Comparative Effectiveness
A step to improved patient outcomes?

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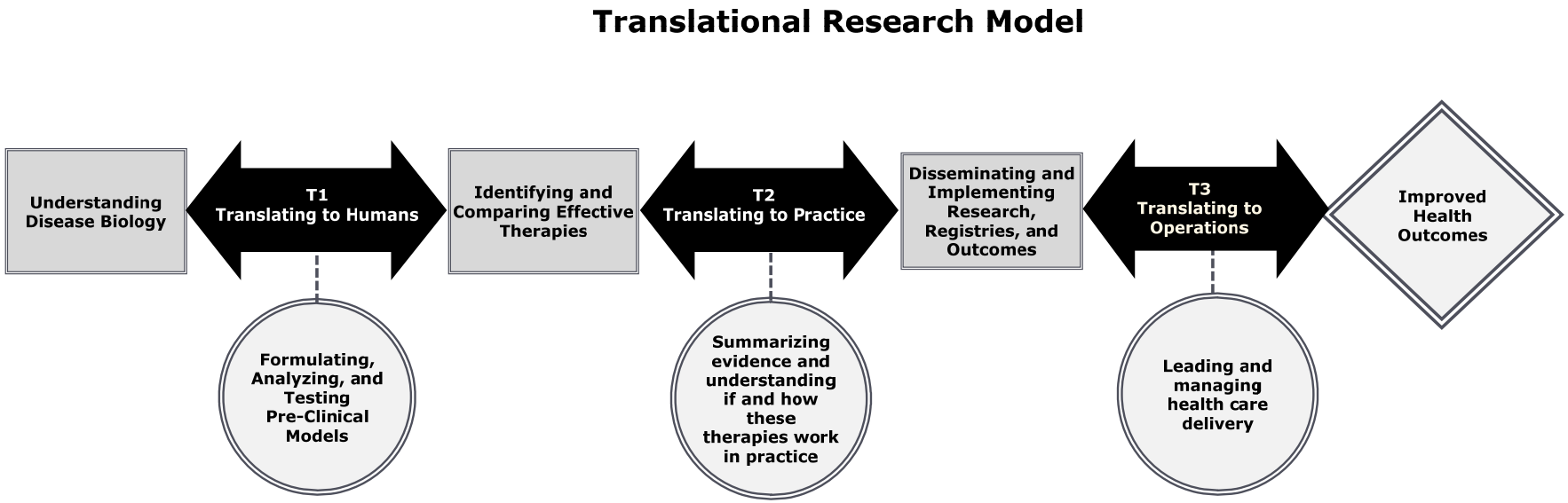
Outline

- Discuss a systems view of research
- Explore CE role in improving health
- Offer strategies to improve the efficiency and effectiveness with which patients receive recommended therapies

Start with the End in Mind



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Decision X implementation = outcome

Decision = information X the call

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Approaches to Summarizing Evidence

Static

Do not prioritize

Ambiguous

No tacit knowledge

The Call
Is knowledge enough?

- Are physicians rationale decision makers?
- Does behavioral economics apply to medicine?

