

Achieving Population Well-Being through Mental Health Integration & Team Based Care

Impact on Quality, Healthcare Use, Cost & Patient Experience

NASEM Forum on Mental Health and Substance Use Disorders
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Disclosures

I have no financial or non financial conflicts of interest to disclose

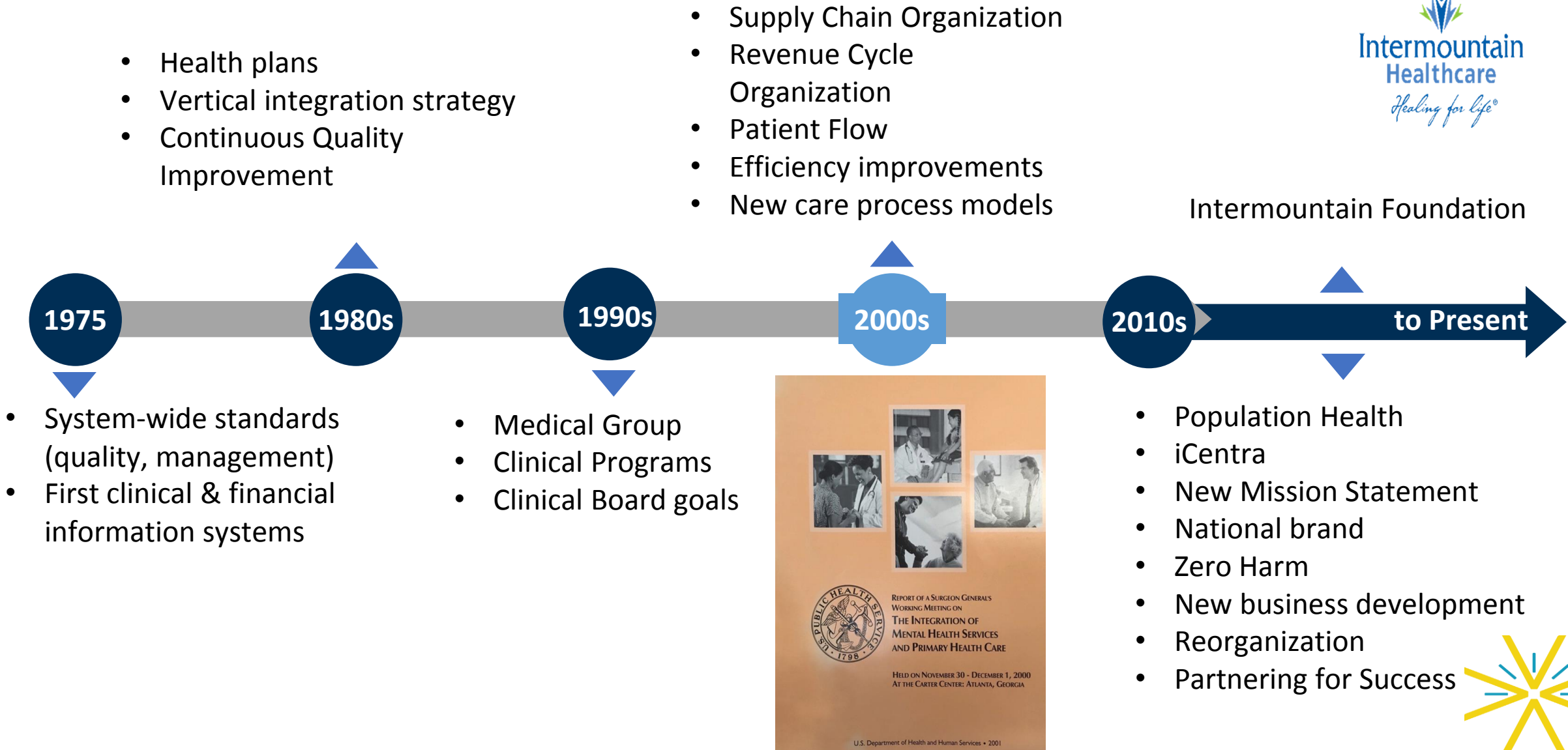


We are on a Measured Journey –
“Helping people live the healthiest lives possible®”
Using Data to Improve Care Delivery and Patient Outcomes

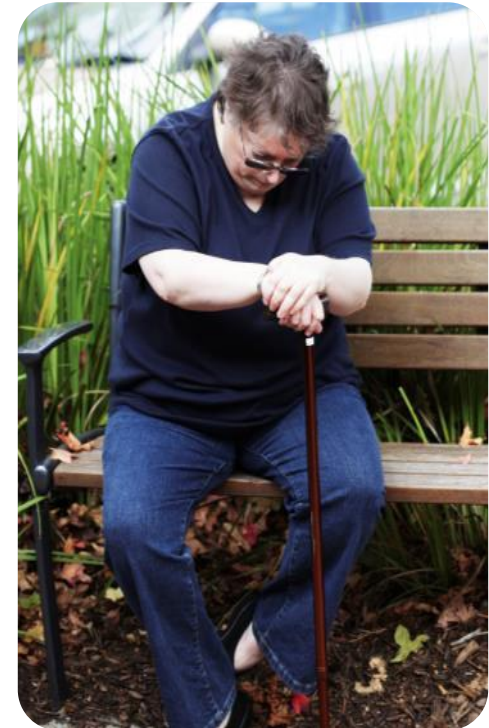
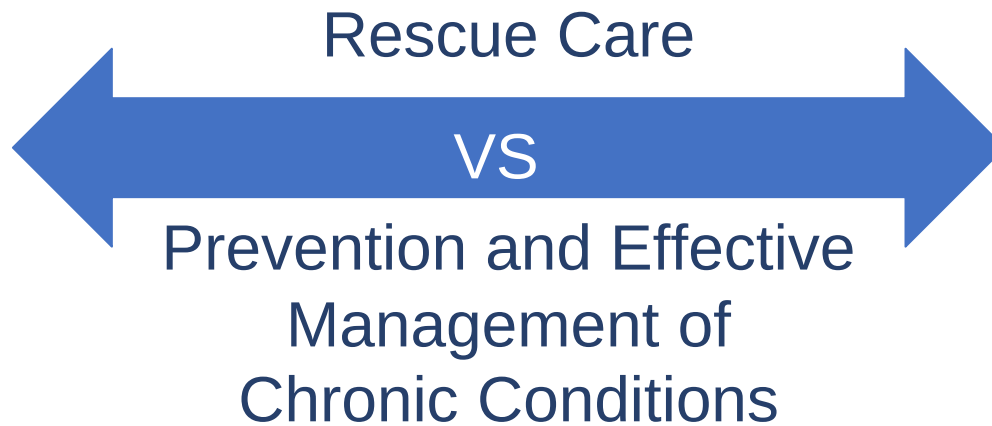
Built on Intermountain's Rich History of Innovation, Improvement, and Excellence



