

# The Use of Benchmarks in Public Reporting: Measuring Performance & Setting Meaningful Goals

**Moderator: Miin Alikhan** 

Director, Health Quality Branch Ministry of Health and Long-Term Care

## **Presenter Disclosure**

 Session Name: The Use of Benchmarks in Public Reporting: Measuring Performance & Setting Meaningful Goals

 Presenters: Miin Alikhan (moderator), Dr. Astrid Guttmann, Dr. Walter Wodchis, Jonathan Wiersma, Corry O'Neil, Stella Leung, Cathy Fiore

- Relationships with commercial interests:
  - Not Applicable

## **Disclosure of Commercial Support**

• This session has received no commercial support

## **Mitigating Potential Bias**

Not applicable

## **Learning Objectives**

- 1. Develop an understanding of benchmarks and how they are both practically and appropriately applied to health system public reporting.
- 2. Discover the tactical approaches organizations in Ontario have used to drive sustained improvement and breakthrough performances.

## **Overview**

Item	Speaker
Welcome/Introductions	Miin Alikhan
Driving Performance Improvement:	Dr. Astrid Guttmann
Measurement & QI	
Benchmark Theory Burst	Dr. Walter Wodchis
Hospital Representatives	Jonathan Wiersma (Royal Victoria Regional Health Centre) Corry O'Neil (Windsor Regional Hospital)
LTC Home Representatives	Stella Leung (Mon Sheong) Cathy Fiore (O'Neill Centre)
Closing Remarks	Dr. Astrid Guttmann
Question & Answer Period	Panel
Tools & Resources	Miin Alikhan



## Driving Performance Improvement: Measurement & QI

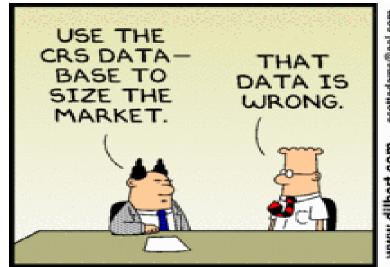
**Astrid Guttmann** 

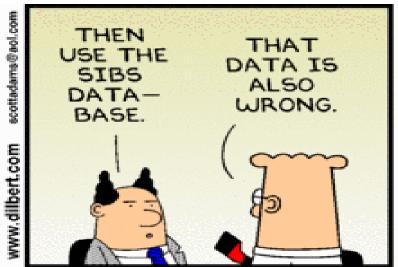
Senior Scientist
Institute for Clinical Evaluative Sciences



"Measurement is the first step that leads to control and eventually to improvement. If you can't measure something, you can't understand it. If you can't understand it, you can't control it. If you can't control it, you can't improve it."

H. James Harrington









### Department of Veterans Affairs Hospital Compare

Welcome to the VA Hospital Compare web site. This site is for Veterans, family members and their caregivers to compare the performance of their VA hospitals to other VA hospitals. Using this tool, Veterans, family members, and caregivers can compare the hospital care provided to patients

#### Quality Information on this web site is divided into four sections:

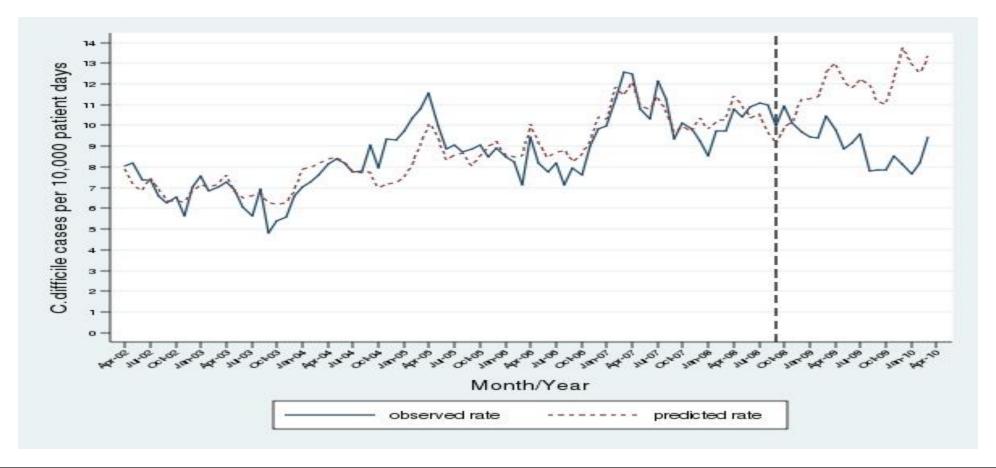
- 1) LinKS ("Linking Information Knowledge and Systems") summarizes outcomes in areas such as acute care, safety, Intensive Care and other measures
- 2) ASPIRE documents quality and safety goals for all VA hospitals, plus how well our hospitals are meeting these goals
- 3) Compare how well your local VA hospital cares for its veterans with congestive heart failure, heart attack and pneumonia
- 4) Tracks progress in the VA in reducing complications from surgery including infection, blood clots, cardiac, and respiratory problems

## **Key Ingredients to Success of the VA System**

- Performance Measurement System
  - IT system for clinical use as well as performance monitoring
  - Benchmarks for comparisons
  - Quality Improvement support
  - Realignment of incentives to encourage better performance

