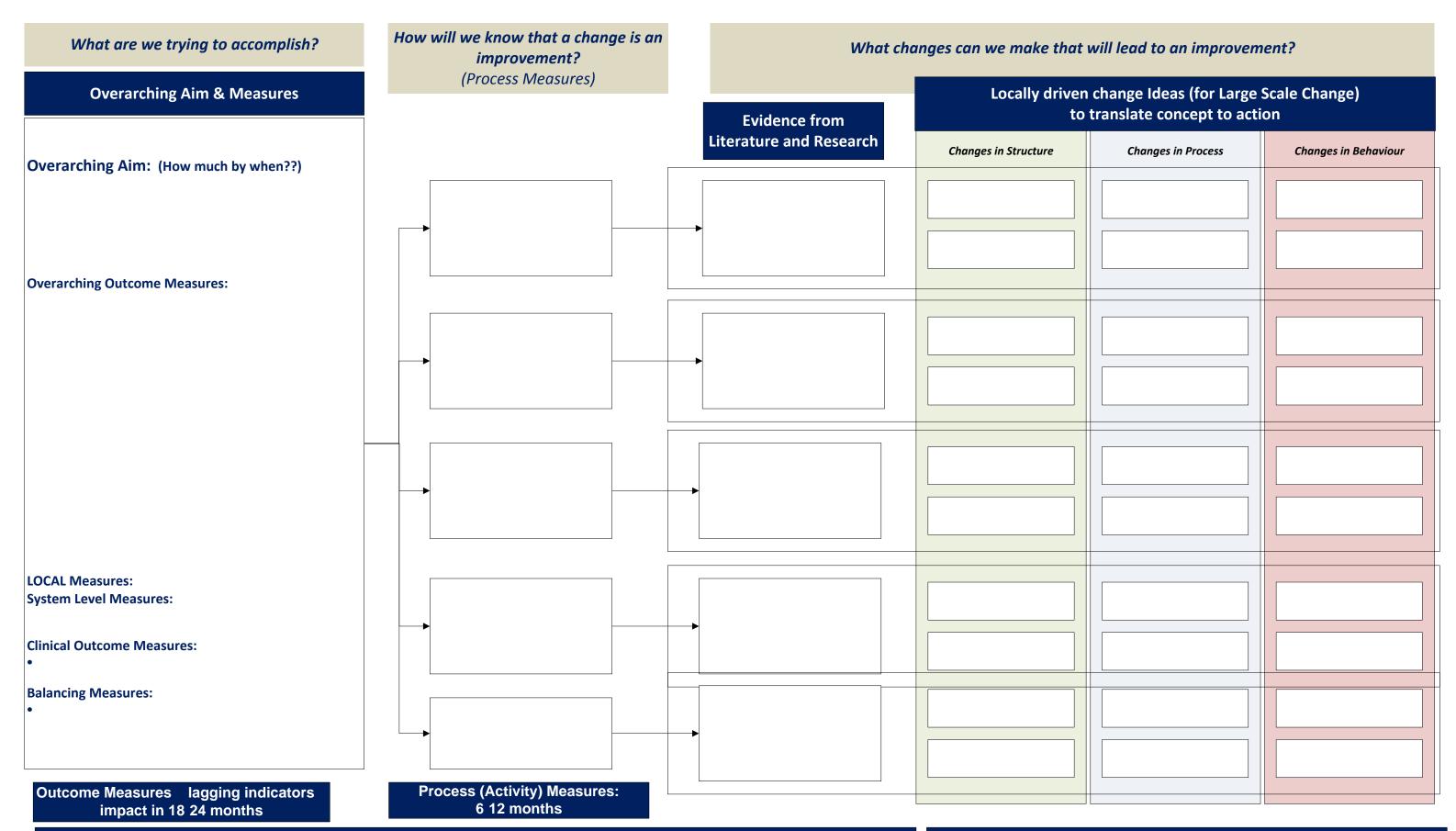
**Project:** 

## **Tree Diagram Worksheet**

In a tree diagram, reading left-to-right answers "how", while right-to-left answers "why"

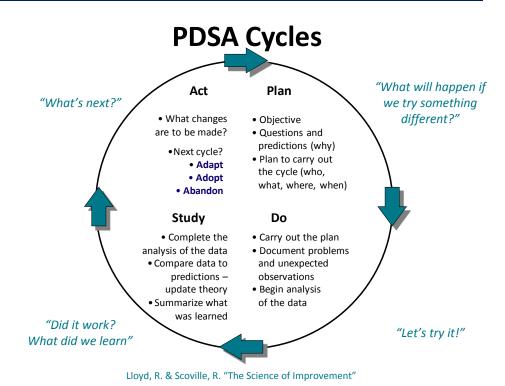




# **System Transformation through Quality Improvement**

## **Developing, Implementing and Testing Change Ideas**

# The Model for Improvement What are we trying to accomplish? AIM -How will we know if a change is an improvement? **MEASURE** CHANGE What changes can we make that will result in improvement **RAPID CYCLE IMPROVEMENT** STUDY DO Langley, Nolan, Nolan, Norman, Provost, Moen "The Improvement Guide"



### **Measuring Improvement**

# **A Family of Measures**

AIM: What are we trying to accomplish? How much by when?

#### **Outcome measures**

- Are we fulfilling our aim?
- What's important for the customer?
- This is the "so what" piece
- Outcome measures are lagging indicators
- Voice of the customer

- Are we doing the things we said we'd do that we thought would result in an improvement?
- How long does it take us? Is it useful?
- Process measures are leading indicators
- Voice of the system

#### **Balancing measures**

- Are we inadvertently impacting other parts of the system through our action?
- What could go wrong if we do this?
- Differentiating between Outcome and Balancing measures often depends on the intent. If you are trying to improve it, then it's an outcome measure. If you want it to stay the same, it's a balancing measure (e.g. client satisfaction)

### **PDSA** measures

- How long does it take to complete the form? (Quantitative data on the impact of a particular change to work flow)
- Is it difficult to complete? (qualitative data to help refine the change)
- Intended to inform the next cycle/identify areas of process to "tweak"

### **Designing Improvements**

**Defects:** 

# Foundational Lean Principles & **Design Attributes**

# **Principles**

#### **Create Value:**

An activity that contributes directly to satisfying the needs of the customer

#### **Eliminate Waste:**

Over-production: doing too much/too early Waiting: for people, information, supplies Non-utilized brainpower Transportation: unnecessary movement of things Inventory: clients waiting to be assessed unnecessary movement of people

Extra processing/over-processing: over-assessing, redundancy

Clarification/re-work

Flow	Pull	Defect Free	Visual Management
➤ 1x1	> On demand	➤ No redundancy	>See normal from abnormal
➤ In sequence	> Inventory free	➤ No rework	➤ At a glance
➤ OHIO	One way to send	➤ No checking	➤In 5 seconds or less
> OHMO	> One way to receive	➤ No clarifying	➤ Everyone sees
➤ Link value added steps	> Tight connections	➤ Mistake proof	➤ Everyone acts/reacts
Standard work	> Supermarket	≻Andon	➤Standards
No waiting	> Consistent response times		

# **Sequencing Change Ideas into an Action Plan**

# **Impact-Effort Matrix**



# **Principles of Access**

- Understand and balance supply & demand
- Increase the supply of visits
- Reduce demand for visits
- Reduce appointment types and times
- Reduce backlog
- Develop contingency plans

+ Continuous Improvement! 20-Sept-2012