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Prehospital Emergency Care:
Through the Lens of the Institute for
Healthcare Improvement

David M. Williams, Ph.D.

10th International Roundtable on Community
Paramedicine
Reno, Nevada, USA
3 September 2014



David M. Williams, Ph.D.

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• **Chief Executive & Consultant**



• **Improvement Advisor & Lead Faculty** for Paramedicine & Ambulance Systems



• **Faculty** for IHI Open School for Health Professions

***Vice Chairman** of the Board of a Federally Qualified Health Center

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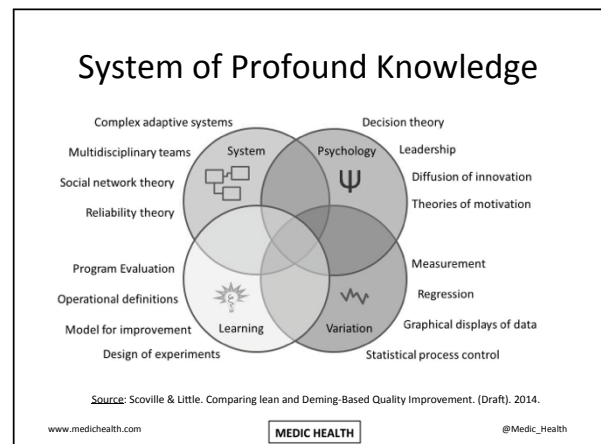
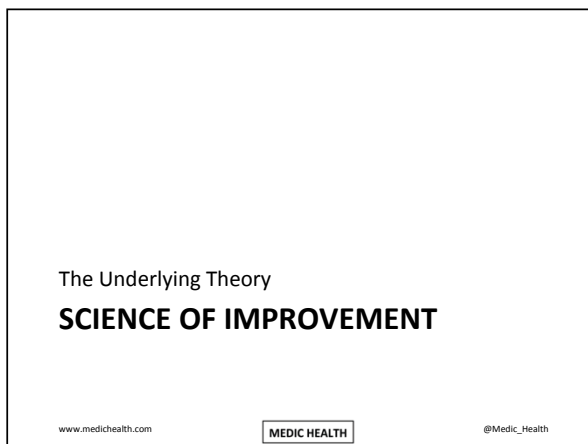
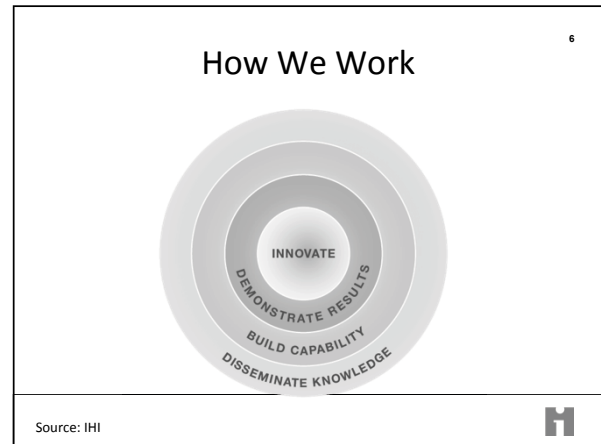
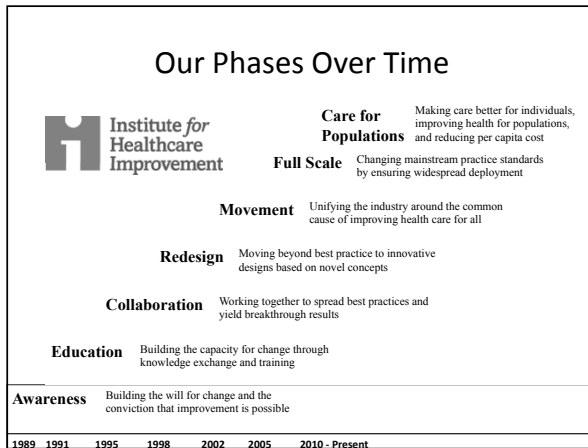
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MOST EMAILED

1. LETTER
City Worker Accountability

2. CITY ROOM
Barge Bites On Hutchinson River

3. Ex-Police Officer Pleads Guilty to Playing Role in a Disability Fraud Scheme

4. MICHIGAN SENATOR
When Whites Just Don't Get It

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EAGLE, Colo. — Emergency medicine carries a deep aura of romance in America, with its first-responder traditions of adrenaline, acuity and bravery. But here in this rural mountain area of the West, and in a handful of other places around the nation, a new vision is gaining ground — that emergency workers should not wait around for crises to happen, but rather go out and prevent them.