Effect of the Transformation of the Veterans Affairs Health Care System on the Quality of Care Jha A et al, www.nejm.org may 29, 2003 Making performance indicators work: experiences of US Veterans Health Administration Kerr E and Fleming B. BMJ2007;335doi: http://dx.doi.org/10.1136/bmj.39358.498889.94(Published 8 November 2007)

## Early Evidence: Positive Impact of Public Reporting in Ontario



Daneman N, Stukel, T, Ma X, Guttmann A Reduction in C.difficile Infection Rates After Mandatory Hospital Public Reporting: Findings From a Longitudinal Cohort Study in Canada, PLOS Medicine 2012

## 10 Recommendations for Successful Implementation of Quality Improvement Interventions (10 Ontario Hospitals; ED-PIP)

- 1. Need strong CEO and senior administration support
- 2. Careful preparation and information leading up to intervention
- 3. Careful and early selection of intervention team members
- 4. Need explicit & shared understanding of role of external consultant
- 5. Brand the intervention carefully
- 6. Invest in capacity for performance measurement
- 7. Remember it's a marathon and not a sprint
- 8. Communicate frequently and in all ways, but don't forget face-to-face
- 9. Ensure you have effective physician leadership
- 10. Develop a plan for sustainability early



## **Benchmark Theory Burst**

#### **Walter Wodchis**

Associate Professor
University of Toronto, Institute of Health Policy, Management and Evaluation

## **Setting Targets for Performance Indicators**

 Performance indicators are useful measurement tools to highlight current state.

Performance management requires goals.

 Targets for performance indicators are required for performance management.

## **Common Quality Agenda: Indicator Targets**

 HQO has developed a set of health system performance indicators across all care sectors and measures of system integration.

How should targets be set?

How are targets set?

## **Target Setting Framework**

### Desired target benchmark attributes:

- 1. Evidence-based/data-driven
- 2. Agreeable to major stakeholders
- 3. Catalysts for quality improvement
- 4. Indicators of high quality care

## **Target Setting Framework**

- Some indicators have a natural target (e.g., never events)
- Some indicators have a known epidemiology
- Some indicators have best practice evidence

All of these are important considerations in choosing a method to select targets. HQO mostly employs a modified Delphi process incorporating all approaches that ultimately results in benchmarks having all four of the desired attributes

A case example: Long Term Care

## Which Quality Indicators were Selected for Benchmarking?

• 9 Continuing Care Reporting System (CCRS) Quality Indicators were selected for the following attributes: a) valid and reliable b) risk-adjusted and c) publicly reported

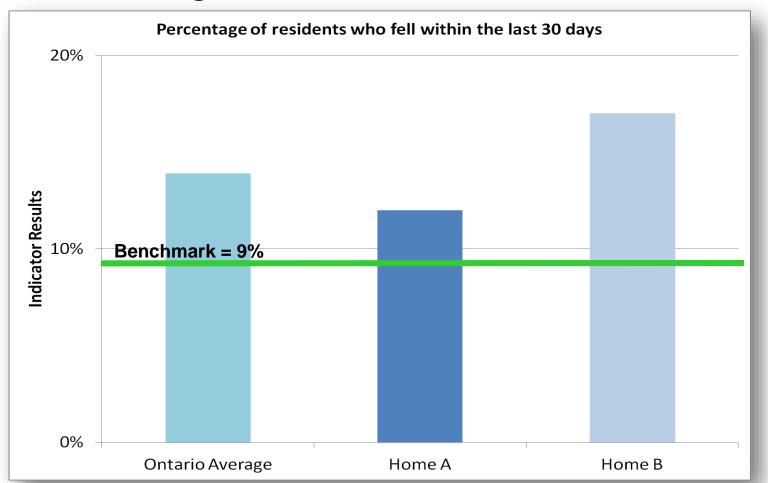
#### **Publicly Reported Home-Level Indicators Other Selected Indicators\*** 1. Percentage of residents in daily physical 5. Percentage of residents whose ADL selfrestraints performance worsened 2. Percentage of residents who fell in the last 30 6. Percentage of residents who had a newly days occurring stage 2 to 4 pressure ulcer 7. Percentage of residents whose behavioural 3. Percentage of residents whose bladder continence worsened symptoms worsened 4. Percentage of residents whose stage 2 to 4 8. Percentage of residents whose mood symptoms pressure ulcer worsened of depression worsened 9. Percentage of residents whose pain worsened

<sup>\*</sup>Prioritized by HQO's LTC Advisory Group Subcommittee on Benchmarking. Currently, no plans to publicly report at home-level.

## Why are Benchmarks Needed?

Currently, homes can compare results with the Ontario average or to other

homes using data on HQO's LTC Website

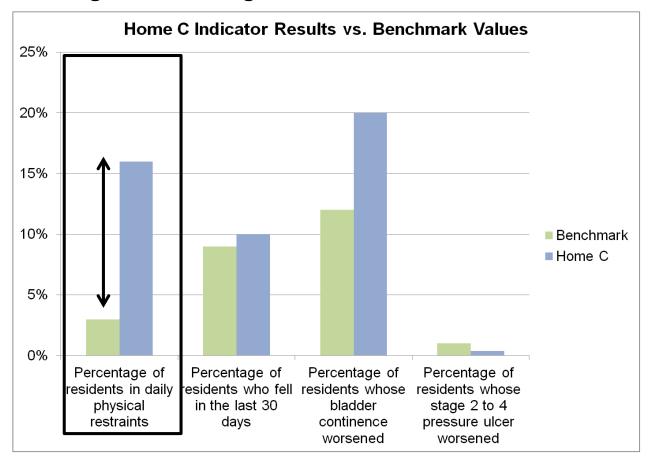


- For this indicator, Home A knows that it is outperforming the Ontario average and Home B
- However, there is no information on Home A's results against high quality care.
- Benchmarks provide standards for this comparison.

