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Synergies in action: The power of collaboration

Effective clinical microsystems to manage complex healthcare systems:

**Sharing and reflecting on our experiences implementing
Accountable Care Units at the Pasqua Hospital**

Tom Martin

Dr. Ron Taylor CCFP(EM) FCFP FHM

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Synergies in action: The power of collaboration

- Tom Martin
- Ron Taylor
- You?

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Synergies in action: The power of collaboration



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Synergies in action: The power of collaboration

- Describe how accountable care units(ACUs) are designed as effective clinical microsystems
- Understand how the structures of ACUs facilitate quality improvement and measurement
- Understand how we used the ACUs to facilitate patient and family partners involvement





of people who work together in a defined setting on a regular basis to provide care, (2) linked care processes and a shared information environment that includes individuals who receive that care, (3) performance outcomes, and (4) set service and care aims.⁶ For the accountable care unit (ACU) to reflect the traits of an effective clinical microsystem, we designed it with analogous features: (1) unit-based teams, (2) structured interdisciplinary bedside rounds (SIBR), (3) unit-level performance reporting, and (4) unit-level nurse



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Microsystem

1. A small group of people who work together in a defined setting on a regular basis
2. Linked care processes and a share information environment that includes individuals who receive the care
3. Performance outcomes
4. Set service and care aims