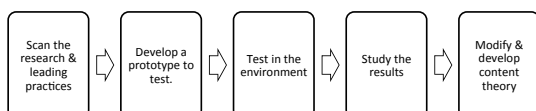
The research & development process
INNOVATION

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Research & Development Process



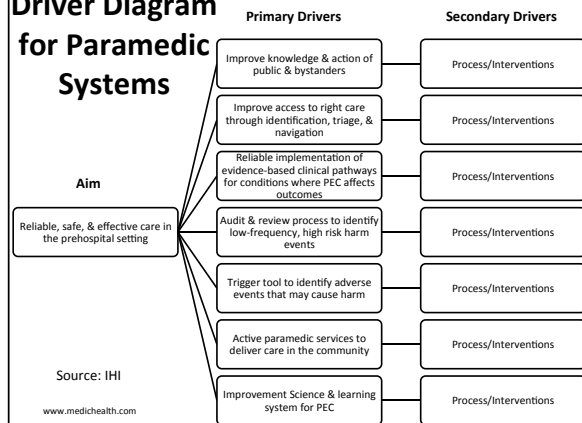
Source: IHI

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Driver Diagram for Paramedic Systems



Source: IHI

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Home / Resources / Audio and Video / WIHI: From Prehospital to In-Hospital: The Continuum for Time-Sensitive Care

Audio and Video

WIHI: From Prehospital to In-Hospital: The Continuum for Time-Sensitive Care
Date: July 24, 2014

Featuring:

- Kedar Mea, MD, Vice President, Institute for Healthcare Improvement
- David Williams, PhD, Improvement Advisor and Founder, TrueSimple
- Jonathan R. Studnek, PhD, NRP, Quality Improvement Manager, Mecklenburg EMS Agency (North Carolina)
- Kevin Rooney, MBChB, FRCA, FRCM, Consultant in Anaesthesia and Intensive Care Medicine, Professor of Care Improvement, University of the West of Scotland

When it comes to reliability, it's hard to beat the track record of paramedics and EMTs. Whether it's speed, knowing just what to do in the event of an accident, serious injury, gun violence, or heart attack, or the amazingly calm and reassuring way emergency responders go about their work, there are plenty of reasons to have pride on this group of individuals. This also includes how patients are cared for during that ambulance ride to the hospital emergency department.

