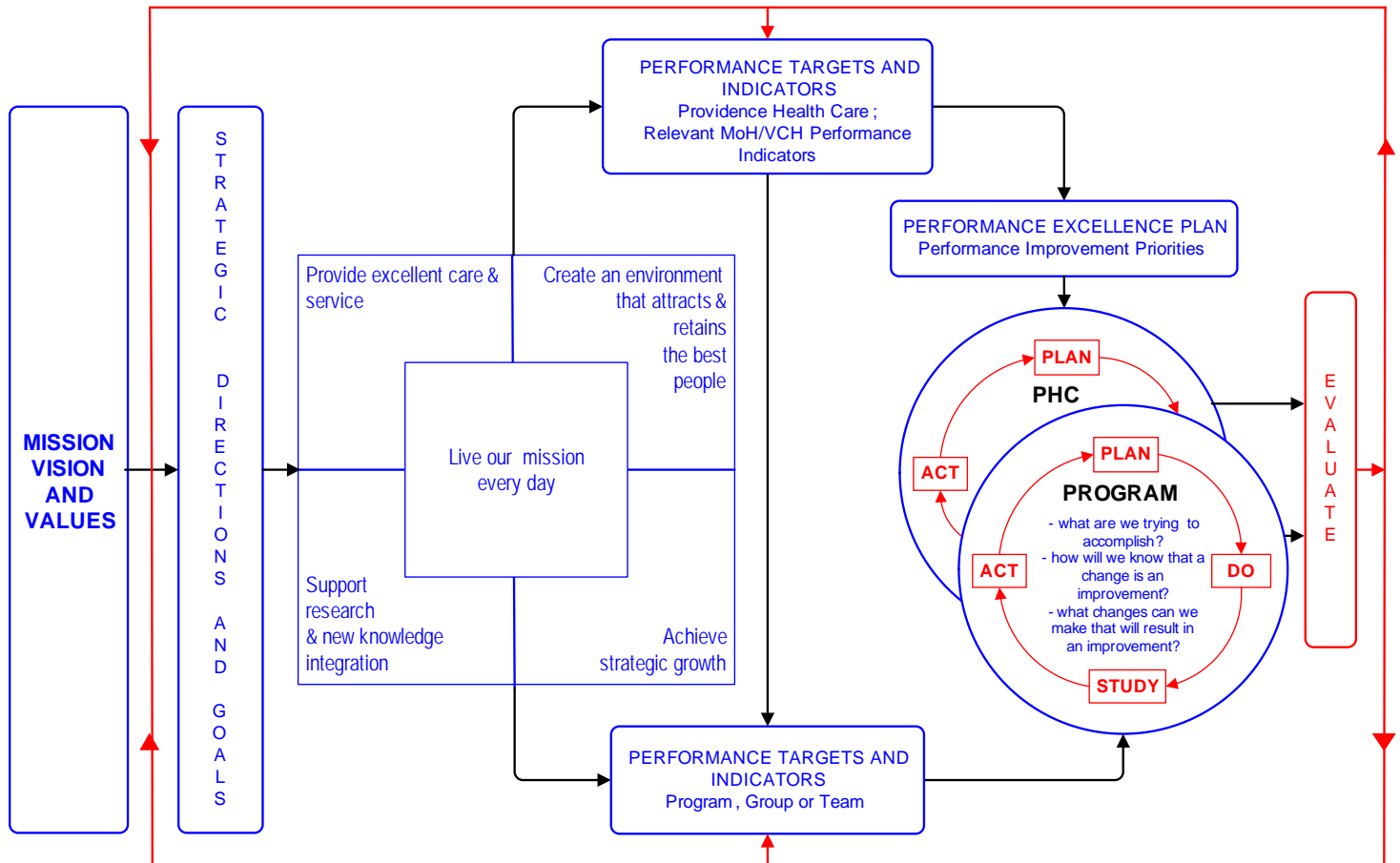
The total annual research funding decreased by 15% to \$23.4 million for FY 06/07 from \$27.4 million for the previous fiscal year. All funding categories experienced a decrease with clinical trials funding experiencing the largest dollar amount decrease of \$2.7 million (39%). The two major factors contributing to the decrease in funding in FY 06/07 were: some large CIHR (Canadian Institutes of Health Research) grants, which had accounted for significant funds over the last several years, had ended or were winding down, and the overall decline in clinical trials funding experienced across all UBC-affiliated teaching hospitals.

**Note: Clinical trial funding could not be broken out for FY 00/01 and FY 01/02 and thus these dollars are subsumed under the other funding categories for those fiscal years.*

Next Steps

Continue to monitor the progress of this indicator annually.

PHC accountability & performance improvement framework



B

Dimensions of quality matrix

		DIMENSIONS OF QUALITY					
		Effectiveness	Safety	Timeliness	Equitability	Patient-Centredness	Efficiency
Indicator Name							
Provide excellent care & service	1.1. Complication rate for diagnostic cardiac catheterization		★				
	1.2. Aspirin administration rate for AMI and suspected AMI	★					
	1.3. In-hospital mortality rate for community-acquired pneumonia	★					
	1.4. AMA rate for HIV/AIDS patients		★				
	1.5. Rate of receipt of adequate hemodialysis	★					
	1.6. Rate of adequate renal function at 6 months post-kidney transplant	★					
	1.7. Unplanned readmission rate for mental health & addictions	★					
	1.8. Residential care indicators – Placeholder						
	1.9. Resident overall satisfaction rate					★	
	1.10. Resident family overall quality rate					★	
	1.11. Emergency patient satisfaction rate					★	
	1.12. Acute inpatient satisfaction rate					★	
	1.13. Ambulatory oncology satisfaction rate					★	
	1.14. HSMR (hospital standardized mortality ratio)		★				
	1.15. In-hospital deaths per 100 patients in CMGs with less than 1% mortality		★				
	1.16. In-hospital fracture rate per 1,000 patients aged 65 years and older		★				
	1.17. nfluenza immunization rate for residents		★				
	1.18. Influenza immunization rate for staff		★				
	1.19. Unplanned readmission rate for CHF (congestive heart failure)	★					
	1.20. Unplanned readmission rate for diabetes	★					
	1.21. Average wait time in ED for admitted patients			★			
	1.22. % admitted patients who leave ED within 10 hrs of decision to admit time			★			
	1.23. Proportion of ED patients seen by physician within targets		★	★			
	1.24. Surgical cancellation rate			★			
	1.25. % hip replacement patients receiving surgery within targeted wait time			★			
	1.26. % knee replacement patients receiving surgery within targeted wait time			★			
	1.27. % oncology mastectomy patients receiving surgery within targeted wait time			★			
	1.28. Median wait time for CABG (coronary artery bypass graft)			★			
	1.29. % acute LOS (length of stay compared to ELOS (expected length of stay)						★
	1.30. % ALC census days			★			
	1.31. % mental health & addictions ALC discharge days			★			
	1.32. SDC (same day care) opportunities						★
	1.33. Cumulative net surplus (deficit)						★
	1.34. Current ratio						★
	1.35. Administrative and support costs as % of total expenses						★
	1.36. Non-Ministry of Health Services revenues as % of total revenues	★					
	1.37. Occupancy rate	★					
	1.38. % actual inpatient days to planned inpatient days	★					
Live our mission every day	2.1. % positive responses to survey items related to Spirituality	★					
	2.2. % positive responses to survey items related to Integrity	★					
	2.3. % positive responses to survey items related to Trust	★					
	2.4. % positive responses to survey items related to Respect	★					
Create an environment that attracts & retains the best people	3.1. RN vacancy rate		★				
	3.2. % sick hours		★				
	3.3. % overtime hours		★			★	
	3.4. WCB MSI (musculoskeletal injury) incidence rate for direct care areas		★				
	3.5. WCB incidence rate		★				
	3.6. % days of work lost due to injury for direct care areas		★				
	3.7. WCB claims cost		★				
	3.8. WCB experience rating adjustment		★				
	3.9. Grievances filed rate	★					
Support research & new knowledge integration	4.1. Total annual research funding	★					

1.1. Complication rate for diagnostic cardiac catheterization

Rationale: The rate of complications arising from diagnostic cardiac catheterization, although dependent on the disposition of the patient, has been attributed largely to the skill and competence of the physician. Studies suggest that a proportion of those complications that do arise can be avoided through patient selection or technique.

Numerator: Number of inpatient and outpatient cases with an *isolated* diagnostic cardiac catheterization procedure and experienced a complication

Inclusion criteria:

The numerator is a subset of the denominator meeting the following conditions:

- Cases with one of the following ICD-10-CA codes in any diagnosis field:
 - Y840 - cardiac catheterization as the cause of abnormal reaction or later complication
 - Y605 - unintentional cut, puncture, perforation or hemorrhage during heart catheterization
 - Y575 - x-ray contrast media causing adverse effect in therapeutic use
 - Y842 - radiological procedure and radiotherapy as the cause of abnormal reaction

Denominator: Total number of inpatient and outpatient cases with an *isolated* diagnostic cardiac catheterization procedure

Inclusion criteria:

- Cases with CCI procedure code 3.IP.10

Exclusion criteria:

- Cases transferred to another acute care hospital (inpatient cases only)
- Cases ≤ 18 years
- Cases that also underwent open heart surgery, PTCA, or valvuloplasty on the same day of the catheterization (CCI procedure codes for these interventions are listed below):
 - 1IJ50
 - 1IJ57
 - 1IJ76
 - 1LZ37LAGB
 - 1HV90
 - 1HU90
 - 1HU80
 - 1HS80
 - 1HV80
 - 1HR80
 - 1HZ85

Method of calculation:
$$= \frac{\text{numerator}}{\text{denominator}} * 100$$

Data source: Health Records

Data limitations:

- Cases that underwent other major heart surgeries that were performed on the same date as the cardiac catheterization were excluded as these cases would be exposed to a greater risk of complications due to the nature of these procedures. As a result, those cases that underwent emergency CABGs or PTCAs in response to complications of the diagnostic cardiac catheterization are excluded.
- The coding of complications in the discharge abstract seems to vary with respect to the cause of the complication (e.g. cardiac catheterization) and the nature of the complication (e.g. ventricular fibrillation). Complications were included in the calculation of the indicator only if one of the Y diagnosis codes listed above was coded. It is possible that other codes not specific to cardiac catheterization were used to code for complications of cardiac catheterization.
- Complications experienced by outpatients may be underreported as patients are often discharged several hours after a procedure and the presence of a complication may become apparent only after discharge.

Target source: N/A

Action point source: N/A

Comparator source: N/A

References:

1. Ammann P et al. Procedural complications following diagnostic coronary angiography are related to the operator's experience and the catheter size. *Cathet Cardiovasc Intervent* 2003;59:13-18.
2. de Bono D, on behalf of the Joint Audit Committee of the British Cardiac Society and Royal College of Physicians of London. Complications of diagnostic cardiac catheterisation: results of 34 041 patients in the United Kingdom confidential enquiry into cardiac catheter complications. *Br Heart J* 1993;70:297-300.
3. Scanlon PJ, Faxon DP, Audet AM, et al. ACC/AHA guidelines for coronary angiography: report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee on Coronary Angiography). Developed in collaboration with the Society for Cardiac Angiography and Interventions. *J Am Coll Cardiol* 1999;33:1756-824.

1.2. Aspirin administration rate for AMI and suspected AMI

Rationale:	The benefits of administering aspirin for the treatment of suspected myocardial infarction is well established in the literature. The immediate administration of aspirin (and continued administration for 5 weeks) has been shown to reduce vascular deaths by 23%. When all high-risk patients are considered together, there is about a 30% reduction in nonfatal MI, a 30% reduction in nonfatal stroke, and a 17% reduction in vascular death. For patients with prior infarction or stroke, aspirin is estimated to prevent between 35 and 40 events per 1000 patients treated.
Numerator:	Number of inpatient discharges with diagnosis of suspected or confirmed myocardial infarction with an order for a regular dose of aspirin during hospitalization.
Denominator:	Number of inpatient discharges with diagnosis of suspected or confirmed myocardial infarction. <i>Inclusion criteria:</i> <ul style="list-style-type: none">▪ Cases with one of the following ICD-10-CA codes designated as the most responsible, Type 1, or Type 2 diagnosis:<ul style="list-style-type: none">▪ Chest pain/angina: I200-I209, I2382, R071-R074▪ Myocardial infarction: I210-I229 <i>Exclusion criteria:</i> <ul style="list-style-type: none">▪ Holy Family Hospital▪ Cases with LOS = 1 day▪ Cases < 12 years▪ MCC 14 (Pregnancy and Childbirth)
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	Health Records & Pharmacy System
Data limitations:	<ul style="list-style-type: none">▪ The calculated aspirin administration rate may be lower than the actual rate due to the following:<ul style="list-style-type: none">▪ STAT orders of aspirin are not consistently entered in the Pharmacy System and are thus excluded from the calculation of the indicator.▪ The denominator may include ineligible patients who have contraindications to aspirin due to: lack of specificity of coding contraindications to aspirin, incomplete documentation of aspirin contraindications in patient charts, and the incomplete coding of those aspirin contraindications that are documented.
Target source:	<ul style="list-style-type: none">▪ ACC/AHA 2002 Guideline Update for the Management of Patients With Unstable Angina and Non-ST-Segment Elevation Myocardial Infarction▪ ACC/AHA Guidelines for the Management of Patients With Acute Myocardial Infarction
Action point source:	N/A
Comparator source:	N/A
References:	<ol style="list-style-type: none">1. ISIS-2 (Second International Study of Infarct Survival) Collaborative Group. Randomised trial of intravenous streptokinase, oral aspirin, both or neither among 17,187 cases of suspected acute myocardial infarction. <i>Lancet</i> 1988; ii: 349-60.2. Bing, M et al. Aspirin Administration for Cardiac-related Acute Chest Pain/Angina: Increased Use in Medicare Patients. <i>Southern Medical Journal</i> 1999; 92(1): 23-27.

