Benchmarking and Performance Measurement
Leslie Forrester and Zahir Hiriji
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Benchmarking and Performance Measurement

Leslie Forrester & Zahir Hirji
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Context

* Over the last two decades there have been many developments in the measurement of quality in healthcare.
* Healthcare organizations are increasingly adopting Balanced Scorecards, Dashboards, Report Cards and public reporting portals to organize and present their performance metrics.
* Measures typically used in infection prevention and control are increasingly being adopted for performance measurement.

Adapted from BC Patient Safety Quality Council (2010)

Performance Measurement

* Measurement of healthcare processes, patient outcomes, patient perceptions of care and organization systems and structures associated with the ability to provide high quality care.
* Performance measures encompass those measures used for public reporting, monitoring and improving quality and pay for performance strategies.
* Performance measurement implies the use of quantitative process or outcome measures that are assessed against a benchmark or performance goal or target.

Adapted from BC Patient Safety Quality Council (2010)

Objectives

* Describe the goals and objectives of benchmarking
* Review the advantages and potential pitfalls of benchmarking
* Review the process of benchmarking and performance measurement
* Through the use of a practical example illustrate the value of benchmarking in driving performance improvement

What is benchmarking?

* The process of comparing your business processes and performance metrics to industry bests and/or best practices from other industries. Dimensions typically measured are quality, time and cost.
* Benchmarking is used to measure performance using a specific indicator (e.g., rate of healthcare-acquired MRSA) resulting in a metric of performance that is then compared to others.

http://en.wikipedia.org/wiki/Benchmarking

Benchmarking goals & objectives

Goal

*To improve performance

Objectives

*To understand and evaluate your current performance in relation to others similar to you with exceptional performance

*To identify areas and means of performance improvement

*To set performance improvement targets or goals

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Types of benchmarking

Benchmarking type	Objectives
Performance	• To identify areas of poor or weak performance
Process	• To identify and implement practices that have been successful elsewhere with the goal of performance improvement

Internal and external benchmarks

Internal

* Involves benchmarking business or operations within the same organization.

External

* Involves analyzing outside organizations that are known for their outstanding performance. These may be regional, provincial, national or even international.

Advantages & Pitfalls

INTERNAL BENCHMARKING	
Advantages	**Potential Pitfalls**
• Access to data and sensitive information • Data more likely to be standardized facilitating comparisons • Usually requires less time and resources • Easier to discover the story behind the numbers	• Real innovation may be lacking • May not represent "best performance"

Advantages & Pitfalls

EXTERNAL BENCHMARKING	
Advantages	**Potential Pitfalls**
• Provides opportunities to learn from those that are on the leading edge. • Identification of an appropriate benchmarking partner that is more similar to your healthcare facility, department etc.	• Access to information may be limited • Can take significant amount of time and resources to assess comparability of information, surveillance methods, patient populations and reported results. • Requires careful analysis of national and international differences.

Process of benchmarking

Steps	What to do
Planning	• Identify what is to be benchmarked • Identify appropriate benchmarking partner • Determine data collection methods
Data collection and analysis	• Collect data • Determine current "performance gap"
Integration	• Identify what makes the benchmarking partner so successful • Communicate benchmarking findings
Action	• Develop action plans • Set realistic and feasible performance goals • Implement specific actions and monitor progress • Recalibrate benchmarks

LEARNING THROUGH EXAMPLE

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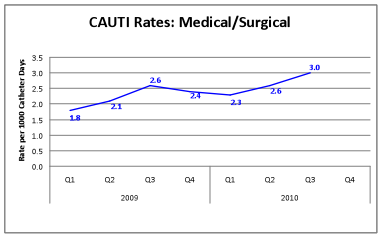
CAUTI Example



PERFORMANCE BENCHMARKING

Identifying an appropriate benchmarking partner

- Are you using consistent definitions for both numerator and denominator?
- Does it represent your population of interest?
- Are the results current?
- Are the results based on a sufficiently large sample?
- Is the organization recognized as being credible?