## **Benchmarks & Quality Improvement**

Benchmarks can inform Quality Improvement Plan (QIP) development by:

- Prioritizing quality improvement areas
- Setting aims and targets



- •Can inform prioritization based on performance gap between benchmark values and indicator results.
- •Can set targets to benchmark values as stretch targets are associated with bigger improvements.
- •Visit Residents First website for more QIP resources.

## **Modified Delphi Process**

Literature Review/
Data Analysis

**Expert Panel Recruitment** 

Round 1: Online Survey

Round 2: In-Person Meeting

Benchmark Results

## **Information Provided to Expert Panel**

#### 1. Indicator Description

#### Indicator: Percent of Residents Who Had an Outcome

#### Indicator Description

Code:	OUTCOM602
Type:	Prevalence Indicator
Numerator:	Residents who had a nicuteome
Denominator:	Residents with valid assessments
Exclusion Criteria:	None
Data Elements Used:	XYZ Outcome within 50 days
Risk Adjustment :	Individual Covenatos  Not totally dependent in transferring Lecomodien problem  Stratification Case Mix Indiex

#### 2. Literature Search Results

#### Literature Search Results

#### Table A. Percent of Outcome in other jurisdictions

Jurisdiction and Sample Population	Summary Statletics	Assessment Tool	Restraint definition		
USA  * Nationalde * Statewide	* National average: 12%  * Range in date average: 7.5% in Hawall to 19.1% in South Calabra (Cparter 2, July-September 2010) //INCS Cyalify Measure/Indicator Report)  **The Committee of the Comm	MOS	"Same numerator and denominator "Same auclusion orbaria "Olffenent risk adjustment		
Netherlands = 5 LTC facilities = 139 residents	* Prevalence: 20.9% (Ropping, et al., 2011) <sup>8</sup>	RAI-LTOF	"Same numerator and denominator "Exclusion criteria not provided "Risk adjustment not provided		

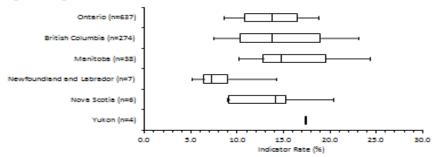
#### Table B. Thresholds of outcome in other jurisdictions

Juriediction and Sample Population	Summary Statistics	Suggested threshold or targets	Accessment Tool	Restraint definition			
Missouri, USA - Statewick		5.8% = based on expert opinion & data (Rapts et al., 1997 & 2000) <sup>3, 3</sup>	Mos	"Same numerator and denominator "Same exclusion criteria "Offerent risk adjustment			
	Mean: 15.4% (Quarter 4, Oct-Oec 2009) <sup>2</sup>	9.8%  * based on data - 20 <sup>th</sup> percentile acone for the state of Nilssouri from NIDS statewide data (Oct 2008 - Niar 2009) (OJ PINO, 2009) <sup>6</sup>	MOS	"Same numerator and denominator "Same exclusion orbaria "Offenent risk adjustment			
Queensland, Australia • 9 LTC facilities • 499 residents	Median: 12.4% 25° percentile: 13.2% 75° percentile: 15.6%	4.2% - based on expert opinion & data (O'Relly et al., 2011) <sup>2</sup>	Beauca	"Same numerator and denominator "Exclusion criteria not provided "Risk adjustment strategy not described			

#### 3. Indicator Performance in Canada

#### Canadian Performance

#### Figure A. Regional distributions of indicator



#### 4. Indicator Performance in Ontario

#### Ontario Performance

Provincial Rate: 13.9%

#### Figure B. Percent of outcome in Ontario LTC facilities

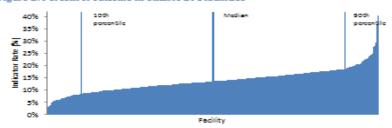


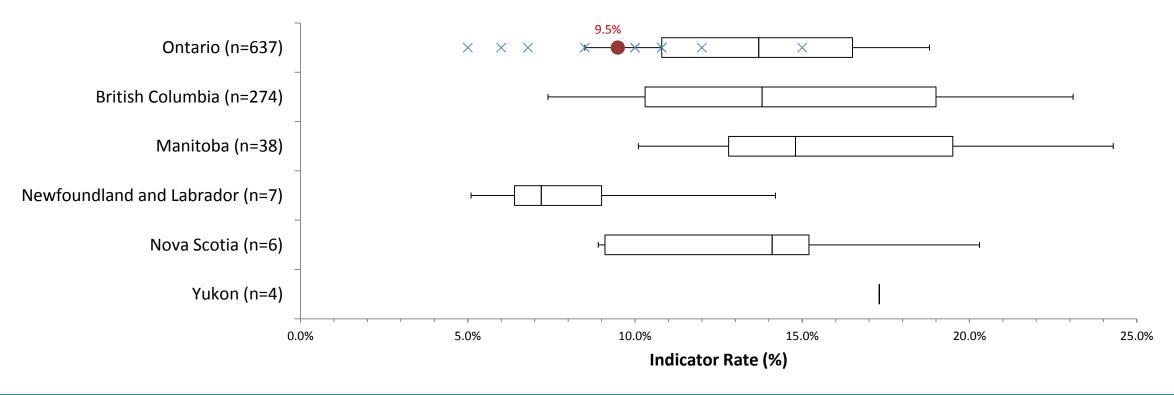
Table C. Facility-level distribution in the percent of daily outcome in Ontario