Implementation Science

- Correct decision
- Context
- Measurement and feedback

- Michigan Case Study

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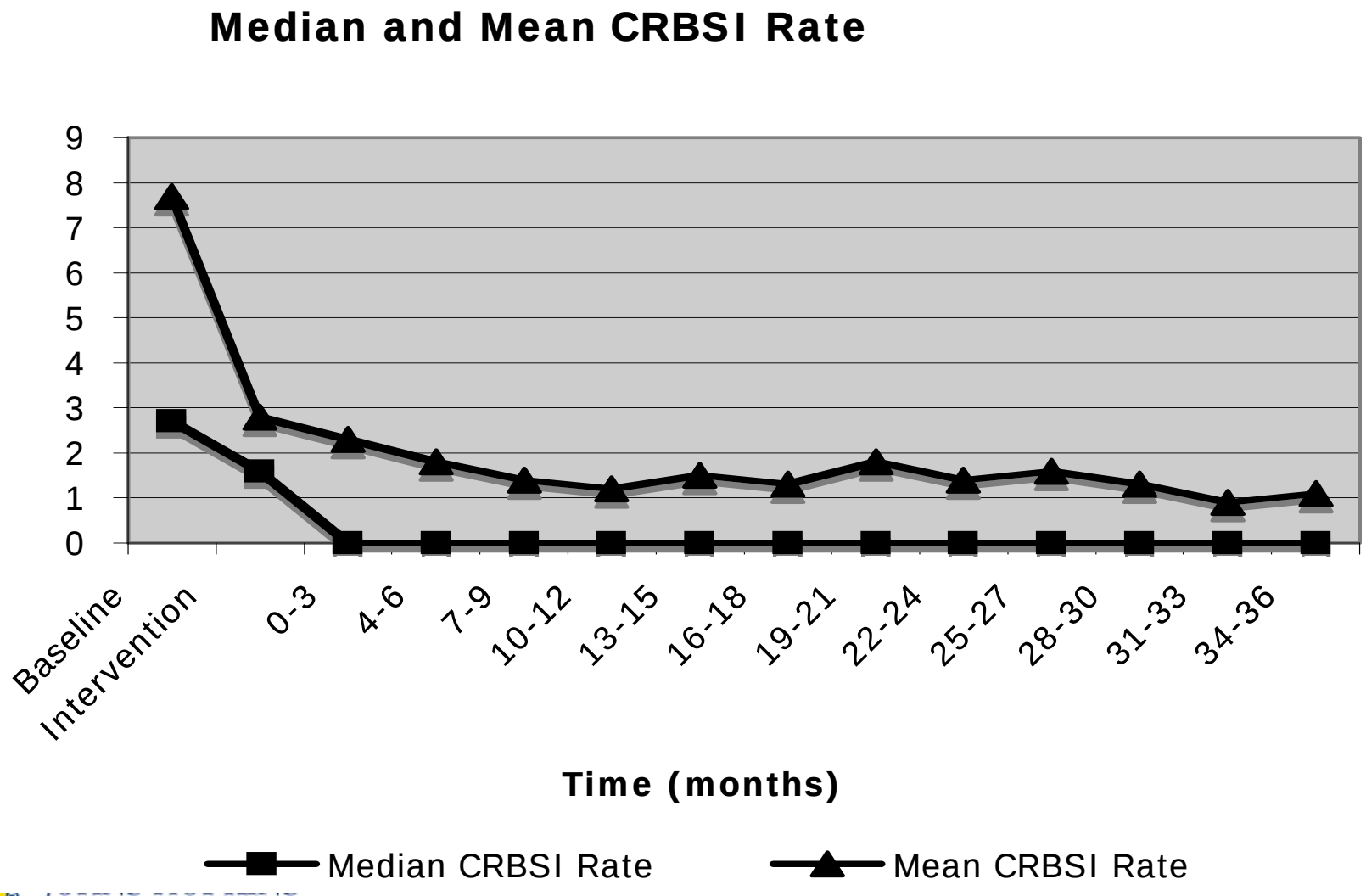
CRBSI Rate Summary Data

