Quality Improvement

University Health Network
Toronto General Hospital  Toronto Western Hospital  Princess Margaret Hospital

What Motivates Professionals?

Bob Bell
Trends

- Public Reporting
- Patient Safety & Quality Improvement
- Physician engagement
- Critical care planning & metrics
- Value Based Competition & Patient Based Payment
Public Reporting- What Does it Accomplish?

- Marketplace impact?
- Movement of patients within a publicly funded system?
- Pay for performance?
- Altruistic competitive response to data?
- Board oversight?
Market information?

- No particular benefit to accruing more patients
- Cancer Wait Times
- Experience on public reporting
- Pay for performance in Ontario system
Real Benefit of Public Reporting

- Value based competition!!
- Board oversight enabled by providing real comparisons of similar data points
- **Real Hospital Governance of Quality** requires transparent reporting and competition!!
Quality Improvement Plan

- Safety
  - Hand Hygiene
- Effectiveness
  - HSMR, Readmission, ALC, Total Margin
- Access
  - ED wait times
- Patient-centredness
  - Patients satisfied
Design of High Reliability Safety and Performance Hospital Systems

- Driven by Board and Sr. Management
- Vision and purpose driven
- Metrics that define reliability that can be reported frequently and publicly
- Audit based
- Initiatives to enhance reliability
- Engagement of professional staff
Purpose
“We are a caring, creative and accountable academic hospital, transforming healthcare for our patients, our community and the world”

Mission
Exemplary patient care, research and education

Vision
Achieving global impact

Values
Caring
Integrity
Teamwork
Respect
Innovation
Excellence
Leadership
Global Impact

Exemplary patient care, research and education

ACADEMIC
- Position UHN as the institution of choice for trainees
- Continue to pioneer new models of teaching and learning

CARING
- Measure and improve the value of care
- Transform “patient centred care” to “patients as partners in care”
- Become a world leader in documenting and improving patient outcomes

CREATIVE
- Further our understanding of the basis of health and disease through biology and technology platforms
- Enable the collection, analysis and application of health information
- Leverage experimental therapeutics and health services research to impact the lives of patients

ACCOUNTABLE
- Optimize productivity and integration of care through next-generation information management and technology
- Develop new sources of revenue
- Enable the creation of new physical space for our clinical programs, operations, research and education areas

WE
Continue to build organizational capability and capacity
## Balanced Scorecard Report

Results from 2012-13 first quarter (April to June)