Intermountain Foundation



American Healthcare: Amazing Successes and Tragic Failures



Normalizing Mental Health is a Growing Global Priority

Global Health Priority



43M

Americans suffer a form of mental illness

300M

People worldwide live with depression

68% of adults with mental disorders have other medical conditions

Significant cost



\$200 billion

annually, exceeding all medical conditions



Rising death toll



20M

Americans suffer from substance mental illness of substance abuse

~64,000

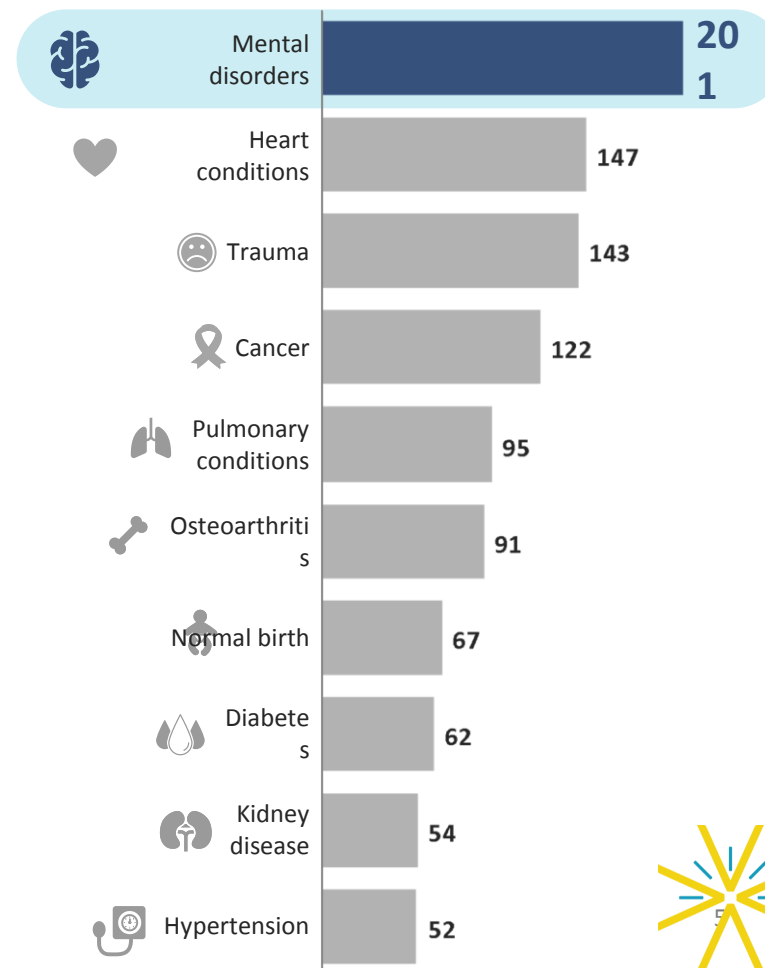
drug overdose deaths annually in 2016

1

suicide death every **40 seconds** (2014)



The costliest medical conditions (\$B, 2013)



“Mental health is a state of successful performance of mental and physical functioning, resulting in productive activities, fulfilling relationships with others, and the ability to adapt to change and cope with adversity”

David Satcher, M.D.

Surgeon General of the United States

Mental Health: Report of Surgeon General, M385/ Library of Congress, 1999

Team based, mental health integration is focused on prevention and access via normalizing mental and behavioral health as routine medical care through unified connected team interactions





Our journey is focused on enhancing the conditions for good health

“The circumstances in which people live and work are related to their risk of illness and length of life” – Marmot (2004) The Status Syndrome



Management of Complex Chronic Disease in Primary Care

Team Based Care / Mental Health Integration Infrastructure		
Diabetes, Asthma, Heart Disease, Depression, Hypertension, ADHD, Obesity, Chronic Pain, including Substance Use Disorders, etc.		
2/3 – cared for routinely in primary care	1/6	1/6
Patient & Family, PCP, and Care Manager (CM) as needed	PCP, CM + mental health as needed	PCP with MHI Specialist Consult

*Primary Care Physician (PCP) includes:
General Internist, Family Practitioner, Pediatrician

“If I don’t do it, who else will? I am all they have. I have been forced to treat depression alone.” PCP Non-MHI/TBC Clinic



“Don’t ask...”

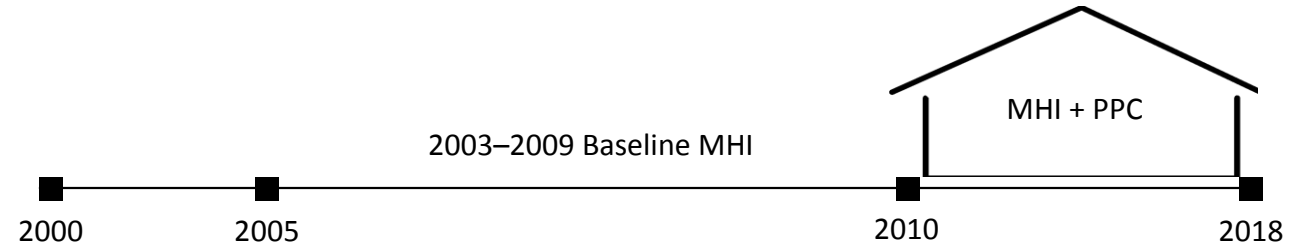


“The cringe list keeps my stomach in knots.”