MORE ON THIS TOPIC

WIHI: Transforming Tensions and Tempos on Health Care Teams >

Doing Right by Our Patients When Things Go Wrong in the Ambulatory Setting >

Transplant Guardian Angel Always Event >

"Same Page" Transitional Care Resources for Patients and Care Partners >

Always Use Teach Back! >

View All >

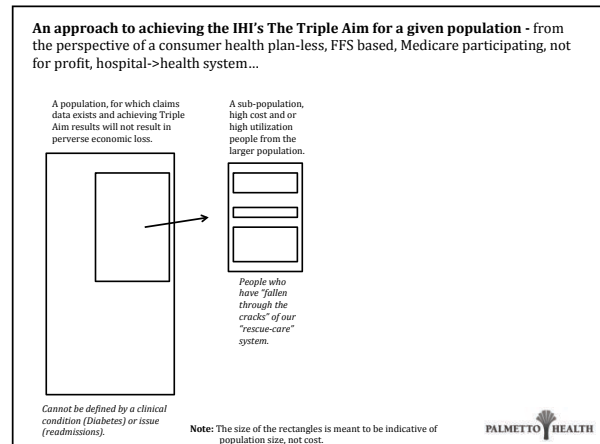
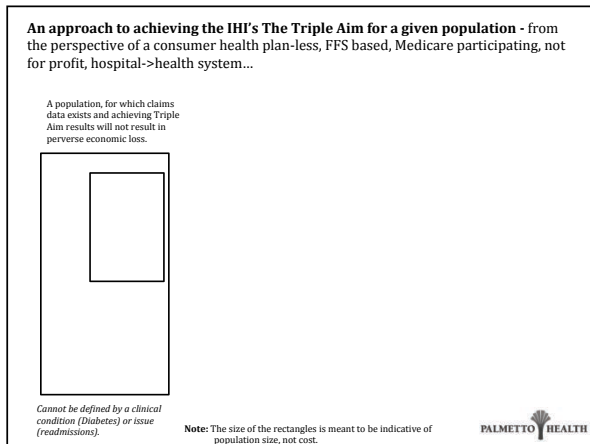
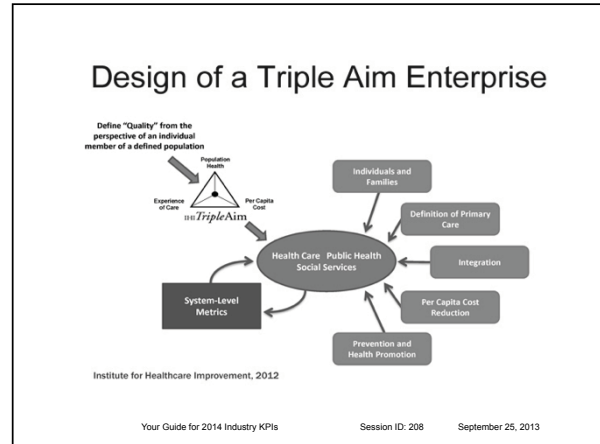
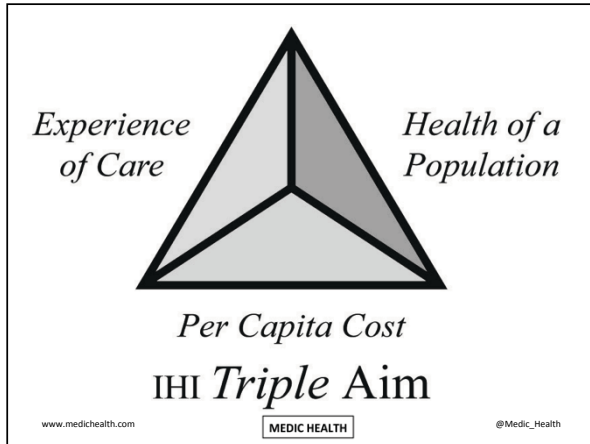
WIHI
FREE AUDIO PROGRAM FROM IHI

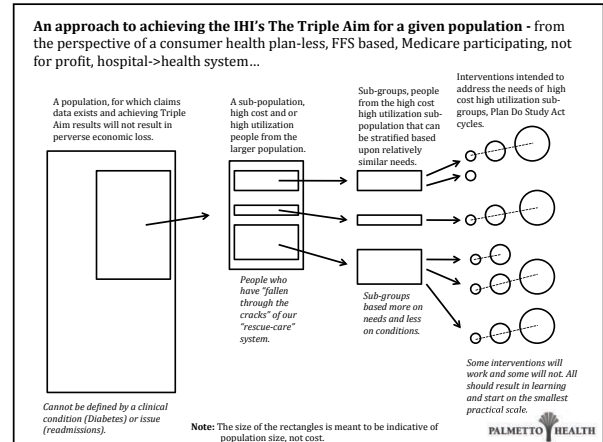
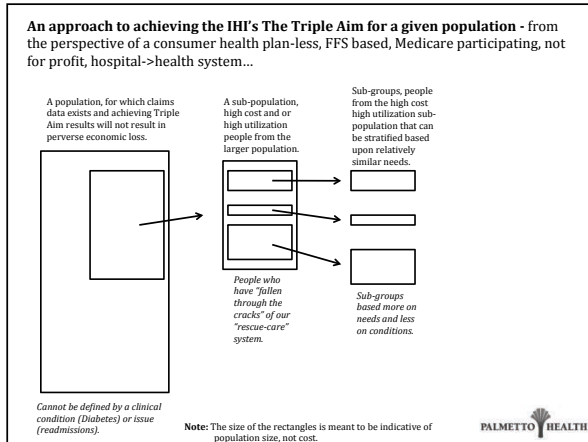
WIHI is IHI's free "talk show" program that helps health care improvers keep up with the freshest and most robust thinking and strategies for improving patient care.

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How IHI designs for results.