<table>
<thead>
<tr>
<th>Domain</th>
<th>5 Year Goal</th>
<th>Objective</th>
<th>Measure</th>
<th>Measure Definition</th>
<th>11/12 Baseline (10/11 q4 unless articulated)</th>
<th>Q1 Results (April - June)</th>
<th>11/12 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WE</strong></td>
<td><strong>Continue to build organizational capability and capacity</strong></td>
<td>Create work environments that promote excellence and innovation in practice, education, and research</td>
<td>Overtime rate</td>
<td>Percent of total overtime hours in reporting month / Total worked hours in reporting month</td>
<td>1.03%</td>
<td>1.00%</td>
<td>0.98%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Average sick hours per employee for the last 12 months</td>
<td>Total sick hours reported in the 12-month period / Total employees eligible for sick pay in the 12-month period (Rolling average)</td>
<td>53.9</td>
<td>54.2</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Organizational commitment score</td>
<td>5 questions from EOS survey averaged into one measure. It reflects the level to which employees feel emotionally connected to the organization, find personal meaning in their work and are motivated to commit the time and effort to help the organization succeed (expressed as a %)</td>
<td>57%</td>
<td>57% (11/12 result to be reported in Q3)</td>
<td>62%</td>
</tr>
<tr>
<td><strong>CARE</strong></td>
<td><strong>Enhance all elements of patient safety</strong></td>
<td></td>
<td>Hospital standard mortality ratio</td>
<td>A ratio of observed to expected deaths multiplied by 100 (CIHI Definition)</td>
<td>77 (10/11 Q2 YTD)</td>
<td>79 (10/11 Q3 YTD)</td>
<td>&lt;80</td>
</tr>
<tr>
<td></td>
<td><strong>Become a world leader in documenting and improving patient outcomes</strong></td>
<td></td>
<td>C. Difficile rate (per 1000 patient days)</td>
<td>Percent incidence of patients contracting Clostridium Difficile (C.Difficile) while in hospital (rate per 1000 patient days)</td>
<td>0.63</td>
<td>0.74</td>
<td>0.44</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MRSA rate (per 1000 patient days)</td>
<td>Percent incidence of patients contracting Methicillin-resistant Staphylococcus aureus (MRSA) while in hospital (rate per 1000 patient days)</td>
<td>0.41</td>
<td>0.35</td>
<td>0.32</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>VRE rate (per 1000 patient days)</td>
<td>Percent incidence of patients contracting Vancomycin Resistant Enterococci (VRE) while in hospital (rate per 1000 patient days)</td>
<td>0.56</td>
<td>0.94</td>
<td>0.23</td>
</tr>
<tr>
<td></td>
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<td>Hand hygiene rate</td>
<td>The number of times that hand hygiene was performed before initial patient contact divided by the number of observed hand hygiene indications for before initial patient contact multiplied by 100 - 2009/10, consistent with publicly reportable patient safety data</td>
<td>67%</td>
<td>76%</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td><strong>Transform “patient centred care” to “patients as partners in care”</strong></td>
<td>Improve patient access to quality treatment</td>
<td>ED length of stay for admitted patients (90th percentile in hours)</td>
<td>90th percentile ED length of stay for admitted patients (hours)</td>
<td>24.7 (10/11 Q3)</td>
<td>21.6</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Percent of eligible organ donors converted to actual organ donors</td>
<td>Percent of potential eligible organ donors that were converted to actual organ donors</td>
<td>42%</td>
<td>67%</td>
<td>75%</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Percent of surgeries cancelled within 48 hours</td>
<td>Total number of surgical cancellations/the total number of patients assessed using CAIS pre-operatively, expressed as a percentage</td>
<td>7.8%</td>
<td>7.2%</td>
<td>8.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inpatient satisfaction score</td>
<td>Would you recommend this hospital to your friends and family? (add together percent of those who responded “Definitely Yes”)</td>
<td>82.5% (10/11 Q3 YTD)</td>
<td>81.7% (10/11 Q4 YTD)</td>
<td>80.0%</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Measure and improve the value of care</td>
<td>Improve Internal program integration, discharge planning and community transitions</td>
<td>Percent of inpatient days designated as ALC</td>
<td>Total number of inpatient days designated as ALC, divided by the total number of inpatient days</td>
<td>12.0%</td>
</tr>
<tr>
<td>Domain</td>
<td>6 Year Goal</td>
<td>Objective</td>
<td>Measure</td>
<td>Measure Definition</td>
<td>11/12 Baseline (10/11 Q4 unless articulated)</td>
<td>Q1 Results (April – June)</td>
<td>11/12 Target</td>
</tr>
<tr>
<td>--------</td>
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</tr>
<tr>
<td>CREATIVE</td>
<td>Further our understanding of the basis of health and disease through biology and technology platforms</td>
<td>Create and disseminate new knowledge</td>
<td>Citations</td>
<td>The citation count for the most recent complete 3-years of papers (e.g. 2007-2009) published by UHN investigators</td>
<td>77,352 (10/11 Q3)</td>
<td>62,333 (10/11 Q3)</td>