“I was left to figure it out on my own, we never talked about it, he just refilled my meds” ($p < .01$) Non-MHI/TBC Clinic



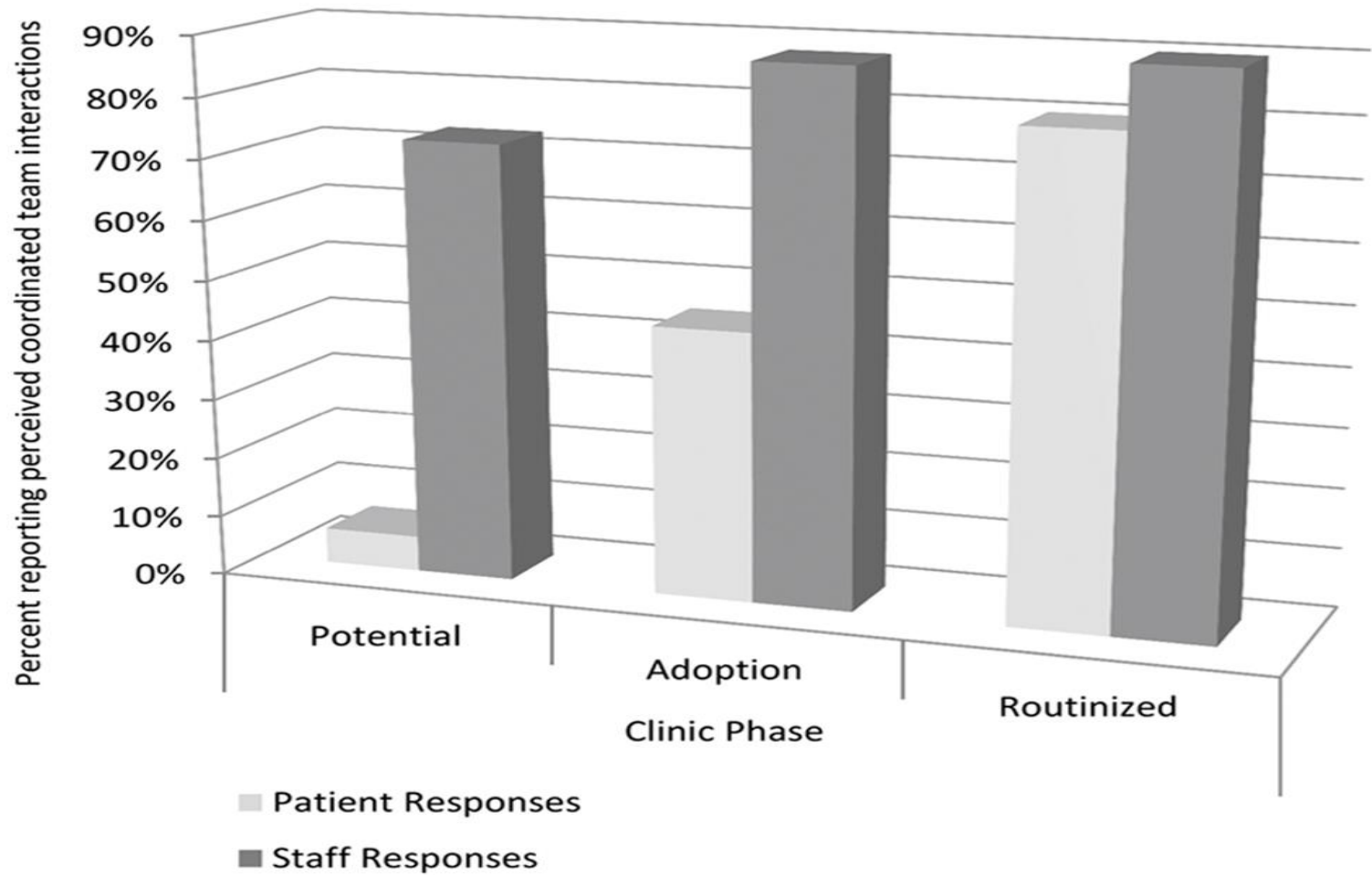
Team-Based Care / Mental Health Integration: More Than Just a Program



Culture of Accountable Relational Reciprocity

- “My doctor was the first person to treat me as a whole person.” ($p < .001$)
- “I am connected to a team that talks to each other” ($p < .05$)
- “Being on the same page I get better results” ($p < .01$)