1.3. In-hospital mortality rate for community-acquired pneumonia

Rationale:	Community-acquired pneumonia has an annual incidence of 12 per 1000 adults and is the sixth most common cause of death. Studies have demonstrated that certain processes of care (e.g. early antibiotic administration upon hospital arrival, blood culture collection within 24 hours of hospital arrival, oxygenation assessment) can lead to decreased mortality associated with pneumonia.																																																				
Numerator:	Number of cases with most responsible diagnosis of community-acquired pneumonia who die in hospital																																																				
Denominator:	Total number of cases with most responsible diagnosis of community-acquired pneumonia																																																				
	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> ▪ Most responsible (Type M) diagnosis of pneumonia (one of following ICD-10-CA codes): <table> <tbody> <tr> <td>J120</td> <td>Adenoviral pneumonia</td> <td>J157</td> <td>Pneumonia dt Mycoplasma pneumoniae</td> </tr> <tr> <td>J121</td> <td>Respiratory syncytial virus pneumonia</td> <td>J158</td> <td>Other bacterial pneumonia</td> </tr> <tr> <td>J128</td> <td>Other viral pneumonia</td> <td>J159</td> <td>Bacterial pneumonia unspecified</td> </tr> <tr> <td>J129</td> <td>Viral pneumonia unspecified</td> <td>J160</td> <td>Chlamydial pneumonia</td> </tr> <tr> <td>J13</td> <td>Pneumonia dt Streptococcus pneumoniae</td> <td>J170</td> <td>Pneumonia in bacterial diseases classified elsewhere</td> </tr> <tr> <td>J14</td> <td>Pneumonia due to Haemophilus influenzae</td> <td>J171</td> <td>Pneumonia in viral diseases classified elsewhere</td> </tr> <tr> <td>J150</td> <td>Pneumonia due to Klebsiella pneumoniae</td> <td>J172</td> <td>Pneumonia in mycoses</td> </tr> <tr> <td>J151</td> <td>Pneumonia due to Pseudomonas</td> <td>J173</td> <td>Pneumonia in parasitic diseases</td> </tr> <tr> <td>J152</td> <td>Pneumonia due to Staphylococcus</td> <td>J168</td> <td>Pneumonia dt oth spec infect organisms</td> </tr> <tr> <td>J153</td> <td>Pneumonia due to Streptococcus, group B</td> <td>J180</td> <td>Bronchopneumonia unspecified</td> </tr> <tr> <td>J154</td> <td>Pneumonia due to other streptococci</td> <td>J181</td> <td>Lobar pneumonia unspecified</td> </tr> <tr> <td>J155</td> <td>Pneumonia due to Escherichia coli</td> <td>J188</td> <td>Other pneumonia organism unspecified</td> </tr> <tr> <td>J156</td> <td>Pneumonia dt other aerobic gram neg bact</td> <td>J189</td> <td>Pneumonia unspecified</td> </tr> </tbody> </table> <p>Exclusion criteria:</p> <ul style="list-style-type: none"> ▪ Patients with one of the above ICD-10-CA diagnosis codes listed as both MRDx AND Type 2 (post-admit co-morbidity) on discharge abstract as this represents a hospital-acquired pneumonia ▪ Cases transferred to another acute care hospital ▪ Cases ≤ 18 years 	J120	Adenoviral pneumonia	J157	Pneumonia dt Mycoplasma pneumoniae	J121	Respiratory syncytial virus pneumonia	J158	Other bacterial pneumonia	J128	Other viral pneumonia	J159	Bacterial pneumonia unspecified	J129	Viral pneumonia unspecified	J160	Chlamydial pneumonia	J13	Pneumonia dt Streptococcus pneumoniae	J170	Pneumonia in bacterial diseases classified elsewhere	J14	Pneumonia due to Haemophilus influenzae	J171	Pneumonia in viral diseases classified elsewhere	J150	Pneumonia due to Klebsiella pneumoniae	J172	Pneumonia in mycoses	J151	Pneumonia due to Pseudomonas	J173	Pneumonia in parasitic diseases	J152	Pneumonia due to Staphylococcus	J168	Pneumonia dt oth spec infect organisms	J153	Pneumonia due to Streptococcus, group B	J180	Bronchopneumonia unspecified	J154	Pneumonia due to other streptococci	J181	Lobar pneumonia unspecified	J155	Pneumonia due to Escherichia coli	J188	Other pneumonia organism unspecified	J156	Pneumonia dt other aerobic gram neg bact	J189	Pneumonia unspecified
J120	Adenoviral pneumonia	J157	Pneumonia dt Mycoplasma pneumoniae																																																		
J121	Respiratory syncytial virus pneumonia	J158	Other bacterial pneumonia																																																		
J128	Other viral pneumonia	J159	Bacterial pneumonia unspecified																																																		
J129	Viral pneumonia unspecified	J160	Chlamydial pneumonia																																																		
J13	Pneumonia dt Streptococcus pneumoniae	J170	Pneumonia in bacterial diseases classified elsewhere																																																		
J14	Pneumonia due to Haemophilus influenzae	J171	Pneumonia in viral diseases classified elsewhere																																																		
J150	Pneumonia due to Klebsiella pneumoniae	J172	Pneumonia in mycoses																																																		
J151	Pneumonia due to Pseudomonas	J173	Pneumonia in parasitic diseases																																																		
J152	Pneumonia due to Staphylococcus	J168	Pneumonia dt oth spec infect organisms																																																		
J153	Pneumonia due to Streptococcus, group B	J180	Bronchopneumonia unspecified																																																		
J154	Pneumonia due to other streptococci	J181	Lobar pneumonia unspecified																																																		
J155	Pneumonia due to Escherichia coli	J188	Other pneumonia organism unspecified																																																		
J156	Pneumonia dt other aerobic gram neg bact	J189	Pneumonia unspecified																																																		
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$																																																				
Data source:	Health Records																																																				
Data limitations:	<ul style="list-style-type: none"> ▪ At the start of FY 04/05, Health Records implemented coding changes that affect how the most responsible diagnosis is determined for patients with both pneumonia and COPD (coronary obstructive pulmonary disease) in adherence with CIHI coding guidelines. 																																																				
Target source:	N/A																																																				
Action point source:	N/A																																																				
Comparator source:	American Thoracic Society (see reference below)																																																				
References:	<ol style="list-style-type: none"> 1. Bartlett JG, Mundy LM. Community-acquired pneumonia. <i>N Engl J Med</i> 1995; 333(24):1618-24. 2. McGarvey RN, Harper JJ. Pneumonia Mortality Reduction and Quality Improvement in a Community Hospital. <i>Quality Review Bulletin (QRB)</i> 1993; 19: 124-129. 3. Meehan TP et al. Process of care performance, patient characteristics, and outcomes in elderly patients hospitalized with community-acquired or nursing home-acquired pneumonia. <i>Chest</i> 2000; 117(5): 1378-85. 4. Neiderman MS et al. (American Thoracic Society) Guidelines for the Initial Management of Adults with Community-Acquired Pneumonia: Diagnosis, Assessment of Severity, and Initial Antimicrobial Therapy. <i>Am Rev Respir Dis</i> 1993; 148: 1418-26. 																																																				

1.4. AMA rate for HIV/AIDS patients

Rationale:	Premature discharge is often associated with multiple readmissions, and often for the same (or related) diagnosis as the previous admission. Also lengths of stay in hospital have been found to be significantly longer during subsequent admissions for patients who left against medical advice.
Numerator:	Number of inpatient cases with HIV/AIDS who left hospital against medical advice (AMA)
Denominator:	Total number of inpatient cases with HIV/AIDS
	<i>Inclusion criteria:</i>
	<ul style="list-style-type: none">▪ Case with HIV/AIDS “alert”
	<i>Exclusion criteria:</i>
	<ul style="list-style-type: none">▪ Cases who died before discharge▪ Cases transferred to another acute care facility▪ Cases ≤ 18 years
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	Health Records
Data limitations:	<ul style="list-style-type: none">▪ The HIV/AIDS “alert” is a field that is downloaded from the ADT system. Health Records coders have identified errors in the assigning of this alert to patients. As this field is captured at the level of the patient, any errors would be replicated for each subsequent inpatient encounter that the patient experiences.
Target source:	N/A
Action point source:	N/A
Comparator source:	N/A
References:	1. Anis AH et al. Leaving hospital against medical advice among HIV-positive patients. <i>CMAJ</i> 2002; 167(6): 633.

1.5. Rate of receipt of adequate hemodialysis

Rationale:	Adequacy of dialysis is associated with morbidity and mortality of dialysis patients.
Numerator:	Number of hemodialysis patients receiving adequate dialysis <i>Inclusion criteria:</i> <ul style="list-style-type: none"> ▪ Hemodialysis patients with PRU ≥ 0.65 on last measurement within 2 months of the fiscal period end date
Denominator:	Number of hemodialysis patients with a PRU measurement within 2 months of the fiscal period end date
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Definitions of terms:	<i>Percent reduction of urea (PRU)</i> – An alternative measure of dialysis adequacy. It is a function of dialyzer urea clearance, length of dialysis, and urea distribution volume of the patient.
Data source:	Patient Record and Outcome Management Information System (PROMIS)
Data limitations:	None identified at this time.
Target source:	Consultation with internal experts.
Action point source:	N/A
Comparator source:	N/A
References:	<ol style="list-style-type: none"> 1. BCPRA/PHSA. Proposed Financial and Clinical Indicators by which to evaluate care and delivery. August 2002. 2. Basile C, Casino F, Lopez T. Percent reduction in blood urea concentration during dialysis estimates Kt/V in a simple and accurate way. <i>Am J Kidney Dis</i> 1990; 15(1):40-5.

1.6. Rate of adequate renal function at 6 months post-kidney transplant

Rationale:	Early renal function has been shown to be a predictor of long-term kidney graft survival.
Numerator:	Number of kidney transplant recipients with adequate renal function at 6 months post-transplant <i>Inclusion criteria:</i> <ul style="list-style-type: none">▪ Glomerular filtration rate (GFR) \geq 50 mL/min. <i>*Note:</i> for those transplant recipients who experience an acute rejection of the kidney, a creatinine clearance measurement of zero is imputed.
Denominator:	Total number of kidney transplant recipients at 6 months post-transplant surgery.
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Definition of terms:	<i>Glomerular filtration rate (GFR)</i> – A standard of assessing kidney function. It is usually estimated by creatinine clearance, a test that compares the level of creatinine in urine with the creatinine level in the blood.
Data source:	PROMIS
Data limitations:	<ul style="list-style-type: none">▪ Meaningful analysis is made difficult due to the low case counts observed per fiscal quarter.
Target source:	Consultation with internal experts.
Action point source:	N/A
Comparator source:	N/A
References:	1. http://www.nlm.nih.gov/medlineplus/ency/article/003611.htm

1.7. Unplanned readmission rate for mental health & addictions

Rationale:	Readmission rate may be a measure of the effectiveness of in-hospital treatment and discharge planning.
Numerator:	Number of cases that were readmissions to the same facility in ≤ 28 days for a related diagnosis <i>Inclusion criteria:</i> <ul style="list-style-type: none"> ▪ Cases with readmission code = 2 or 3
Denominator:	Total number of mental health and addictions cases <i>Inclusion criteria:</i> <ul style="list-style-type: none"> ▪ Cases aged between 15 and 64 years, inclusive ▪ Cases with one of the following ICD-10-CA codes as the most responsible diagnosis (MRDx): F0*, F1*, F2*, F3*, F4*, F50*, F51*, F52*, F530*, F531*, F6*, F840*, F841*, F843*, F844*, F845*, F848*, F849*, F9*, Z281*, Z55*, Z56*, Z57*, Z600*, Z601*, Z603*, Z604*, Z605*, Z608*, Z609*, Z61*, Z62*, Z63*, Z640*, Z641*, Z644*, Z65*, Z720*, Z721*, Z722*, Z723*, Z724*, Z725*, Z726*, Z729*, Z730*, Z731*, Z732*, Z733*, Z734*, Z735*, Z738*, Z739*, R410*, G312*, G442*
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	Health Records
Data limitations:	<ul style="list-style-type: none"> ▪ At the start of FY 04/05, the Ministry of Health Services changed its definition of mental health cases to those with a most responsible diagnosis in specific mental health and addictions codes. Additionally, it restricted its definition to those patients between the ages of 15 and 65. The definition of addictions is problematic as it relies on an addictions diagnosis being coded as the most responsible diagnosis, therefore use of this definition may lead to the underrepresentation of the true addictions population. All past data has been recompiled to reflect this new definition. ▪ Due to changes made by CIHI in the coding of readmissions for fiscal year 03/04, data prior to this time are unavailable.
Target source:	Ministry of Health Performance Agreement
Action point source:	N/A
Comparator source:	VCH – VCH Balanced Scorecard
References:	1. Ministry of Health Services Service Plan 2003/04 – 2005/06.

1.8. Residential care indicators - Placeholder

Residential care indicators are currently under review for inclusion in the corporate BSC.

1.9. Resident overall satisfaction rate

Rationale:	This indicator measures the extent to which residents of PHC residential care facilities are satisfied with the care and service that is being provided to them.
Numerator:	Number of positive responses for each of the questions/dimensions specified under Denominator: <ul style="list-style-type: none">▪ Overall Satisfaction: Good + Excellent▪ Dignity: Varies by survey question▪ Living Environment: Varies by survey question▪ Staff: Varies by survey question▪ Food: Varies by survey question▪ Autonomy: Varies by survey question▪ Activity: Varies by survey question
Denominator:	Total number of responses for each of the following questions/dimensions: <ul style="list-style-type: none">▪ Overall Satisfaction: Overall, how would you rate the quality of care and services you receive here?▪ Dignity▪ Living Environment▪ Staff▪ Food▪ Autonomy▪ Activity <p>*Note: Dimensions are comprised of several specific survey questions.</p>
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	NRC+Picker Long Term Care Resident Survey
Data limitations:	<ul style="list-style-type: none">▪ None identified at this time.
Target source:	VCH Residential Care Performance Measurement Framework
Action point source:	N/A
Comparator source:	Comparator represents the average score across Canadian sites in the 2003 database.
References:	1. Providence Health Care – Long Term Care Resident Evaluation Survey. Resident Results January 2000. Prepared by Smaller World Communications Inc.

1.10. Resident family overall quality rate

Rationale:	This indicator measures the extent to which residents of PHC residential care facilities are satisfied with the care and service that is being provided to them.
Numerator:	<p>Number of positive responses for each of the survey questions specified under Denominator:</p> <ul style="list-style-type: none"> ▪ Overall Quality: Good + Very Good + Excellent ▪ Resident Needs: Good + Very Good + Excellent ▪ Dignity: Good + Very Good + Excellent ▪ Tender Loving Care: Good + Very Good + Excellent ▪ Family Needs: Good + Very Good + Excellent ▪ Likely to Recommend: Probably Recommend + Definitely Recommend
Denominator:	<p>Total number of responses for each of the following survey questions:</p> <ul style="list-style-type: none"> ▪ Overall Quality: Overall, how would you rate the quality of care and services provided? ▪ Resident Needs: How would you rate the facility at taking care of your family member's needs? ▪ Dignity: How would you rate the facility at maintaining your family member's dignity? ▪ Tender Loving Care: How would you rate the staff at providing tender, loving care? ▪ Family Needs: How would you rate the facility at taking care of YOUR needs? (see Data Limitations) ▪ Recommend to Others: If this type of care were required for another family member or friend, would you recommend this facility?
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	NRC+Picker Long Term Care Family Survey
Data limitations:	<ul style="list-style-type: none"> ▪ For the survey year 2003, the question pertaining to Family Needs was excluded.
Target source:	VCH Residential Care Performance Measurement Framework
Action point source:	N/A
Comparator source:	Comparator represents the average score across Canadian sites in the 2003 database.
References:	<ol style="list-style-type: none"> 1. Providence Health Care – Long Term Care Resident Evaluation Survey. Resident Results January 2000. Prepared by Smaller World Communications Inc.

1.11. Emergency patient satisfaction rate

Rationale:	This indicator measures the extent to which patients visiting PHC's EDs are satisfied with the care and service that is being provided to them.
Numerator:	Number of positive responses for each of the questions/dimensions specified under Denominator: <ul style="list-style-type: none">▪ Overall Quality: Good + Very Good + Excellent▪ Access & Coordination: Varies by survey question▪ Respect: Varies by survey question▪ Physical Comfort: Varies by survey question▪ Continuity & Transition: Varies by survey question▪ Information & Education: Varies by survey question▪ Emotional Support: Varies by survey question▪ Likely to Recommend: Yes, Probably + Yes, Definitely
Denominator:	Total number of responses for each of the following survey questions/dimensions: <ul style="list-style-type: none">▪ Overall Quality: Overall, how would you rate the care you received in the Emergency Department?▪ Access & Coordination▪ Respect▪ Physical Comfort▪ Continuity & Transition▪ Information & Education▪ Emotional Support▪ Likely to Recommend: Would you recommend this Emergency Department to family and friends? <p>*Note: Dimensions are comprised of several specific survey questions.</p>
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	NRC+Picker Emergency Department Patient Satisfaction Survey
Data limitations:	None identified at this time.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	Comparator represents the average score across all ED sites in the survey database.

1.12. Acute inpatient satisfaction rate

Rationale: This indicator measures the extent to which inpatients are satisfied with the care and service that is being provided to them.

Numerator: Number of positive responses for each of the questions/dimensions specified under Denominator:

- Overall Quality: Good + Very Good + Excellent
- Access to Care: Varies by survey question
- Respect for Patient Preferences: Varies by survey question
- Physical Comfort: Varies by survey question
- Continuity & Transition: Varies by survey question
- Information & Education: Varies by survey question
- Emotional Support: Varies by survey question
- Involvement of Family: Varies by survey question
- Coordination of Care: Varies by survey question
- Likely to Recommend: Yes, Definitely + Yes, Probably

Denominator: Total number of responses for each of the following survey questions/dimensions:

- Overall Quality: Overall, how would you rate the care you received at the hospital?
- Access to Care
- Respect for Patient Preferences
- Physical Comfort
- Continuity & Transition
- Information & Education
- Emotional Support
- Involvement of Family
- Coordination of Care
- Likely to Recommend: Would you recommend this hospital to your friends and family?

*Note: Dimensions are comprised of several specific survey questions.

Method of calculation:

$$= \frac{\text{numerator}}{\text{denominator}} * 100$$

Data source: NRC+Picker Acute Inpatient Satisfaction Survey

Data limitations: None identified at this time.