<td>78,900 (2% increase)</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Total value of all grant funding</td>
<td>Total project funding including funds held at UHN Foundations</td>
<td>$262.7M</td>
<td>$247M (Projected)</td>
<td>$265M</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Technology Development &amp; Commercialization Economic Value (ROI)</td>
<td>ROI index comprised of: License and Option Agreements x 100% ; Sponsored Research Agreements x 40%; Research Service Agreements x 40%; R&amp;D Grants with Commercialization x 5%; Value Created by NewCo Formation x 100%</td>
<td>$6.6M</td>
<td>$7.9M</td>
<td>$6.7M</td>
</tr>
<tr>
<td></td>
<td>Leverage experimental therapeutics and health services research to impact the lives of patients</td>
<td>Conduct high quality health studies</td>
<td>Turn-around time of health study review</td>
<td>Percent of complete REB new study applications reviewed within 5 weeks</td>
<td>67.3% (10/11 Q3)</td>
<td>74.7%</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Completion of health study self assessment form</td>
<td>Proportion of eligible study self-assessment form requests completed</td>
<td>73% (10/11 Q3)</td>
<td>78.9%</td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td>Enable the collection, analysis, and application of health information</td>
<td>Implement a comprehensive IT system linking clinical and research information</td>
<td>Percent completion of Clinical Data Repository plan for research</td>
<td>Percent completion of Clinical Data Repository plan for research</td>
<td>0%</td>
<td>30%</td>
<td>100%</td>
</tr>
<tr>
<td>ACCOUNTABLE</td>
<td>Enable the creation of new physical space for our clinical programs, operations, research, and education areas</td>
<td>Fulfill organizational commitments through hospital accountability process</td>
<td>Net surplus</td>
<td>Excess of revenue over expenses (same definition as in the audited Financial Statements)</td>
<td>7M (10/11 Q3)</td>
<td>$13.5M (Projected)</td>
<td>13M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increase non-MOH LTC funding as a percentage of total UHN funding</td>
<td>Percent increase in non-MOH LTC revenues</td>
<td>Percent increase in non-MOH LTC revenues as a percentage of total UHN funding</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Optimize productivity and integration of care through next-generation information management and technology</td>
<td>Percent of physician documentation captured electronically</td>
<td>Number of physician notes captured synoptically / Total number of physician notes captured (synoptically and dictated)</td>
<td>2.3% (10/11 Q3)</td>
<td>3.3% (10/11 Q4 YTD)</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Percent of discharge summaries completed within 7 days of discharge</td>
<td>Percent of discharge summaries completed within 7 days of inpatient discharge</td>
<td>85.6% (14 days)</td>
<td>85.3%</td>
<td>85% (7 days)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Percent of OR/Procedure notes completed within 7 days of discharge</td>
<td>Percent OR/procedure notes completed within 7 days of the operation or procedure</td>
<td>94.8% (14 days)</td>
<td>94.2%</td>
<td>95% (7 days)</td>
</tr>
<tr>
<td></td>
<td>Expand our space, develop new sources of revenue, and become a leader in clinical, administration, and research information integration</td>
<td>Position UHN as the institution of choice for trainees</td>
<td>Rating of teaching effectiveness scores by postgraduate medical trainees</td>
<td>Mean teaching effectiveness score (TES) for UHN collected through the Postgraduate Web Evaluation and Registration (POWER) system. Score is out of 5 points.</td>
<td>4.47 (09/10)</td>
<td>4.47 (11/12 result to be reported in Q4)</td>
<td>4.50</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>Rating of rotation effectiveness scores by postgraduate medical trainees</td>
<td>Mean rotation effectiveness score (RES) for UHN collected through the Postgraduate Web Evaluation and Registration (POWER) system. Score is out of 5 points.</td>
<td>4.09 (09/10)</td>
<td>4.09 (11/12 result to be reported in Q4)</td>
<td>4.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Increase the number of UHN health professionals trained and certified in interprofessional education</td>
<td>Total number of UHN staff obtaining IPE certification</td>
<td>52 (10/11)</td>
<td>82 (10/11)</td>
<td>70</td>
</tr>
<tr>
<td>ACADEMIC</td>
<td>Deliver exceptional patient care and research outcomes and knowledge dissemination</td>
<td>Increase the quality of educational experiences</td>
<td>Rating of teaching effectiveness scores by postgraduate medical trainees</td>
<td>Mean teaching effectiveness score (TES) for UHN collected through the Postgraduate Web Evaluation and Registration (POWER) system. Score is out of 5 points.</td>
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<td>4.15</td>
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<td></td>
<td></td>
<td></td>
<td>Total number of UHN staff obtaining IPE certification</td>
<td>The number of clinical staff at UHN who complete IPE training through the Office of Interprofessional Education and obtain certification</td>
<td>52 (10/11)</td>
<td>82 (10/11)</td>
<td>70</td>
</tr>
</tbody>
</table>
The Crucial Importance of Target Setting

