

Model for Quality Improvement



Prepared by:



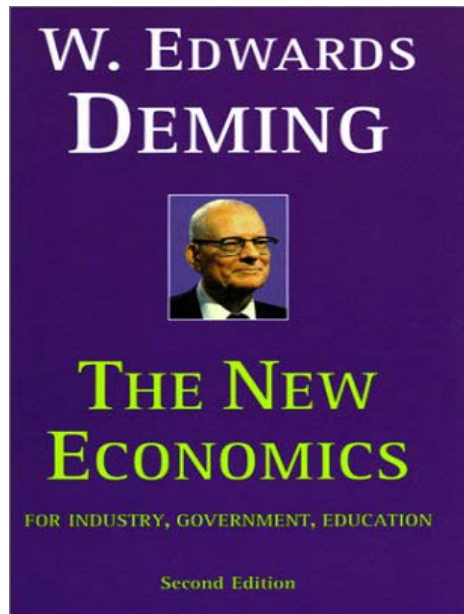
National Initiative for Children's Healthcare Quality

The Science of Improvement

Dr. W. Edwards Deming stressed the importance of studying four areas to become more effective in leading improvement:

- Appreciation of a system
- Understanding variation
- Theory of knowledge
- Psychology

Deming's System of Profound Knowledge



The aim of this chapter is to provide an outside view – a lens - that I call a system of profound knowledge. It provides a map of theory by which to understand the organizations that we work in.

W.E. Deming, *The New Economics*, 1994, Chapter 4

Two Types of Knowledge

Subject Matter Knowledge

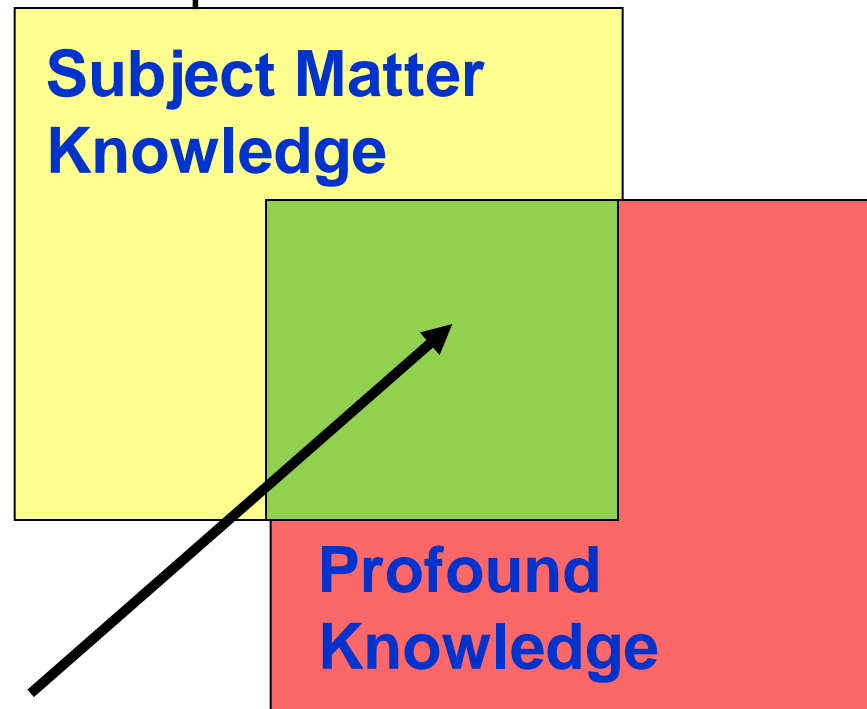
Subject Matter Knowledge: Knowledge basic to the things we do in life. Professional knowledge.

Profound Knowledge: The interplay of the theories of systems, variation, knowledge, and psychology.

Profound Knowledge

Knowledge for Improvement

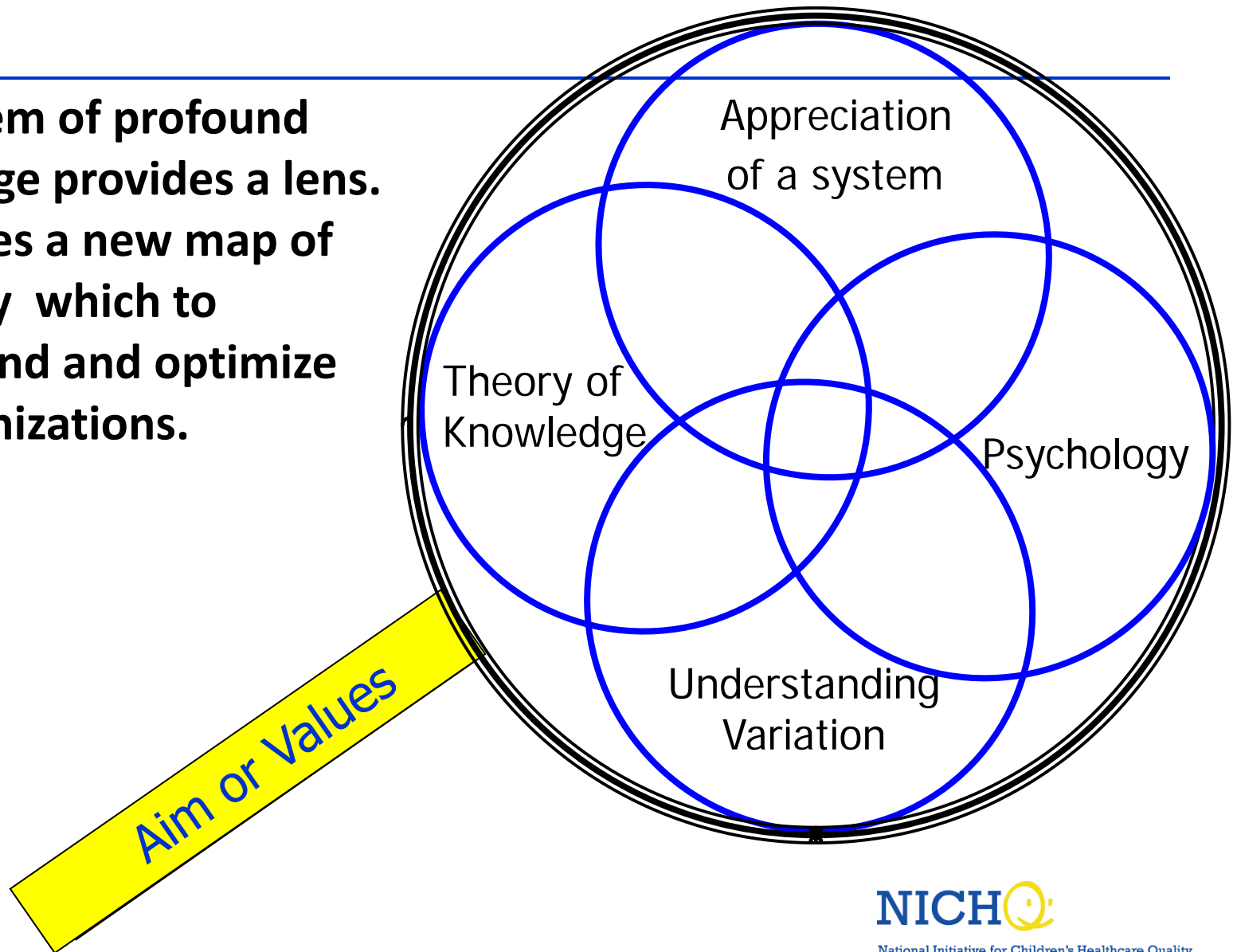
Improvement: Learn to combine subject matter knowledge and profound knowledge in creative ways to develop effective changes for improvement.