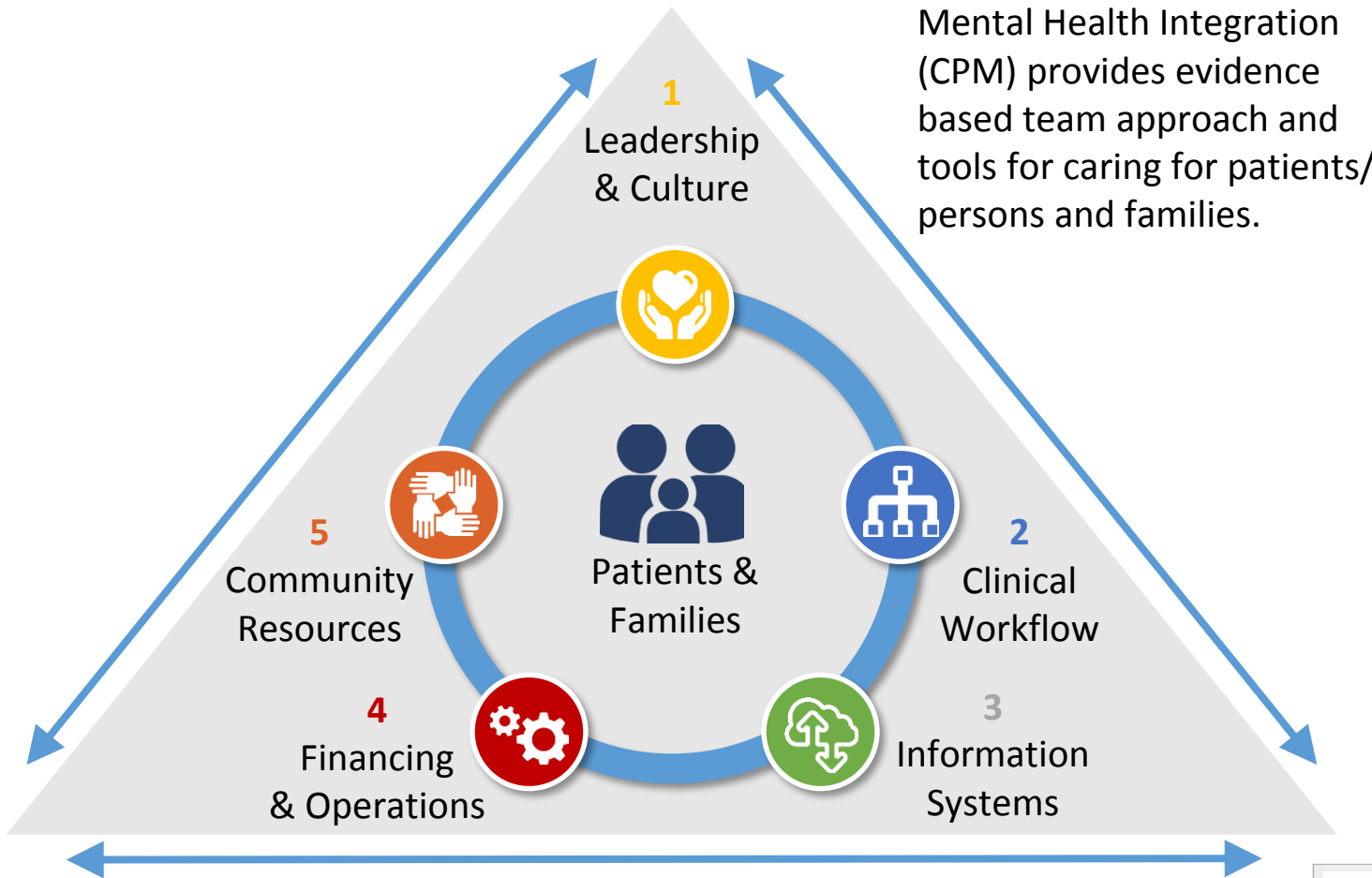
Difference between patient and care team perception of coordinated care by MHI phase



Establishing and Understanding Clinic Team Roles & Responsibilities



What is Mental Health Integration (MHI)?



Mental Health Integration (CPM) provides evidence based team approach and tools for caring for patients/ persons and families.

A standardized clinical and operational team relational process that incorporates mental health as a complementary component of wellness & healing.

Essential Integrated Elements

1	Leadership and culture – champions establishing a core value of accountable and cooperative relationships
2	Clinical Workflow – engaging patients and families on the team and matching their complexity and need to the right level of support
3	Information systems – EMR, EDW, registries, dashboard to support team communication and outcome tracking
4	Financing and operations – projecting, budgeting and sustaining team FTE to measure the ROI
5	Community resources – who are our community partners to help us engage our population in sustaining wellness

Planning
Score: 9-25

Adoption
Score: 26-41

Routine
Score: 42-51

Actionable Data Helps Support Decision-Making & Care Improvement



Clinical Process

MHI Treatment Cascade

Case Identification
Shared Decision Making

Standardized Assessment Tools
PHQ-2, PHQ-9, & MHI Packet



Team Feedback: MHI Dashboard

PHQ2 or PHQ9/A Screening in Past 12 Months

Categorical Change in PHQ9 by Clinic

SYSTEM	211,320	319,052	66.23%
SYSTEM	Patients w/ PHQ2 or PHQ9/A	Patients w/ Annual PCP Visit	Percent of Patients w/ Annual Screening
REGION			
Cache Valley Group	15,665	28,829	54.34%
Central Salt Lake Group	27,256	37,716	72.27%
North Salt Lake/South Davis	47,985	62,763	76.45%
Rural Group	8,874	13,493	65.77%
South Salt Lake Group	29,039	52,382	55.44%
Southern Utah Group	27,837	41,244	67.49%
Timpanogos Group	19,257	32,261	59.65%
Weber/North Davis Group	35,407	50,344	70.33%
CLINIC			
American Fork Internal Medicine & Dermatology	1,246	1,324	94.11%
Avenues Specialty Clinic	3,320	4,590	72.33%
Bear River Clinic	1,937	4,667	41.50%
Bountiful Clinic	17,469	19,113	91.40%
Budge Clinic	1,958	3,000	65.27%
Budge Clinic - Internal Medicine	3,930	8,725	45.04%
Canyon View Clinic	583	639	91.25%
Cedar City Clinic	4,239	5,328	79.58%
Central Orem Clinic	5,191	6,969	74.49%
Comprehensive Care Clinic - Murray	124	125	99.20%

	FULL REMISSION	PARTIAL REMISSION	NO CHANGE	WORSE
Bear River Clinic	12.88%	33.05%	9.44%	44.64%
Budge Clinic	8.00%	29.60%	23.20%	39.20%
Budge Clinic - Internal Medicine	11.11%	32.59%	14.81%	41.48%
Logan Clinic	15.13%	37.17%	12.17%	35.53%
North Cache Valley Clinic	19.29%	36.04%	9.64%	35.03%
South Cache Valley Clinic	15.42%	35.51%	16.82%	32.24%
Comprehensive Care Clinic - Murray	7.58%	28.79%	4.55%	59.09%
Cottonwood Family Practice	19.73%	39.32%	6.16%	34.79%
Cottonwood Medical Clinic - Internal Medicine	19.41%	35.88%	7.06%	37.65%
Employee Clinic		100.00%		
Hillcrest Pediatrics		50.00%	12.50%	37.50%
Holladay Clinic	18.37%	35.71%	7.65%	38.27%
Holladay Pediatrics	22.22%	31.48%	5.56%	40.74%
Holladay Pediatrics - North		69.23%		30.77%
Kearns Clinic	12.28%	57.89%	1.75%	28.07%
Salt Lake County Health Connections	12.50%	50.00%	12.50%	25.00%
Senior Clinic - Murray	14.94%	40.26%	7.79%	37.01%
Taylorsville Clinic	16.91%	39.79%	8.45%	34.85%
West Valley Clinic	10.17%	35.59%	15.25%	38.98%

Data Input

HELP2 Clinical Desktop (Version 2006.01.64) - Microsoft Internet Explorer

TEST, ALERT RES Home Ph: (801) 442-3600 DDB: 05/05/1955 Last Ht: 165.1cm Work Ph: MRN: 3120124

Age: 51Y Sex: M Last Wt: 49.90kg Cell Ph: NMI: 54095523

Date: 1/26/2007 16:51

Clinician: CANNON, WAYNE MALES

Encounter: Not Encounter Related

Note Type: Progress Notes Form: SOAP Note for Voice Recognition

Note Status: Preliminary/Signable POC: IHC Health Center - Bryner Clinic

PHQ-9 Questionnaire

How often have you been bothered by any of the following problems?