Minimum	Percentile	Percentile	Percentile	Median	Percentile	Percentile	Percentile	Maximum	
2.8%	6.8%	8.5%	10.8%	13.7%	16.5%	18.8%	21.5%	40.6%	ı

## **Modified Delphi Process**

#### Regional distributions with markers for expert panel responses

- The x's mark the expert panel members' suggested benchmarks.
- The red circle is the expert panel mean response. The box-plots show the 10<sup>th</sup>, 25<sup>th</sup>, median, 75<sup>th</sup>, and 90<sup>th</sup> percentiles of the provincial rates.
- Indicator is percent of LTC residents who fell.



## **Modified Delphi Process**

#### **Benchmark Setting**

**Indicator 2: Percent of Residents Who Fell in the Last 30 days** 

Note: Answer should be between 1 and 100 percent with 1 decimal place.

Based on your clinical experience in long-term care homes and/or your professional knowledge, what is an <u>achievable</u> score indicating good resident outcomes <u>and high quality care</u> in a general LTC home population?

**Answer:** 

%

## **Publicly Reported LTC CCRS Home-Level Indicators**

Indicator	Benchmark	Ontario Rate,	Ontario Facility-Level Distribution (Percentile) Q4 2011/12						
		Q4 11/12 —	<b>10</b> <sup>th</sup>	25 <sup>th</sup>	Median	75 <sup>th</sup>	90 <sup>th</sup>		
1. Percentage of residents in daily physical restraints	3%	14%	2%	6%	13%	21%	27%		
2. Percentage of residents who fell in the last 30 days	9%	14%	9%	11%	14%	17%	19%		
3. Percentage of residents whose bladder continence worsened	12%	19%	9%	14%	20%	27%	32%		
4. Percentage of residents whose stage 2 to 4 pressure ulcer worsened	1%	3%	1%	2%	3%	4%	5%		

## **Target Setting Framework**

- The Modified Delphi process will largely be applied in the Common Quality Agenda.
- Some targets will adopt MOHLTC standards (e.g., ALC).
- Some targets will adopt other groups standards (e.g., Stroke Network, Public Health Agency of Canada, Cancer Care Ontario etc.).





Jonathan Wiersma M.Sc.

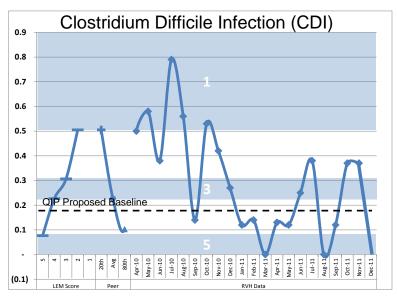
Director – Decision Support (Royal Victoria Regional Health Centre)

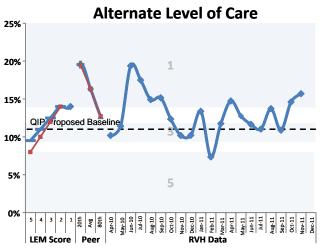


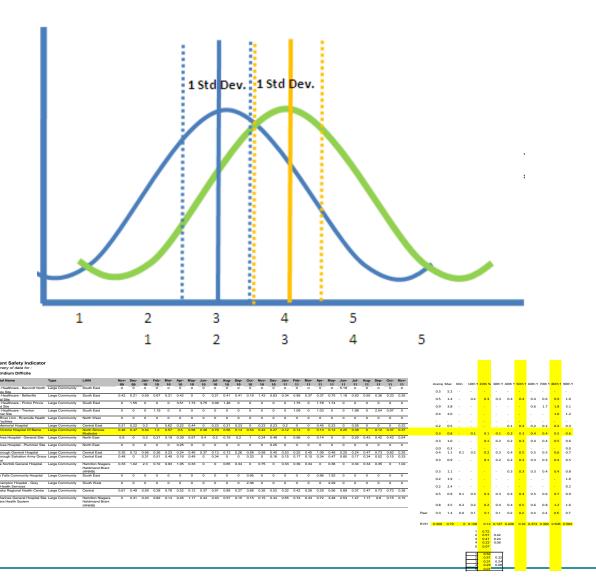
## **SMART Indicators / Targets**

- Specific Thank you HQO, What can we do about it?
- Measurable Big data!!! (HQO, MOHLTC, CIHI and RVH)
- Achievable Target Setting process
- Relevant / Reasonable LEM™, SLT, Org Goals
- Time-bound Quarterly Reporting

## **Know Thyself...** "Big Data"









## Where You Are and Where To Go?

#### **Royal Victoria Regional Health Centre Targets Compared to Past Performance**

	Peer Percentiles								
Indicators	10th	20th	30th	40th	50th	60th	70th	80th	90th
Use of Physical Restraints <sup>2</sup>						Baseline- Target			
Medication Reconcilitation at Admission					Baseline			Target	
Hospital Standardized Mortality Ratio 1					Target	<b>—</b>	Baseline		
ER Wait Times - 90th Percentile Admitted Patients				Baseline				Target	
ER Wait Times - 90th Percentile Complex Care							Baseline		Target
"Would You Recommend"			Baseline					Target	
"Overal Satisfaction"					Baseline			Target	

- 1. Current baseline is below recognizable targets.
- 2. Baseline and Target are in the same percentile range due to the width of the range.