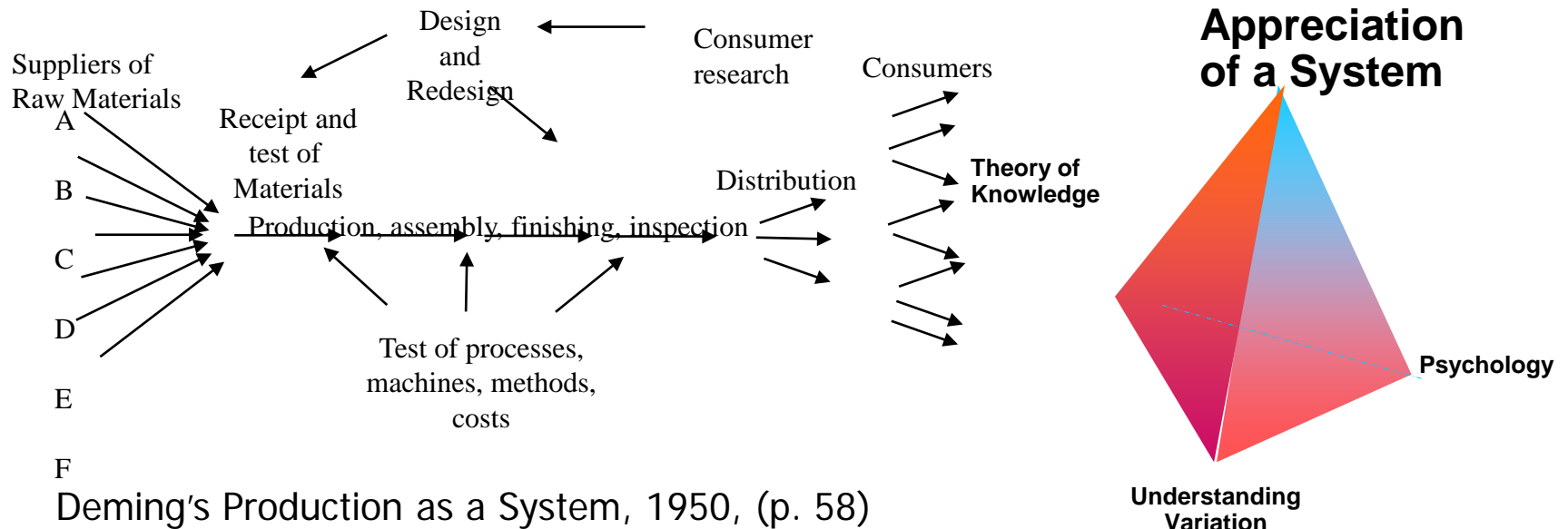
Improvement

Lens of Profound Knowledge

The system of profound knowledge provides a lens. It provides a new map of theory by which to understand and optimize our organizations.

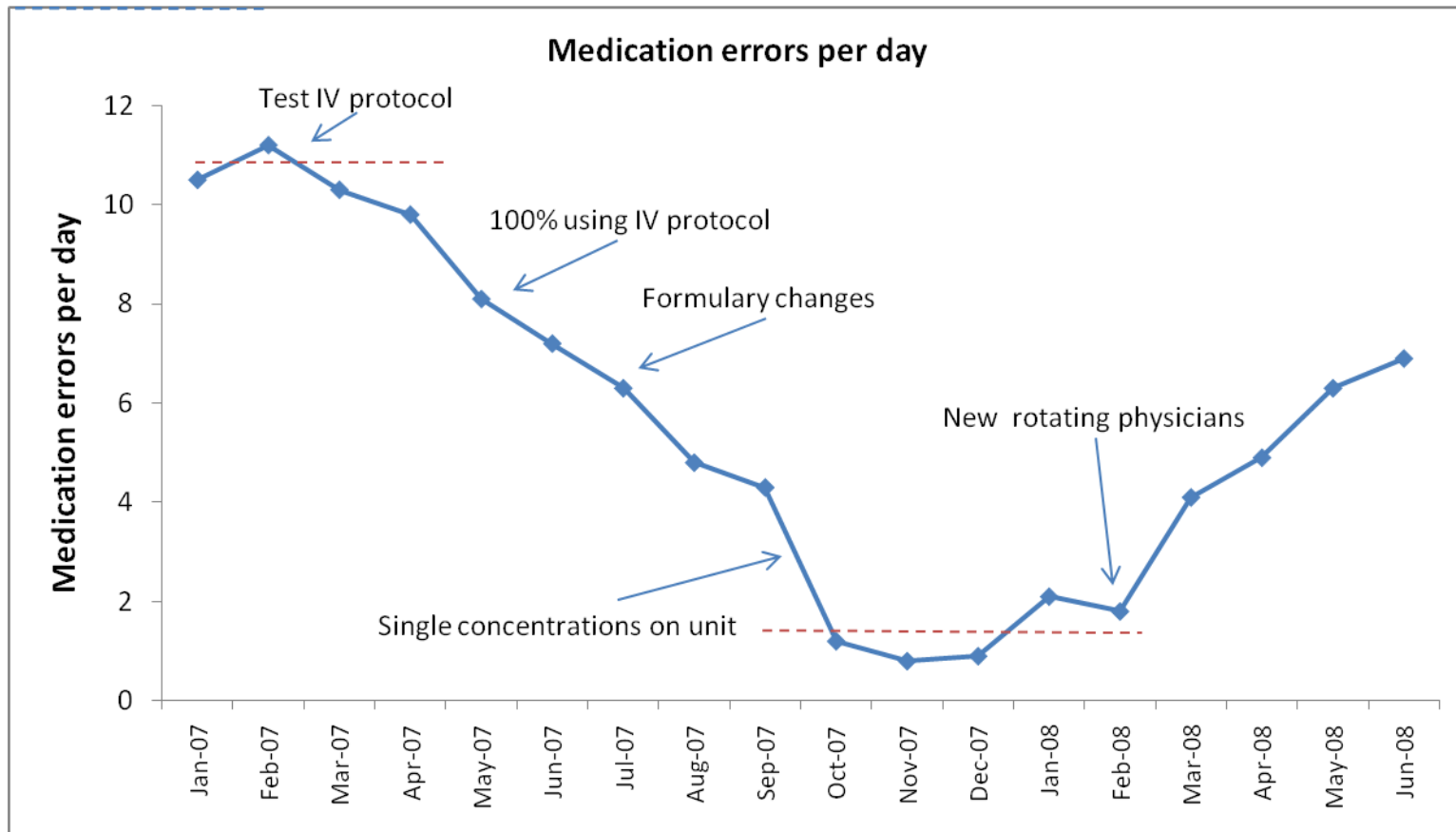


Profound Knowledge: Appreciation of a System



- A system is a network of interdependent components that work together to try to accomplish the aim of the system
- The greater the interdependence between components, the greater will be the need for communication and cooperation between them
- Obligation of a component of a system – to contribute its best to the system
- Basis for negotiation – Best for everyone, everybody gain