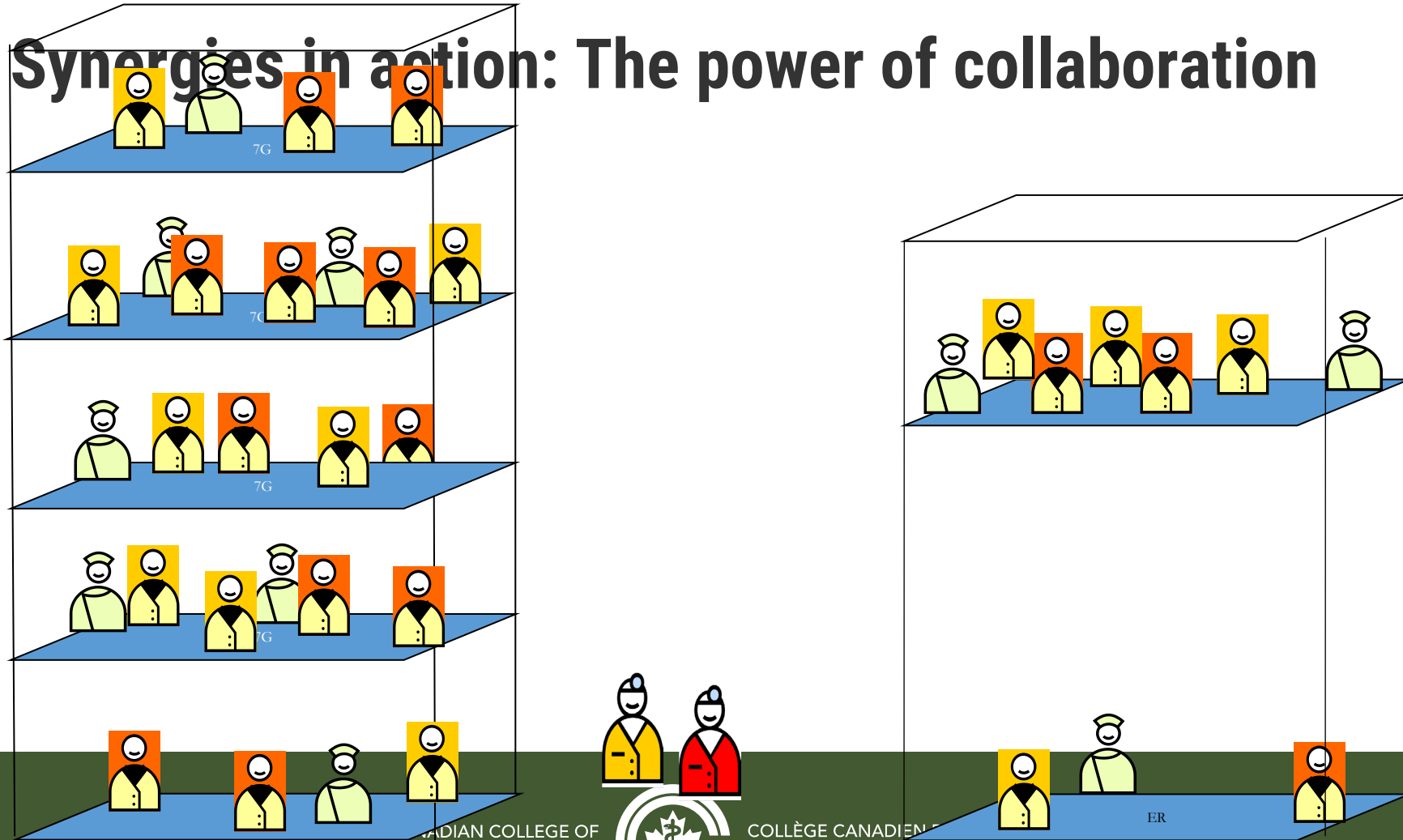
Accountable Care Unit

1. Unit Based 'Teams'
2. Structured Interdisciplinary Bedside Rounds (SIBR) – routines
3. Unit Level Performance Reporting
4. Unit Nurse/Physician Co Leadership





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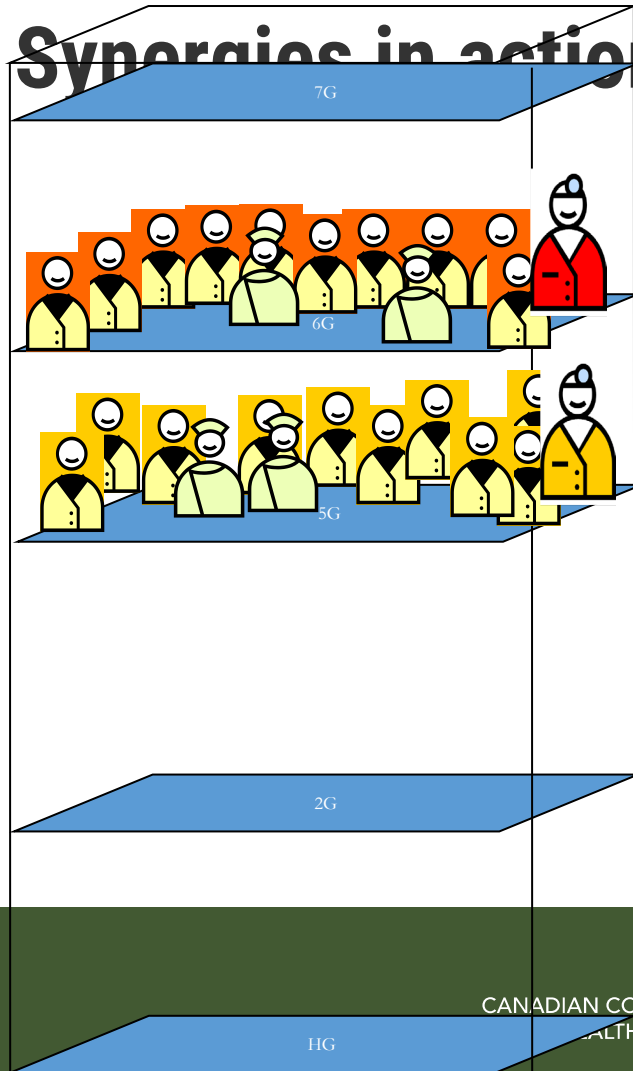
ACU hospital

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Structured Interdisciplinary Bedside Rounds

Start Time: 10:00 & 11:00

Duration: ≤60 mins

Confirms Plan for Discharge:

1. Introduce

a. Lead team into room, greet patient & family

< 15 seconds

Regina Qu'Appelle Health Region RQHR ACU Nursing Shift Handover Report

RM Patient Name: Dx: Age: Code Status: ACP: ISO:	1 - Fall Risk 2 - Hx 3 - Allergies: 4 - ADM Wt	1 - Overnight Events: 2 - Vital Signs: 3 - Pain 4 - Nutrition: 5 - Oxygen:	1 - I/BMT 2 - Cog Stat/ Neuro: 3 - ADL: 4 - TLR: 5 - Fluids:	1 - Foley: 2 - Foley Comments: 3 - Urinary Output: 4 - IV: 5 - VTE 6 - VTE Comments:	1 - Skin: 2 - Skin Integrity: 3 - Dressings: 4 - BGM (Freq): 5 - BGM:	1 - Admit Date: 2 - TDD: 3 - Attending: 4 - Consults:	1 - Home Situation: 2 - Baseline Mobility: 3 - Diet: 4 - Diet Comments: 5 - Physio Comments:	1 - Home O2: 2 - Tests and Procedures: 3 - Bloodwork: 4 - Tubes and Drains:	1 - Discharge Planning: 2 - Barriers: 3 - Comments: 4 - Pneumo Vaccine: 5 - Flu Vaccine:
D-4A-419-01 [Redacted] Dx: UTI 74 1 -CPR LAI - Limited Additional Interventions	1 - Fall Risk 2 - Hx: Hernia Sx, # rt hip repair, oeripal paby, spiral stinosis, brain tumor Sx x2 3 - Cipro, Morpine, Hay Fever 4 - A. 50kg	1 - Uneventful 2 - Q&D 3 - Not Managed 4 - More Than 50% 5 - RA	1 - Mar 2 2 - A+O 3 - Assist 4 - MIN ASSIST - m inimum assistance transfer 5 - INS/OUTS	1 - N/A 2 - Removed Mar 2 @ 0530 3 - BR/Attends 4 - No IV 5 - Enoxaparin 6 - N/A	1 - Not At Risk 2 - Intact 3 - N/A 4 - N/A 5 - Not diabetic	1 - 01-Mar-2017 2 - 05-Mar-2017 3 - Kielly, Andrew G 4 - C/S Dietician, C/S PT, C/S SWADD	1 - From seniors complex apt alone Cane 3 - DAT - Diet As Tolerated 4 - Ensure 60m I Q&D 5 - N/A	1 - N/A 2 - No New Tests 3 - CBC, Renal in AM* Mar 1: INR 28 4 - none	1 - Stay for a few days 2 - IP 3 - had brain Sx in past 4 - Reassess 5 - Reassess
D-4A-419-02 [Redacted] Dx: Acute Chronic Renal Failure 75 1 -CPR FTC - Full Treatment Conditional	1 - Fall Risk 2 - Hx: HTN, NIDDM, ^ Chol, gross pedal edema, Mi x 3- By pass (14 years ago), Cva 2010, RT Cataract, COPD- No home O2 3 - NKA 4 - A: 97Kg, mar 1 95.5kg Mar 2 98.6kg	1 - Uneventful 2 - BID 3 - Managed 4 - More Than 50% 5 - RA	1 - Feb 27 2 - A+O 3 - Assist 4 - 2BLT - two person side by side transfer with belt 5 - INS/OUTS	1 - N/A 2 - N/A 3 - Urinal 4 - SL 5 - Enoxaparin 6 - OD	1 - Mod. Risk 2 - Bruising, Lt Buttock open area 3 - N/A 4 - BID 5 - High 109, low 5.7 >BGM Q 6 hr- Clarify Qid?	1 - 27-Feb-2017 2 - 06-Mar-2017 3 - Franko, Evan 4 - C/S Nephrology, SWADD, PT, OT	1 - Livewith Daughter Unsteady 3 - R - Renal 5 - N/A	1 - N/A 2 - For MOCA** Mar 1: CT Chest- see results, CXR- see results, ECG- see results, U/S- see results 3 - Bldw x3 (1,2,3); Renal, Po4, CBC, BNP Today** Mar 2: INR 1.4, Hgb 70(74), Po4 2.01 4 - N/A	1 - Return Home 2 - IP 3 - OD Weight; Was @RGH, left AMA - refused Dialysis then fell @ home feb 27 4 - Reassess 5 - Reassess