## **Keys to Success**

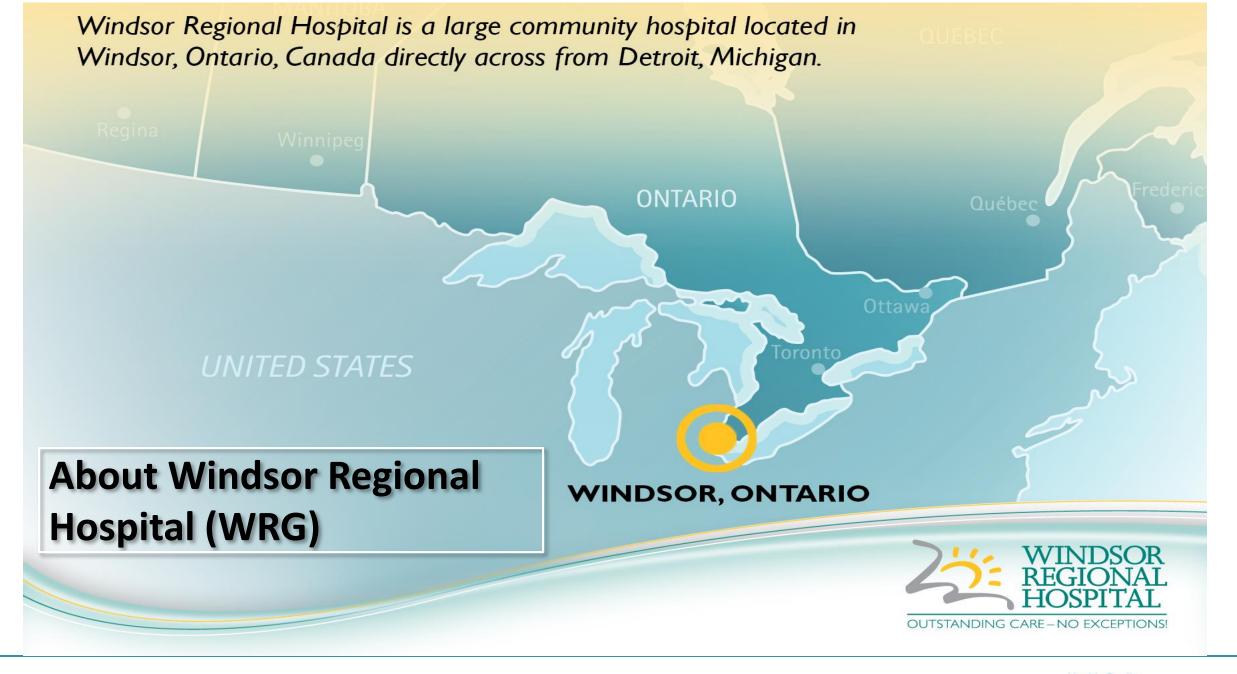
- Diversity in Target Setting, not just the "Math Guys"
- Senior Leadership Team Buy In (~ 1 day)
- Make it relatable to everyone
- Keep it focused, allow for variation (ranges)
- Intertwine Quality with Performance Measurement
- Reporting (Quarterly Integrated: Front lines to Board)
- Don't make in "another thing"
- Demonstrate Action What we doing? What can we do
- Demonstrate Results: No complex tools (Excel, PowerPoint, Adobe)
- Celebrate Success



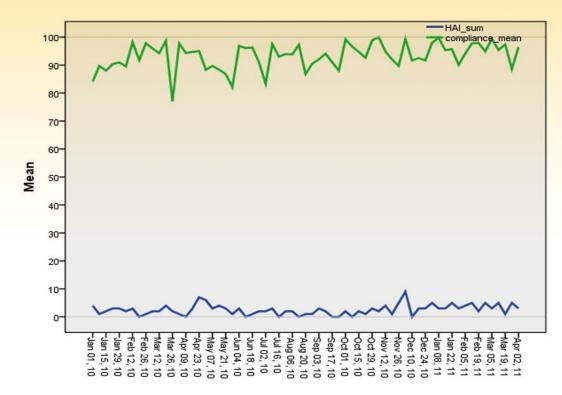


**Corry O'Neil** 

Director – Org. Effectiveness, Patient Safety and Quality (Windsor Regional Hospital)



#### Hospital Acquired Infections and Hand Washing Compliance



#### **ACTION PLAN**

April 18

3 HAI: RH1 - 2 MRSA, SU2 C-DIFF

Continue heightened awareness of burden, c diff and ongoing auditing of PPE practices must be carried out this week.