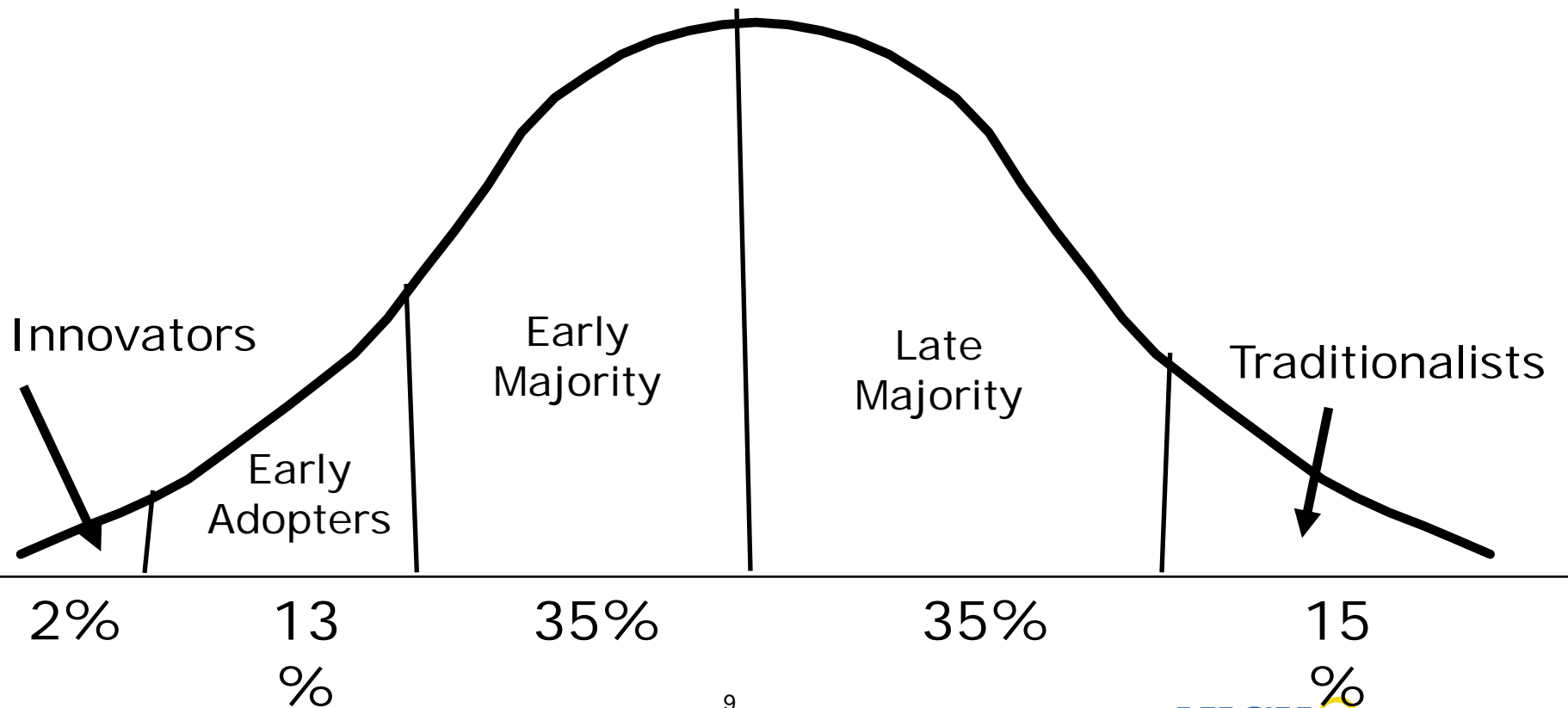
Applying our Knowledge of Variation



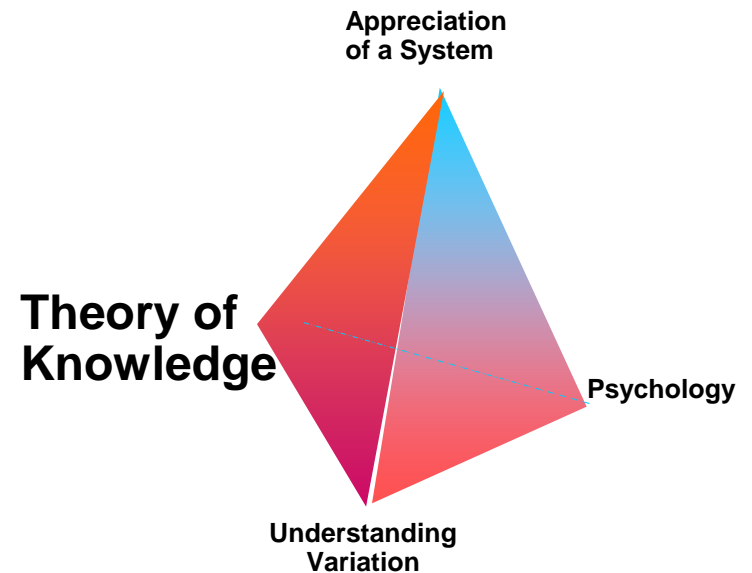
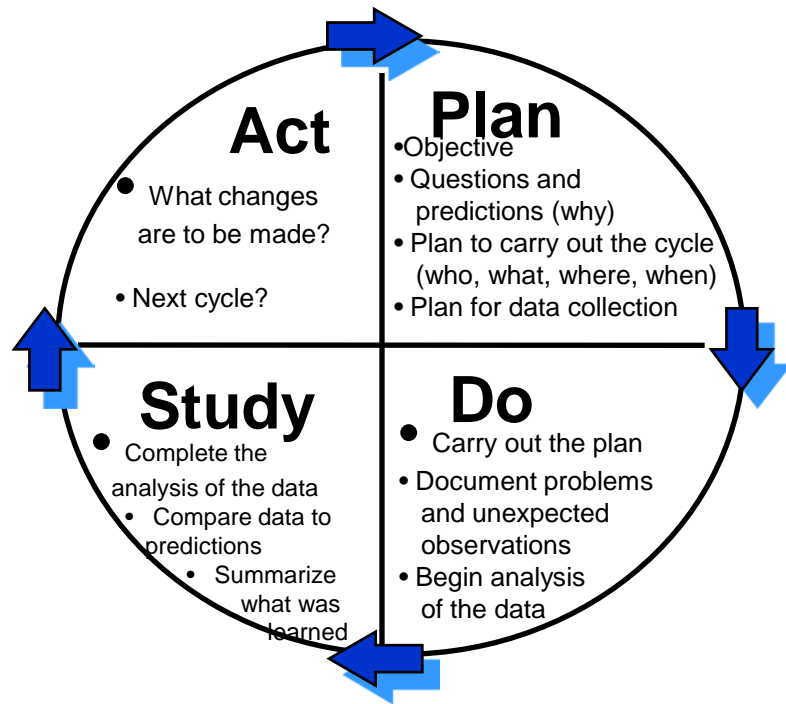
Profound Knowledge: Psychology