	Not at All(0)	Several Days(1)	More than Half the Days(2)	Nearly Every Day(3)
1. Little interest or pleasure in doing things	☐	☐	☐	☐
2. Feeling down, depressed or hopeless	☐	☐	☐	☐
3. Trouble falling/staying asleep, sleeping too much	☐	☐	☐	☐
4. Feeling tired or having little energy	☐	☐	☐	☐
5. Poor appetite or overeating	☐	☐	☐	☐
6. Feeling bad about yourself, or that you are a failure, or having let yourself down or your family down	☐	☐	☐	☐
7. Trouble concentrating on things, such as reading the newspaper or watching TV	☐	☐	☐	☐
8. Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	☐	☐	☐	☐
9. Thoughts that you would be better off dead or of hurting yourself in some way	☐	☐	☐	☐
A. How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	☐ Not difficult at all	☐ Somewhat difficult	☐ Very difficult	☐ Extremely difficult
B. In the past two weeks have you felt depressed or sad most days, even if you felt okay sometimes?	☐ Yes	☐ No		

Mood and Anxiety/Sleep

Pediatric Only

WAYNE C. Physician Central Office Timeout Status: Fri Jan 26, 2007 16:54

Actionable Data Creation

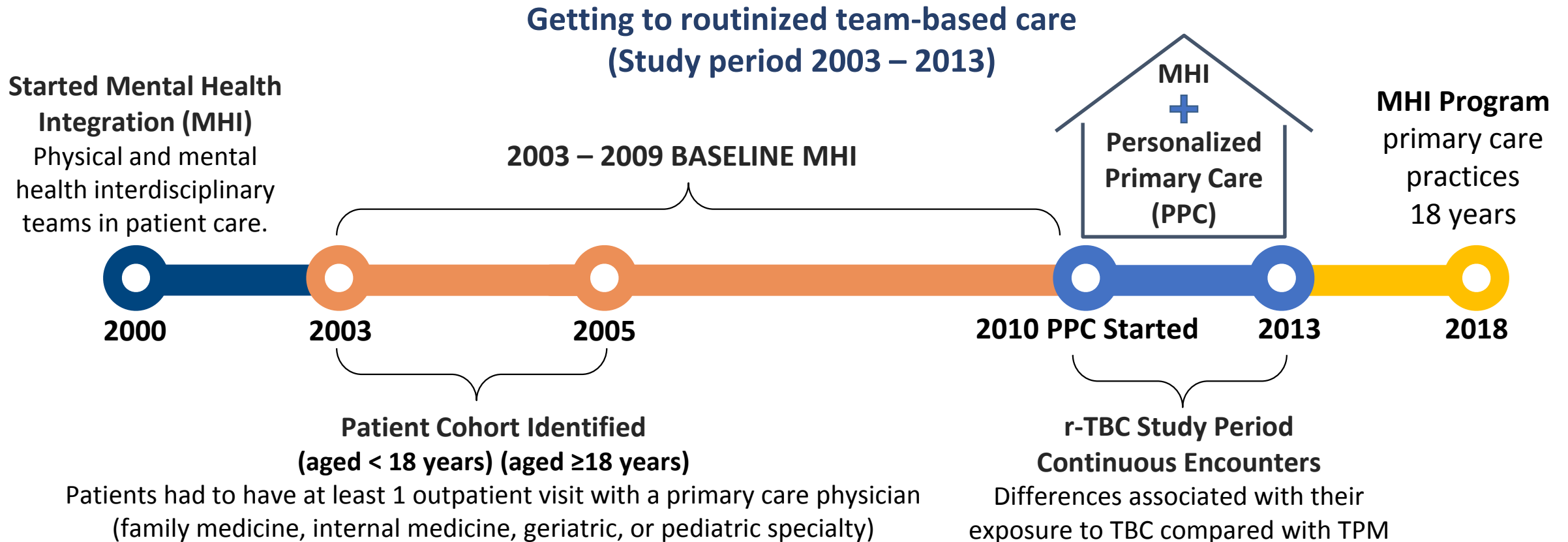
Registry (EDW) – 1999 to present

Depression Registry

Depression registry n = 604,160

- Accurately captures “active” depression patients
- Includes various process & outcomes measures
- Aligned with iCentra EHR

