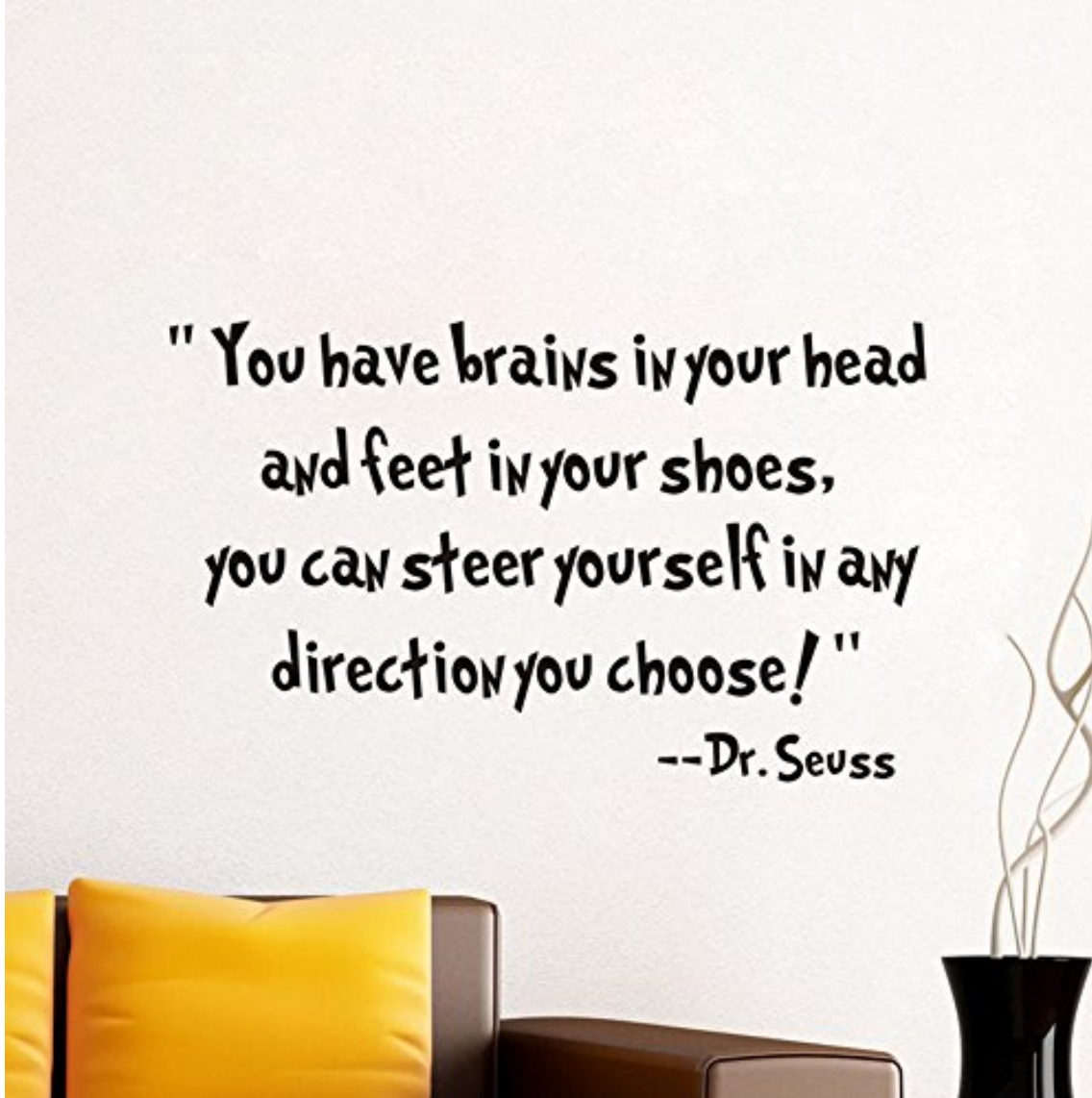


# *Continuous Quality Improvement (CQI) 104*

*Strategies for Using CQI Tools*

" You have brains in your head  
and feet in your shoes,  
you can steer yourself in any  
direction you choose! "  
--Dr. Seuss



# PDSA Cycles...Where Do I Start?

- Learn the PDSA Cycle
  - Plan, Do, Study, Act
- Start Small
  - Scale for tests of change (n=1)
  - Remember “failed” cycles are good learning opportunities, especially when small
- Cut it in half, and then cut it in half again...
  - If your team thinks you can do it in a quarter, what can you do in a month? What can you accomplish in two weeks or two days?