Spread Theory: Categorization of Adopters

Our targets for QI interventions have different levels of interest in changing



Profound Knowledge: Theory of Knowledge

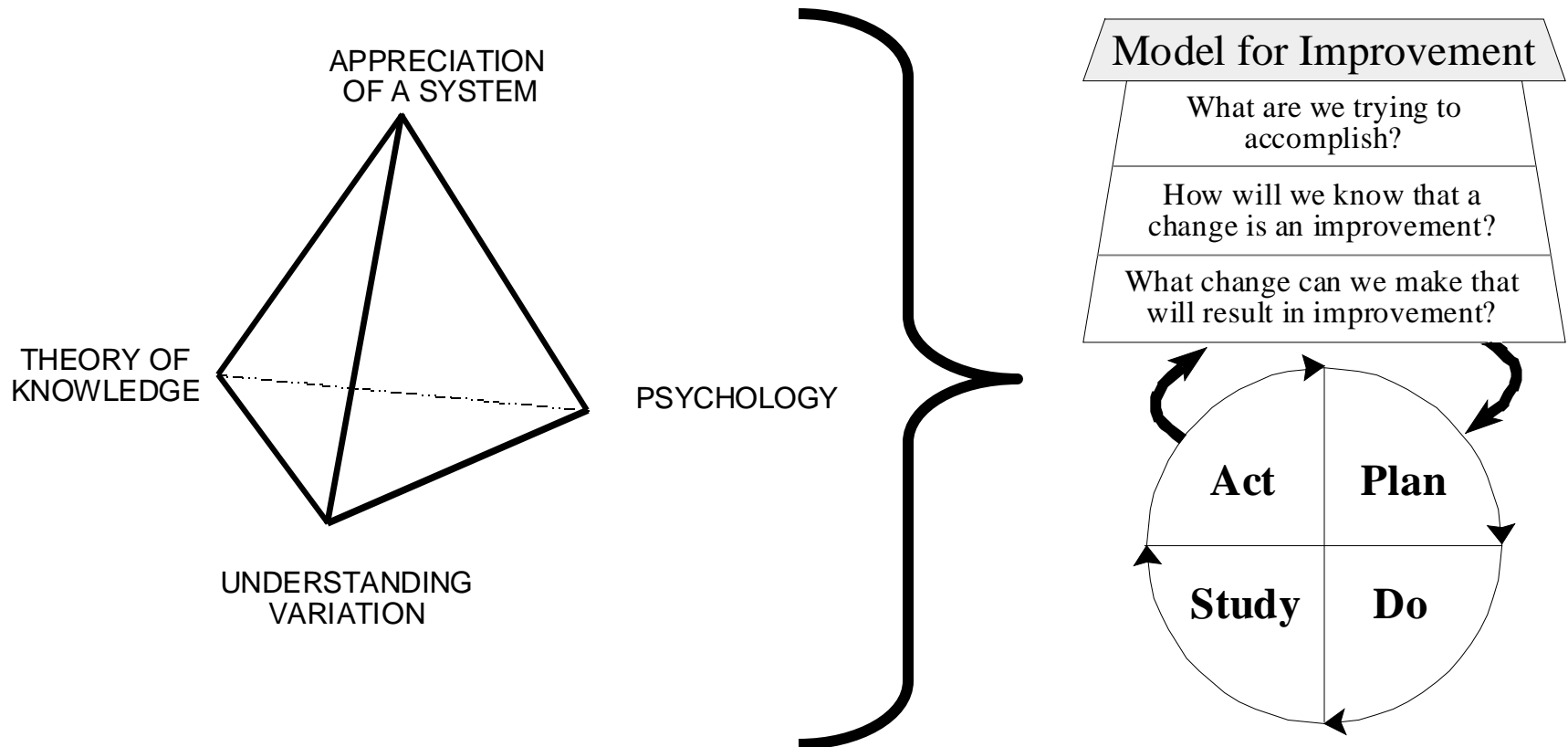


Knowledge is built on theory

Theory is required for learning

Theories are tested (positivism/hypothesis testing)

Knowledge for Improvement and the Model for Improvement



Philosophy: *Act our way into learning instead of planning (thinking) our way into action.*

Building Knowledge with Multiple PDSA Cycles

Sequential building of knowledge

A bias for action, then learning

Include a wide range of conditions in the sequence of tests

Evidence & Data

Changes That Result in Improvement

Implementation of Change

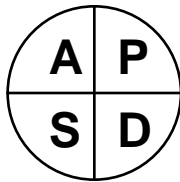
Wide-Scale Tests of Change

Follow-up Tests

Very Small Scale Test

Learning and improvement

Hunches
Theories
Ideas

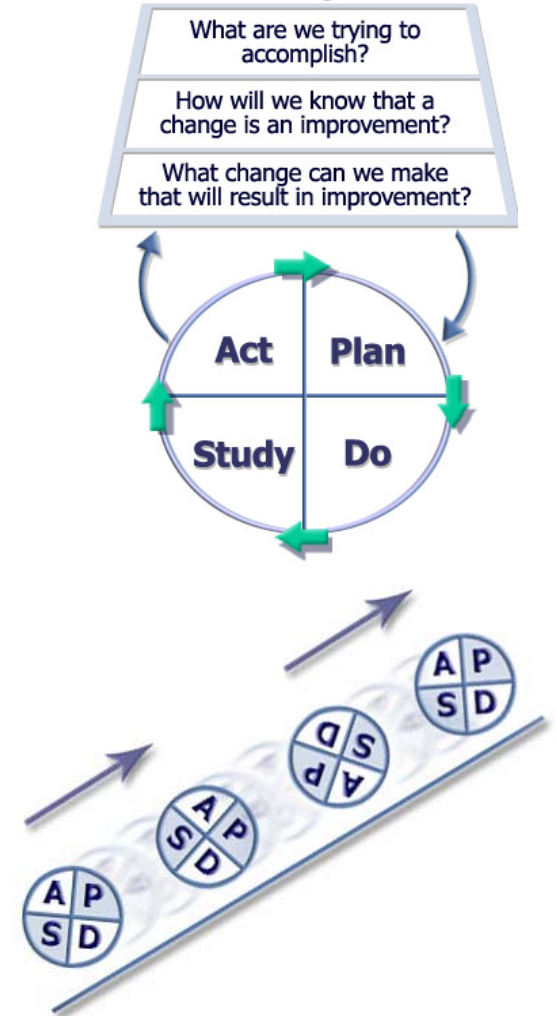


Why This Framework for an Improvement Project?

The Model for Improvement:

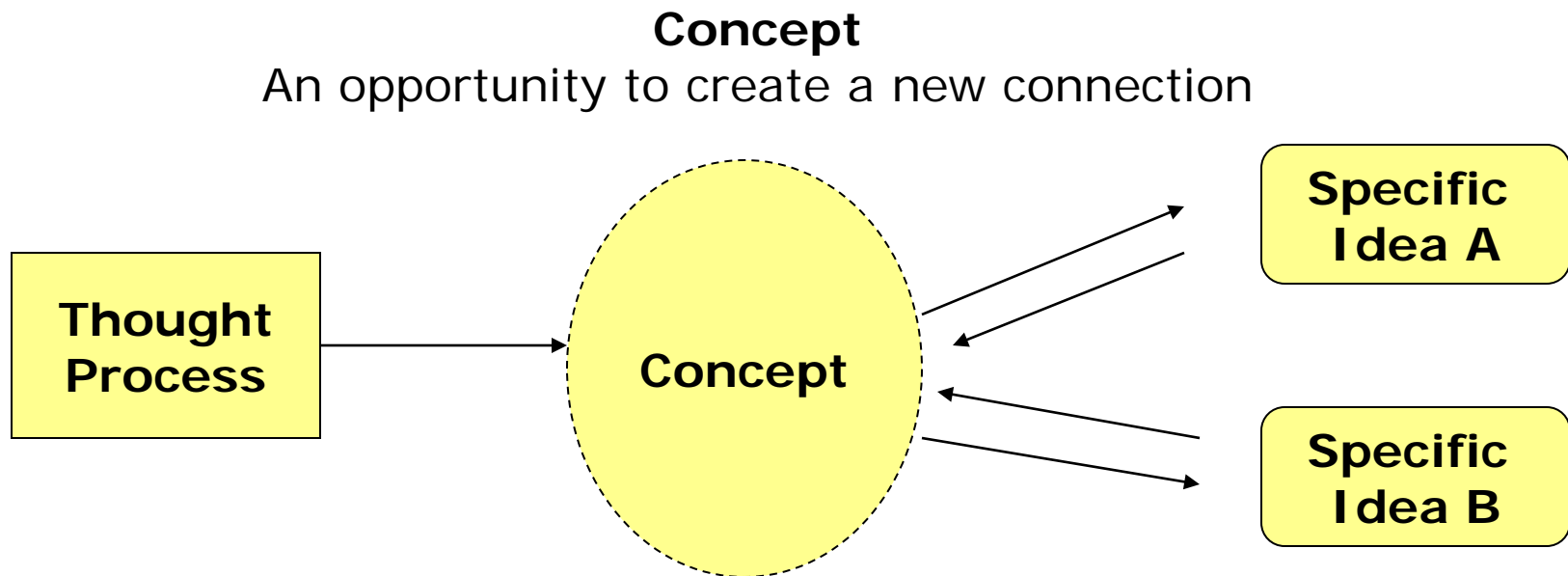
- Is useful for both process, service, and product improvement.
- Is applicable to all types of organizations.
- Is applicable to all groups and levels in an organization.
- Facilitates the use of teamwork to make improvements.
- Provides a framework for the application of improvement tools and methods.
- Encourages planning to be based on theory.
- Emphasizes and encourages the iterative learning process.
- Provides a way to empower people in the organization to take action.

Model for Improvement



What change can we make that will lead to improvement?

Change Concept: a general notion or approach to change that has been found to be useful in developing specific ideas for changes that lead to improvement.