Target source: N/A

Action point source: N/A

Comparator source: Comparator represents the average score across all Canadian sites in the survey database.

1.13. Ambulatory oncology satisfaction rate

Rationale:	This indicator measures the extent to which ambulatory oncology patients are satisfied with the care and service that is being provided to them.
Numerator:	Number of positive responses for each of the survey questions/dimensions specified under Denominator: <ul style="list-style-type: none">▪ Overall Quality: Good + Very Good + Excellent▪ Access to Care: Varies by survey question▪ Respect for Patient Preferences: Varies by survey question▪ Physical Comfort: Varies by survey question▪ Continuity & Transition: Varies by survey question▪ Information & Education: Varies by survey question▪ Emotional Support: Varies by survey question▪ Involvement of Family: Varies by survey question▪ Coordination of Care: Varies by survey question▪ Likely to Recommend: Yes, Definitely + Yes, somewhat
Denominator:	Total number of responses for each of the following survey questions/dimensions: <ul style="list-style-type: none">▪ Overall Quality: Overall, how would you rate the quality of all your care in the past 6 months?▪ Access to Care▪ Respect▪ Physical Comfort▪ Coordination & Continuity▪ Information & Education▪ Emotional Support▪ Surgery Specific▪ Likely to Recommend: Would you recommend your health care providers to your family and friends? <p>*Note: Dimensions are comprised of several specific survey questions.</p>
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	NRC+Picker Ambulatory Oncology Satisfaction Survey
Data limitations:	None identified at this time.
Target source:	N/A
Action point source:	N/A
Comparator source:	Comparator represents the average score across all Canadian sites in the survey database.

1.14. HSMR (hospital standardized mortality ratio)

Rationale: This indicator tracks how PHC's mortality rate compares to the national rate for conditions accounting for 80% of inpatient mortality.

Numerator: The actual number of deaths for SPH and MSJ

Inclusion criteria:

- Discharged in one of the CMGs that account for 80% of acute care in-hospital mortality (based on FY 04/05 data in the Discharge Abstract Database):

001	Craniotomy Procedures	281	G.I. Hemorrhage
010	Neoplasm of Nervous System	290	G.I. Obstruction
011	Degenerative Nervous Disorders	294	Esophagitis, Gastroenteritis and Misc Digestive Disease
013	Specific Cerebrovasc Disorders exc TIAs	297	Other G.I. Diagnoses
028	Other Nervous System Diagnoses	323	Cirrhosis and Alcoholic Hepatitis
040	Tracheostomy and Gastrostomy Procedures	324	Pancreatic Cancer or Other Malig of Hepatobiliary Sys
125	Tracheostomy	326	Liver Diseases except Cirrhosis or Cancer
127	Major Respiratory Procedures	351	Joint Replacement for Trauma
136	Respiratory Failure	391	Secondary Neoplasms and Pathological Fractures
137	Respiratory Infections and Inflammations	443	Malignant Breast Disorders
138	Respiratory Neoplasms	483	Diabetes
139	Interstitial Disease	485	Nutritional and Miscellaneous Metabolic Disorders
140	Chronic Obstructive Pulmonary Disease (COPD)	520	Renal Failure with Dialysis
141	Pulmonary Edema	521	Renal Failure without Dialysis
142	Chronic Bronchitis	522	Urinary Neoplasm
143	Simple Pneumonia and Pleurisy	529	Lower Urinary Tract Infection
147	Other Respiratory Diagnoses	592	Malignancy of Female Reproductive Organ
200	AMI, Unstable Angina or Cardiac Cath w/ Shock or Pulmonary Embolism	662	Femur or Pelvic Procedures for Trauma
205	AMI w/o Cardiac Cath w/ CHF	680	Femur or Pelvic Fractures and Dislocations
208	AMI w/o Cardiac Cath w/o Spec Cardiac Conditions	683	Intracranial Injuries
220	Pulmonary Embolism	726	Acute Leukemia without Major Procedures
222	Heart Failure	730	Lymphoma and Chronic Leukemia
226	Other Circulatory Diagnoses	737	Other Poorly Differentiated Neoplastic Diagnoses
229	Atherosclerosis (MNRH)	750	Multisystemic or Unspec Site Infections with Surgery
237	Arrhythmia	751	Septicemia
251	Gastrostomy and Colostomy Procedures	772	Dementia w/ or w/o Delirium with Axis III Diagnosis
253	Major Intestinal and Rectal Procedures	881	Amputation of Lower limb except Toe
258	Laparotomy	885	Aortic Replacement
279	Digestive System Malignancy	898	Peripheral Vascular Disease

- Age at admission between 0 and 120 years
- Gender recorded as male or female
- Length of stay of up to 365 days
- Admission category = elective, emergent/urgent, or newborn
- Canadian resident

Exclusion criteria:

- Cadavers, stillborns, sign-outs (discharge disposition = '08', '09', '06')
- Palliative care patients:
 - Diagnosis code of ICD-10-CA Z51.5 as any diagnosis type
 - Main Patient Service = 58
 - Patient Service Transfer = 58
- Neonates under 750 grams, CMG = 625

Technical notes



Denominator: The expected number of deaths for SPH and MSJ

A logistic regression model was fitted with the following independent variables using FY 04/05 CIHI DAD (Discharge Abstract Database) data:

- Age
- Gender
- Length of stay group (1 day, 2 days, 3-9 days, 10-15 days, 16-21 days and 22-365 days)
- CMG (one of the 58 listed in the Numerator)
- Co-morbidity group (0, 1 or 2, or above 2), based on the Charlson Index Score (see below)
- Transfers in from an acute care institution (1 = transferred in; 0 = not transferred in)

$$\ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 \text{Age} + \beta_2 \text{Male Gender} + \beta_3 \text{LOS Group 1} \dots \beta_7 \text{LOS Group 6} + \beta_8 \text{Urgent Admission} + \beta_9 \text{CMG001} \dots \beta_{65} \text{CMG898} + \beta_{66} \text{Charlson Group 1} + \beta_{67} \text{Charlson Group 2} + \beta_{68} \text{Transferred}$$

where p = probability of death and the values for the intercept (β_0) and coefficients ($\beta_{1...68}$) are as follows:

Intercept	-9.331625534	CMG137	3.4280529	CMG258	2.10085242	CMG662	1.38140772
Age	0.04693727	CMG138	3.28707803	CMG279	2.84680424	CMG680	1.08825052
Male Gender	0.123359934	CMG139	3.02248189	CMG281	1.16517145	CMG683	2.92114376
LOS Group 1	1.33502245	CMG140	2.14323049	CMG290	1.04161049	CMG726	3.76381199
LOS Group 2	0.56981305	CMG141	2.75111172	CMG297	1.62231298	CMG730	3.09097661
LOS Group 4	0.00777006	CMG142	1.4347676	CMG323	2.98365909	CMG737	3.5311011
LOS Group 5	0.15994776	CMG143	2.18677775	CMG324	3.2807577	CMG750	3.10304135
LOS Group 6	0.35916368	CMG147	0.96443472	CMG326	3.07336969	CMG751	3.5361529
Urgent Admission	0.77681026	CMG200	4.48897195	CMG351	1.41190924	CMG772	1.62812833
CMG001	2.49396871	CMG205	2.42384308	CMG391	1.80568583	CMG881	2.09233051
CMG010	2.78738259	CMG208	2.45966704	CMG443	3.35638523	CMG885	2.56082471
CMG011	1.67168335	CMG220	2.1093937	CMG483	0.85467777	CMG898	2.16214621
CMG013	2.83128905	CMG222	2.00949442	CMG485	1.1118172	Charlson Group1	0.61874852
CMG028	2.40282267	CMG226	1.57746056	CMG520	2.67965233	Charlson Group2	1.14490996
CMG040	3.05005852	CMG229	1.75089799	CMG521	2.52834492	Transferred	0.41084201
CMG125	3.84985754	CMG237	0.2050481	CMG522	2.56684938		
CMG127	2.38129672	CMG251	2.53377116	CMG529	0.76268189		
CMG136	3.81378	CMG253	1.78836392	CMG592	3.01205102		

*The above intercept and coefficients are based on FY 04/05 data and applied to all reported years.

P (probability of death) is calculated for each case based on the above equation and the total expected number of deaths is the arithmetic sum of the all the case probabilities.

Calculation of the Charlson Comorbidity Group:

- The Charlson Index Score is calculated by summing the weights associated with each comorbidity type that is present as a Type 1, W, X, or Y diagnosis based on the following ICD-10-CA codes:

Comorbidity type	ICD-10-CA codes	Weight
Myocardial infarction	'I21','I22','I252'	1
Congestive heart failure	'I43','I50','I099','I110','I130','I132','I255','I420','I425','I426','I427','I428','I429','P290'	1
Peripheral vascular disease	'I70','I71','I731','I738','I739','I771','I790','I792','K551','K558','K559','Z958','Z959'	1
Cerebrovascular disease	'G45','G46','I60','I61','I62','I63','I64','I65','I66','I67','I68','I69','H340'	1
Dementia	'F00','F01','F02','F03','G30','F051','G311'	1
Chronic pulmonary disease	'J40','J41','J42','J43','J44','J45','J46','J47','J60','J61','J62','J63','J64','J65','J66','J67','I278','I279','J684','J701','J703'	1
Connective tissue disease – rheumatic disease	'M05','M32','M33','M34','M06','M315','M351','M353','M360'	1
Peptic ulcer disease	'K25','K26','K27','K28'	1
Mild liver disease	'B18','K73','K74','K700','K701','K702','K703','K709','K717','K713','K714','K715','K760','K762','K763','K764','K768','K769','Z944'	1

Diabetes without complications	'E100','E101','E106','E108','E109','E110','E111','E116','E118','E119','E120','E121','E126','E128','E129','E130','E131','E136','E138','E139','E140','E141','E146','E148','E149'	1
Diabetes with complications	'E102','E103','E104','E105','E107','E112','E113','E114','E115','E117','E122','E123','E124','E125','E127','E132','E133','E134','E135','E137','E142','E143','E144','E145','E147'	2
Paraplegia and hemiplegia	'G81','G82','G041','G114','G801','G802','G830','G831','G832','G833','G834','G839'	2
Renal disease	'N18','N19','N052','N053','N054','N055','N056','N057','N250','I120','I131','N032','N033','N034','N035','N036','N037','Z490','Z491','Z492','Z940','Z992'	2
Cancer	'C00','C01','C02','C03','C04','C05','C06','C07','C08','C09','C10','C11','C12','C13','C14','C15','C16','C17','C18','C19','C20','C21','C22','C23','C24','C25','C26','C30','C31','C32','C33','C34','C37','C38','C39','C40','C41','C43','C45','C46','C47','C48','C49','C50','C51','C52','C53','C54','C55','C56','C57','C58','C60','C61','C62','C63','C64','C65','C66','C67','C68','C69','C70','C71','C72','C73','C74','C75','C76','C81','C82','C83','C84','C85','C88','C90','C91','C92','C93','C94','C95','C96','C97'	2
Moderate or severe liver disease	'K704','K711','K721','K729','K765','K766','K767','I850','I859','I864','I982'	3
Metastatic carcinoma	'C77','C78','C79','C80'	6
HIV/AIDS	'B20','B21','B22','B24'	6

- The Index Score is then categorized into one of the following Comorbidity Groups: 0, 1 or 2 or more than 2.

*Note: Multiple diagnoses that are present for the same comorbidity type are only counted once. For example, if a patient had two diabetes with complications diagnoses, the weight would be 2 and not 4.

Method of calculation:

$$= \frac{\text{numerator}}{\text{denominator}} * 100$$

Definition of terms:

Charlson Index score – The Charlson Index contains categories of comorbidity each of which is associated with a weight, which is based on the adjusted risk of one-year mortality. The overall score is the cumulative increased likelihood of one-year mortality.

Data source:

Health Records Extract

Data limitations:

- Retrospective coding reviews for FY 03/04 for deaths in low-mortality CMGs occurred in FY 04/05. The reviews resulted in the regrouping of some cases that resulted in death into different CMGs. As CIHI was no longer accepting corrections for this fiscal year at the time of the reviews, it is likely that the number of deaths in the CMGs included in the calculation of HSMR is understated in the DAD (Discharge Abstract Database), and consequently, in the CIHI HSMR Quarterly Reports for this particular fiscal year.

Target source:

N/A

Action point source:

N/A

Comparator source:

A ratio of 100 indicates that the organization's mortality rate is no different than the national average rate.

References:

1. http://www.umanitoba.ca/centres/mchp/concept/dict/comorb_comp/charlson_index.html
2. Charlson ME, Pompei P, Ales KL, McKenzie CR (1987). A new method of classifying prognostic comorbidity in longitudinal studies: development and validation. *J Chron Dis*, 40(5): 373-383.

1.15. In-hospital deaths per 100 patients in CMGs with less than 1% mortality

Rationale: This indicator measures the number of deaths among patients with a low likelihood of dying during their hospitalization. The assumption is that when patients being cared for a condition that is associated with a low risk of mortality die in hospital, the death may be the result of substandard care.

Numerator: Number of in-hospital deaths in CMGs with less than 1% mortality

Denominator: Total number of inpatient cases in CMGs with less than 1% mortality based on FY 02/03 data from hospitals participating in the HayGroup Benchmarking Reports

Inclusion criteria:

- Cases coded under one of the following CMGs:

Surgical:

- 004 Extracranial Vascular Procedures
- 005 Ventricular Shunt Revision
- 006 Carpal Tunnel Release and Specified Nervous System Procedures
- 054 Extraocular Procedures
- 055 Lens Insertion (MNRH)
- 057 Other Ophthalmic Procedures (MNRH)
- 076 Major Head and Neck Procedures
- 077 Less Extensive Head and Neck Procedures
- 083 Reconstructive ENT Procedures
- 084 Miscellaneous Ear, Nose and Throat Procedures
- 085 Mastoid Procedures
- 087 Sinus Procedures
- 088 Ethmoidectomy (MNRH)
- 186 Permanent Pacemaker Implant without Specified Cardiac Conditions
- 189 Percutaneous Transluminal Coronary Angioplasty w/o Complic Cardiac Conditions
- 193 Cardiac Pacemaker Device Replacement or Revision
- 194 Minor Cardio-Thoracic Procedures without Heart Pump
- 204 AMI with Cardiac Cath without Specified Cardiac Conditions
- 211 Unstable Angina with Cardiac Cath without Specified Cardiac Conditions
- 216 Cardiac Cath with Ventricular Tachycardia
- 217 Cardiac Cath with Unstable Angina
- 218 Cardiac Cath without Specified Cardiac Conditions
- 260 Less Extensive Intestinal and Rectal Procedures
- 261 Complicated Appendectomy
- 262 Simple Appendectomy
- 264 Minor Gastrointestinal Procedures
- 265 Abdominal Laparoscopy
- 266 Anus and Stomal Procedures (MNRH)
- 269 Bilateral Hernia Procedures
- 271 Unilateral Hernia Procedures (MNRH)
- 315 Cholecystectomy
- 317 Laparoscopic Cholecystectomy
- 352 Hip Replacement
- 354 Knee Replacement
- 359 Upper Extremity Procedures with Infection
- 360 Upper Extremity Amputations and Revisions
- 363 Back and Neck Procedures with Fusion
- 365 Back and Neck Procedures without Fusion
- 369 Major Lower Extremity Procedures
- 372 Major Upper Extremity Procedures
- 376 Miscellaneous Musculoskeletal Procedures
- 377 Wound Debridement and Skin Graft for Musculoskeletal Disorders
- 378 Soft Tissue Procedures (MNRH)
- 379 Other Musculoskeletal Procedures (MNRH)
- 381 Hand and Wrist Procedures (MNRH)
- 382 Arthroscopy (MNRH)
- 425 Skin Graft and Wound Debridement for Dermatologic Dis Except Ulcer or Cellulitis
- 429 Total Mastectomy for Breast Malignancy
- 432 Subtotal Mastectomy and Other Breast Procedures for Malignancy
- 435 Perianal and Pilonidal Cyst Procedures
- 437 Other Dermatological Procedures without Malignancy or Skin Ulcer or Cellulitis
- 438 Other Dermatological Procedures for Malignancy or Skin Ulcer or Cellulitis
- 476 Adrenal and Pituitary Procedures
- 477 Parathyroid Procedures
- 478 Obesity Procedures
- 479 Thyroid Procedures
- 500 Kidney Transplant