• Setting targets is how we develop value based competition with Board responsible for oversight
• Public reporting provides opportunity for realistic target setting
OVERVIEW

Patient Sources of Referral (MSICUs Only)

<table>
<thead>
<tr>
<th>ICU Source of Referral</th>
<th>TGH MSICU</th>
<th>TWH MS/NICU</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR</td>
<td>35.4%</td>
<td>23.8%</td>
</tr>
<tr>
<td>Ward</td>
<td>18.2%</td>
<td>19.2%</td>
</tr>
<tr>
<td>Level 2 Area</td>
<td>20.4%</td>
<td>7.9%</td>
</tr>
<tr>
<td>ED</td>
<td>14.0%</td>
<td>4.1%</td>
</tr>
<tr>
<td>CCU/CVICU</td>
<td>7.9%</td>
<td>7.9%</td>
</tr>
</tbody>
</table>

Data Source: CCIS/MSICU Database, FY10-11; TGH Patients=808, TWH Patients=900

OR - Operating Room, ED - Emergency Department
Caring
TGH MSICU – MedSurg Patients
Predicted Hosp vs. Actual ICU Mortality by Apache II

Data Source: MSICU Database, FY 09-10 to FY11-12 Q1
Predicted Hosp Mortality = ICU Mortality + Floor Mortality following ICU Discharge
Caring
Family Satisfaction Survey Scores - TWH

Data Source: TWH ICU Family Satisfaction Survey, FY08-09 to FY10-11
FY08-09 #Survey= 37; Families, FY09-10 #Survey= 94 Families; FY10-11 #Survey=82 Families
Benchmark: Internal MSICU 70%
<table>
<thead>
<tr>
<th>Action Item</th>
<th>Percentage Complete</th>
<th>Expected Date of Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Investigate ways to ensure patients are repatriated by referring hospital/physician.</td>
<td>90%</td>
<td>Ongoing discussions at LHIN and MOHLTC level</td>
</tr>
<tr>
<td>2. Report on your initiative to review and re-organize the UHN approach to Level 2 Critical Care environments.</td>
<td>80%</td>
<td>March 2012</td>
</tr>
<tr>
<td>3. Coordinate with Senior Management a plan to resolve the issue of ICU overcapacity.</td>
<td>65%</td>
<td>Ongoing</td>
</tr>
<tr>
<td>4. Identify indicators where you are concerned about the underlying data quality and fix these issues for the next report (VAP and CLI bundles).</td>
<td>100%</td>
<td>Completed</td>
</tr>
<tr>
<td>5. Consider the suggestion of devising a mini checklist (CLI) to encourage infection prevention efforts.</td>
<td>90%</td>
<td>March 2012</td>
</tr>
</tbody>
</table>
How Do We Motivate Change?

- Senior leadership support
- Good data that can be audited
- Clear target for change with frequent feedback
- Investment and Initiatives
- Professional engagement
- Elimination of “eye rolling”
Does Funding Motivate Change?

- To motivate professional engagement in quality-necessary to invest in achieving target
- For Nosocomial infection investments include IPAC staff, housekeeping, antibiotic stewardship and screening
- All of these initiatives need to be resourced to engage professionals
Checklists and Communication

• Why did Korean Airlines have the highest number of airline crashes?
• Communication is critical
• Surgical safety checklist has promoted communication and flattened hierarchy
Do Professional “Bonuses” Motivate Performance?

- Pay for performance is often touted as the answer for improving medical quality.
- However, social science research demonstrates that knowledge workers do not respond to performance “bonuses.”
What Does Motivate Professionals?

- Mastery - getting 10,000 hours at what you do
- Autonomy - being able to do what you have mastered as you know it should be done
- Purpose - knowing that you are working in a place aligned with your values
Canada’s Sesquicentennial Project

- Creating the best healthcare system in the world
- We need primary care integration and completion e-health agenda
- Resolution of aging at home
- Preventative care
- Close to a tipping point

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“BEEN HERE LONG?”

University Health Network