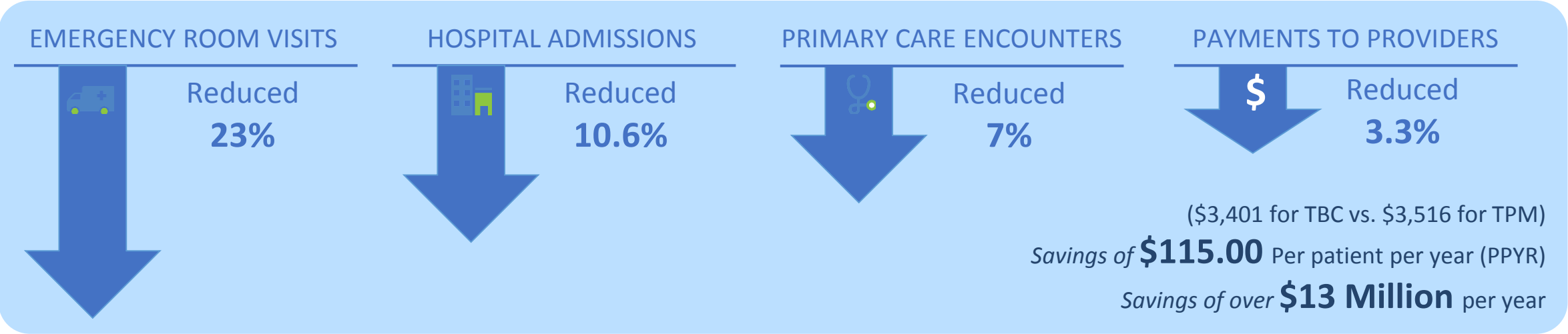
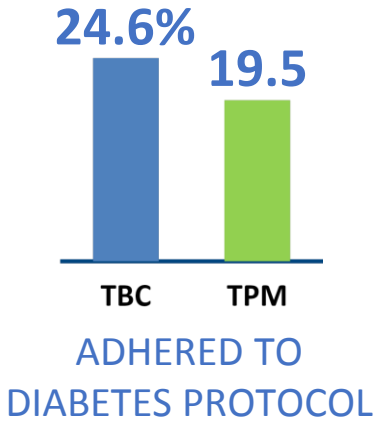
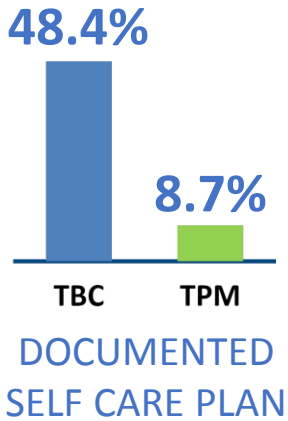
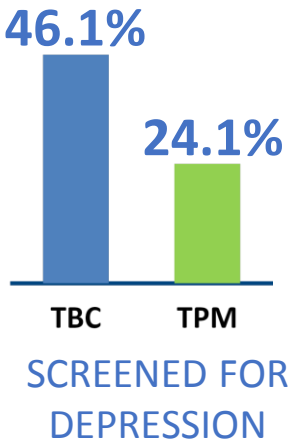
Intermountain's Integrated Team Based Care Cultural Journey



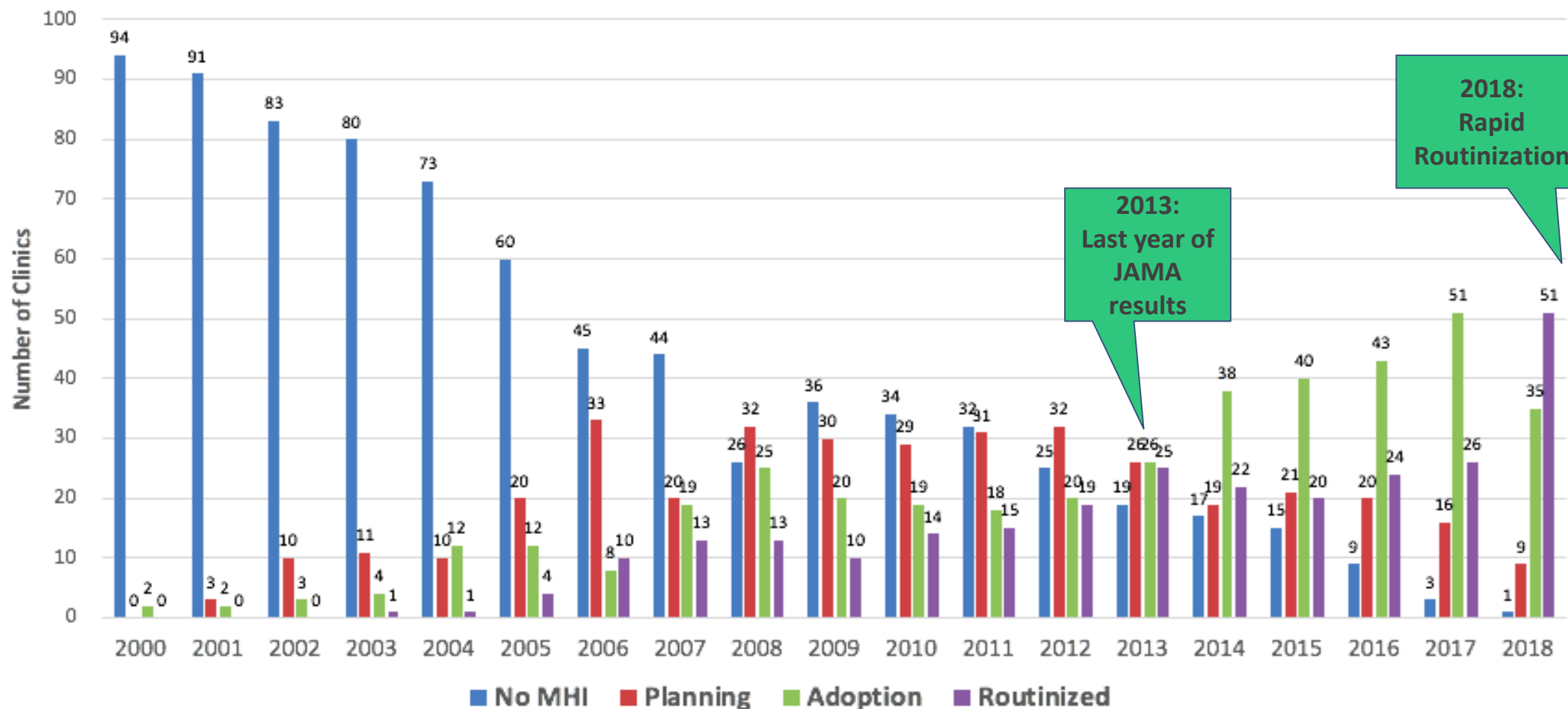
MHI tools are deployed system-wide throughout Intermountain's **22** hospitals, **185** clinics and **59** urgent care/emergency departments using a common **electronic health record and screening tools**. Healthcare providers communicate with each other via notes in the patient record and track results as a united team. Total patients annually **967,445**.

Published JAMA study showed that integrating mental and physical health through primary care teams results in better clinical outcomes and lower costs

10-YEAR STUDY 2003-2013	
113,452	Participants
113	Primary care providers
27	Team-based care (TBC) medical practices
75	Traditional practice management (TPM) medical practices



After JAMA was published and more TBC/MHI resources were applied, rapid adoption and routinization followed



Alluceo believes layering intuitive technology on top of TBC/MHI can even further accelerate a clinic's timeline between adoption and routinization.