502	Radical Prostatectomy
504	Major Urinary Tract Procedures
509	Minor Lower Urinary Tract Procedures
510	Transurethral Prostatectomy
512	Other Transurethral or Biopsy Procedures (MNRH)
551	Penis Procedures
552	Testes Procedures
554	Miscellaneous Male Reproductive System Procedures (MNRH)
576	Radical Hysterectomy and Vulvectomy
577	Major Gynecological Procedures for Ovarian or Adnexal Malignancy
578	Major Gynecological Procedures for Malignancy Except Ovarian or Adnexal
579	Major Uterine and Adnexal Procedures without Malignancy
581	Reconstructive Gynecological Procedures
582	Other Gynecological Procedures
583	Radio-Implant for Malignancy
584	Vagina, Cervix and Vulva Procedures
586	Tubal Interruption (MNRH)
587	Miscellaneous Gynecological Procedures (MNRH)
657	Spinal Procedures with Wound Debridement or Lower Extremity Proc for Trauma
664	Wound Debridement and Skin Graft for Trauma
666	Major Lower and Upper Extremity Procedures for Trauma
669	Vascular Repair for Trauma
670	Upper Extremity Procedures for Trauma
703	Other O.R. Procedures of Blood and Blood-Forming Organs
804	Non-extensive Procedures for Injury or Complication of Treatment
805	MNRH Procedures for Injury or Complication of Treatment
892	Other Vascular Procedures
908	Other Major Procedures for Gynecological Malignancy

Medical:

017	Cranial and Peripheral Nerve Diseases
018	Viral Meningitis
022	Seizure and Headache
060	Major Eye Infections
063	Other Ophthalmic Diagnoses (MNRH)
104	Influenza
108	Epistaxis
109	Other ENT Infections
114	Sore Throat (MNRH)
115	Miscellaneous ENT Diagnoses (MNRH)
145	Tracheobronchitis
146	Asthma
213	Unstable Angina without Cardiac Cath without Specified Cardiac Conditions
233	Hypertension (MNRH)
235	Angina Pectoris
240	Syncope and Collapse
242	Chest Pain
285	Complicated Ulcer
286	Uncomplicated Ulcer
289	Inflammatory Bowel Disease
294	Esophagitis, Gastroenteritis and Miscellaneous Digestive Disease
297	Other G.I. Diagnoses
329	Biliary Tract Diseases
397	Non-inflammatory Arthritis
399	Orthopaedic Aftercare
402	Disc Disease
407	Other Musculoskeletal Disorders
409	Back Pain (MNRH)
411	Signs, Symptoms and Deformities (MNRH)
413	Joint Derangements (MNRH)
447	Cellulitis
452	Trauma of Skin, Subcutaneous Tissue and Breast
454	Minor Skin Disorders
483	Diabetes
525	Nephropathy without Nephrotic Syndrome
527	Upper Urinary Tract Infection
529	Lower Urinary Tract Infection
532	Urinary Retention and Other Functional Disorders of Bladder
534	Miscellaneous Urological Diagnoses (MNRH)
535	Hematuria (MNRH)
536	Urinary Obstruction (MNRH)
561	Male Reproductive System Inflammation
562	Other Male Reproductive System Diagnoses
594	Female Reproductive System Infection
596	Miscellaneous Gynecological Diagnoses (MNRH)
685	Hip and Thigh Injuries
688	Weight Bearing Injuries

Technical notes



690	Crushing Injuries and Contusions
691	Minor Lower Extremity Fractures
692	Wounds
693	Amputations or Vascular and Other Nerve Injuries
694	Facial Injuries
696	Upper Extremity Fractures
704	Red Blood Cell Disorders
735	Radiation Therapy
736	Chemotherapy
756	Post-operative and Post-traumatic Infections
757	Viral Illness
761	Fever of Unknown Origin
846	Aftercare Following Surgery or Treatment
850	Perinatal Conditions Age > 28 Days
851	Other Factors Causing Hospitalization
852	Procedures Cancelled (MNRH)
910	Diagnosis not Generally Hospitalized

Exclusion criteria:

Patients with any ICD-10-CA diagnosis code for trauma:

S06000, S06001, S06010, S06011, S06020, S06021, S06030, S06031, S06040, S06041, S06090, S06091, S070, S170, S178, S179, S0100, S0101, S0110, S0111, S0120, S0121, S0130, S0131, S0140, S0141, S0150, S0151, S0170, S0171, S0180, S0181, S0190, S0191, S02000, S02001, S02100, S02101, S02200, S02201, S02300, S02301, S02400, S02401, S02410, S02411, S02420, S02421, S02430, S02431, S02440, S02441, S02480, S02481, S02490, S02491, S025, S02600, S02601, S02610, S02611, S02620, S02621, S02670, S02671, S02700, S02701, S02800, S02801, S02810, S02811, S02890, S02891, S02900, S02901, S030, S031, S032, S033, S052, S053, S054, S055, S056, S057, S06100, S06101, S06110, S06111, S06120, S06121, S06130, S06131, S06140, S06141, S06190, S06191, S06200, S06201, S06210, S06211, S06220, S06221, S06230, S06231, S06240, S06241, S06290, S06291, S06300, S06301, S06310, S06311, S06320, S06321, S06330, S06331, S06340, S06341, S06390, S06391, S06400, S06401, S06410, S06411, S06420, S06421, S06430, S06431, S06440, S06441, 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S72101, S72190, S72191, S72200, S72201, S72300, S72301, S72400, S72401, S72410, S72411, S72420, S72421, S72490, S72491, S72700, S72701, S72800, S72801, S72900, S72901, S73000, S73001, S73010, S73011, S73080, S73081, S73090, S73091, S750, S751, S752, S757, S758, S759, S7600, S7610, S7620, S7630, S7640, S7670, S770, S771, S772, S780, S781, S789, S8100, S8101, S8170, S8171, S8180, S8181, S8190, S8191, S82000, S82001, S82100, S82101, S82200, S82201, S82300, S82301, S82400, S82401, S82500, S82501, S82600, S82601, S82700, S82701, S82800, S82801, S82810, S82811, S82890, S82891, S82900, S82901, S83000, S83001, S83100, S83101, S83110, S83111, S83120, S83121, S83130, S83131, S83180, S83181, S83190, S83191, S8320, S8321, S833, S850, S851, S852, S853, S854, S855, S857, S858, S859, S8610, S8620, S8630, S8670, S8680, S8690, S870, S878, S880, S881, S889, S9100, S9101, S9130, S9131, S9170, S9171, S9172, S92000, S92001, S92100, S92101, S92200, S92201, S92210, S92211, S92220, S92221, S92290, S92291, S92300, S92301, S92700, S92701, S92900, S92901, S93000, S93001, S93100, S93101, S93110, S93111, S93300, S93301, S93310, S93311, S950, S951, S952, S957, S958, S959, S970, S971, S978, S980, S983, S984, T0100, T0101, T0110, T0111, T0120, T0121, T0130, T0131, T0160, T0161, T0180, T0181, T0190, T0191, T0200, T0201, T0210, T0211, T0220, T0221, T0230, T0231, T0240, T0241, T0250, T0251, T0260, T0261, T0270, T0271, T0280, T0281, T0290, T0291, T030, T031, T032, T033, T034, T038, T039, T040, T041, T042, T043, T044, T047, T048, T049, T050, T051, T052, T053, T054, T055, T056, T058, T059, T061, T063, T080, T081, T091, T100, T101, T111, T112, T114, T116, T1200, T1201, T131, T132, T134, T136, T141, T1420, T1421, T143, T145, T147, T200, T201, T202, T203, T204, T205, T206, T207, T210, T211, T212, T213, T214, T215, T216, T217, T220, T221, T222, T223, T224, T225, T226, T227, T230, T231, T232, T233, T234, T235, T236, T237, T240, T241, T242, T243, T244, T245, T246, T247, T250, T251, T252, T253, T254, T255, T256, T257, T260, T261, T262, T263, T264, T265, T266, T267, T268, T269, T270, T271, T272, T273, T274, T275, T276, T277, T280, T281, T282, T283, T284, T285, T286, T287, T288, T289, T290, T291, T292, T293, T294, T295, T296, T297, T300, T301, T302, T303, T304, T305, T306, T307, T3100, T3101, T3110, T3111, T3112, T3120, T3121, T3122, T3123, T3130, T3131, T3132, T3133, T3134, T3140, T3141, T3142, T3143, T3144, T3145, T3150, T3151, T3152, T3153, T3154, T3155, T3156, T3160, T3161, T3162, T3163, T3164, T3165, T3166, T3167, T3170, T3171, T3172, T3173, T3174, T3175, T3176, T3177, T3178, T3180, T3181, T3182, T3183, T3184, T3185, T3186, T3187, T3188, T3189, T3190, T3191, T3192, T3193, T3194, T3195, T3196, T3197, T3198, T3199, T3200, T3201, T3210, T3211, T3212, T3220, T3221, T3222, T3223, T3230, T3231, T3232, T3233, T3234, T3240, T3241, T3242, T3243, T3244, T3245, T3250, T3251, T3252, T3253, T3254, T3255, T3256, T3260, T3261, T3262, T3263, T3264, T3265, T3266, T3267, T3270, T3271, T3272, T3273, T3274, T3275, T3276, T3277, T3278, T3280, T3281, T3282, T3283, T3284, T3285, T3286, T3287, T3288, T3289, T3290, T3291, T3292, T3293, T3294, T3295, T3296, T3297, T3298, T3299, T790, T791, T792, T793, T794, T795, T796, T797, T798, T799

Patients with any ICD-10-CA diagnosis code for cancer:

C000, C001, C002, C003, C004, C005, C006, C008, C009, C01, C020, C021, C022, C023, C024, C028, C029, C030, C031, C039, C040, C041, C048, C049, C050, C051, C052, C058, C059, C060, C061, C062, C068, C069, C07, C080, C081, C088, C089, C090, C091, C098, C099, C100, C101, C102, C103, C104, C108, C109, C110, C111, C112, C113, C118, C119, C12, C130, C131, C132, C138, C139, C140, C142, C148, C150, C151, C152, C153, C154, C155, C158, C159, C160, C161, C162, C163, C164, C165, C166, C168, C169, C170, C171, C172, C173, C178, C179, C180, C181, C182, C183, C184, C185, C186, C187, C188, C189, C19, C20, C210, C211, C212, C218, C220, C221, C222, C223, C224, C227, C229, C23, C240, C241, C248, C249, C250, C251, C252, C253, C254, C257, C258, C259, C260, C261, C268, C269, C3000, C3001, C301, C310, C311, C312, C313, C318, C319, C320, C321, C322, C323, C328, C329, C33, C3400, C3401, C3409, C3410, C3411, C3419, C342, C3430, C3431, C3439, C3480, C3481, C3489, C3490, C3491, C3499, C37, C380, C381, C382, C383, C384, C388, C390, C398, C399, C400, C401, C402, C403, C408, C409, C4100, C4101, C411, C412, C413, C414, C418, C419, C430, C431, C432, C433, C434, C435, C436, C437, C438, C439, C450, C451, C452, C457, C459, C461, C462, C463, C4670, C4671, C4678, C468, C470, C471, C472, C473, C474, C475, C476, C478, C479, C480, C481, C482, C488, C490, C491, C492, C493, C494, C495, C496, C498, C499, C5000, C5001, C5009, C5010, C5011, C5019, C5020, C5021, C5029, C5030, C5031, C5039, C5040, C5041, C5049, C5050, C5051, C5059, C5060, C5061, C5069, C5080, C5081, C5089, C5090, C5091, C5099, C510, C511, C512, C518, C519, C52, C530, C531, C538, C539, C540, C541, C542, C543, C548, C549, C560, C561, C569, C5700, C5701, C5709, C571, C572, C573, C574, C577, C578, C579, C600, C601, C602, C608, C609, C6200, C6201, C6209, C6210, C6211, C6219, C6290, C6291, C6299, C630, C631, C632, C637, C638, C639, C64, C65, C66, C670, C671, C672, C673, C674, C675, C676, C677, C678, C679, C680, C681, C688, C689, C690, C691, C692, C693, C694, C695, C696, C698, C699, C700, C701, C709, C710, C711, C712, C713, C714, C715, C716, C717, C718, C719, C720, C721, C722, C723, C724, C725, C728, C729, C740, C741, C749, C750, C751, C752, C753, C754, C755, C758, C759, C760, C761, C762, C763, C764, C765, C767, C768, C770, C771, C772, C773, C774, C775, C778, C779, C780, C781, C782, C783, C784, C785, C786, C787, C788, C790, C791, C792, C793, C794, C795, C796, C797, C7980, C7988, C80, C810, C811, C812, C813, C817, C819, C820, C821, C822, C827, C829, C830, C831, C832, C833, C834, C835, C836, C837, C838, C839, C840, C841, C844, C845, C851, C857, C859, C8808, C881, C882, C883, C887, C889, C900, C901, C9020, C9021, C910, C911, C913, C914, C915, C917, C919, C920, C921, C923, C924, C925, C927, C929, C930, C937, C939, C940, C942, C943, C947, C950, C951, C957, C959, C960, C961, C962, C963, C967, C969, C97, D0000, D0001, D0002, D0003, D0004, D0005, D0006, D0007, D0009, D001, D002, D010, D011, D012, D013, D014, D015, D017, D019, D020, D021, D022, D023, D024, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043, D044, D045, D046, D047, D048, D049, D050, D051, D057, D059, D060, D061, D067, D069, D070, D071, D072, D073, D074, D075, D076, D090, D091, D092, D093, D097, D099, D3701, D3702, D37030, D37031, D37032, D37039, D3704, D3705, D3708, D371, D372, D373, D374, D375, D376, D377, D379, D380, D381, D382, D383, D384, D385, D386, D390, D391, D392, D397, D399, D400, D401, D407, D409, D410, D411, D412, D413, D414, D417, D419, D420, D421, D429, D430, D431, D432, D433, D434, D437, D439, D440, D441, D442, D443, D444, D445, D446, D447, D448, D449, D45, D467, D469, D470, D471, D473, D477, D479, D480, D481, D482, D483, D484, D485, D486, D487, D489, Q850, Z510, Z511, Z512

Patients with any ICD-10-CA diagnosis code for an immunocompromised state:

B24, B59, D800, D801, D802, D803, D804, D805, D806, D807, D808, D809, D810, D811, D812, D813, D814, D815, D816, D817, D818, D819, D820, D821, D822, D823, D824, D828, D829, D830, D831, D832, D838, D839, D840, D841, D848, D849, D898, D899, T86000, T86001, T86100, T86101, T86102, T86200, T86201, T86202, T86300, T86301, T86302, T86400, T86401, T86402, T86800, T86801, T86802, T86810, T86811, T86812, T869, Z940, Z941, Z942, Z943, Z944, Z9480, Z9481, Z9482, Z9488

Patients with any CCI procedure code for an immunocompromised state:

1GR85LAXXJ, 1GR85LAXXK, 1GR85VCXXJ, 1GR85VCXXK, 1GT85LAXXJ, 1GT85LAXXK, 1HY85LAXXK, 1HZ85LAXXK, 1HZ85LAXXL, 1LZ19HHU7A, 1LZ19HHU7J, 1LZ19HHU8A, 1LZ19HHU8J, 1WY19HHXXA, 1WY19HHXXI, 1WY19HHXXM, 1PC85LAXXJ, 1PC85LAXXK, 1OJ83WKXXA, 1OJ85WKXXK, 1OJ83LAXXA, 1OJ85GRXXK, 1OJ85HAXXL

Method of calculation:

$$= \frac{\text{numerator}}{\text{denominator}} * 100$$

Technical notes



Data source: Health Records

- Data limitations:
- This indicator, in its original form, was developed by Stanford University and the University of California under a contract with the Agency for Healthcare Research and Quality (AHRQ). CIHI/HayGroup adapted the methodology to a Canadian context for its Patient Safety Developmental Indicators Supplement to its Benchmarking reports. The first edition of the Supplement was released in August 2004.
 - Each patient death in a low-mortality CMG is flagged as a “sentinel event” and triggers a review of the patient’s chart, and where necessary, recoding of the chart. Due to this review procedure, there is a lag of 1 to 2 fiscal periods from the time a fiscal period has finished coding and the time the review and recoding process has been completed. For the periods shown, approximately 50% of the deaths were eventually excluded from the indicator as a result of recoding (i.e., regrouped in a non-low-mortality CMG or met an exclusion criterion). Due to the impact of the review process on the indicator result and the fact that corrections to the DAD are no longer being accepted by CIHI for fiscal years 02/03 and 03/04, the rates published in the benchmarking reports for these years will not coincide with those reported on the PHC BSC.
 - The new CMG grouper was installed in February 2005 and cases from FY 01/02 onwards were regrouped. This may have had some impact on the indicator result.