Changes: Concepts vs. Specific Ideas

**Vague, Strategic,
Conceptual**



**Specific Ideas,
Actionable**

Reduce Demand



**Extend Visit Intervals
when appropriate**



**In written care plan, have adequate
non-visit follow up options so care plan
can be extended**



**At time of office visit, evaluate necessary time
interval for next office visit, and arrive at care
plan with family that builds in importance of
“medical home” care and delineates when and
how to access between visit care including which
care provider’s office should be called.**

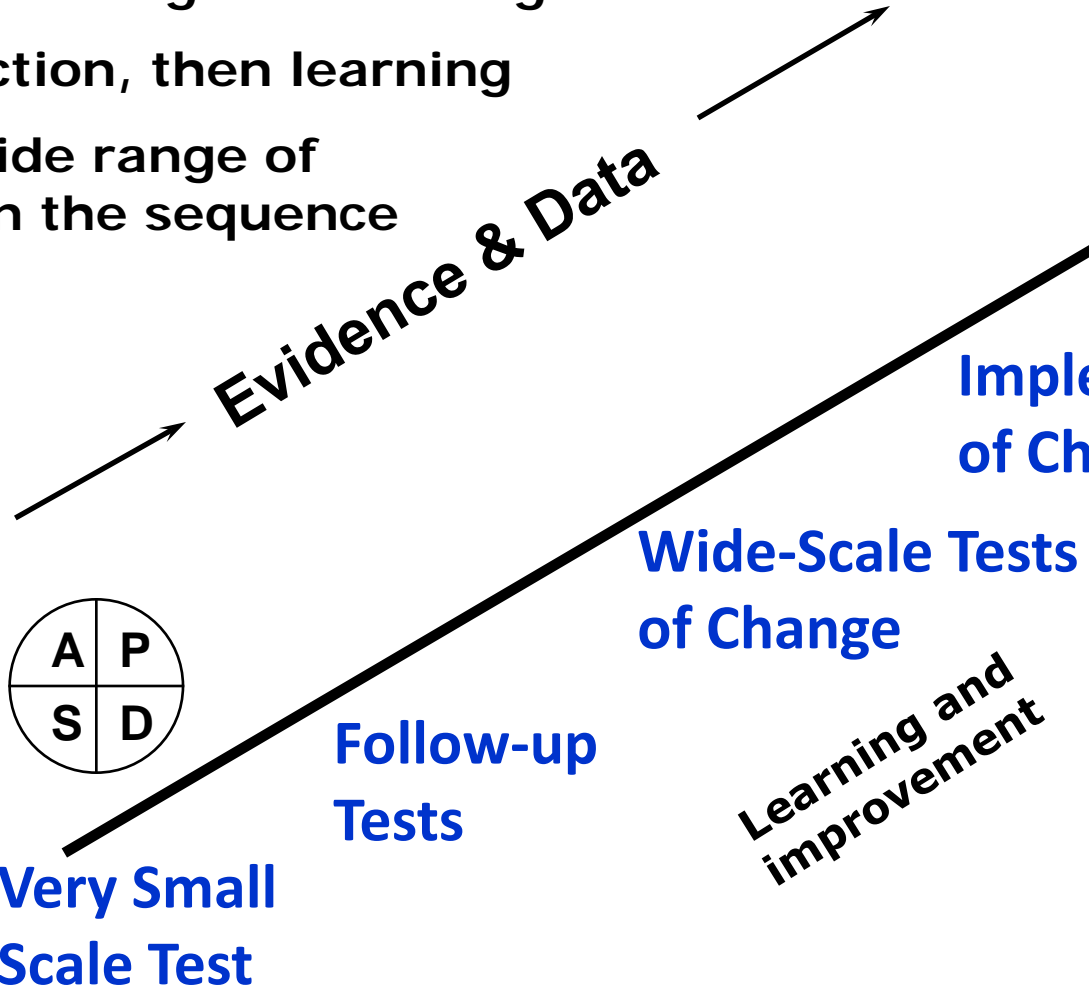
Building Knowledge with Multiple PDSA Cycles