e. vaccinations

b. concerns & needs

d. Thank patients and family for their time

Manage SIBR Rounds

- Ensure next bedside nurse ready for SIBR team
- Updates TDD and SCM

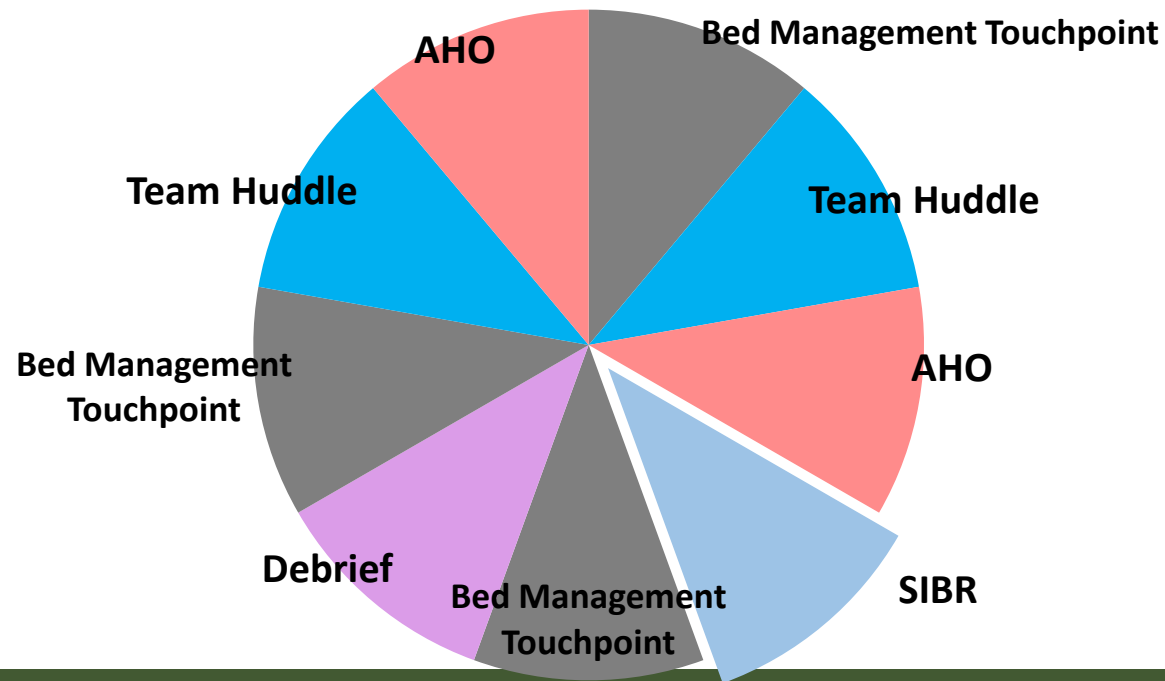


Rounds
Manager

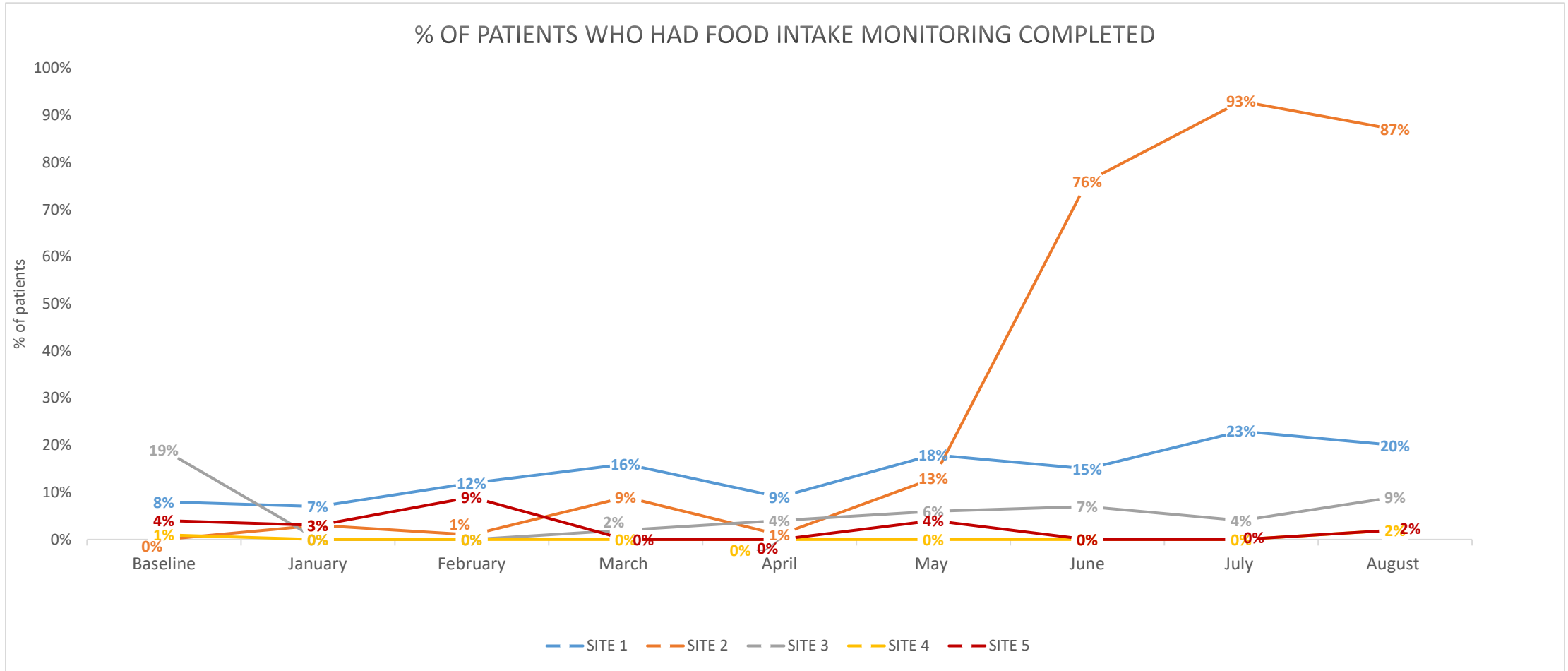


Synergies in action: The power of collaboration

Routines built into a 24 hour cycle

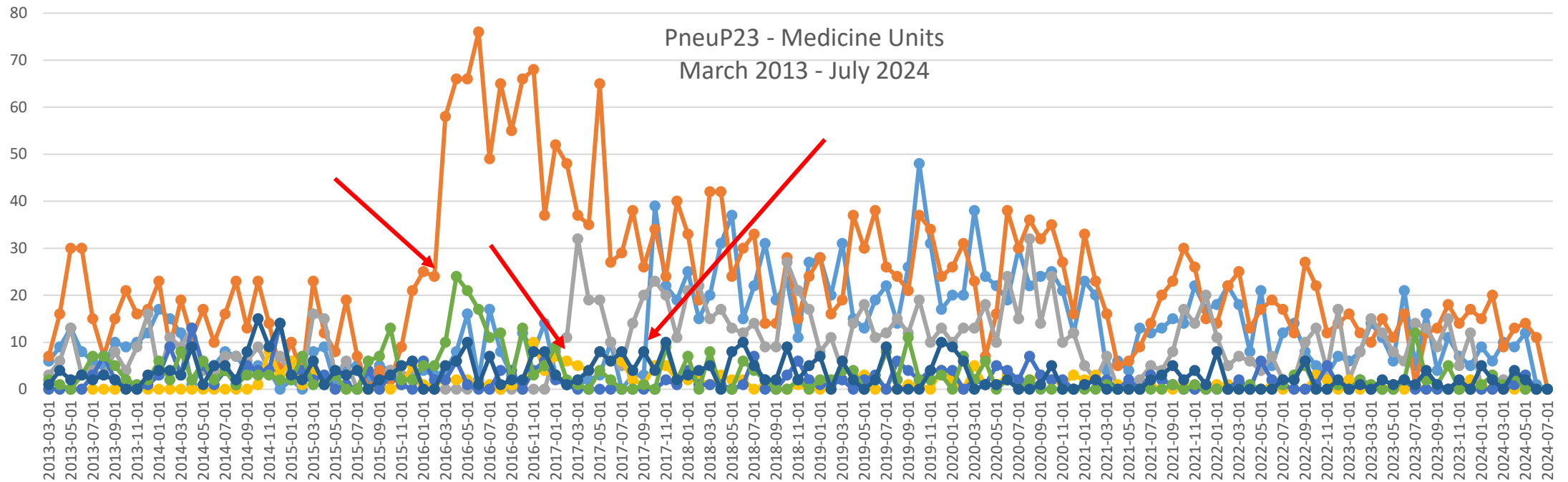


Measurement



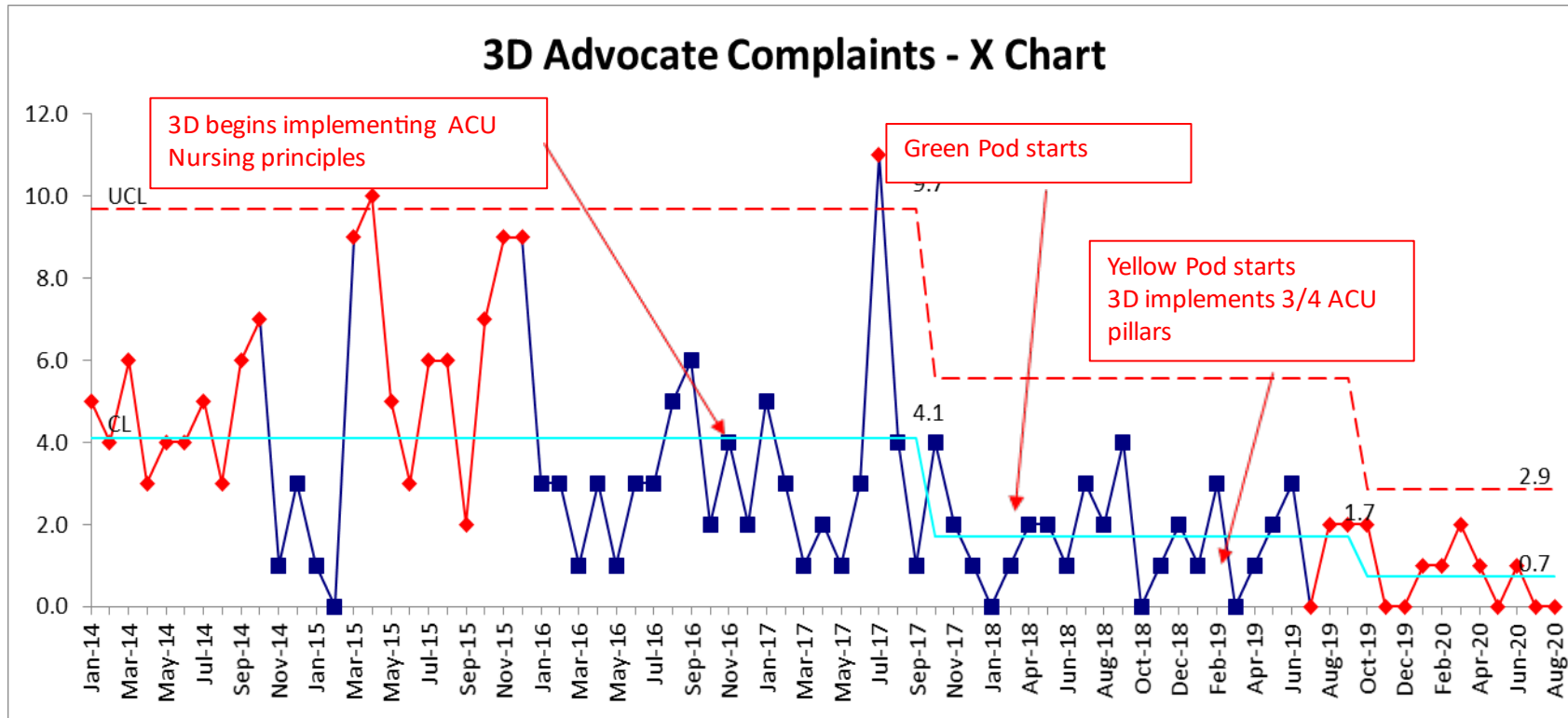


Synergies in action: The power of collaboration





Synergies in action: The power of collaboration





Synergies in action: The power of collaboration

- **Unit level** performance
- Outcomes
 - Code blues reduced/changed