THE DESIGN

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Five Core Components

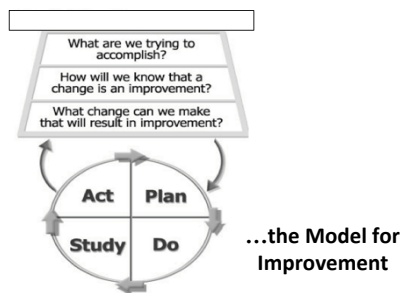
Core Component	Project Stage				
	Exploring	Design - proposing	Design - post funding	Improvement	Close-out
1) Goals <i>Aim Statement</i>	Consider	Propose	Clarify	Amend	Finalize
2) Content Theory <i>Driver Diagram or Change Package</i>					
3) Execution Theory <i>Logic Model</i>					
4) Data Measurement & Learning <i>Measurement Plan</i>					
5) Dissemination <i>Dissemination Plan</i>					

IHI: Source
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Aims, Measures, & Tests of Change



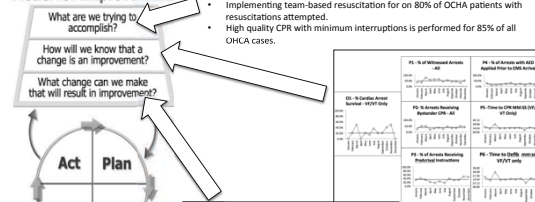
Langley et al. Improvement Guide (2nd, Ed)

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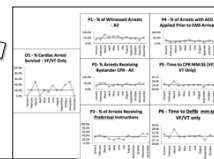
Model for Improvement



Aim Statement:

Increase the percentage of neurologically intact, non-traumatic, out-of-hospital Ventricular Fibrillation (VF) cardiac arrest (OHCA) adult patient survivals by 10% by June 30, 2013 by:

- Increasing the number of OHCA patients who receive dispatcher assisted CPR to 50% of cases
- Increasing bystander/layperson CPR to 50% of witnessed arrests
- Implementing team-based resuscitation for on 80% of OHCA patients with resuscitations attempted.
- High quality CPR with minimum interruptions is performed for 85% of all OHCA cases.

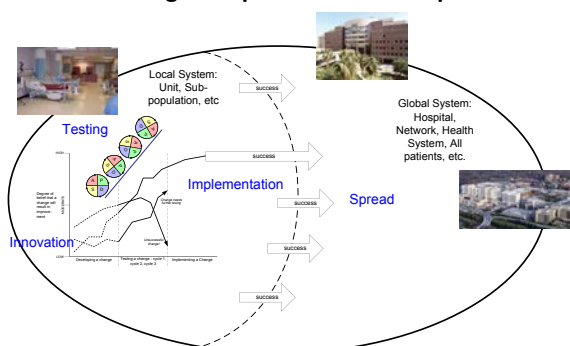


Source: AMR Medicine

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Testing to Implementation to Spread

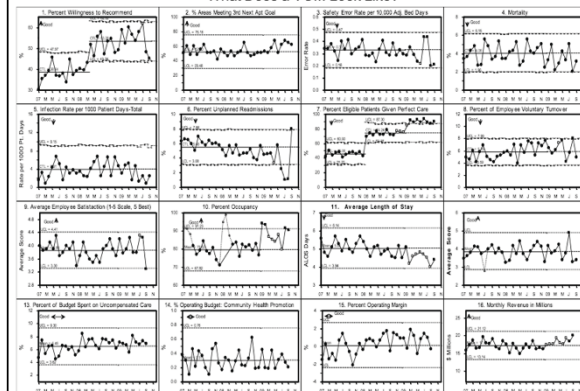


Source: IHI, Carol Haraden

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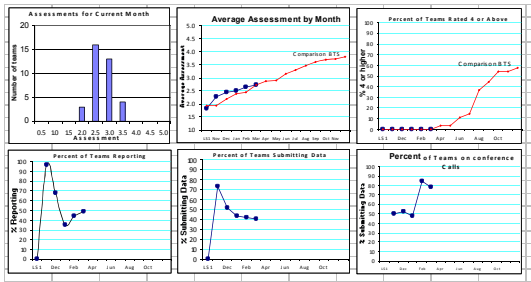
What Does a VOM Look Like?



18

Source: The Data Guide. Provost and Murray 2010

Supporting Resource Learning System Dashboard



Source: Robert Lloyd, PhD, IHI

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Case Example for Mobile Integrated Health / Community Paramedicine

APPLICATION TO MIH

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Community paramedics: a scoping review of their emergence and potential impact

Peer O'Brien, professor of rural and regional paramedics and head of paramedics public and community health, La Trobe Rural Health School, La Trobe University, Bundoora, Australia
Email: p.obrien@latrobe.edu.au

Abstract
The emergence of new complex professional roles within the health sector has led to the development of new professional roles. This paper reviews the emergence of community paramedics, a new professional role that is emerging in many health systems. The paper discusses the role of community paramedics in the health system, the challenges they face, and the potential impact they may have on the health system. The paper also discusses the role of community paramedics in the health system, the challenges they face, and the potential impact they may have on the health system.