Sequential building of knowledge

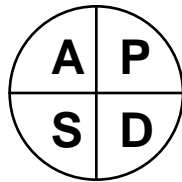
A bias for action, then learning

Include a wide range of conditions in the sequence of tests

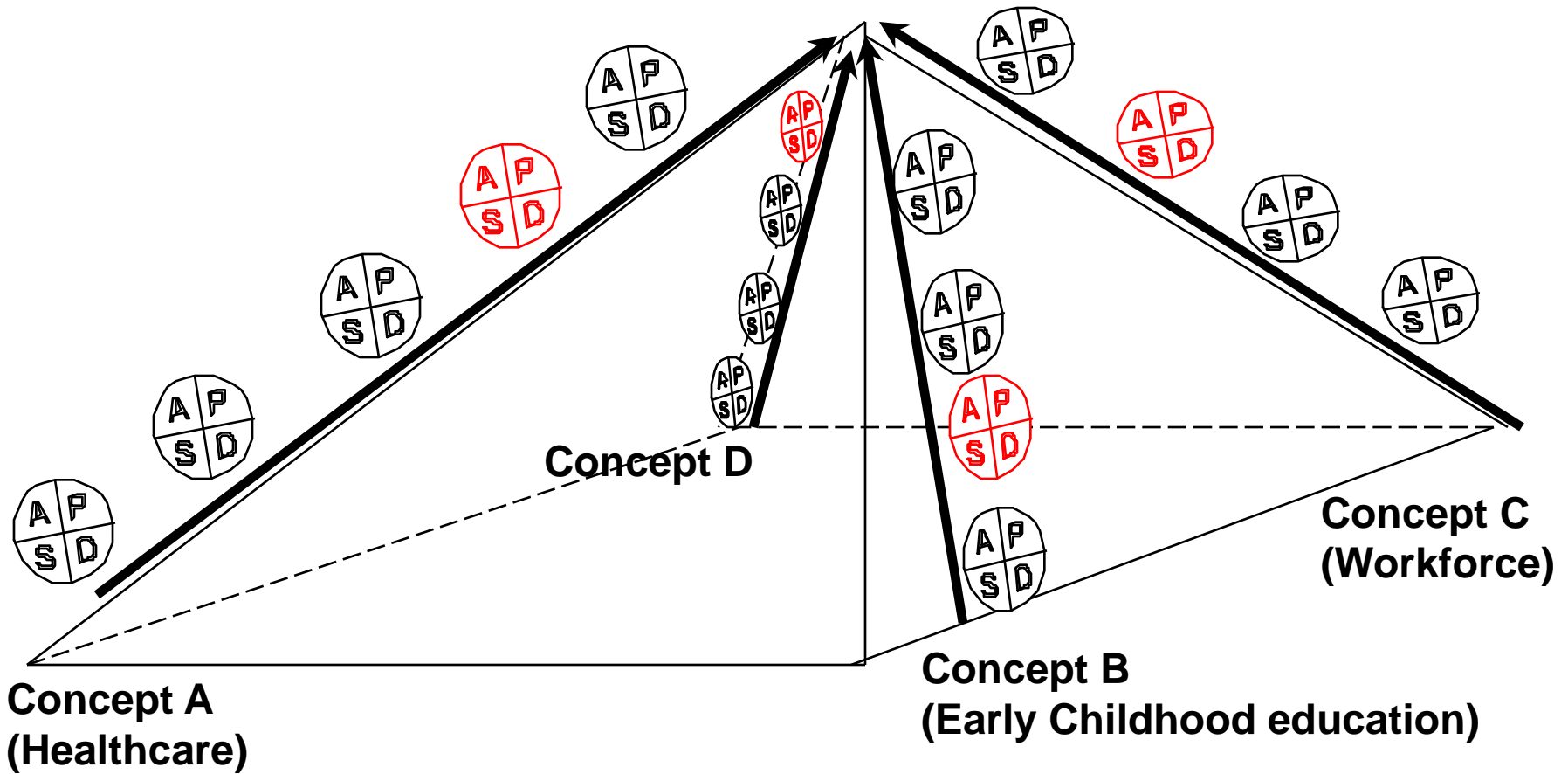
Changes That Result in Improvement



Hunches
Theories
Ideas

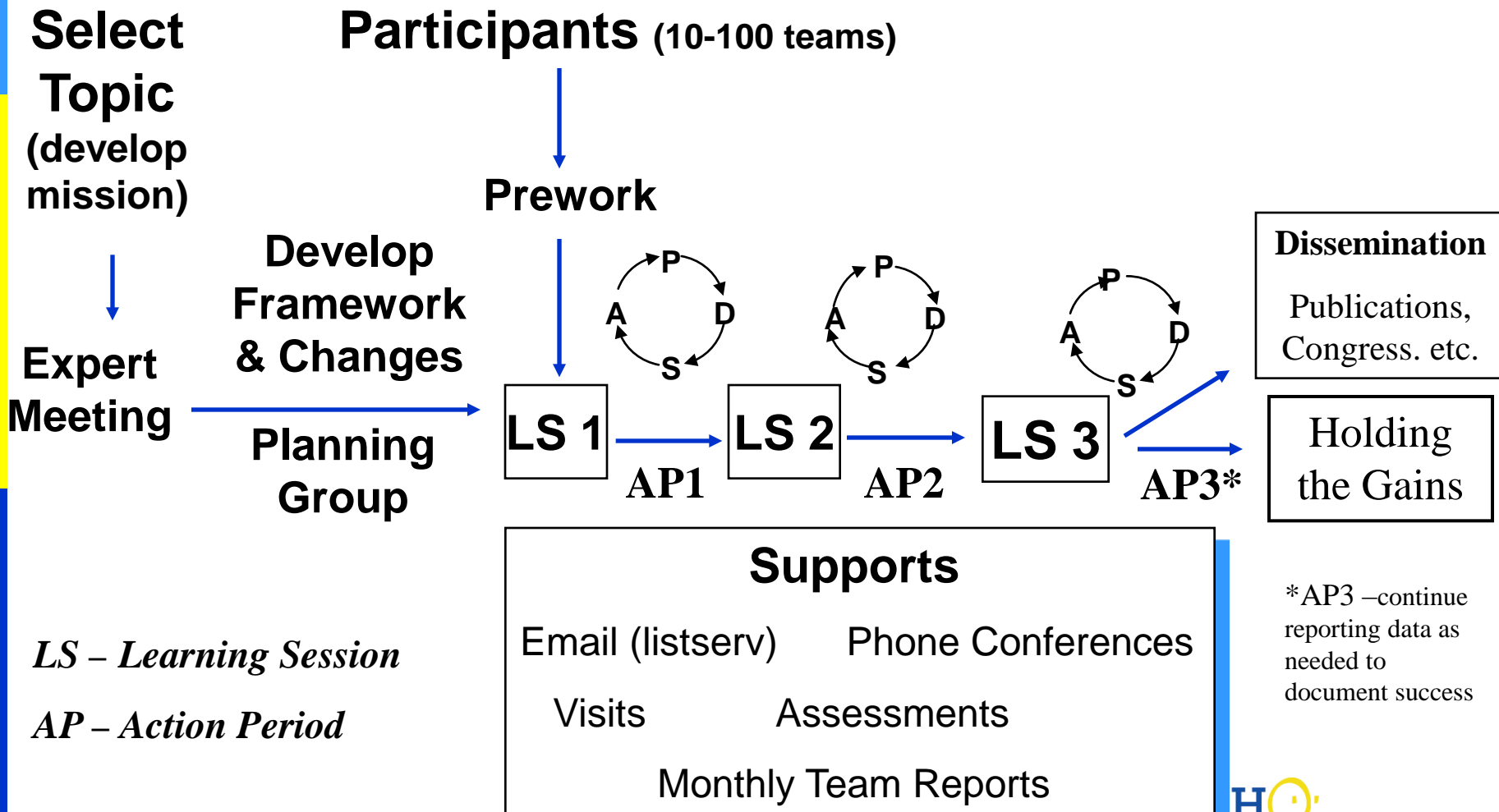


AIM



Change Concepts, Theories, Ideas

Breakthrough Series – work with multiple sites at the same time to accelerate learning



A Framework for Spread

Leadership

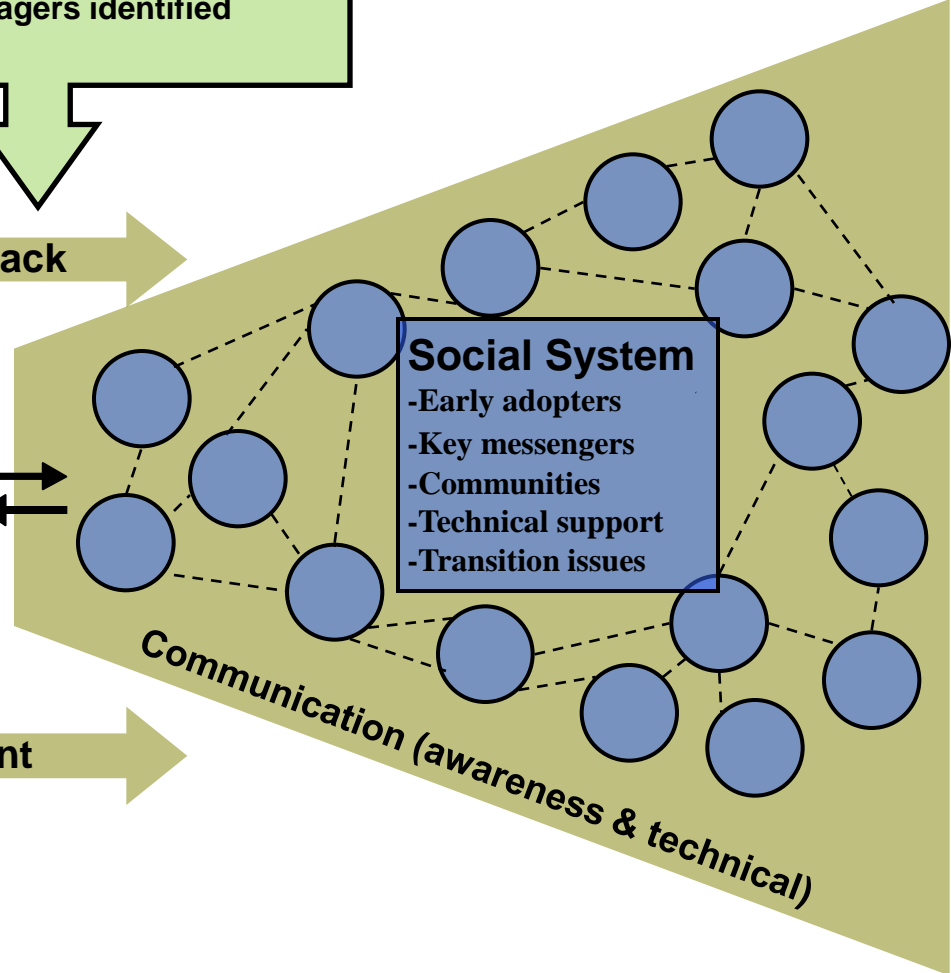
- Topic is a key strategic initiative
- Goals and incentives/policies aligned
- Executive sponsor assigned
- Day-to-day managers identified
- Aim developed

Set-up

- Adopter audiences
- Successful sites
- Key partners
- Infrastructure supports to enable adoption
- Initial spread strategy (leverage system structure)