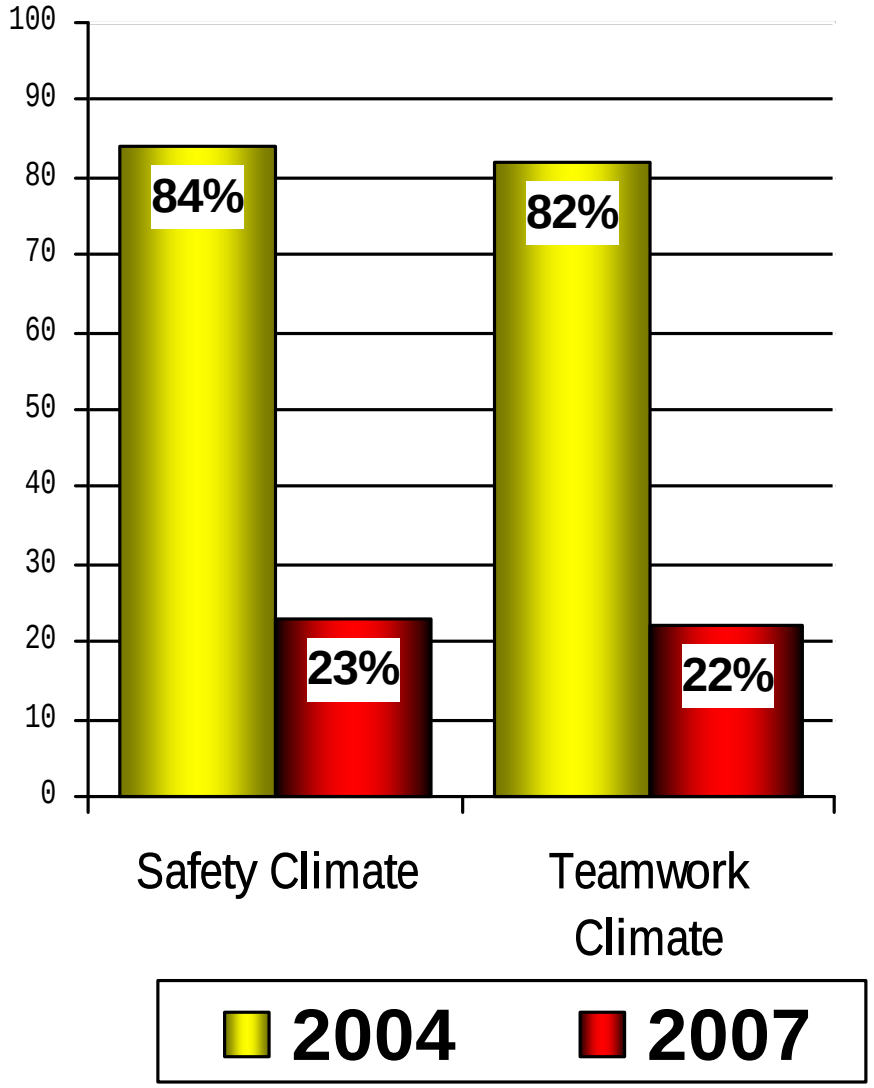
Study Period	No. of ICUs	No. of Infections	Catheter Days	Infection Rate		IRR (95 % CI)
		Median (Q1, Q3)	Median (Q1, Q3)	Median (Q1, Q3)	Mean (SD)	
Baseline	55	2 (1, 3)	551 (220, 1091)	2.7 (0.6, 4.8)	7.7 (28.9)	Reference
During Implementation	96	1 (0, 2)	447 (237, 710)	1.6 (0, 4.4)	2.8 (4.0)	0.81 (0.61, 1.08)
After Implementation						
Initial Evaluation Period						
0-3 mo	95	0 (0, 2)	436 (246, 771)	0 (0, 3.0)	2.3 (4.0)	0.68 (0.53, 0.88)
4-6 mo	95	0 (0, 1)	460 (228, 743)	0 (0, 2.7)	1.8 (3.2)	0.62 (0.42, 0.90)
7-9 mo	96	0 (0, 1)	467 (252, 725)	0 (0, 2.0)	1.4 (2.8)	0.52 (0.38, 0.71)
10-12 mo	95	0 (0, 1)	431 (249, 743)	0 (0, 2.1)	1.2 (1.9)	0.48 (0.33, 0.70)
13-15 mo	95	0 (0, 1)	404 (158, 695)	0 (0, 1.9)	1.5 (4.0)	0.48 (0.31, 0.76)
16-18 mo	95	0 (0, 1)	367 (177, 682)	0 (0, 2.4)	1.3 (2.4)	0.38 (0.26, 0.56)
Sustainability Period						
19-21 mo	89	0 (0, 1)	399 (230, 680)	0 (0, 1.4)	1.8 (5.2)	0.34 (0.23, 0.50)
22-24 mo	89	0 (0, 1)	450 (254, 817)	0 (0, 1.6)	1.4 (3.5)	0.33 (0.23, 0.48)
25-27 mo	88	0 (0, 1)	481 (266, 769)	0 (0, 2.1)	1.6 (3.9)	0.44 (0.34, 0.57)
28-30 mo	90	0 (0, 1)	479 (253, 846)	0 (0, 1.6)	1.3 (3.7)	0.40 (0.30, 0.53)
31-33 mo	88	0 (0, 1)	495 (265, 779)	0 (0, 1.1)	0.9 (1.9)	0.31 (0.21, 0.45)
34-36 mo	85	0 (0, 1)	456 (235, 787)	0 (0, 1.2)	1.1 (2.7)	0.34 (0.24, 0.48)

CRBSI Rate Over Time



"Needs Improvement“ Statewide Michigan CUSP ICU Results

- Less than 60% of respondents reporting good safety climate =“needs improvement”
  - Statewide in 2004 84% needed improvement, in 2006 41%
  - Non-teaching and Faith-based ICUs improved the most
  - Safety Climate item that drives improvement: “*I am encouraged by my colleagues to report any patient safety concerns I may have*”



Keystone ICU Safety Dashboard

	2004	2006
How often did we harm (BSI)	2.8/1000	0
How often do we do what we should	66%	95%
How often did we learn from mistakes	100s	100s
% Needs improvement in Safety climate	84%	43%
Teamwork climate	82%	42%

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Recommendations

Checklist maker- prediction markets to summarize evidence

Structured choices

- link to payment?
- Decision sciences

More Focused Programs with goals

Strategies, central measures local implementation

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Focus and Execute

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