EDUCATION AND PRACTICE

EXPANDING PARAMEDIC SCOPE OF PRACTICE IN THE COMMUNITY: A
SYSTEMATIC REVIEW OF THE LITERATURE
Blair L. Higham, MA, ACTP, Susan M. Kennedy, MA, ACTP, Ian Dorman, BSc, PCT,
Laurie J. Morrison, BA, PhD

Abstract
Background: Paramedics are an essential part of the health system, providing a range of services to the community. This paper reviews the role of paramedics in the health system, the challenges they face, and the potential impact they may have on the health system. The paper also discusses the role of paramedics in the health system, the challenges they face, and the potential impact they may have on the health system.

Ambulance Today Summer 2014

The cover of the Summer 2014 issue of Ambulance Today features a black and white photograph of a paramedic in uniform. The title 'Community Paramedicine' is prominently displayed in a large, bold font. Below the title, there is a subtitle: 'Expanding ambulance services beyond emergency and urgent care'. The cover also includes a small photo of a person and some text about the magazine's content.

Scan International Colleagues



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Developing Aims

What, by how much, and by when...

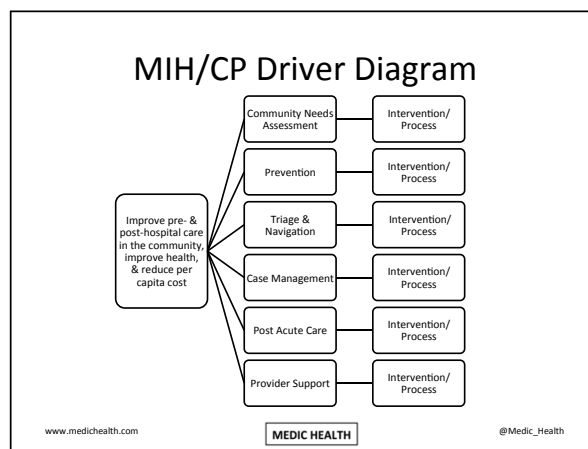
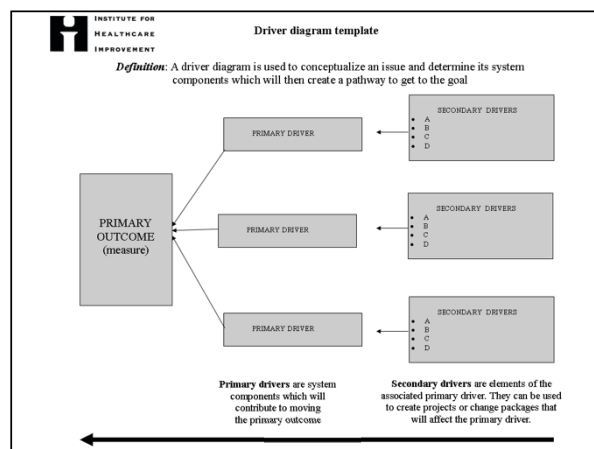
Examples...