Target source: VCH Balanced Scorecard

Action point source: N/A

Comparator source: VCH – VCH Balanced Scorecard

- References:
1. <http://www.qualityindicators.ahrq.gov/data/hcup/psi.htm>
 2. 2003 Patient Safety Developmental Indicators Supplement, Benchmarking Comparison of Canadian Hospitals. HayGroup/CIHI.

1.16. In-hospital fracture rate per 1,000 patients aged 65 years and older

Rationale:	This indicator measures the extent to which we are engaging in processes to prevent or minimize the risk of in-hospital injuries for our patients aged 65 years and older.
Numerator:	<p>Number of discharges with at least one of the following diagnoses coded as a Type 2 diagnosis:</p> <ul style="list-style-type: none"> ▪ S02^^ Fracture of skull and facial bones ▪ S12^^ Fracture of neck ▪ S22^^ Fracture of rib(s), sternum and thoracic spine ▪ S32^^ Fracture of lumbar spine and pelvis ▪ S42^^ Fracture of shoulder and upper arm ▪ S52^^ Fracture of forearm ▪ S62^^ Fracture at wrist and hand level ▪ S72^^ Fracture of femur ▪ S82^^ Fracture of lower leg, including ankle ▪ S92^^ Fracture of foot, except ankle ▪ T02^^ Fractures involving multiple body regions ▪ T08^^ Fracture of spine, level unspecified ▪ T10^^ Fracture of upper limb, level unspecified ▪ T12^^ Fracture of lower limb, level unspecified ▪ T142^^ Fracture of unspecified body region, closed <p><i>Exclusion criteria:</i></p> <ul style="list-style-type: none"> ▪ Minor fractures (including those of the teeth, fingers, and toes) ▪ M96.6 – fracture bone following orthopaedic implant
Denominator:	<p>Total number of discharges aged ≥ 65 years</p> <p><i>Inclusion criteria:</i></p> <ul style="list-style-type: none"> ▪ Acute discharges from SPH, MSJ, SVH, and HFH <p><i>Exclusion criteria:</i></p> <ul style="list-style-type: none"> ▪ S02580 Fracture of tooth, closed ▪ MCC 14 – obstetric discharges ▪ MCC 15 - newborns and other neonates with conditions originating in the perinatal period
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 1,000$
Data source:	Health Records Extract
Data limitations:	None identified at this time.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	VCH – VCH Balanced Scorecard

1.17. Influenza immunization rate for residents

Rationale:	This indicator measures the extent to which we are taking precautions to reduce the risk of influenza-related morbidity and mortality among residents.
Numerator:	Number of residents who received an influenza vaccination
Denominator:	Total number of residents *Note: The denominator is not adjusted for residents who refuse immunization
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	Residential care facilities (data is submitted to Infection Control for reporting)
Data limitations:	<ul style="list-style-type: none">▪ Currently, there are no standards for data collection for both the numerator and denominator:<ul style="list-style-type: none">▪ There is an annual immunization “blitz”. Residents are also immunized if they are admitted after the annual blitz. Some facilities included only those residents who were immunized during the blitz.▪ For the denominator, some residential care facilities reported the total number of beds, others reported the number of residents at the time the data was collected.▪ Data on immunization refusals began to be collected in FY 06/07. There are no data on refusals available for previous fiscal years.
Target source:	Performance Agreement between the Ministry of Health Services and the Vancouver Coastal Health Authority
Action point source:	N/A
Comparator source:	N/A
References:	1. Performance Agreement between the Ministry of Health Services and the Vancouver Coastal Health Authority. April 1, 2005 to March 31, 2006

1.18. Influenza immunization rate for staff

Rationale:	This indicator measures the extent to which we are taking precautions to reduce the risk of influenza transmission to residents and patients and reduce the risk of absenteeism due to illness in staff.
Numerator:	The number of full-time, part-time, and casual staff who received an influenza immunization
Denominator:	Total number of full-time, part-time, and casual employees at the time of the annual immunization campaign
	<i>Exclusion criteria:</i>
	<ul style="list-style-type: none"> ▪ Staff who have already been immunized (e.g. at their doctor's office or other place of work) ▪ Employees on LTD ▪ Non-employees whose pay is managed by PHC (Paymasters) ▪ Physicians and contracted services employees
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	ESP & PeopleSoft
Data limitations:	<ul style="list-style-type: none"> ▪ Data may not be directly comparable between fiscal years due to changes in data collection procedures. ▪ The definition will be changed in FY 07/08 to adhere to the definition used by the BC Centre for Disease Control.
Target source:	Performance Agreement between the Ministry of Health Services and the Vancouver Coastal Health Authority
Action point source:	N/A
Comparator source:	N/A
References:	1. Performance Agreement between the Ministry of Health Services and the Vancouver Coastal Health Authority. April 1, 2005 to March 31, 2006

1.19. Unplanned readmission rate for CHF (congestive heart failure)

Rationale:	Readmission rate may be a measure of the effectiveness of in-hospital treatment and discharge planning.
Numerator:	Number of CHF cases that were readmissions to the same facility in ≤ 28 days for a related diagnosis <i>Inclusion criteria:</i> <ul style="list-style-type: none">▪ Cases with readmission code = 2 or 3
Denominator:	Total number of CHF discharges <i>Inclusion criteria:</i> <ul style="list-style-type: none">▪ Cases with ICD-10-CA codes I50.0 and I50.1 as the MRDx
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	Health Records
Data limitations:	<ul style="list-style-type: none">▪ Due to changes made by CIHI in the coding of readmissions for fiscal year 03/04, data prior to this time are unavailable.▪ Meaningful analysis is made difficult due to the low case counts observed per fiscal period.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	VCH – VCH Balanced Scorecard

1.20. Unplanned readmission rate for diabetes

Rationale:	Readmission rate may be a measure of the effectiveness of in-hospital treatment and discharge planning.
Numerator:	Number of diabetes cases that were readmissions to the same facility in ≤ 28 days for a related diagnosis <i>Inclusion criteria:</i> <ul style="list-style-type: none">▪ Cases with readmission code = 2 or 3
Denominator:	Total number of diabetes discharges <i>Inclusion criteria:</i> <ul style="list-style-type: none">▪ Cases with an ICD-10-CA code E10.100 to E14.909, inclusive, as the MRDx
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	Health Records
Data limitations:	<ul style="list-style-type: none">▪ Due to changes made by CIHI in the coding of readmissions for fiscal year 03/04, data prior to this time are unavailable.▪ Meaningful analysis is made difficult due to the low case counts observed per fiscal period.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	VCH – VCH Balanced Scorecard

1.21. Average wait time in ED for admitted patients

Rationale:	This indicator measures the extent to which patients admitted via the ED are able to access the level of care they require in a timely fashion.
Numerator:	Sum of (time of leave ED – time of triage) for all cases admitted via ED, in hours
Denominator:	Total number of cases admitted via ED, including those cases that are not transferred to a unit (i.e., discharged from ED)
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}}$
Data source:	ADS NERD extract
Data limitations:	<ul style="list-style-type: none">▪ As of November 21 2005, the definition of the indicator was revised to include patients admitted via the ED who are not transferred to a unit in the calculation of the indicator. This revision was made to be consistent with the Ministry of Health's definition. For SPH, due to the large number of Mental Health patients who are admitted in ED but never transferred to a unit and their relatively long wait times, this definition change has resulted in an increase in the overall ED wait time for SPH of approximately 3 hours.▪ ED wait time data for MSJ is only available from Period 10, 2002/2003 due to complications that arose during implementation of ADT and Triage systems at this site.▪ Time from triage to transfer to unit encompasses the treatment time in ED so the actual amount of time spent waiting is overstated.▪ A patient is discharged from the ED and admitted as an inpatient simultaneously. Transfer from the ED to an inpatient bed may occur at this time, or after some time has elapsed.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	Vancouver Acute – VCH Balanced Scorecard

1.22. % admitted patients who leave ED within 10 hrs of decision to admit time

Rationale:	This indicator measures the extent to which patients admitted through ED are able to access the level of care they require in a timely fashion.
Numerator:	Subset of the denominator who were transferred to an inpatient unit or discharged from ED within 10 hours of their decision to admit time
Denominator:	Total number of inpatient cases admitted from ED, including those cases that were not transferred to a unit (i.e., discharged from ED)
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	ADS NERD extract
Data limitations:	<ul style="list-style-type: none"> ▪ As of November 21 2005, the definition of the indicator was revised to include patients admitted via the ED who are not transferred to a unit in the calculation of the indicator. This revision was made to be consistent with the Ministry of Health's definition. For SPH, due to the large number of Mental Health patients who are admitted in ED but never transferred to a unit and their relatively long wait times, this definition change has resulted in an increase in the overall ED wait time for SPH of approximately 3 hours. ▪ ED wait time data for MSJ is only available from Period 10, 2002/2003 due to complications that arose during implementation of ADT and Triage systems at this site. ▪ A patient is discharged from the ED and admitted as an inpatient simultaneously. Transfer from the ED to an inpatient bed may occur at this time, or after some time has elapsed.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	Vancouver Acute – VCH Balanced Scorecard

1.23. Proportion of ED patients seen by physician within targets

Rationale:	This indicator measures the extent to which ED patients are able to access appropriate assessment and treatment in a timely manner.
Numerator:	Number of Emergency cases that are seen by physician within the recommended time: <ul style="list-style-type: none">▪ CTAS Level 2 – 15 minutes or less▪ CTAS Level 3 – 30 minutes or less
Denominator:	Total number of Emergency cases for CTAS levels 2 and 3 <i>Exclusion criteria:</i> <ul style="list-style-type: none">▪ Patients with no recorded time seen by physician▪ MSJ
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Definition of terms:	<i>Canadian Emergency Department Triage & Acuity Scale (CTAS)</i> – A tool that enables Emergency Departments prioritize patient care requirements and examine patient care processes, workload, and resource requirements relative to case mix and community needs.
Data source:	ADS NERD (New Emergency Resource Database) Treatment Cube
Data limitations:	<ul style="list-style-type: none">▪ The CTAS level used for reporting of this indicator is automatically generated by NERD based on a patient's presenting complaint. However, this may not correspond to the CTAS level that is manually assigned and used by the triage nurse in the prioritization of patients. As a result, the physician response time is often based on the triage nurse's assigned CTAS level and not the automatically generated CTAS level. To address this issue, a review of emergency room processes is expected to occur in the near future.▪ For FY 2003/04, between 8 - 10% of records had no time to physician recorded. For the calculation of the indicator these records have been excluded.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	Vancouver Acute – VCH Balanced Scorecard

1.24. Surgical cancellation rate

Rationale:	This indicator is a measure of the responsiveness to accommodate emergency cases without detriment to booked cases and the availability of inpatient and critical care resources. Ultimately, this indicator reflects the extent to which we are able to minimize the occurrence of inconvenience and distress on the part of patients that may result from cancelled surgeries.
Numerator:	The number of cases cancelled after publication of the final slate due to one of the following reasons: <ul style="list-style-type: none">▪ bumping by an urgent/emergent case▪ lack of an inpatient bed▪ lack of a critical care bed
Denominator:	The total number of scheduled inpatient and same day care cases
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	ORMIS
Data limitations:	<ul style="list-style-type: none">▪ This indicator is currently under review by RSEC (Regional Surgical Executive Council).
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	VCH – VCH Balanced Scorecard

1.25. % hip replacement patients receiving surgery within targeted wait time

Rationale: Lengthy waitlists for elective joint replacement surgery have been found to be associated with loss of health-related quality of life related to pain and worsening mobility. In a Canadian study of patients awaiting elective total hip arthroplasty for osteoarthritis, researchers found that patients waiting longer than 6 months for surgery experienced clinically important losses in health-related quality of life and mobility during their wait.

Numerator: Number of hip replacement surgeries performed within a wait time of 26 weeks.

*Note: Wait time is defined as the time elapsed from the booking card receipt date to the surgery date.

Denominator: Total number of hip replacement surgeries performed

Inclusion criteria:

- Only scheduled cases, defined as elective or urgent cases as “surtype”
- One of the following procedure codes as the first booked procedure (i.e. Procedure number = 1):
 - ORT051, ORT053, ORT054, ORT156, ORT181 or 93.51

Exclusion criteria:

- To identify only those surgical cases performed in the main OR, the following cases were excluded:
 - Cases performed in the following rooms: SJENDO, SVHCYS, SVHFLEX, or SPHFLEX
 - Cases with the following main service: PAIN, ANAESTHESIOLOGY, or PSYCHIATRY
- Cases with blank booking card receipt date

Method of calculation:
$$= \frac{\text{numerator}}{\text{denominator}} * 100$$

Data source: ORMIS

Data limitations:

- Meaningful analysis is made difficult due to the low case counts observed per fiscal period.
- The definition of wait time was changed in P6-05/06 to use the booking card receipt date instead of the decision for surgery date. Data has been retrospectively restated according to the new definition.
 - PHC did not start capturing booking card receipt date in ORMIS until P13-03/04, therefore data prior to this period are unavailable.
 - Also, due to the high proportion of cases with a blank booking card receipt date in ORMIS in FY 04/05, data for this fiscal year have been excluded.

Target source: VCH Balanced Scorecard

Action point source: N/A

Comparator source: VCH – ORMIS

References:

1. Williams JI et al. The burden of waiting for hip and knee replacements in Ontario. *J Eval Clin Pract* 1997 Feb; 3(1): 59-68.
2. Mahon J et al. Health-related quality of life and mobility of patients awaiting elective total hip arthroplasty: a prospective study. *CMAJ* 2002; 167(10): 1115-1121.

1.26. % knee replacement patients receiving surgery within targeted wait time

Rationale:	Lengthy waitlists for elective joint replacement surgery have been found to be associated with loss of health-related quality of life related to pain and worsening mobility.
Numerator:	Number of knee replacement surgeries performed within a wait time of 26 weeks. *Note: Wait time is defined as the time elapsed from the booking card receipt date to the surgery date.
Denominator:	Total number of knee replacement surgeries performed <i>Inclusion criteria:</i> <ul style="list-style-type: none"> ▪ Only scheduled cases, defined as elective or urgent cases as “surtype” ▪ One of the following procedure codes as the first booked procedure (i.e. Procedure number = 1): <ul style="list-style-type: none"> ▪ ORT056, ORT090, or 93.41 <i>Exclusion criteria:</i> <ul style="list-style-type: none"> ▪ To identify only those surgical cases performed in the main OR, the following cases were excluded: <ul style="list-style-type: none"> ▪ Cases performed in the following rooms: SJENDO, SVHCYS, SVHFLEX, or SPHFLEX ▪ Cases with the following main service: PAIN, ANAESTHESIOLOGY, or PSYCHIATRY ▪ Cases with blank booking card receipt date
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	ORMIS
Data limitations:	<ul style="list-style-type: none"> ▪ Meaningful analysis is made difficult due to the low case counts observed per fiscal period. ▪ The definition of wait time was changed in P6-05/06 to use the booking card receipt date instead of the decision for surgery date. Data has been retrospectively restated according to the new definition. <ul style="list-style-type: none"> ▪ PHC did not start capturing booking card receipt date in ORMIS until P13-03/04, therefore data prior to this period are unavailable. ▪ Also, due to the high proportion of cases with a blank booking card receipt date in ORMIS in FY 04/05, data for this fiscal year have been excluded.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	VCH – ORMIS
References:	1. Williams JI et al. The burden of waiting for hip and knee replacements in Ontario. <i>J Eval Clin Pract</i> 1997 Feb; 3(1): 59-68.