 - Patient advocate complaints reduced 66 to 74%
- Quality Improvement
 - CQIP – physician co lead projects



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Leadership

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Synergies in action: The power of collaboration

- Initial understanding
- Culver Clark - Relational/Operational/Strategic
 - Maturity Framework

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Unit Based Metrics Dashboard

MATURITY STAGE 1				MATURITY STAGE 2								
Audit & Feedback Mechanisms in Place			ACU Process Metrics (Measures Compliance to Process Ground Rules)									
Processes established for Collection of Unit Based Metrics	Processes established for Regular Review of Unit Based Metrics with Unit Leadership	Processes established for Regular Feedback of Unit Based Metrics to Unit Team	<i>*bi-annually</i> AM TEAM Change of Shift Huddle Target = 80%	<i>*bi-annually</i> PM TEAM Change of Shift Huddle Target = 80%	<i>*bi-annually</i> AM AHO Target = 80%	<i>*bi-annually</i> PM AHO Target = 80%	Updated Patient Whiteboards at AHO Target = 80%	<i>*bi-annually</i> SIBR #1 Target = 80%	<i>*bi-annually</i> SIBR #2 Target = 80%	Updated Patient Whiteboards at SIBR Target = 80%	<i>*monthly</i> SIBR Bedside Probability Target = N/A	<i>*monthly</i> SIBR Family Engagement Probability Target = N/A
Unit: 4A			91% (Fall 2019)	89% (Fall 2019)	88% (March 2020)	78% (March 2020)	Not Collected	Orange Pod = 94% (Fall 2019)	Lavender Pod = 96% (Fall 2019)	Not Collected	83% ↑	29% ↓
Unit: 4B			80% (Fall 2019)	89% (Fall 2019)	66% (January 2020)	69% (Fall 2019)	Not Collected	Blue Pod = 95% (Fall 2019)	Red Pod = 95% (Fall 2019)	Not Collected	49% ↑	21% ↓
Unit: 3D			95% (Fall 2019)	80% (Fall 2019)	87% (Fall 2019)	88% (Fall 2019)	Not Collected	Green Pod = 94% (Fall 2019)	Red Pod = 96% (Fall 2019)	Not Collected	56% ↓	27% ↑
Unit: MSU			97% (Fall 2019)	0% (Fall 2019)	Didn't Audit	71% (Fall 2019)	Not Collected	Pink Pod = 77% (Fall 2019)		Not Collected	Not Collected	Not Collected