10 years of Intermountain TBC/ MHI experience shows \$115 PMPY savings¹



\$115

PMPY savings at \$22
program cost



\$260

PMPY savings for commercial
payer patients



\$1,400

PMPY savings for patients
with other chronic conditions²



\$5M

Saved during implementation,
which covered 7-8% of patients

Representing a meaningful opportunity for other health systems and payers



\$2B+ in savings if scaled across a
national payer such as United Health⁴



\$800M+ in savings if adopted broadly
at 10 large hospital systems⁵



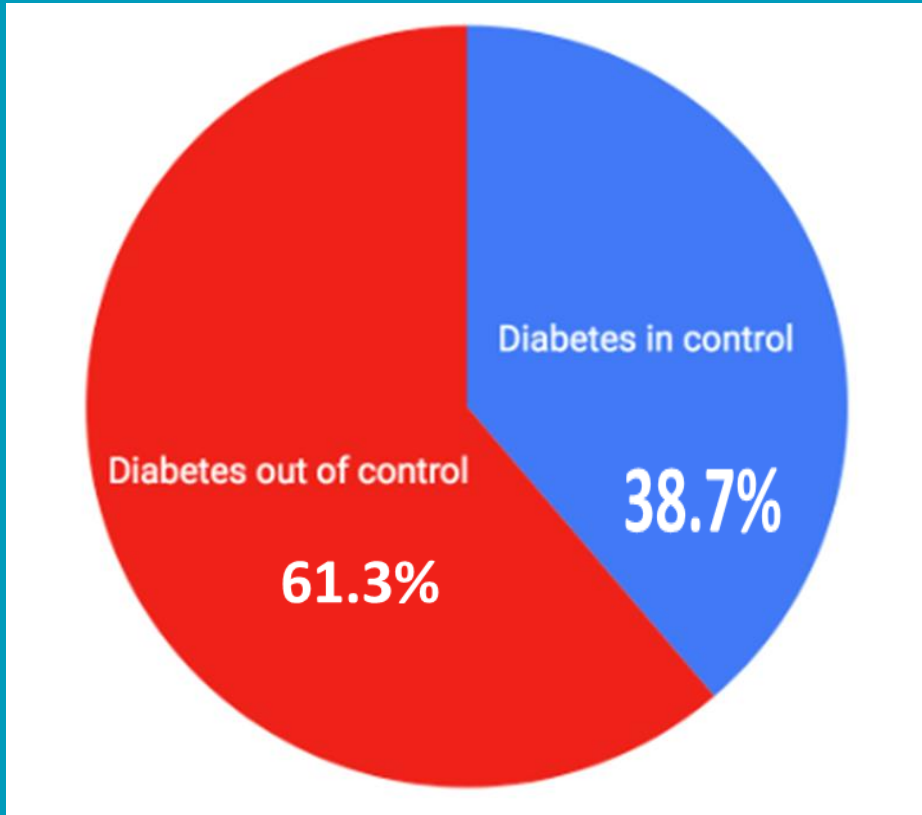
\$200M in savings if 10 largest US
employers adopted the system⁶

1. Association of Integrated Team-Based Care With Health Care Quality, Utilization, and Cost <https://jamanetwork.com/journals/jama/fullarticle/2545685?resultClick=1>
2. Chronic Patients: patients with multiple comorbidity
3. Over a 4 year study period: jamanetwork.com/journals/jama/fullarticle/2545685?resultClick=1
4. Assuming 50% penetration of plan members (excluding Medicare Supp, Medicaid etc.)
5. Assuming 50% penetration at the hospital of similar size as IM
6. Assuming 50% penetration