1.27. % oncology mastectomy patients receiving surgery within targeted wait time

Rationale: In a systematic review of 87 studies linking breast cancer treatment delay and survival, patients with delays of 3 to 6 months or more had 7 - 12% lower 5-year survival than those with shorter delays. There is also evidence that treatment delays result in increased psychosocial morbidity for patients diagnosed with cancer.

Numerator: Number of mastectomy surgeries performed within a wait time of 21 days.

*Note: Wait time is defined as the time elapsed from the booking card receipt date to the surgery date.

Denominator: Total number of mastectomy surgeries performed

Inclusion criteria:

- Only scheduled cases, defined as elective or urgent cases as "surtype"
- One of the following procedure codes as the first booked procedure (i.e., Procedure number = 1):
 - GEN 125 Breast lumpectomy
 - GEN 41A Mastectomy
 - GEN 41B Mastectomy modified radical
 - GEN 41C Mastectomy radical
 - GEN 41D Mastectomy partial
 - GEN 41E Mastectomy segmental resection
 - GEN 072 Mastectomy with axillary node dissection
 - GEN 064 Mastectomy with reconstruction
 - PLA 034 Mastectomy with Tram/ lat dorsi flap

Exclusion criteria:

- To identify only those surgical cases performed in the main OR, the following cases were excluded:
 - Cases performed in the following rooms: SJENDO, SVHCYS, SVHFLEX, or SPHFLEX
 - Cases with the following main service: PAIN, ANAESTHESIOLOGY, or PSYCHIATRY
- Non-oncology cases (as identified by the oncology flag in the Health Records Extract)
- Cases with blank booking card receipt date

Method of calculation:
$$= \frac{\text{numerator}}{\text{denominator}} * 100$$

Data source: ORMIS, Health Records Extract

Data limitations:

- The definition of wait time was changed in P6-05/06 to use the booking card receipt date instead of the decision for surgery date. Also, non-oncology cases were excluded from the indicator. Data was retrospectively restated according to the new definition.
 - PHC did not start capturing booking card receipt date in ORMIS until P13-03/04, therefore data prior to this period are unavailable.
 - Also, due to the proportion of cases with a blank booking card receipt date in ORMIS in FY 04/05, data for this fiscal year have been excluded.
- The target wait time for oncology mastectomies was revised by RSEC (Regional Surgical Executive Council) from 14 days to 21 days in P11-06/07. Data for PHC have been updated retrospectively to reflect the revised target. VCH, however, has opted to only apply the revised target to data from P11-06/07 onwards.

Target source: VCH Balanced Scorecard

Action point source: N/A

Comparator source: VCH – ORMIS

References:

1. Richards MA et al. Influence of delay on survival in patients with breast cancer: a systematic review. *Lancet* 1999 Apr 3; 353(9159): 1119-26.
2. Simunovic, M et al. A snapshot of waiting times for cancer surgery provided by surgeons affiliated with regional cancer centres in Ontario. *CMAJ* 2001 August 21; 165 (4): 421–425.

1.28. Median wait time for CABG (coronary artery bypass graft)

Rationale:	Lengthy waits for coronary artery bypass grafting (CABG) have been associated with an increased number of cardiac events, increased mortality, increased costs, and decreased quality of life. During their wait for surgery, patients may experience anxiety and depression, which have been found to persist after surgery.
Numerator:	Median wait time for coronary artery bypass grafting (CABG) *Note: Wait time is defined as the time elapsed from the surgery booking date to the surgery date. <i>Inclusion criteria:</i> <ul style="list-style-type: none">▪ All cases with coronary artery bypass grafting (CABG), including those with other procedures <i>Exclusion criteria:</i> <ul style="list-style-type: none">▪ Cases with no booking date, which include:<ul style="list-style-type: none">▪ Emergency or Priority I cases, which have no need for booking▪ Priority II or III cases identified as in-hospital transfer cases▪ Other Priority II or III cases that required booking but were done without booking▪ Cases with no Urgency/Appropriateness Scale code recorded; it is unknown if these cases required booking
Denominator:	N/A
Method of calculation:	= numerator
Data source:	Cardiac Registry
Data limitations:	None identified at this time.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	VGH – Cardiac Registry
References:	1. Samplis J et al. Impact of waiting time on the quality of life of patients awaiting coronary artery bypass grafting. <i>CMAJ</i> 2001; 165(4): 429-433.

1.29. % acute LOS (length of stay) compared to ELOS (expected length of stay)

Rationale:	This indicator informs us how PHC length of stay compares with that of our national peer hospitals, represented by ELOS.
Numerator:	Sum of actual acute portion of LOS for inpatient cases discharged within time period <i>Exclusion criteria:</i> <ul style="list-style-type: none"> ▪ Newborn/stillborn cases ▪ Atypical cases ▪ Acute rehabilitation cases (HFH) ▪ ALC days
Denominator:	Sum of ELOS for inpatient cases discharged within time period <i>Exclusion criteria:</i> <ul style="list-style-type: none"> ▪ Newborn/stillborn cases ▪ Atypical cases ▪ Acute rehabilitation cases (HFH) ▪ ALC days
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Definition of terms:	<u>Expected length of stay (ELOS)</u> - A predicted LOS for a typical CMG. Each complexity level and age group within a CMG has its own unique ELOS value.
Data source:	Health Records
Data limitations:	<ul style="list-style-type: none"> ▪ In December 2002, CIHI suspended the use of the complexity overlay as a refinement to the CMG methodology. Data quality studies conducted by CIHI have concluded that variations in coding practices render the use of the complexity overlay unreliable for comparative purposes. After consulting with stakeholder groups, the decision was made to retain complexity overlay until a revised ICD-10-CA/CCI-based methodology can be introduced (fiscal year 2005/06). ▪ Due to the introduction of the new ICD-10-CA diagnostic classification system, many problems have arisen related to the grouping of cases into Case Mix Groups (CMGs). These issues affect fiscal years 01/02, 02/03, and 03/04. In June 2004, Health Records data for these years was regrouped after the installation of the new 3M CMG grouper. ▪ The new CMG grouper was installed in February 2005 and cases from FY 01/02 onwards were regrouped. This may have had some impact on the indicator result.
Target source:	VCH Balanced Scorecard
Action point source:	VCH Balanced Scorecard
Comparator source:	VCH – VCH Balanced Scorecard

1.30. % ALC census days

Rationale:	This indicator measures the extent to which patients are in the appropriate care setting and the extent to which the community is able to respond to the needs of patients waiting in hospital for further care/accommodation in alternate care settings.
Numerator:	Number of acute and rehab inpatient census days that have been identified as ALC (alternative level of care) within time period
Denominator:	Total number of acute and rehab inpatient census days within time period
	<i>Inclusion criteria:</i> <ul style="list-style-type: none">▪ SPH, MSJ, SVH, and HFH
	<i>Exclusion criteria:</i> <ul style="list-style-type: none">▪ Newborns
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Definition of terms:	<i>Alternate Level of Care (ALC)</i> – A designation given to a patient whose acute and subacute phase of inpatient treatment has ended but who still remains in an acute care bed (see <i>Data limitations</i>)
Data source:	ADS ADT Census Cube
Data limitations:	<ul style="list-style-type: none">▪ The way in which ALC designation has occurred in PHC acute and rehab sites has changed over time. When ALC designation and data collection commenced in PHC hospitals in 1998 following a ministerial mandate, there were no explicit criteria provided by CIHI to guide the ALC designation process and thus resulted in multiple and often conflicting interpretations of the definition of ALC. Therefore, the application of the InterQual acute and subacute criteria sets in determining ALC status commenced:<ul style="list-style-type: none">▪ December 2003 – PHC began piloting the application of InterQual in determining ALC status on 4 Medicine nursing units at MSJ and SPH.▪ January 2005 – The Transition Services Team (TST) of Vancouver Community began assuming the responsibility for ALC designation at PHC’s acute and acute rehab sites. By March 31, 2005, the TST had been implemented on all inpatient units across PHC with the exception of HFH rehab and psychiatric units at SPH.▪ May 2005 – The TST was implemented at HFH rehab.▪ May 2006 – The TST began piloting the use of the InterQual mental health criteria on psychiatric units. By April 2007, the criteria had officially been adopted in determining ALC status on psychiatry units.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	Vancouver Acute – VCH Census Cubes

1.31. % mental health & addictions ALC discharge days

Rationale:	In the Ministry of Health Services Service Plan 2003/04 – 2005/06, a target of a 2% reduction over the prior year for the next two fiscal years was established.
Numerator:	Total number of ALC days experienced by mental health and addictions cases discharged within time period
Denominator:	Total number of inpatient days experienced by mental health and addictions cases discharged within time period
	<p><i>Inclusion criteria:</i></p> <ul style="list-style-type: none"> ▪ Cases aged between 15 and 64 years, inclusive ▪ Cases with one of the following ICD-10-CA codes as the most responsible diagnosis (MRDx): F0*, F1*, F2*, F3*, F4*, F50*, F51*, F52*, F530*, F531*, F6*, F840*, F841*, F843*, F844*, F845*, F848*, F849*, F9*, Z281*, Z55*, Z56*, Z57*, Z600*, Z601*, Z603*, Z604*, Z605*, Z608*, Z609*, Z61*, Z62*, Z63*, Z640*, Z641*, Z644*, Z65*, Z720*, Z721*, Z722*, Z723*, Z724*, Z725*, Z726*, Z729*, Z730*, Z731*, Z732*, Z733*, Z734*, Z735*, Z738*, Z739*, R410*, G312*, G442*
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Definition of terms:	<i>Alternate Level of Care (ALC)</i> – A designation given to a patient whose acute and subacute phase of inpatient treatment has ended but who still remains in an acute care bed (see <i>Data limitations</i>)
Data source:	Health Records
Data limitations:	<ul style="list-style-type: none"> ▪ At the start of FY 04/05, the Ministry of Health Services changed its definition of mental health cases to those with a most responsible diagnosis in specific mental health and addictions codes. Additionally, it restricted its definition to those patients between the ages of 15 and 65. The definition of addictions is problematic as it relies on an addictions diagnosis being coded as the most responsible, therefore its use may lead to an underrepresentation of the true addictions population. ▪ A large amount of variability in % ALC days exists from fiscal period to period. Most of the variability can be attributed to a few long stay cases with a high proportion of their days of stay designated as ALC. This effect can be magnified for % mental health ALC days due to the lower total case counts observed in a given fiscal period. ▪ The way in which ALC designation has occurred at PHC acute and rehab sites has changed over time. When ALC designation and data collection commenced in PHC hospitals in 1998 following a ministerial mandate, there were no explicit criteria provided by CIHI to guide the ALC designation process and thus resulted in multiple and often conflicting interpretations of the definition of ALC. Therefore, the application of the InterQual criteria sets in determining ALC status commenced: <ul style="list-style-type: none"> ▪ December 2003 – PHC began piloting the application of InterQual in determining ALC status on 4 Medicine nursing units at MSJ and SPH. ▪ January 2005 – The Transition Services Team (TST) of Vancouver Community began assuming the responsibility for ALC designation at PHC’s acute and acute rehab sites. By March 31, 2005, the TST had been implemented on all inpatient units across PHC with the exception of HFH rehab and psychiatric units at SPH. ▪ May 2005 – The TST was implemented at HFH rehab. ▪ May 2006 – The TST began piloting the use of the InterQual mental health criteria on psychiatric units. By April 2007, the criteria had officially been adopted.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	VCH – VCH Balanced Scorecard
References:	1. Ministry of Health Services Service Plan 2003/04 – 2005/06.

1.32. SDC (same day care opportunities)

Rationale: This indicator is a measure of clinical efficiency in terms of the extent to which the organization has been able to take advantage of opportunities to increase the proportion of care provided on an ambulatory basis.

Numerator: The number of inpatient (IP) cases that could potentially be treated in an outpatient setting to achieve the national 75thile for:

- The 20 DPGs with the highest number of inpatient cases that could be moved to an outpatient setting to achieve the national 75thile
- The 20 DPGs with the highest combined same day care (SDC) and eligible inpatient (IP) case volumes

Inclusion criteria:

For SDC cases:

- SDC cases in one of the DPGs listed below

For eligible IP cases:

- Inpatient cases with LOS ≤ 3 days; AND
- Principle procedure code in one of the DPGs listed below

a) 20 DPGs with highest potential IP cases to move:

DPG 20 Sinus Intervention
 DPG 23 Major Intervention on Oral Cavity/Pharynx/Glottis
 DPG 40 Vascular Intervention - Grade 3
 DPG 41 Minor Digestive Intervention
 DPG 42 Major Dig Intervention on Appendix/Abd Cavity
 DPG 47 Complex Hernia Intervention
 DPG 48 Cholecystectomy
 DPG 51 Hand/Wrist/Foot Intervention
 DPG 57 Open Fixation/Fusion - Other
 DPG 59 Other Bone Intervention
 DPG 60 Soft Tissue Intervention
 DPG 65 Tendon/Muscle Intervention
 DPG 66 Mastectomy - Partial
 DPG 68 Breast Plastic Intervention
 DPG 75 Lower Urinary Intervention - Grade 2
 DPG 82 Male Genital Intervention - Grade 2
 DPG 83 Intervention on Ovary/Fallopian Tube exc Ligation
 DPG 85 D and C and other Uterus Intervention
 DPG 88 Other Gynecological Intervention - Grade 2
 DPG 98 Day Intervention Not Elsewhere Classified

b) 20 DPGs with highest SDC and eligible IP case volumes:

DPG 07 Other Nervous System Intervention - Grade 1
 DPG 09 Cataract Extractions
 DPG 17 Other Eye Intervention - Grade 3
 DPG 30 Respiratory Investigative Biospy/Scope
 DPG 33 Cardiac Study
 DPG 37 Other Cardiac Intervention -Perc Translum Approach
 DPG 41 Minor Digestive Intervention
 DPG 44 Diag End per Orifice Int on Dig Tract - Insp
 DPG 45 Diag End per Orifice Int on Dig Tract - Bpsy/Fnct
 DPG 47 Complex Hernia Intervention
 DPG 48 Cholecystectomy
 DPG 49 Other Hepatobiliary Intervention
 DPG 51 Hand/Wrist/Foot Intervention
 DPG 57 Open Fixation/Fusion - Other
 DPG 66 Mastectomy - Partial
 DPG 68 Breast Plastic Intervention
 DPG 78 Upper and Other Urinary Intervention - Grade 2
 DPG 85 D and C and other Uterus Intervention
 DPG 96 ECT
 DPG X1 Other Intervention

*Note: These DPGs have been determined using data for cases discharged in FY 06/07.

Exclusion criteria:

For eligible IP cases:

- Newborns/stillbirths
- Alternate level of care cases
- Deliveries (cases assigned to CMG 600-611 inclusive)
- Deaths
- Sign outs
- Acute transfers
- Outliers

Denominator: N/A

Method of calculation:

For each DPG:

$$\text{IP cases to move} = \left(\text{CIHI 75\%ile} - \left(\frac{\text{SDC cases}}{\text{SDC cases} + \text{eligible IP cases}} \right) \right) * (\text{SDC} + \text{eligible IP cases})$$

For each set of DPGs:

= sum of IP cases to move for the 20 DPGs

Data source:

Health Records

Data limitations:

- In FY 2006/07, CIHI implemented a new DPG grouping methodology for same day care cases that is based directly on CCI procedure codes. This constitutes the first major revision to the DPG grouper since 2000, and is the result of an extensive review and revision process using Canadian clinical activity and cost data. The new methodology groups cases into 101 DPGs as compared to the previous 77 DPGs. The 20 DPGs with the highest potential IP cases to move and 20 DPGs with the highest SDC and eligible IP case volumes have been recalibrated using data for FY 06/07.

Target source:

FY 06/07 75%ile – CIHI National Database (the target is incorporated into the calculation of the indicator – see method of calculation).

Action point source:

N/A

Comparator source:

N/A

1.33. Cumulative net surplus (deficit)

Rationale: This indicator measures the extent to which PHC is meeting its budget plan.