Unit B

	MATURITY STAGE 5							MATURITY STAGE 6								
	Patient Satisfaction		Staff Satisfaction & Team Experience					Patient Safety - Adverse Events					Appropriateness & Stewardship	System Outcome Metrics		
	<i>*monthly</i> Patient Experience Survey (Qualitative)	<i>*monthly</i> Client Advocate Complaints (Quantitative)	<i>*monthly</i> Team (Unit) Survey (Qualitative)	<i>*monthly</i> Nursing Sicktime Total Dollars	<i>*monthly</i> Nursing Overtime Total Dollars	<i>*monthly</i> Nursing Churn Rate	Unit Staff Safety (TLR Related Injuries)	<i>*monthly</i> Nosocomial Infections (CAUTI)	<i>*monthly</i> Venous Thrombo-embolic Events	<i>*monthly</i> New Decubitus Ulcers	<i>*monthly</i> Blood Glucose Measurements Out of Target Range	<i>*quarterly</i> Mortality Rate	<i>*quarterly</i> Code Blues	Transfusions Monthly	<i>*monthly</i> Length of Stay (LOS)	<i>*monthly</i> 7-day readmission to ED
Unit: 4A	Not Currently Being Collected	<u>2</u> ↑	Not Currently Being Collected	<u>\$26,108</u> ↑	<u>\$15,725</u> ↑	<u>15%</u> ↑	Not Collected	<u>0</u> ↔	Not Collected	Not Collected	Not Collected	<u>0</u>	2	<u>8.23</u> ↑	<u>9</u>	
Unit: 4B	Not Currently Being Collected	<u>0</u> ↓	Not Currently Being Collected	<u>\$12,436</u> ↑	<u>\$12,415</u> ↑	<u>7.9%</u> ↑	Not Collected	<u>0</u> ↓	Not Collected	Not Collected	Not Collected	<u>0</u>	1	<u>7.6</u> ↑	<u>13</u>	
Unit: 3D	Not Currently Being Collected	<u>0</u> ↔	Not Currently Being Collected	<u>\$12,901</u> ↑	<u>\$16,180</u> ↑	<u>7.0%</u> ↑	Not Collected	<u>0</u> ↔	Not Collected	Not Collected	Not Collected	<u>2</u>	6	<u>8.7</u> ↑	<u>17</u>	
Unit: MSU	Not Currently Being Collected	<u>0</u> ↓	Not Currently Being Collected	<u>4,356</u> ↓	<u>\$5,958</u> ↓	<u>14%</u> ↑	Not Collected	Not Collected	Not Collected	Not Collected	Not Collected	<u>3</u>	4	<u>2.5</u> ↓	<u>7</u>	

Unit B**MATURITY STAGE 7****Ongoing Quality Improvement**

Mortality
**QUALITY OF
 DEATH?
 EXPECTED VS
 UNEXPECTED?**

TBD

TBD

TBD

**Unit:
4A****Unit:
4B****Unit:
3D****Unit:
MSU**



Synergies in action: The power of collaboration

- Graham Parsons to
- Stories to
- PFAC to
- PFPs as educators, QI project members, frontline engagement, and unit leaders



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Concluding Slide



Synergies in action: The power of collaboration

- Change is possible
- Is it probable that it can be sustained?
- Is it probable that it can be spread?



Spreading the Idea



Synergies in action: The power of collaboration

- Readiness (image of domains Moose Jaw)
- Environmental Scan (image of dashboard here)
- University of Regina
- White space





Synergies in action: The power of collaboration

- Part of the pre pilot plan
- Continued on a near monthly basis until first covid winter of 2020-21
- Hosted interested hospitals and travelled to others
- Residents and medical students, pharmacy students, nursing students





Synergies in action: The power of collaboration

- Interdisciplinary Team at bedside same time everyday including:
 - MD update on test results/consultant inputs/treatment effects
 - Review overnight events and morning vital signs
 - Review oxygen use
 - Effectiveness of pain management
 - Screen for malnutrition, constipation, diarrhea, C diff risk, dehydration, hepatic encephalopathy treatment
 - Screen for delirium
 - Monitor fluid status and urinary function including retention
 - Report on mobility and functional status
 - Screen for management of the risk states of venousthromboembolic disease, most common cause of hospital acquired infection, venous access need and IV fluid use, pressure ulcers, glucose control in diabetics
 - Review the use and dosage of the three most common non icu high risk medications: opioids/antithrombotics/insulin.
 - Daily frontline antimicrobial stewardship
 - Screen for medical management of high yield chronic conditions: CHF/COPD/CAD
 - Surveillance for medication debridement opportunities
- Review of vaccine status and offer influenza, pneumovax, covid vaccines
- Dietitian input on nutrition and recommendations
- Physiotherapist update on current and projected mobility status
- Social worker/DC planner update on prehospital residence, likely next site of care, current non medical discharge barreirs/needs, targeted date of discharge.
- Review the success of the last 24 hour plan of care and synthesis of a new plan of care for the next 24 hours including a goal for the patient as part of the plan.





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