National Healthcare Safety Network (NHSN)

Hospital type	N (%)
Children's	41 (2.3)
General, including acute, trauma, and teaching	1550 (88.6)
Long Term Acute Care	49 (2.8)
Military	19 (1.1)
Oncology	11 (0.6)
Orthopedic	8 (0.5)
Psychiatric	8 (0.5)
Rehabilitation	19 (1.1)
Surgical	6 (0.3)
Veterans Affairs	29 (1.7)
Women's	4 (0.2)
Women's and Children's	5 (0.3)
Total	**1749 (100)**

	Bed size category				
	<= 200	201-500	501-1000	> 1000	
Hospital type	N (%)	N (%)	N (%)	N (%)	Total
Major teaching	81 (4.5)	117 (6.7)	83 (4.7)	3 (0.1)	**284 (16.0)**
Graduate teaching	85 (4.9)	69 (3.9)	22 (1.3)	1 (0.1)	**177 (10.2)**
Limited teaching	113 (6.5)	74 (4.2)	10 (0.6)	0 (0.0)	**197 (11.3)**
Nonteaching	834 (47.7)	237 (13.6)	19 (1.1)	1 (0.1)	**1091 (62.5)**
Total	**1113(63.6)**	**497 (28.4)**	**134 (7.7)**	**5 (0.3)**	**1749 (100)**

Major: Hospital is an important part of the teaching program of a medical school and the majority of medical students rotate through multiple clinical services.

Graduate: Hospital is used by the medical school for graduate training programs only; i.e., residency and/or fellowships.

Limited: Hospital is used in the medical school's teaching program only to a limited extent.

NHSN Report: Data Summary for 2009, Device Associated Module (2010)

Table 5. Pooled means and key percentiles of the distribution of urinary catheter-associated UTI rates and urinary catheter utilization ratios, by type of location, DA module, 2009

Urinary catheter-associated UTI rate *					Percentile				
Type of location	No. of locations	No. of CAUTI	Urinary catheter-days	Pooled mean	10th	25th	50th (median)	75th	90th
Inpatient Wards									
Adult Step Down Unit (post-critical care)	153 (148)	389	206,562	**1.9**	0.0	0.0	1.2	2.6	4.3
Behavioral Health/Psych	71 (27)	6	4,526	**1.3**	0.0	0.0	0.0	0.0	5.0
Genitourinary	6	12	9,992	**1.2**					
Gynecology	16 (15)	12	11,765	**1.0**					
Labor and Delivery	21 (15)	5	7,449	**0.7**					
Labor, Delivery, Recovery Postpartum Suite	56 (50)	7	20,079	**0.3**	0.0	0.0	0.0	0.0	1.7
Medical	213 (208)	430	230,952	**1.9**	0.0	0.0	1.4	2.4	4.3
Medical/Surgical	623 (602)	1,141	711,849	**1.6**	0.0	0.0	1.0	2.5	4.2
Neurology	11	39	12,583	**3.1**					
Neurosurgical	17	52	21,828	**2.4**					
Orthopedic	66 (64)	154	95,010	**1.6**	0.0	0.0	0.6	2.7	3.5
Orthopedic Trauma	5	14	7,070	**2.0**					
Pediatric Med/Surg	63 (34)	11	8,293	**1.3**	0.0	0.0	0.0	0.0	6.2
Pediatric Medical	14 (6)	2	1,249	**1.6**					
Pediatric Rehabilitation	5 (3)	1	371	**2.7**					
Postpartum	77 (75)	31	37,566	**0.8**	0.0	0.0	0.0	0.8	2.9
Pulmonary	5	17	9,917	**1.7**					
Rehabilitation	147 (132)	258	68,055	**3.8**	0.0	0.0	2.4	4.8	9.2
Surgical	109	285	155,042	**1.8**	0.0	0.0	1.4	2.7	4.7
Vascular Surgery	6 (5)	20	6,160	**3.2**					

NHSN Report: Data Summary for 2009, Device Associated Module (2010)

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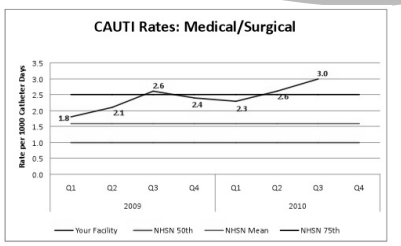
Evaluating the performance gap



