KEY PERFORMANCE INDICATORS

What the heck are they and why should I care.

Indicator

- Noun
- A thing, esp a trend or fact that indicates the state or level of something

Types of Indicators

- Quantitative Indicators
- Qualitative Indicators
- Leading Indicators
- Lagging Indicators
- Input Indicators
- Output Indicators
- Process Indicators
- Practical Indicators

Performance Indicator

- Measurable
- Quantifiable
- Influenced
**Key Performance Indicator**

- Quantifiable measure that is critical to the success of an organization.

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**Key Performance Indicator**

- Specific
- Measurable
- Agreed to
- Realistic
- Timely
- Aligned

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**Consideration in developing Key Performance Indicators**

- Reflect, & relate directly to, organizational goals
- Be quantitative and quantifiable
- Be linked directly to the measurement of the organization’s success

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**Key Performance Indicator**

- A Key Performance Indicator when properly developed should provide staff and management with a clear goal and objective, coupled with an understanding of how it relates to the overall success of the organization
Why are they important?

- Enhance accountability
- Provide information, alternatives or options for decision-making
- Provide a baseline and ongoing measurement for planned initiatives
- Identifies opportunities for improvement
- Flags and focuses attention where actions are required

PGA TOUR INDICATORS

- Off the tee – 58 Indicators
- Approach to the Green – 99 Indicators
- Around the Green – 39 Indicators
- Putting – 110 Indicators

Key Performance Indicators of Golf

- Driving accuracy
- Greens hit in regulation
- # putts per round
- Score to par
**Tiger Woods Key Performance Indicator**

- # Major championships won

**Pharmacy Key Performance Indicators**

- % Medication Administration Records Audited and Scored as accurate
- % New Orders reviewed by a Pharmacist before administration
- % Conversion of Pharmacy Assistants to Technicians
- Average Drug Cost per Acute Patient Care Day
- On Budget Drug Costs
- On Budget Operation Costs
- Clinical - ??

**Timeline**

- Workshop at CSHP PPC 2010
- Workshop at Harrison Conference Feb 2010
- Presentation on Clinical KPIs in August 2010
- Point-Counterpoint discussion in CJHP fall 2010
- Town Hall Meeting at CSHP PPC in Feb 2011
- Measuring Pharmacy’s worth in August 2011
- Formation CSHP Task Force on cpKPI

**CSHP cpKPI Task Force**

- Like many other health professions, hospital pharmacy is seeking consensus on what parameters it should measure for its performance & as a contributor to outcomes of our health systems
- National task force to look a standard set of cpKPI to be used to tell the story of Pharmacy’s worth
**Key performance indicators for clinical pharmacy services in New Zealand public hospitals: stakeholder perspectives**

Jerome Ng and Jeff Harrison

- **Aim:** To identify set of KPI to demonstrate clinical pharmacy contribution to patient care in NZ hospitals
- **Design:** Observational survey of CP, CMO, DON, Risk Mgmt, Sr Mgmt

- **Results:**
  - Response rate was 43%
  - Top ranked KPIs were concerning chart review and medication reconciliation
  - Only 3 of 52 KPIs were rated ‘easily’ measurable
  - Measurability was a challenge (resources)

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**Pharmacist activities and reduced mortalities**


- In 2004 study, authors showed (using 1992 data) the major contributor to decr mortality was clinical RPh staffing per 100 beds
- 2007 study (using 1998 data) replicated the earlier observational design in 2,836,991 patients in 885 US hospitals
- Reduced mortality associated with:
  - No of pharm administrators/100 occupied beds;
  - No of clinical pharm/100 occupied beds

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**Pharmacist activities**


- Seven clinical pharmacy services were associated with reduced mortality rates (in order of magnitude):
  - Admission drug histories
  - Participation in medical rounds
  - Participation in cardiopulmonary resuscitation team
  - Drug-protocol management
  - Adverse drug reaction management
  - In-service education
  - Drug-use evaluation

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**Pharmacist Interventions in hospitalized patients**


- Systematic review 1985-2005
- 36 studies
  - RPh on pt care unit rounds (ICU, gen med, surg, psych)
  - Admit or discharge medication reconciliation
  - Drug-specific services: anticoag; ABx/ID; TDM of AG, vanco, anticonvulsants, theophylline
Pharmacist Activities cont’d

- Kaboli et al.
  - Improved patient outcomes demonstrated for:
    - Interacting with the health care team on patient rounds
    - Interviewing patients
    - Reconciling medications
    - Providing patient discharge counseling and
    - Follow-up after discharge

Team based care

COLLABORATE: Makowsky et al. Med Care 2009
- Pts randomized to team-based vs usual care (proactive vs reactive clinical RPh)
- Team-based: BPMH, A/D med rec, rounds, pt educ, resolved DRPs
- Ward-based/Disp: Reacted to DRPs from disp, review Rx profile, occasional pt education
- Used quality indicators to measure processes of pt care for 5 disease states: CAD, CAP, AECOPD, CHF, T2DM

COLLABORATE

Results:
- Team-based pts
  - Were more likely to receive care specified by quality indicators
  - Had significantly decreased rate of readmission at 3 mos; no diff at 6 mos
  - Had increased LOS (1 day)

Pharmacist Interventions

Gillespie et al. Arch Int Med 2009
- Unblinded RCT of ward-based RPh interventions
- Pts aged 80 or more on 2 int med wards in Swedish teaching hospital
- Ward RPh:
  - Admission interview, BPMH, med rec
  - Pharm care drug review & participation on rounds
  - Education & med rec at discharge
  - Discharge letter to primary care physician
  - Follow up phone call 2 mos post-discharge
- Standard care: No RPh involvement with MDs or RNs
Gillespie

- 368 pts over 12 mos
- Intervention group had:
  - 16% fewer post-discharge hospital visits (ED + readmission)
  - 47% fewer ER visits
  - 80% fewer drug-related admissions

- Total cost per pt was $230 lower in intervention group than in control group (ER visit & readmission)
- Investigators underscore, pharmacists, physicians and nurses need work together as a team with the patient to make a difference

Seminal Articles

- Form the basis for developing cpKPIs
- Delphi Process to determine SMART KPIs

Considerations – Slavik 10

- Supported by high quality evidence
- Associated with relevant impact on clinically important outcomes
- Reflection of a role that is best suited for a clinical Pharmacist
- Attributable to Direct Patient Care
- Specific to the Pharmaceutical Care process
CSHP cpKPIs

- 8 cpKPIs reached a threshold for consensus (75% of panelists = 20 panelists)
- Unveiled at the CSHP Summer Education Session in August

Question to consider?

- At the provider level, is pharmacy able to deliver the treatment strategy or service that will maximize patient value (based on healthcare need(s)) given the available resources? Are there additional strategies or services that could provide greater benefits given the resources used?

Question to consider?

- At the societal level, is the current mix of healthcare goods and services being produced maximizing welfare, or can welfare be improved by producing a different mix of those goods and services; also, are current shares of spending on healthcare maximizing welfare, or can welfare be improved by spending less on healthcare, and more on something else (such as education, the arts, or other public goods)?