Driver Diagrams: Moving Theory to Action

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This presenter has nothing to disclose.

Let’s say that our aim is to reduce patient harm…
In Order to Reduce Patient Harm and Mortality...

We have to know what changes, when taken together, will help us accomplish this aim.

THE DRIVER DIAGRAM
Outlining a Theory of the System

*The “Driver” Model*

Driver diagrams illuminate your hypothesis and clarify the changes needed to drive to the aim.
What Changes Can We Make?
Understanding the System for Weight Loss

“Every system is perfectly designed to achieve the results that it gets”

Source: Richard Scoville, Improvement Advisor

How Will We Know We Are Improving?
Understanding the System for Weight Loss with Measures

Measures let us
• Monitor progress in improving the system.
• Identify effective changes.

Source: Richard Scoville, Improvement Advisor
Appropriate Utilization of Resources at the End of Life
Utilization Measures (Last Six Months of Life)
- Hospital Days
- ICU Days
- Physician Visits

Drivers
- Hospital Care
- Coordination of Care
- Patient and Family Support
- Provider Supply

Secondary Drivers
- Appropriate Use of Intensive Hospital Services (ICU care)
- Identification of Patient Severity and Wishes with Respect to End of Life Care
- Timely Referral to Palliative Care and Hospice Options
- Identification of Provider Responsible for Coordination
- Handoff management
- Execution of a Shared Treatment Plan (for All Providers and Patient and Family)
- Assist Patient and Family to Establish Goals and Intentions
- Preparation of Family Caregivers to Cope with Exacerbation
- 24 Hour Access to Appropriate Services
- Availability of Providers
- Availability of Resources

Global Work: Drivers V.4

Outcomes
- People on ARV Treatment

Drivers
- Surveillance: Knowing and following the numbers
- Build Capacity for the system as a whole over time
- Availability of key inputs: Medicines, lay workers, coaching

Secondary Drivers
- The “count” of patients in need and in treatment is updated frequently
- Accurate assessment of need and opportunity for planning
- Use existing community resources, networks
- Redesign and simplify workflows to meet need
- Continuous study to increase efficiency and prevent sub-optimization
- Identify and secure mission critical inputs
- Use substitutes on a temporary basis to get started
Going Deeply…

The Driver Diagram: tells us everything in the system that we need to work on to reach our aim

Primary Drivers: tells us the BIG categories of work needed to reach our aim

Secondary Drivers: the changes we need to make to complete the Primary Driver

Change Package: what we actually have to do to make the changes work

The Sequence: Step 1

We decide to start by working on the Primary Driver: Provide appropriate, reliable and timely care to critically ill patients using evidence-based therapies.

We then decide to work on the Secondary Driver: Reduce Complications from CVCs.
**Primary Driver:** Provide appropriate, reliable and timely care to critically ill patients using evidence-based therapies in Hospital X, Pilot Site Y, by December 2011

<table>
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<tr>
<th>Secondary Drivers</th>
<th>Clinical Changes</th>
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<tr>
<td>Complications from Ventilators</td>
<td>Change Concept 1</td>
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<td>Complications from CVCs</td>
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<td>Sepsis Recognition and Treatment</td>
<td>Change Concept 1</td>
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The Sequence: Step 2

What do we have to work on to reduce complications from CVCs?

We decide to start with the CVC Maintenance Bundle
**Aim:** Reduce Complications from CVCs in Hospital X, Pilot Site by October 2011

Central Line Insertion Bundle  
Lead 1

Standardise Process: Line Carts and Dressing Kits  
Lead 1

CVC Maintenance Bundle

Partner with Accident and Emergency and Operating Theatres for Standardisation

Lead 2  
Lead 3

The Sequence: Step 3

There are many changes within the CVC Maintenance Bundle that must be tested and implemented.
Aim: Design a Reliable Process for CVC Maintenance Bundle by November 2011

Daily Checking and Need for CVC

Dressing in Tact and Changed w/i 7 Days

CVC Hub Decontamination

Chlorhexidine Gluconate

Hand Hygiene Prior to Access

Lead A  Lead A  Lead B  Lead B  Lead C

Remember that driver diagrams illuminate your hypothesis and clarify the changes needed to drive to the aim.
Scottish Patient Safety Programme Driver Diagrams

Primary Drivers
- Scottish Government Sets PSA as Strategic Priority
- Boards Endorse Safety as Key Strategic Priority
- Deliver the program
- Build a Sustainable Infrastructure for Improvement
- Align SPSP with national improvement programs and measures

Secondary Drivers
- National leaders openly endorse SPSP aims, failure is not an option for execs
- Time and space given for improvement (not a target)
- Royal Colleges serve in official capacity
- Safety is an element of all programs

- National Board development strategy
- Ownership of agreed upon set of outcomes and measures
- Quality and safety comprises 25% of agenda
- Development of infrastructure that supports improvement and measurement
- Clear improvement aims in strategic plan

- Segment hospitals, customize approach
- Work with IST, QIS and NES to develop unified improvement approach
- In-country support for Boards
- Spread strategy community hosp. primary care
- One Team

- Develop experts in imp. methods and coaching
- In-country measurement system, culture survey
- Safety work migrates to appropriate agency
- Training programs developed in Scotland
- Work with IST, QIS and NES to develop unified improvement approach

- Align aims and measures with national programs
- Develop a portfolio and execution model
- Build connection to safety in national work
- Define within clinical governance framework