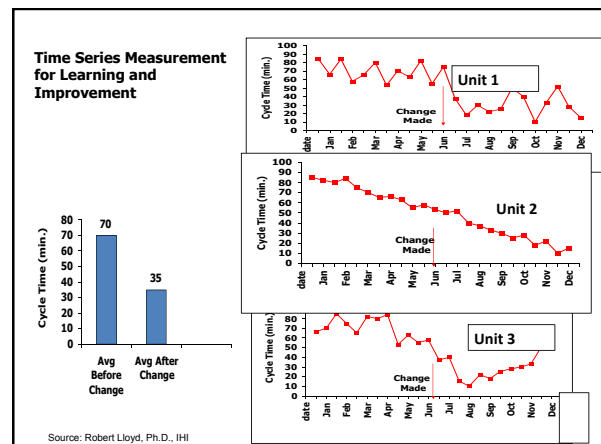
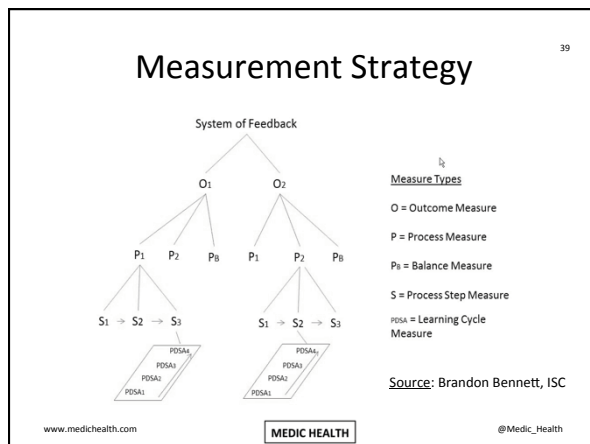
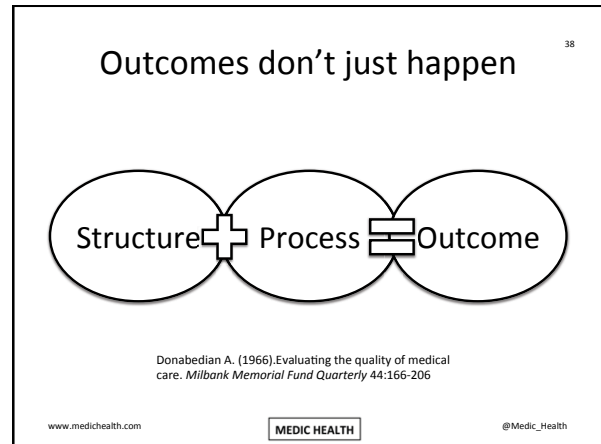
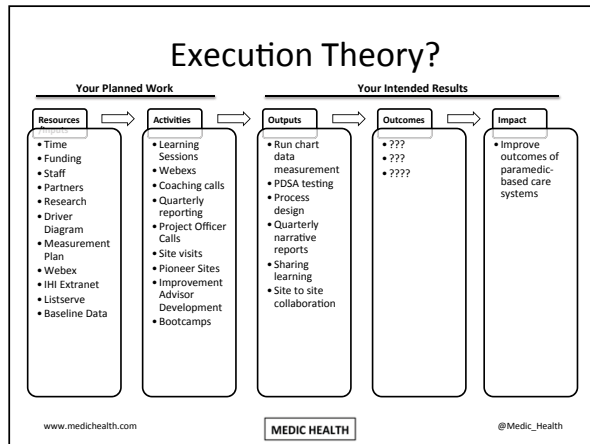
- Reduce alpha and omega transports to the emergency department by 50% by [insert date] in 2015.
 - Reduce alpha and omega transports by ambulance by 30% by [insert date] in 2015.
- Reduce hot spotter patient transports by 33% by [insert date] in 2015.
- Reduce elderly falls in the community by 40% [insert date] in 2015.
- ????

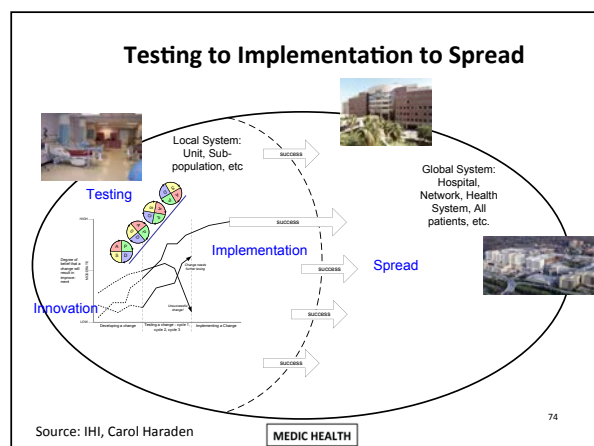
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In conclusion

THIS IS THE END

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What we are watching...

- Evidence of improved patient experience and care outcomes
- MIH/CP articulate a draft change theory and measurement strategy
- Movement from pilots and enrolled population to population segmentation and serving a population
- Evidence of per capita cost reduction
- Peer reviewed publications of work

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Next Steps at IHI

- 2014 – 2015 – Innovation work continues on key care pathways
- Recommended testing a webex based program aimed at prehospital emergency care
- Talking with potential strategic partners
- Evaluating the interest and funding to test a BTS collaborative

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