Exemplary Care and Learning Systems
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Clinical Microsystems Festival
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objectives

1. review the ECLS concept and how it is related to the clinical microsystem model
2. discuss how the ECLS model can be utilized at their organization for local QI research/work
3. discuss the strengths and limitations of the model
Clinical Microsystems

• … a small group of people who work together on a regular basis to provide care to discrete subpopulations of patients.
• [they have] clinical and business aims, linked processes, and a shared information environment, and…produce performance outcomes.
• microsystems evolve over time and are often embedded in large organisations.
• they are complex adaptive systems, and as such they must do the primary work associated with core aims, meet the needs of their members, and maintain themselves over time as clinical unit.

Nelson (2007)

at your tables…

name
organization & role
hopes for this session

5 minutes
how do you picture your microsystem?

learning in your microsystem

• consider your context & the drawing you made
• identify where & how learning happens:
  ✓ actors
  ✓ places
  ✓ topics
  ✓ resources
  ✓ methods (intentional, accidental, both)
learners and your microsystem

- are students part of your system?
- what kinds of students come into your microsystem?
- how do they interact with staff and providers?
- how do they interact with each other?
- do any other people (staff, patients, etc) take a learning role and how?

5 minutes

complementary concepts?

can both be excellent?
if we deliver better care, are we delivering better education?
if we deliver excellent education, does care improve?
how are these concepts linked?
what are the essential features of a microsystem that delivers excellent care AND excellent education?

an ECLS produces patient-centered care in a way that continuously improves patient outcomes, system performance, & professional development
ECLS concept

• IHI-Health Professions Education Collaborative (HPEC)
• several sites are developing ECLS models using the same core philosophy:
  – University of Missouri School of Medicine, US
  – Lehigh Valley Health Network, US
  – University of Minnesota Medical School, US
  – Jönköping County Council and University, Sweden
  – Dartmouth Medical School, US

an ECLS case study: Lehigh Valley Health Network Pennsylvania, USA
**purpose**

- to develop an interprofessional diabetes intervention using the ECLS philosophy.
- to document downstream clinical, professional and system improvements.

**interprofessional didactics**

- 11:30 every Wednesday
- all unit staff attended
  - Including residents and any students on rotation
- rotating series of 4 lectures
  - diabetes management goals
  - insulin use and protocols
  - oral hypoglycemics
  - case scenarios
- endocrinologist and diabetes nurse educator
interprofessional collaborative rounds

• every Thursday
  ✓ 11:00 ecls a
  ✓ 11:30 ecls b

• Structured rounds
• Reinforced interprofessional communication

• resident run collaboration
  ✓ rounding team
  ✓ nurse
  ✓ case manager
  ✓ pharmacist
  ✓ endocrinologist
  ✓ diabetes nurse educator
  ✓ other pertinent personnel

results

• Medical knowledge rose
  – For interns, residents, and nurses
• Patient rates of euglycemia rose from about 62% to 75%
  – Fell back when lectures discontinued
  – Hypoglycemia did rise though from 3.08% to 3.65%
  – Length of stay dropped 0.59 days (saving over $500,000/year for institution)
the ECLS concept helped by

- providing a design concept
  - knew which items to pay attention to when designing aim, intervention, and measures
- providing leadership with a visual
- creating an intervention more likely to succeed
  - especially with learners

local application

How might you use the ECLS concept to help drive your work?

What are the strengths and limitations?

What does ECLS add to your understanding of clinical microsystems?

10 minutes
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THANK-YOU!
TACK SÅ MYCKET!