Numerator: Cumulative year-to-date net surplus (deficit) after retirement allowances

Denominator: N/A

Method of calculation: Sum of YTD surplus (deficit) actuals

Data source: Finance (V&E report)

Data limitations: None identified at this time.

Target source: PHC Plan

Action point source: N/A

Comparator source: VCH – V&E Report

1.34. Current ratio

Rationale:	Current ratio is a measure of the organization's liquidity and immediate financial health. It indicates how the organization is able to meet its short-term obligations. The inability of the organization to meet its short-term liabilities can then compromise that organization's ability to deliver quality patient care services.
Numerator:	Current assets
Denominator:	Current liabilities
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}}$
Data source:	Finance
Data limitations:	<ul style="list-style-type: none">▪ There are no data available for P1 of fiscal years 03/04 to 05/06 as budget data were not yet available for the production of financial reports.
Target source:	Consultation with internal experts
Action point source:	N/A
Comparator source:	National average (2003/04) – CIHI; VCH (excluding PHC and Louis Brier Home) - BC Ministry of Health Services

1.35. Administrative and support costs as % of total expenses

Rationale:	In the MoHS Performance Agreement 2002/03, the performance expectation of a reduction in annual expenditures for Support and Administrative Services by at least 7% of the costs incurred for the fiscal year 2001/2002 by 2004/2005 fiscal year was set.
Numerator:	Administration and support costs
Denominator:	Total expenses (includes retirement allowance)
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	BC Ministry of Health Services
Data limitations:	<ul style="list-style-type: none">▪ Data has been restated back to FY 03/04 to remap accounts under the current Ministry definition.▪ During FY 06/07 certain Referred Out accounts were removed from inclusion under Administrative and Support costs resulting in lower costs as a % of total expenses across all health authorities.
Target source:	N/A
Action point source:	N/A
Comparator source:	VCH (excluding PHC and Louis Brier Home) - BC Ministry of Health Services
References:	<ol style="list-style-type: none">1. Performance Agreement between the Ministry of Health Services and the Vancouver Coastal Health Authority. April 1, 2002 to March 31, 2003

1.36. Non-Ministry of Health Services revenues as % of total revenues

Rationale:	In the PHC Health Service Redesign & Budget Management Plan (02/03 to 04/05) revenue generation was identified as a major initiative, with the goal of achieving \$1,000,000 of additional revenue through a variety of means.
Numerator:	Non-Ministry of Health Services revenues
Denominator:	Total revenues
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Definition of terms:	Non-Ministry of Health Services revenues – includes inpatient revenue, outpatient revenue, Centre for Excellence revenue and other miscellaneous revenue
Data source:	Finance
Data limitations:	<ul style="list-style-type: none">▪ Non-Ministry of Health Services revenues are comprised of some flow-through revenues (i.e., revenues that are offset by a similar amount in expenses, e.g. Centre for Excellence Pharmacare) which are not the result of revenue-generating initiatives.
Target source:	N/A
Action point source:	N/A
Comparator source:	VCH – V&E Report
References:	1. PHC Health Service Redesign & Budget Management Plan (02/03 to 04/05)

1.37. Occupancy rate

Rationale:	This indicator measures the extent to which PHC is meeting the target occupancy rate.
Numerator:	The number of inpatient census days <i>Exclusion criteria:</i> <ul style="list-style-type: none">▪ HFH census days▪ Newborn census days
Denominator:	The number of available days <i>Exclusion criteria:</i> <ul style="list-style-type: none">▪ HFH beds▪ Newborn bassinets and SCN beds
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	<u>Available days</u> - Calculated by multiplying the number of beds available by the number of days in the fiscal period
Data source:	Finance
Data limitations:	<ul style="list-style-type: none">▪ This indicator was revised in 2006 to be consistent with the regional indicator that was developed for inclusion in the VCH Balanced Scorecard.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	VCH – VCH Balanced Scorecard

1.38. % actual inpatient days to planned inpatient days

Rationale:	This indicator measures the extent to which PHC is meeting its budgeted volumes for inpatient days as expressed by the planned inpatient days.
Numerator:	Number of actual inpatient days
Denominator:	Number of planned inpatient days
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	Finance (V&E Report)
Data limitations:	None identified at this time.
Target source:	PHC Performance Indicators Reporting Working Group
Action point source:	N/A
Comparator source:	VCH – V&E Report

2.1. % positive responses to survey items related to Spirituality

Rationale: This indicator measures the extent to which we live the PHC values as measured by the experiences of the people we serve and the people who serve.

Numerator: Number of positive responses:

- Acute inpatient: Yes, completely
- ER: *To be determined*
- Ambulatory oncology: Yes, completely
- Resident: Yes
- Staff: Strongly + Very Strongly

Denominator: Total number of nonblank responses to the following survey items:

- Acute inpatient: "Were your spiritual needs met?" for those who also responded "Yes" to item: "Do you feel your spiritual needs are an important part of your overall care?"
- ER: *In development*
- Ambulatory oncology: "Were your spiritual needs met?" for those who also responded "Yes" to item: "Do you feel your spiritual needs are an important part of your overall care?"
- Resident: Are your spiritual or religious needs met here?
- Staff: We nurture spirituality within PHC

*Note: A survey item using the same wording as the Acute Inpatient Survey will be added to the Emergency Department Survey.

Method of calculation:
$$= \frac{\text{numerator}}{\text{denominator}} * 100$$

Data source: Acute inpatient: NRC+Picker Acute Inpatient Satisfaction Survey
ER: NRC+Picker Emergency Department Patient Satisfaction Survey
Ambulatory oncology: NRC+Picker Outpatient Cancer Care Experience of Care Patient Survey
Resident: NRC+Picker Long Term Care Resident Survey
Staff: PHC Live Our Mission Every Day Staff Survey

Data limitations:

- The patient and resident surveys are commissioned by the Ministry of Health and the health authorities thus PHC does not have direct influence on the frequency and timing of the surveys.

Target source: N/A

Action point source: N/A

Comparator source: N/A

2.2. % positive responses to survey items related to Integrity

Rationale:	This indicator measures the extent to which we live the PHC values as measured by the experiences of the people we serve and the people who serve.
Numerator:	<p>Number of positive responses:</p> <ul style="list-style-type: none"> ▪ Acute inpatient: <i>To be determined</i> ▪ ER: <i>To be determined</i> ▪ Ambulatory oncology: <i>To be determined</i> ▪ Resident: <i>To be determined</i> ▪ Resident family: <i>To be determined</i> ▪ Staff: Strongly + Very Strongly
Denominator:	<p>Total number of nonblank responses to the following survey items:</p> <ul style="list-style-type: none"> ▪ Acute inpatient: <i>In development</i> ▪ ER: <i>In development</i> ▪ Ambulatory oncology: <i>In development</i> ▪ Resident: <i>In development</i> ▪ Resident family: <i>In development</i> ▪ Staff: <ul style="list-style-type: none"> ▪ Personal fit: The values of PHC fit with who I am as a person ▪ Decision-making: The values of PHC impact how decisions are made where I work
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	<p><u>Acute inpatient</u>: NRC+Picker Acute Inpatient Satisfaction Survey <u>ER</u>: NRC+Picker Emergency Department Patient Satisfaction Survey <u>Ambulatory oncology</u>: NRC+Picker Outpatient Cancer Care Experience of Care Patient Survey <u>Resident</u>: NRC+Picker Long Term Care Resident Survey <u>Resident family</u>: NRC+Picker Long Term Care Resident Family Survey <u>Staff</u>: PHC Live Our Mission Every Day Staff Survey</p>
Data limitations:	<ul style="list-style-type: none"> ▪ The patient and resident surveys are commissioned by the Ministry of Health and the health authorities thus PHC does not have direct influence on the frequency and timing of the surveys.
Target source:	N/A
Action point source:	N/A
Comparator source:	N/A

2.3. % positive responses to survey items related to Respect

Rationale:	This indicator measures the extent to which we live the PHC values as measured by the experiences of the people we serve and the people who serve.
Numerator:	Number of positive responses: <ul style="list-style-type: none">▪ Acute inpatient: Yes, always▪ ER: Yes, always▪ Ambulatory oncology: Yes, completely▪ Resident: <i>To be determined</i>▪ Resident family: <i>To be determined</i>▪ Staff: Strongly + Very Strongly
Denominator:	Total number of nonblank responses to the following survey items: <ul style="list-style-type: none">▪ Acute inpatient: Did you feel like you were treated with respect and dignity while you were in the hospital?▪ ER: Did each hospital staff person treat you with respect and dignity▪ Ambulatory oncology: Did your care providers treat you with dignity and respect?▪ Resident: <i>In development</i>▪ Resident family: <i>In development</i>▪ Staff: A respect for the dignity for every person permeates PHC <p>*Note: Another survey item using the same wording as the Acute Inpatient Survey will be added to the Emergency Department Survey.</p>
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	<u>Acute inpatient</u> : NRC+Picker Acute Inpatient Satisfaction Survey <u>ER</u> : NRC+Picker Emergency Department Patient Satisfaction Survey <u>Ambulatory oncology</u> : NRC+Picker Outpatient Cancer Care Experience of Care Patient Survey <u>Resident</u> : NRC+Picker Long Term Care Resident Survey <u>Resident family</u> : NRC+Picker Long Term Care Resident Family Survey <u>Staff</u> : PHC Live Our Mission Every Day Staff Survey
Data limitations:	<ul style="list-style-type: none">▪ The patient and resident surveys are commissioned by the Ministry of Health and the health authorities thus PHC does not have direct influence on the frequency and timing of the surveys.
Target source:	N/A
Action point source:	N/A
Comparator source:	N/A

2.4. % positive responses to survey items related to Trust

Rationale:	This indicator measures the extent to which we live the PHC values as measured by the experiences of the people we serve and the people who serve.
Numerator:	<p>Number of positive responses:</p> <ul style="list-style-type: none"> ▪ Acute inpatient: Yes, always ▪ ER: Yes, always ▪ Ambulatory oncology: Yes, always ▪ Resident: <i>To be determined</i> ▪ Resident family: <i>To be determined</i> ▪ Staff: Strongly + Very Strongly
Denominator:	<p>Total number of nonblank responses to the following survey items:</p> <ul style="list-style-type: none"> ▪ Acute inpatient: <ul style="list-style-type: none"> ▪ Do you have the confidence and trust in the doctors treating you? ▪ Do you have confidence and trust in the nurses treating you? ▪ ER: <ul style="list-style-type: none"> ▪ Do you have the confidence and trust in the doctors treating you? ▪ Do you have confidence and trust in the nurses treating you? ▪ Ambulatory oncology: <ul style="list-style-type: none"> ▪ Do you have the confidence and trust in the doctors treating you? ▪ Do you have confidence and trust in the nurses treating you? ▪ Resident: <i>In development</i> ▪ Resident family: <i>In development</i> ▪ Staff: I have confidence and trust in the people with whom I work
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	<p><u>Acute inpatient</u>: NRC+Picker Acute Inpatient Satisfaction Survey <u>ER</u>: NRC+Picker Emergency Department Patient Satisfaction Survey <u>Ambulatory oncology</u>: NRC+Picker Outpatient Cancer Care Experience of Care Patient Survey <u>Resident</u>: NRC+Picker Long Term Care Resident Survey <u>Resident family</u>: NRC+Picker Long Term Care Resident Family Survey <u>Staff</u>: PHC Live Our Mission Every Day Staff Survey</p>
Data limitations:	<ul style="list-style-type: none"> ▪ The patient and resident surveys are commissioned by the Ministry of Health and the health authorities thus PHC does not have direct influence on the frequency and timing of the surveys.
Target source:	N/A
Action point source:	N/A
Comparator source:	N/A

3.1. RN vacancy rate

Rationale: This indicator measures the extent to which PHC is the employer of choice for registered nurses.

Numerator: Total number of unfilled RN positions on the last day of the fiscal period

Inclusion criteria:

- Unfilled vacant positions and posted positions

Denominator: Total number of annual budgeted RN FTEs

Inclusion criteria:

RN positions encompasses the following job codes:

- 233 – Clinical Coordinator
- 235 – Clinical Care Analyst
- 236 – Clinical Nurse Leader
- 252 – Registered Nurse
- 261 – Nursing Instructor
- 726 – Registered Psychiatric Nurse
- 727 – Clinical Nurse Leader

Method of calculation:
$$= \frac{\text{numerator}}{\text{denominator}} * 100$$

RN – Encompasses the following job codes:

- 233 – Clinical Coordinator
- 235 – Clinical Care Analyst
- 236 – Clinical Nurse Leader
- 252 – Registered Nurse
- 261 – Nursing Instructor
- 726 – Registered Psychiatric Nurse
- 727 – Clinical Nurse Leader

Vacancy – An unfilled posted full-time, part-time, temporary full-time, or temporary part-time position

Data source: Human Resources Posting System & Finance

Data limitations:

- Data for fiscal periods before P10-02/03 is unavailable as data collection systems were not in place to report this indicator. As a result, there are not enough data points to allow for adequate trend analysis.
- Comparator data is not available for this indicator. The VCH tracks RN vacancies as a raw number and does not express it as a rate, thus meaningful comparison is not possible.
- The denominator has been adjusted for the positions added for the opening of 9A as these positions were not included in the FY 05/06 budget.
- Starting in P12-06/07, the data collection method for capturing vacancies changed from a manual to automated process.

Target source: N/A

Action point source: N/A

Comparator source: N/A

3.2. % sick hours

Rationale:	This indicator measures the extent to which PHC employees are absent due to illness.
Numerator:	Number of paid sick hours
Denominator:	Total number of productive hours
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Definition of terms:	<i>Productive hours</i> - Total actual hours worked including regular, overtime, workload and absence relief, and excludes premium.
Data source:	PeopleSoft Extract
Data limitations:	None identified at this time.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	VCH – V&E Report

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3.3. % overtime hours

Rationale:	This indicator measures the extent to which overtime workload is placed on PHC employees.
Numerator:	Number of overtime hours
Denominator:	Total number of productive hours
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Definition of terms:	<u>Overtime hours</u> - Total actual hours worked overtime <u>Productive hours</u> - Total actual hours worked including regular, overtime, workload and absence relief, and excludes premium.
Data source:	PeopleSoft Extract
Data limitations:	None identified at this time.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	VCH – V&E Report

3.4. WCB MSI (musculoskeletal injury) incidence rate for direct care areas

Rationale:	This indicator measures the extent to which PHC is providing a safe working environment for its direct care employees.
Numerator:	Number of approved WCB claims for time-loss musculoskeletal injuries for direct care area cost centres (see Denominator for list of cost centres)
	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> ▪ Musculoskeletal injuries correspond to any of the following codes in the Attributes field in the Parklane System: <ul style="list-style-type: none"> ▪ Musculoskeletal injury ▪ Sprain/strain ▪ Tendonitis ▪ Carpal tunnel ▪ Overexertion – weight ▪ Overexertion – effort ▪ Approved claims include those claims whose Claim Status is: <ul style="list-style-type: none"> ▪ Approved ▪ Blank or Pending AND have associated claims costs
Denominator:	Number of productive hour FTEs (1 FTE = 1,875 productive hours) for direct care area cost centres

Inclusion criteria:

- The following cost centres constitute direct care areas:

Diagnostics:

7405000040	Radiology Nursing	7415400040	Nuclear Medicine
7415100035	Diagnostic Imaging RIS	7415550040	Cardiac Catheterization Lab
7415100040	Diagnostic Imaging RIS	7415700040	Magnetic Resonance Imaging
7415180035	Radiology	7415700140	MRI Magnet
7415180038	Radiology	7415990031	Diagnostic Imaging
7415180040	Radiology	7425100040	Electroencephalography (EEG)
7415180140	Diagnostic Imaging	7425200040	Electromyography (EMG)
7415230040	Vascular Angiography	7430202040	Echocardiography
7415250035	Computed Tomography	7430208040	Electrophysiology
7415250040	Computed Tomography	7430209040	Electrocardiography (ECG)
7415300035	Ultrasound	7430400040	Vascular Diagnostic Laboratory
7415300040	Ultrasound		

Inpatient:

7120990635	General Float Pool	7230000240	Nursing Casual Float Pool
7135406031	Sterile Processing Department	7230000431	3 East Medical Nursing Unit
7135406035	Sterile Processing Department	7230000435	3 East Medical Nursing Unit
7135406038	Sterile Processing Department	7230000635	DT Procedure Rooms
7135406040	Sterile Processing Department	7230000731	Nursing Floors General
7180600040	Emergency Admitting	7230000935	GATU
7182100040	Access Services	7230001040	Resource Centre
7205100240	Nursing Shortage	7230001140	GRU-RUFF
7205100340	Nursing Council	7230001235	Surgery-Medicine Relief
7210100035	Medical Nursing Unit	7240300031	Intensive Care Unit
7210100040	Medical Nursing Unit	7240300035	Intensive Care Unit
7210100140	Medical Nursing Unit	7240300040	Intensive Care Unit
7210100240	Medical Nursing Unit HUB	7240300140	Critical Care Relief (SPH)
7210100440	Medical Nursing Unit Geri-Rehb	7240400040	Cardiac Surgery ICU
7210100640	Fam Prac, Geri Psyc 10C	7240450040	Coronary Care Unit
7210100740	Medical Nursing Unit - 7AB	7250802040	Special Care Nursery
7210100840	Medicine Relief (SPH)	7250900040	Maternity-Delivery
7210450040	Med Unit - Resp, Fam Pract	7250900140	Delivery Room
7210700040	Nephrology, Urology (6B)	7260000240	Surgery Relief SPH
7220100031	Surgical Nursing Unit	7260200031	Operating Room
7220100035	Surgical Nursing Unit	7260200035	Operating Room
7220100140	Surgical Nursing Unit	7260200040	Operating Room
7220100240	General Surgery 9A	7260200140	OR - Cardiac
7220200040	Orthopedic Nursing Unit	7265200031	Post Anaesthesia Recovery Unit
7220200131	Geriatric Orthopedc Rehab Unit	7265200035	Post Anaesthesia Recovery Unit
7220402040	Cardiology Nursing Unit	7265200040	Post Anaesthesia Recovery Unit
7220402140	Heart Surgery Nursing Unit	7270990035	Paediatric Nursing Unit
7220750040	Urology Nursing Unit (6B)	7275201031	Geriatric Psych Inpatient 1
7230000131	GRU-GATU	7275201231	Geriatric Psych Inpatient 2
7230000140	GRU-GATU	7275201235	Geriatric Psych Inpatient 2

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7275201340	Eating Disorders Inpatient	7340853040	Home Hemodialysis
7275201540	Psych Acute Long Stay	7350107540	Chronic Pain Program
7275201640	Psych Acute General (9A)	7435600040	Perfusion
7275350040	Psych Acute Short Stay	7445000031	Clinical Nutrition
7280100038	General Rehab Nursing Unit	7445000035	Clinical Nutrition
7280100040	General Rehab Nursing Unit	7445000038	Clinical Nutrition
7290000040	Palliative Care	7445000040	Clinical Nutrition
7290000140	Windermere Lodge Hospice	7470105031	Social Work
7307001640	Hematology CASC	7470105035	Social Work
7310200035	General Emergency	7470105040	Social Work
7310200040	General Emergency	7470105238	Social Work IP
7310250031	Urgent Care		
Outpatient:			
7195990140	Diabetes Nutrition Services	7350108040	Foot and Ankle Clinic
7205202040	Intravenous Therapy (9B)	7350108740	Cystic Fibrosis Specialty Clin
7210100340	Eating Disorders Community Prj	7350109540	Kidney Function Centre
7210310031	SARS Clinic	7350152540	Ear Nose and Throat Specialty
7210310040	SARS Clinic	7350154540	Pre-Admission Clinic
7230000835	Geriatric Unit	7350155540	Cardiac Transplant Clinic
7305000040	Eating Disorders Resource Ctr	7350155640	Renal Transplant Clinic
7340100040	Medical Short Stay Unit	7350170040	Ambulatory Care
7340200031	Surgical Day Care	7350170140	Rapid Access Clinic
7340200035	Surgical Day Care	7350201040	Heart Function Clinic
7340200040	Surgical Day Care	7350203040	Pacifc Adlt Congenitl Hrt Clin
7340200140	SDC - Private Clinic Referrals	7350204040	Pacemaker Clinic
7340352040	CIU, Cardiac Short Stay (5CD)	7350206040	Cardiac Rehabilitation Clinic
7340500040	Diabetes Clinic	7350502040	Maternity Education Program
7340500140	Diabetic Weekend Clinic	7350601040	Ophthalmology Clinic
7340602031	Geri-Day Hospital	7350652031	Falls and Fracture Clinic
7340602135	Geri-Day Hospital	7350652040	Falls and Fracture Clinic
7340602240	Geriatric Outpatient Clinic	7350801040	General Outpatient Psychiatry
7340604031	Geriatric Outreach	7350807040	Eating Disorders Clinic
7340604140	Elder Care Central Intake	7350990035	Multi-Purpose Amb Care
7340851340	Comm Dialysis - Sechelt	7470105338	Social Work OP
7340851440	Comm Dialysis - Vancouver	7470200040	Domestic Violence
7340851540	Hemodialysis Unit	7510802040	HOME ENTERAL NUTRITION
7340851640	Comm Dialysis - Richmond	7510802140	HOME PARENTAL NUTRITION
7340851740	Comm Dialysis - Squamish	7510802240	HEMOSIDEROSIS
7340851840	Comm Dialysis - Powell River	7510802340	HEMOPHILIA
7340851940	Comm Dialysis - North Shore	7515500035	Lifeline
7340855040	Peritoneal Dialysis Unit	7515500038	Lifeline
7350101540	Infectious Diseases Clinic	7532300040	Home IV Antibiotic Pgm 9B
7350105040	GI Clinic	7532300140	Home IV - Closer to Home
7350108031	Foot and Ankle Clinic		
Rehabilitation Services:			
7350851038	General Rehabilitation Clinic	7455205035	Occupational Therapy
7435259935	Respiratory Services	7455205040	Occupational Therapy
7435259935	Respiratory Services	7455205238	Occupational Therapy IP
7435259935	Respiratory Services	7455205338	Occupational Therapy OP
7435259940	Respiratory Services	7460200038	Communication Disorders
7450005031	Physiotherapy	7460200038	Communication Disorders
7450005035	Physiotherapy	7460200038	Communication Disorders
7450005040	Physiotherapy	7460200040	Communication Disorders
7450005238	Physiotherapy IP	7460400040	Audiology
7450005338	Physiotherapy OP	7485000040	Recreation Therapy
7455205031	Occupational Therapy	7485000238	Recreation Therapy
7455205035	Occupational Therapy	7485100031	Music Therapy
Residential Care:			
7185400032	Inter-Hospital Transport	7295201232	Residential Care - Chronic 3
7185404031	External Patient Transport	7295201335	Residential Care Relief
7185404032	External Patient Transport	7295300036	Residential Care - Multilevel
7185404033	External Patient Transport	7450005032	Physiotherapy
7185404034	External Patient Transport	7450005033	Physiotherapy
7185404035	External Patient Transport	7450005034	Physiotherapy
7295201031	Residential Care - Chronic 1	7450005036	Physiotherapy
7295201032	Residential Care - Chronic 1	7450005138	Physiotherapy ECU
7295201033	Residential Care - Chronic 1	7455205032	Occupational Therapy
7295201034	Residential Care - Chronic 1	7455205033	Occupational Therapy
7295201035	Residential Care - Chronic 1	7455205034	Occupational Therapy
7295201038	Residential Care - Chronic 1	7455205036	Occupational Therapy
7295201132	Residential Care - Chronic 2	7455205138	Occupational Therapy Res
7295201134	Residential Care - Chronic 2	7470105032	Social Work
7295201135	Residential Care - Chronic 2	7470105033	Social Work
7295201138	Residential Care - Chronic 2	7470105034	Social Work



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7470105036	Social Work	7485000138	Recreation Therapy Res
7485000034	Recreation Therapy	7485100032	Music Therapy
7485000035	Recreation Therapy	7485100035	Music Therapy
Support Services:			
7185200035	Porters	7480000035	Pastoral Care
7185200040	Porters	7480000036	Pastoral Care
7480000030	Pastoral Care	7480000038	Pastoral Care
7480000031	Pastoral Care	7480000040	Pastoral Care
7480000032	Pastoral Care		

Method of calculation:
$$= \frac{\text{numerator}}{\text{denominator}} * 100$$

Definition of terms: *Musculoskeletal injury (MSI)* – Includes all injuries as a result of strains or sprains, overexertion, repetitive movements, tendonitis, and carpal tunnel syndrome that result in time loss.
Direct care area – Any cost centre where the staff members have, as their primary role, interaction with patients, residents or clients.

Data source: Parklane System & PeopleSoft System

Data limitations:

- Concerns have been raised about the quality of the data captured by the Parklane System. Further investigation is required to assess data quality.
- Data were restated in 2006 due to data quality issues related to the Claim Status field. Not all approved claims are coded as such in this field thus a claim was previously considered approved if the claim status field = Approved, Pending, or Blank. The definition of an approved claim was revised to consider as approved: all claims coded as Approved, and claims coded as Pending or Blank with costs associated with them.

Target source: VCH Balanced Scorecard

Action point source: N/A

Comparator source: VCH – VCH Employee Engagement Cubes

3.5. WCB incidence rate

Rationale:	This indicator measures the extent to which PHC is providing a safe working environment for its employees.
Numerator:	The number of approved WCB claims for time-loss incidents
Denominator:	Number of productive hour FTEs (1 FTE = 1,875 productive hours) for all staff
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	Parklane System & Finance
Data limitations:	<ul style="list-style-type: none">▪ Concerns have been raised about the quality of the data captured by the Parklane System. Further investigation is required to assess data quality.▪ Data were restated in 2006 due to data quality issues related to the Claim Status field. Not all approved claims are coded as such in this field thus a claim was previously considered approved if the claim status field = Approved, Pending, or Blank. The definition of an approved claim was revised to consider as approved: all claims coded as Approved, and claims coded as Pending or Blank with costs associated with them.
Target source:	VCH Balanced Scorecard
Action point source:	N/A
Comparator source:	VCH – VCH Employee Engagement Cubes

3.6. % days of work lost due to injury for direct care areas

Rationale:	This indicator measures the extent to which PHC is providing a safe work environment for its direct care employees by tracking the amount of time lost due to injury over time.
Numerator:	Number of days of work lost due to injury in direct care areas that have been invoiced during the month *Note: See Technical Notes for the WCB musculoskeletal injury (MSI) incidence rate for direct care areas indicator for list of direct care cost centres.
Denominator:	Total number of budgeted days for direct care areas *Note: Number of budgeted days for each calendar month is estimated by dividing the total number of annual budgeted hours for direct care area cost centres by 7.2 hours, then dividing by 365 and multiplying by the number of days in each calendar month.
Method of calculation:	$= \frac{\text{numerator}}{\text{denominator}} * 100$
Data source:	Parklane System & Finance (TSI)
Data limitations:	<ul style="list-style-type: none"> ▪ Data is only available by calendar month, which is the time interval for which invoices are received from WCB. ▪ At the time of this report's writing, the total number of budgeted productive hours were unavailable. The indicator will be restated in subsequent reports such that the denominator reflects only budgeted productive days. This change will not impact the indicator trend significantly, but will affect the level of performance, which will be higher as a result of using a smaller denominator. ▪ Concerns have been raised about the quality of the data captured by the Parklane System. Further investigation is required to assess data quality.
Target source:	N/A
Action point source:	N/A
Comparator source:	N/A

3.7. WCB claims cost

Rationale:	This indicator measures the extent to which PHC is providing a safe working environment for its employees.
Numerator:	Total number of dollars invoiced for WCB claims, regardless of cause or area of work, during the month <i>Inclusion criteria:</i> Includes the following WCB costs: <ul style="list-style-type: none">▪ Health Care▪ Compensation▪ Rehabilitation *Note: The data have been adjusted to reflect a 30-day calendar month to account for the different number of days per calendar month to allow for time-series analysis.
Denominator:	N/A
Method of calculation:	= numerator
Data source:	Parklane System
Data limitations:	<ul style="list-style-type: none">▪ Data is only available by calendar month, which is the time interval for which invoices are received from WCB.▪ There is usually a delay of 6 to 8 weeks before claims cost data is received from WCB.▪ Retrospective adjustments to claims costs are applied to the month during which they were invoiced and not to the month(s) affected by the adjustment.▪ Concerns have been raised about the quality of the data captured by the Parklane System. Further investigation is required to assess data quality.
Target source:	N/A
Action point source:	N/A
Comparator source:	N/A

3.8. WCB experience rating adjustment

Rationale:	This indicator measures the extent to which PHC has been able to maintain a safe working environment for its employees relative to the rest of the provincial acute care sector.
Numerator:	WCB experience rating adjustment
Denominator:	N/A
Method of calculation:	= numerator
Definition of terms:	<p><u>Experience rating adjustment</u> – The discount/surcharge applied to an employer's base rate based on the employer's injury costs relative to the industry average (up to a maximum discount of 50% and a maximum surcharge of 100%)</p> <p><u>Base rate</u> – The amount charged per \$100 of assessable earnings. The same base rate applies for all employers within the same classification unit, or industry (i.e., Acute Care).</p>
Data source:	Payroll
Data limitations:	<ul style="list-style-type: none">▪ Data is only available from 2000 onward – data for previous years were based on a different methodology for calculating experience rating adjustment.▪ In the past, PHC as a whole has been classified by WCB as being part of the acute care rate group. However, a recent audit has seen PHC reclassified into 4 different rate groups: acute care, residential care, rehabilitation care, and community health support. Therefore, there will be no retrospective data available prior to 2008.
Target source:	Consultation with internal experts
Action point source:	N/A
Comparator source:	VGH/UBCH – VCH Finance

3.9. Grievances filed rate

Rationale: This indicator measures the extent to which PHC is maintaining a positive relationship with its unionized employees.

Numerator: Number of grievances filed by union employees

Denominator: Number of annual budgeted FTEs for union employees

Inclusion criteria:

- HSA, HEU, BCNU, and IUOE

*Note: Number of annual budgeted FTEs for Periods 1 and 13 have been adjusted to account for the different number of days in these fiscal periods. Additionally, due to the outsourcing of housekeeping and security services that commenced in November 2003, the annual budgeted FTEs for Periods 9 to 13 were replaced with actual FTEs for the job codes affected by the outsourcing.

Method of calculation:
$$= \frac{\text{numerator}}{\text{denominator}} * 1,000$$

Data source: Labour Relations Database & Finance (Revenue & Expense Report)

Data limitations:

- Employees may file more than one grievance related to the same incident at a given time. More analysis is required to determine the impact of this phenomenon on the indicator result.

Target source: N/A

Action point source: N/A

Comparator source: N/A

4.1. Total annual research funding

Rationale:	This indicator measures the extent to which PHC has been able to secure new research funding as compared to the previous fiscal year(s).
Numerator:	Total research funding by the following funding categories: <ul style="list-style-type: none"> ▪ Clinical trials ▪ Contracts and agreements ▪ CFI, KDF and matching funds ▪ Other grant funding ▪ Peer-reviewed funding
Denominator:	N/A
Method of calculation:	= numerator
Definition of terms:	<u>CFI</u> – Canadian Foundation for Innovation <u>KDF</u> – Knowledge Development Fund <u>MSFHR</u> – Michael Smith Foundation for Health Research <u>Peer-reviewed funding</u> – As per the Michael Smith Foundation for Health Research definition
Data source:	UBC ORSIL Database
Data limitations:	<ul style="list-style-type: none"> ▪ This funding information should be interpreted as approximate only. ORSIL does not capture all grant funding and thus total research funding is underreported. There are known omissions in the data reported. For example, ORSIL did not capture any graduate student salaries in 00/01 or 01/02. Data reported for 02/03 is more accurate than previous fiscal years, although some grant funding may be missing and/or underreported. ▪ The breakdown for clinical trial funding is available only for fiscal years 02/03 and 03/04. For the other fiscal years, the clinical trial funding dollars are subsumed under other funding categories.
Target source:	N/A
Action point source:	N/A
Comparator source:	N/A