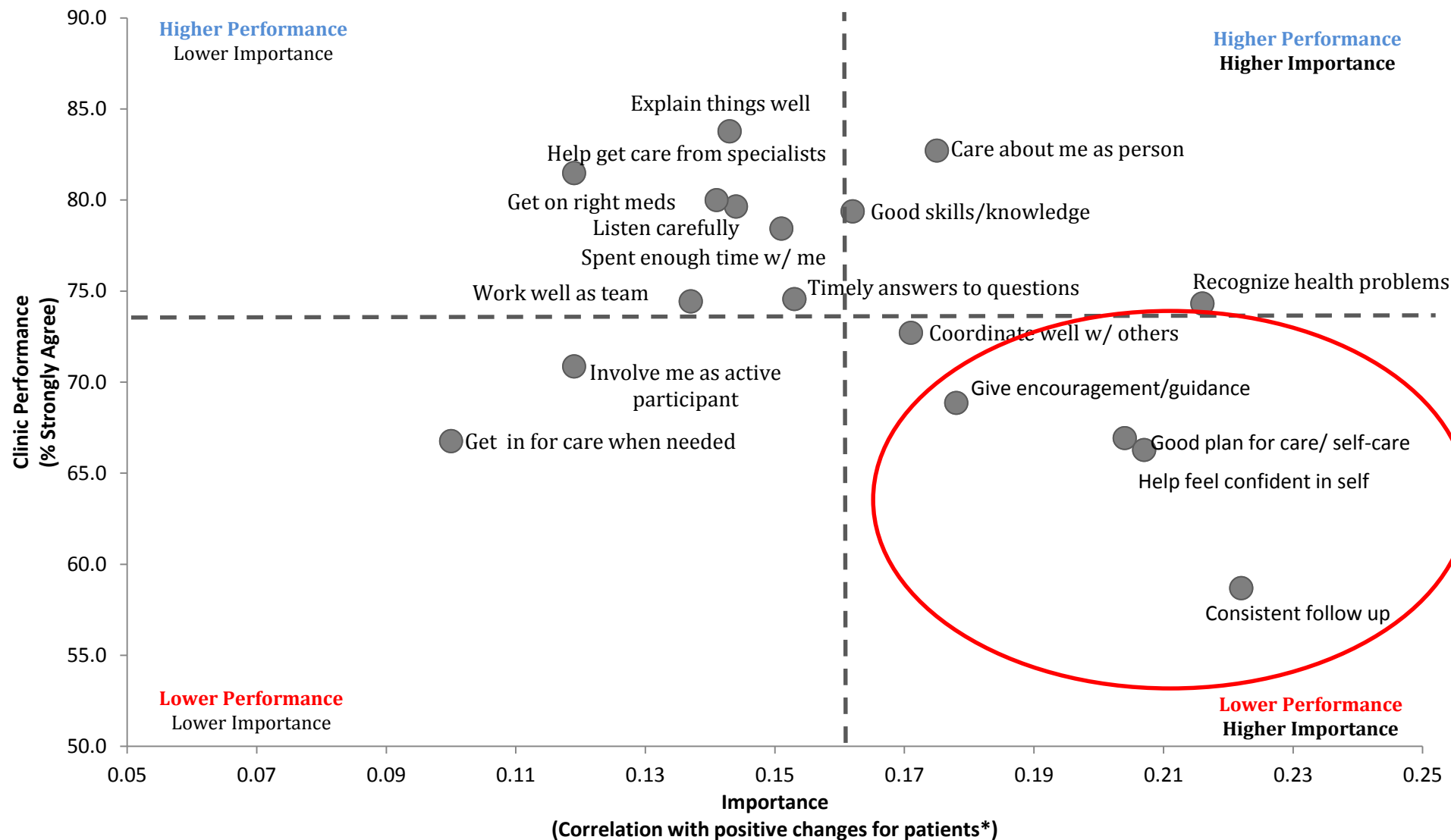


What Is the Real Cost?

JAMA Editorial: Integrated Behavioral and Primary Care, "What Is the Real Cost?" Thomas L. Schwenk, MD JAMA August 23/30. 2016 Vol. 316 No 8.



Identifying Drivers & Opportunities



NOTE: 680 primary care patients that asks about patient experiences with their "doctor and others at the clinic" over the prior 12 months

* Combined self-perceived change in patient's health, health engagement/self-care, & confidence in health care compared to 12 months prior

Scaling Population Health & Well Being – Upstream Technology

Time to provide prevention
and effective management
through holistic care teams
-in everyday life-



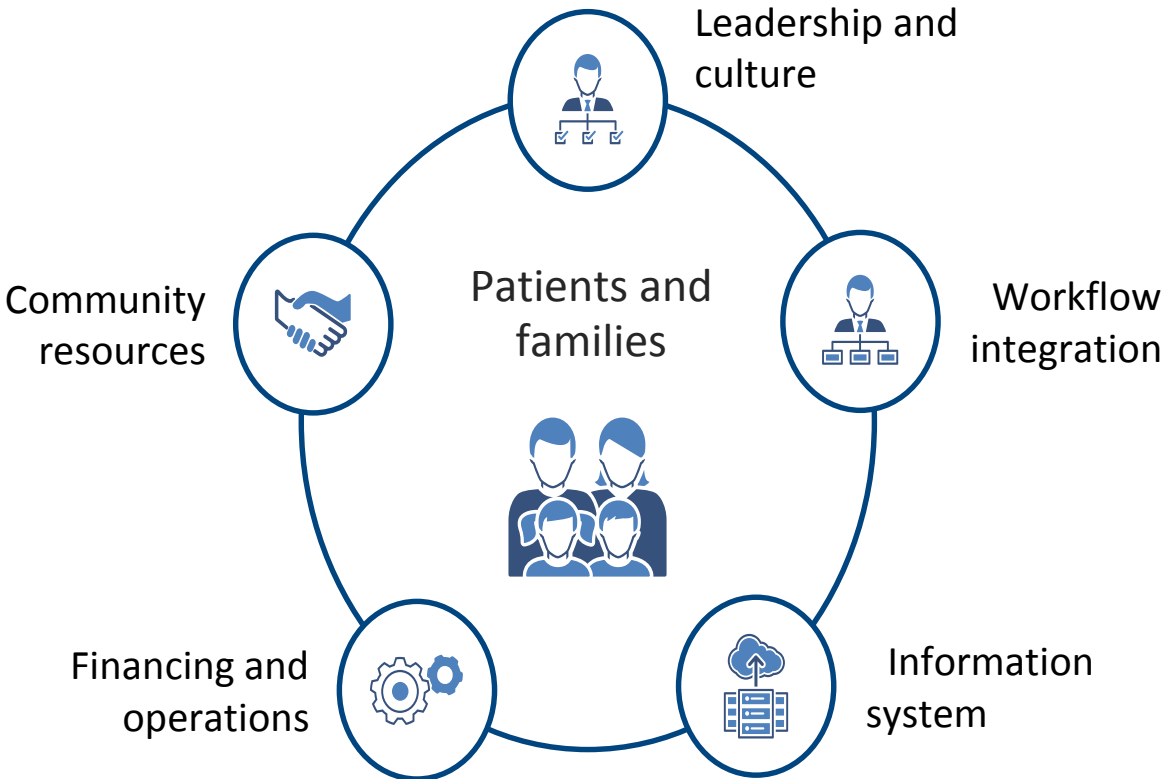


At Alluceo, we are leading the way to wellness by integrating physical and mental health into routine everyday life

Building on 20 years of integrated team based care science and operational excellence at Intermountain Healthcare - Engagement Lessons



Lead with Passion
Embrace Complexity
Meaningful Innovation
Strategic Value Overtime
Partnering for Success



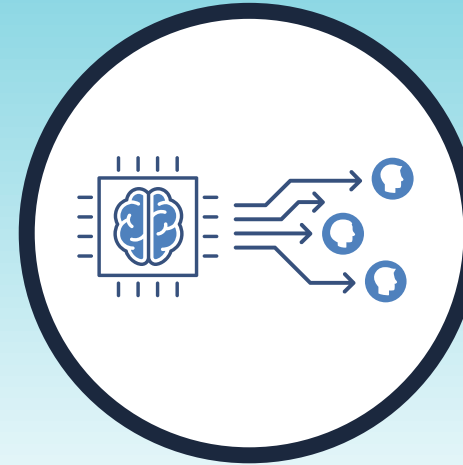
Alluceo is creating something unique

Only
solution with
documented
peer reviewed
outcomes



10 years of
Intermountain data on
clinical and cost
outcomes

Unique
algorithm
assembles a
personalized care
team for each
patient and their
family



Practice management
to assess and
optimize resources

Best
in class
integrated
digital
solution



Holistic and
integrated suite
of care tools

Normalizing Mental Health is Everyone's Business



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