**CPC/M** - Need to monitor students and staff on units re practices and HH

**Peds** -PPE sequencing guide will continue to be trialed

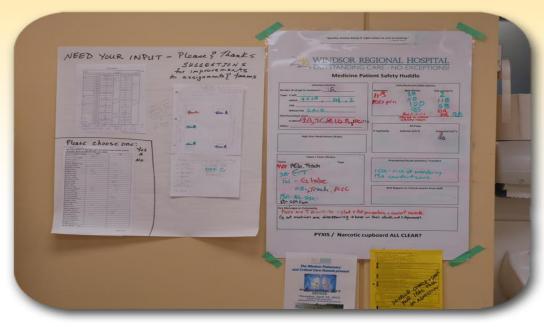
**ME1-** PPE sequencing guide will be taken to their staff this week. Will reimplement visitors stopping at desk and checking for precaution status and provide instruction

## **Monitoring Performance**



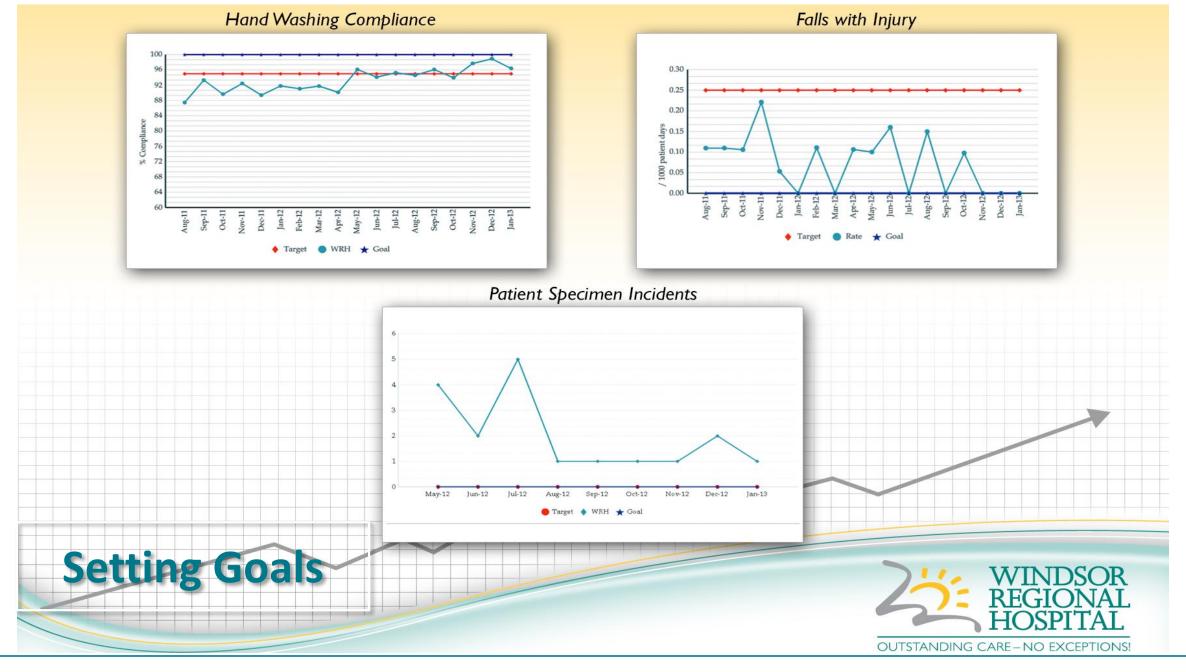
### **Safety Huddles**





# **Monitoring Performance**









#### **Stella Leung**

Senior Administrator
(Mon Sheong Scarborough Long Term Care Centre)

# Mon Sheong Scarborough Long Term Care Centre

- Operation Since: 27 September, 2004
- Capacity: 160 beds
- Home Layout: 7 Units, Four Floor Levels
- Special Programs and Services: Secure Unit, Dementia Care, PD Services, G-tube Feeding, Oxygen Therapy, Palliative Care