Better Ideas

- Develop the case
- Describe the ideas



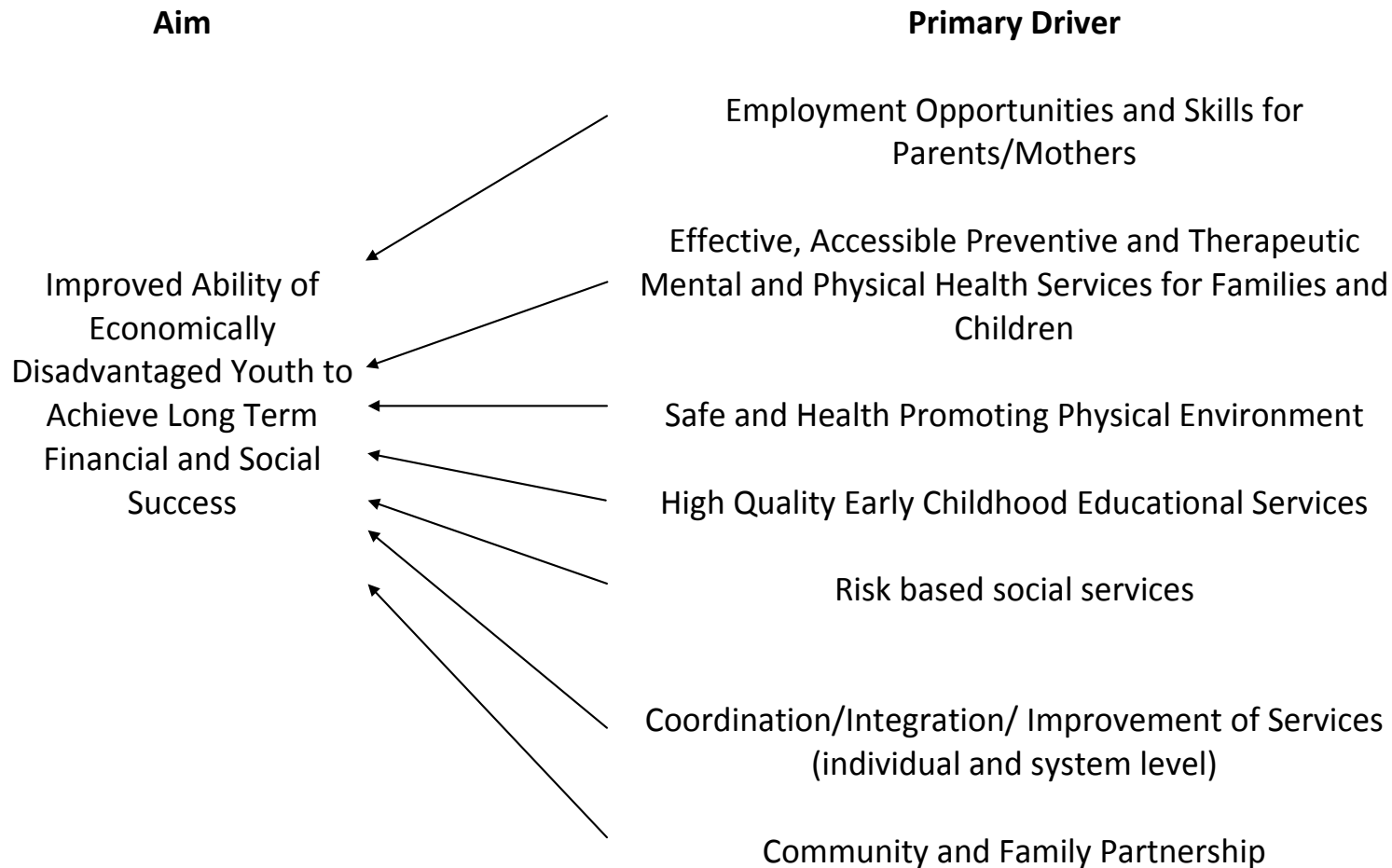
Measurement and Feedback

Knowledge Management

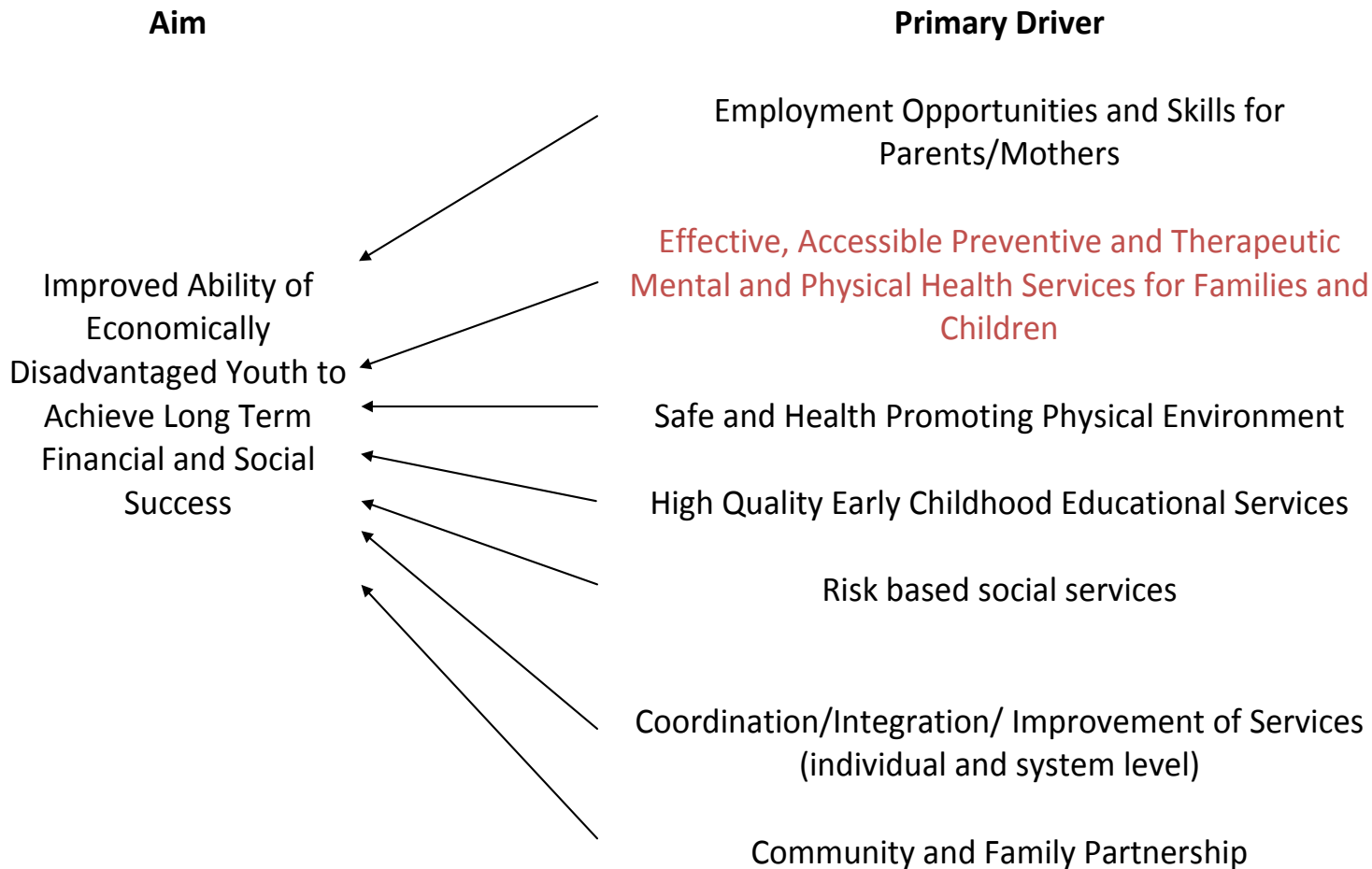
Next steps

- To develop a driver diagram to make theory to the Harvard/Tulsa Children's Initiative explicit (not just 5 components going on). Need whole team involved in this.
- To develop a project measurement system associated with the driver diagram to evaluate progress for each primary drivers
- To identify and document initial changes to test for each of the components of primary drivers (change packages)
- Start the learning sessions (Jump Start for the health projects and for some generic improvement projects to create improvement capability in Tulsa at OU and CAP)