PROCESS BENCHMARKING

Learning from the "high performer"

MSICU, Saint Joseph Medical Center, Towson, MD

- Staff required to sign a pledge to perform proper catheter insertion and maintenance
- Communication strategy to raise awareness and remind staff of bundle
- Sharing of CAUTI rates with staff
- Staff required to review aseptic procedure for catheter insertion and maintenance
- Posters placed in strategic locations to inform staff of CAUTI initiative
- Goal sheet created and shared with staff
- Infection Prevention attended daily clinical multidisciplinary rounds to instill practice of daily assessment of patient's need for catheterization
- Pocket guide created for easy reference to the bundle

http://www.marylandpatientsafety.org/html/education/solutions/2011/documents/Maintaining%20a%20Reduction%20in%20CAUTI%20Rates%20in%20MSICU_F.pdf

Learning from the "high performer"

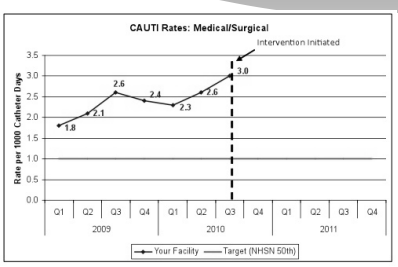
Adapting "lessons learned" to your setting

Communication, communication, communication!

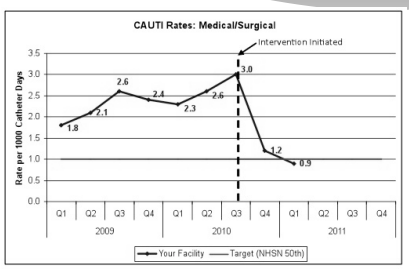
- Adapt "ICU daily rounds" for assessment of indications for catheterization (e.g., indications for catheterization included in the order for catheter insertion)
- Raise awareness of CAUTI issue and your performance compared to NHSN benchmark
- Communicate your target to staff
- Regularly report CAUTI rates to ward staff illustrating where they are in relation to the "target"
- Routinely remind staff of the CAUTI initiative

http://www.marylandpatientsafety.org/html/education/solutions/2011/documents/Maintaining%20a%20Reduction%20in%20CAUTI%20Rates%20in%20MSICU_F.pdf

Setting a performance target



Monitoring and celebrating success!



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Driving performance improvement

* Benchmarking is a key component of a continuous improvement process with the goal of keeping abreast of ever-improving practice.
* To be successful, benchmarking should focus on learning about ***why*** something works well rather than focusing on ***what*** works well.

* Image: http://pdginnovates.wordpress.com/2010/03/12/why-sell-yourself-short-position-the-business-value-of-your-work

Acknowledgements

* Jackie Galluzzo, Infection Preventionist, Saint Joseph Medical Center in Towson, Maryland.

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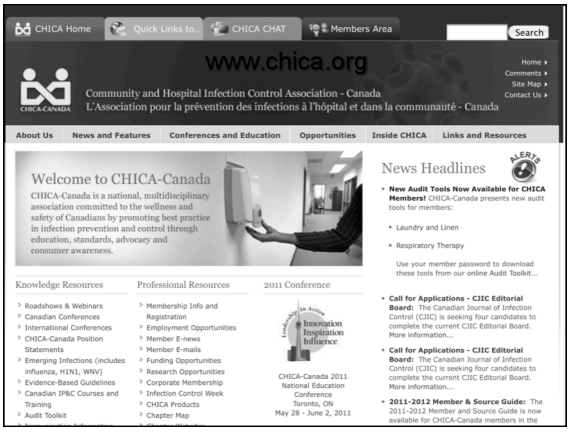
Galluzo J. et al. Maintaining a reduction in CAUTI rates in MSICU after implementing a CAUTI bundle. Saint Joseph Medical Center. Poster presented at Annual Maryland Patient Safety Conference (April 2011) http://www.marylandpatientsafety.org/html/education/solutions/2011/documents/Maintaining%20a%20Reduction%20in%20CAUTI%20Rates%20in%20MSICU_F.pdf Accessed May 16, 2011

Questions



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