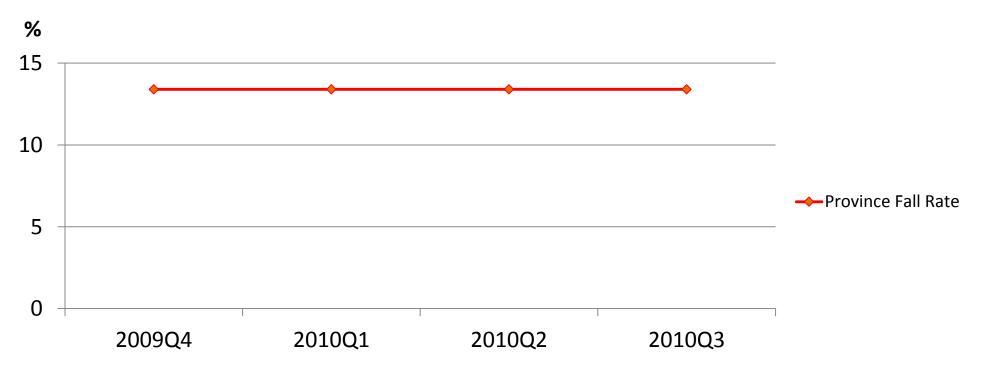
## **Develop Benchmarks and Targets**

#### **References:**

- Industrial reference
- Home historical performance

#### **Industrial Reference**

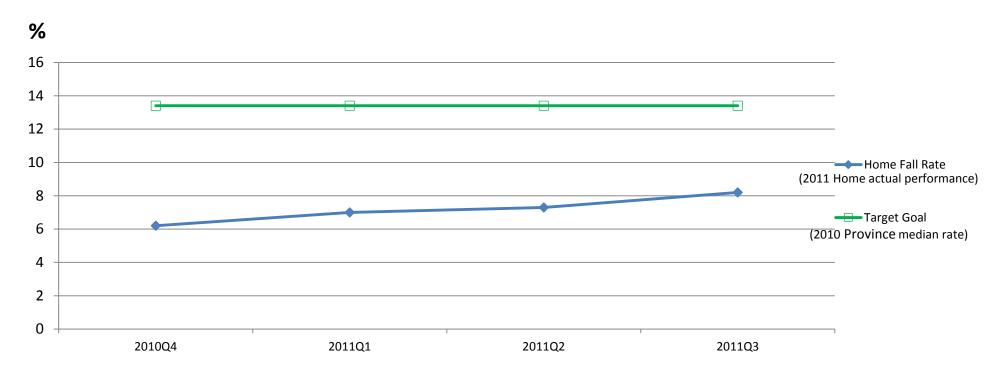
#### CIHI 2010 data on rate of fall



2010 Province median rate: 13.4 %

#### **Set Your Benchmarks and Targets**

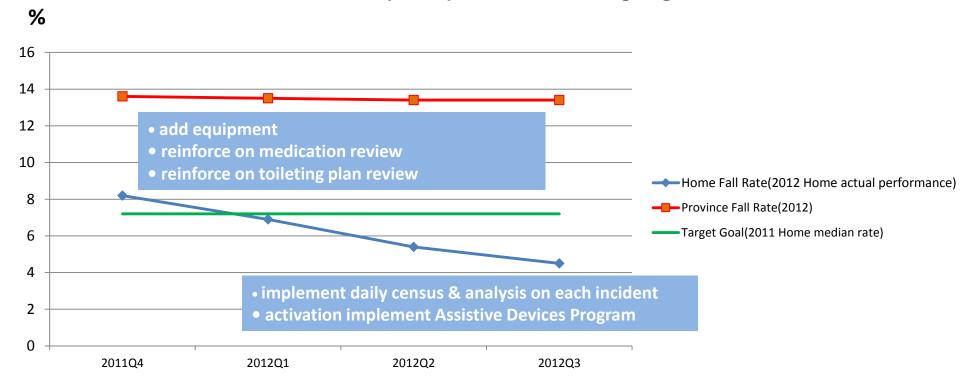
Use CIHI 2010 province median rate (13.4%) as home target goal for 2011



Outcome: 2011 home median rate: 7.2%

### **Target Goals VS Historical Data**

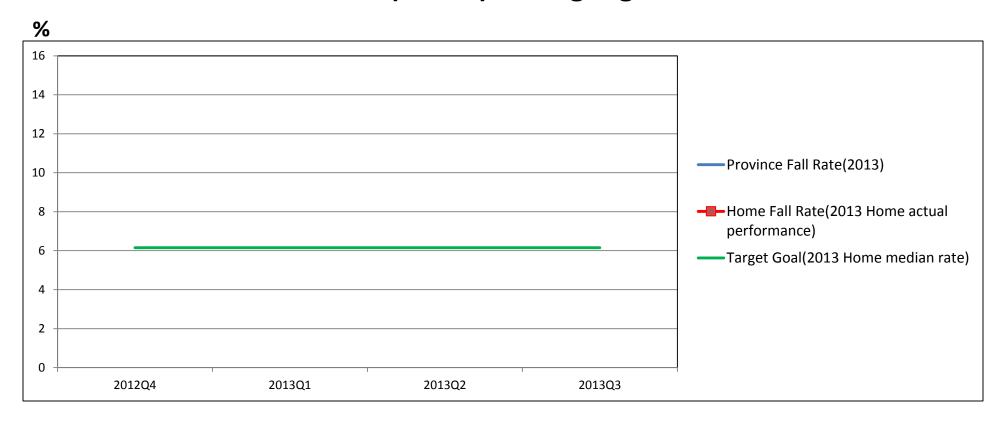
Based on 2011 home median rate (7.2%) to set 2012 target goal for home CQI



Outcome: 2012 home median rate: 6.15%

# **Continuous Quality Improvement on Benchmarking**

Use 2012 home median rate (6.15%) as target goal for 2013







#### **Cathy Fiore**

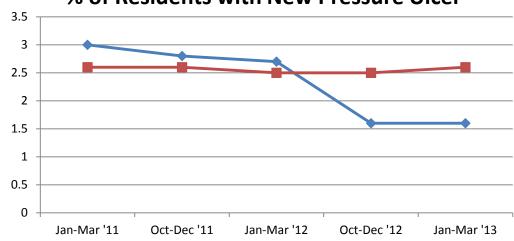
Administrator
(The O'Neill Centre Long Term Care and Retirement Home)