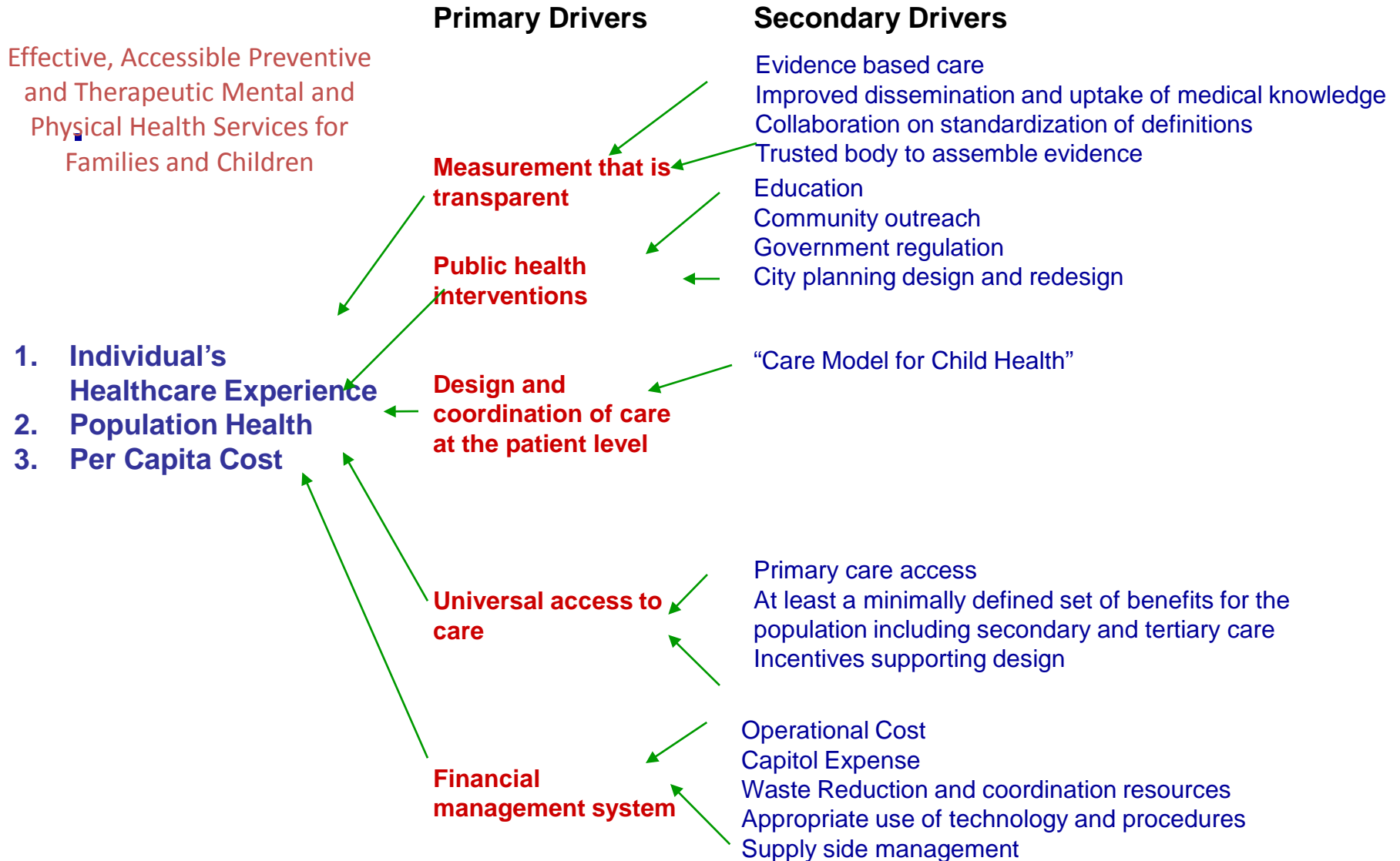
Tulsa Initiative: Draft Driver Diagram



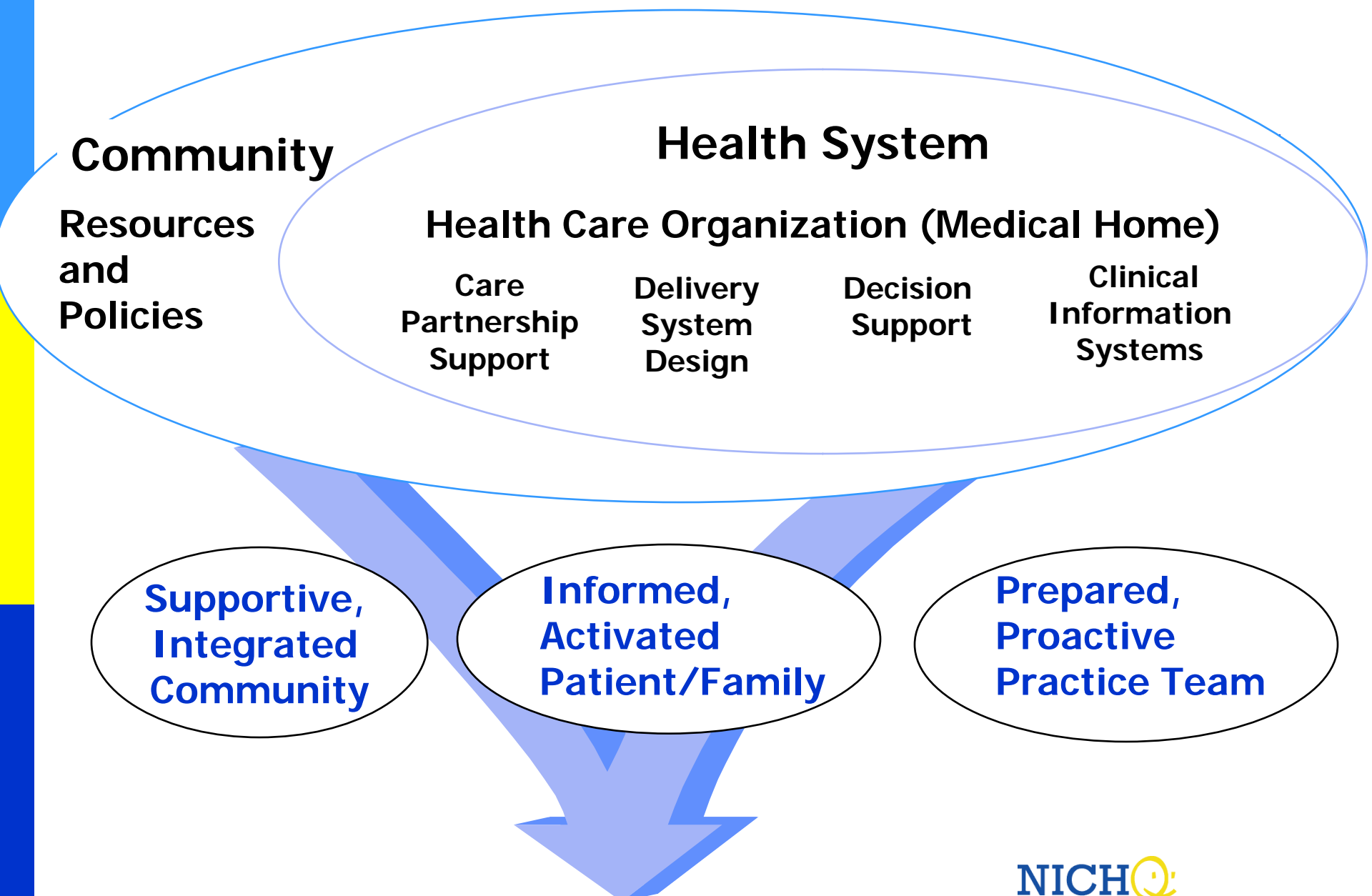
Tulsa Initiative: Draft Driver Diagram



Driver Diagram for Triple Aim



Care Model for Child Health



Primary

Secondary