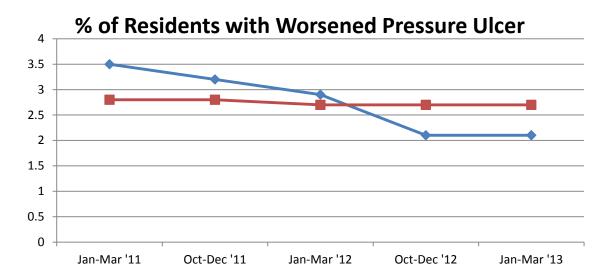
Indicator	The O'Nei	II Centre			Ontario			
	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3
Worsened late-loss ADL	14.30%	13.60%	14.40%	13.00%	17.50%	17.60%	17.30%	17.20%
Improved mid-loss ADL	33.50%	32.70%	31.80%	32.50%	31.30%	31.20%	31.30%	31.30%
Improved early-loss ADL	21.60%	18.90%	17.50%	17.90%	21.40%	21.10%	21.20%	21.10%
Improved late-loss ADL	10.30%	11.00%	11.00%	10.20%	11.30%	11.10%	11.20%	11.20%
Worsened mid-loss ADL	31.60%	30.50%		28.80%	35.30%	35.60%	35.50%	35.70%
Worsened early-loss ADL	30.80%	30.20%		27.40%	34.40%	34.10%	33.40%	32.90%
Worsened ADL	27.80%	27.50%		24.00%	32.90%	33.20%	32.90%	33.20%
Worsened locomotion	15.30%	13.90%	16.50%	14.60%	16.40%	16.60%		16.70%
Improved locomotion	14.80%	11.80%	11.40%	12.70%	13.10%	13.10%	13.30%	13.40%
Worsened behavioural symptoms	7.50%	6.50%	6.90%	5.90%	13.40%			13.30%
Improved behavioural symptoms	11.40%	9.90%	9.00%	9.40%	12.20%	12.10%	12.30%	12.90%
Worsened cognitive ability	7.50%	6.80%		6.20%	10.00%	9.90%	9.90%	9.80%
Improved cognitive ability	10.30%	9.40%	7.60%	8.60%	5.80%	5.70%	5.90%	6.20%
Worsened communication ability	7.20%	7.50%	7.90%	6.70%	8.80%	8.80%	8.80%	8.80%
Improved communication ability	21.30%	19.10%	16.60%	16.80%	7.60%	7.60%	7.70%	8.10%
Has delirium	8.80%	10.80%	11.70%	11.20%	19.20%	18.90%	18.70%	18.70%
Worsened mood - symptoms of depression	7.10%	8.30%		7.20%	25.50%	25.50%	25.40%	25.10%
Taken antipsychotics w/o relevant diagnosis	32.50%	33.00%	34.30%	29.90%	33.00%	32.60%	32.30%	31.90%
Fallen	6.80%	8.10%		8.50%	13.60%	13.50%		13.40%
Has an infection	10.60%	0.40%	6.90%	6.90%	11 30%	11.20%	11.20%	11.30%
Has a pressure ulcer stage 2-4	9.40%	9.20%	9.30%	9.10%	6.70%	6.60%	6.50%	6.50%
Worsened pressure ulcer stage 2-4	2.90%	2.70%	2.50%	2.10%	2.70%	2.70%	2.70%	2.80%
Has a new pressure ulcer stage 2-4	2.70%	2.00%		1.60%	2.50%	2.50%		2.50%
Daily physical restraints	1.50%	2.40%	2.40%	2.70%	13.70%	12 90%	12.30%	11.60%
Worsened/unchanged respiratory infection	4.50%	4.80%			13.30%	13.20%	13.10%	13.00%
Has an indwelling catheter	2.60%	3.50%		3.70%	3.70%	3.70%	3.70%	3.80%
Worsened bowel continence	9.80%	8.50%		9.40%	16.40%	16.60%	17.00%	17.70%
Worsened urinary continence	11.80%	11.70%		12.80%	19.30%	19.10%	18.90%	18.90%
Has urinary Tract Infection	3.40%	2.70%	2.50%	2.60%	5.90%	5.90%	5.90%	5.90%
Improved bowel continence	9.80%	6.20%	6.20%	5.30%	14.30%	14.30%	14.50%	14.90%
Improved bladder continence	8.30%	6.40%	4.40%	4.00%	9.70%	9.80%	10.00%	10.20%
Has a feeding tube	6.90%	7.30%	6.20%	6.60%	4.80%	4.70%	4.80%	4.80%
Has pain	5.20%	3.90%			10.40%	10.10%		9.40%
Worsened pain	7.90%	8.00%	8.40%	8.70%	11.10%		11.00%	11.10%
Has had weight loss	8.80%	8.60%	7.40%	5.70%	6.80%	6.70%	6.70%	6.70%

#### **Run Charts**

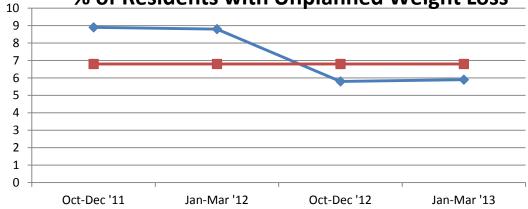
O'Neill Centre Provincial Avg.

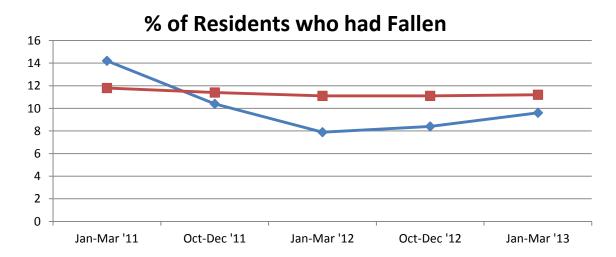






#### % of Residents with Unplanned Weight Loss









# **Closing Remarks**

**Astrid Guttmann** 



# **Questions & Answers**

# HQO and Links to Provincial, Federal and International Tools & Resources

- Quality Compass
- QI Reporting Platforms
- EDS/OHTAC Recommendations & Supporting Resources
- Quality Improvement Tools & Resources
- Print and Web-Based Public Reporting Resources

www.hqontario.ca