# PDSA: Plan

- Formulate a question and predict the answer to that question as a team
  - Make your predictions specific to help avoid hindsight bias
  - Include multiple perspectives from the team
  - What do you think will happen with this one *small* test?
- Plan to carry out the test (Who, What, and When?)
- Plan for data collection
  - Does your plan collect the data needed to evaluate the prediction and clearly state if your prediction was correct?

# PDSA: Do

- Carry out the plan
- Document observations
  - What is the CQI Team seeing? What are caregivers observing or reporting?
  - Are there any successful moments? Are there any unexpected issues?
- Begin analysis of data
  - Qualitative data is important in the early stages of a CQI project

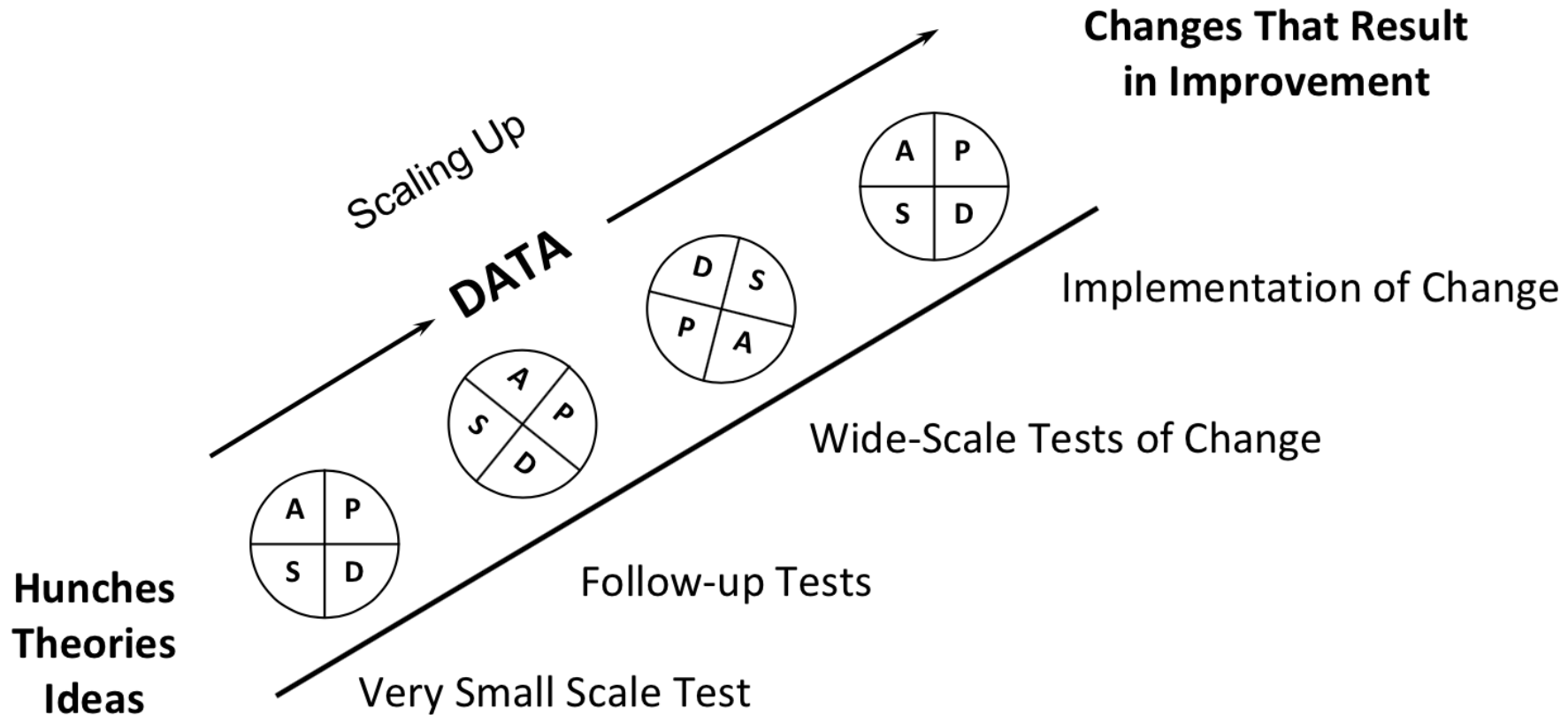
# PDSA: Study

- Complete the analysis of the data
  - Document and discuss unexpected observations
  - What did you learn that was surprising?
- Summarize what was learned
  - Discuss: Was the test carried out as planned? Were there any changes or variations? If yes, what got in the way this time and how can that be avoided?
- Compare the results of the test to your team's prediction
  - What did you learn about the change idea?
  - What modifications do you need to make for the next test?

# PDSA: Act

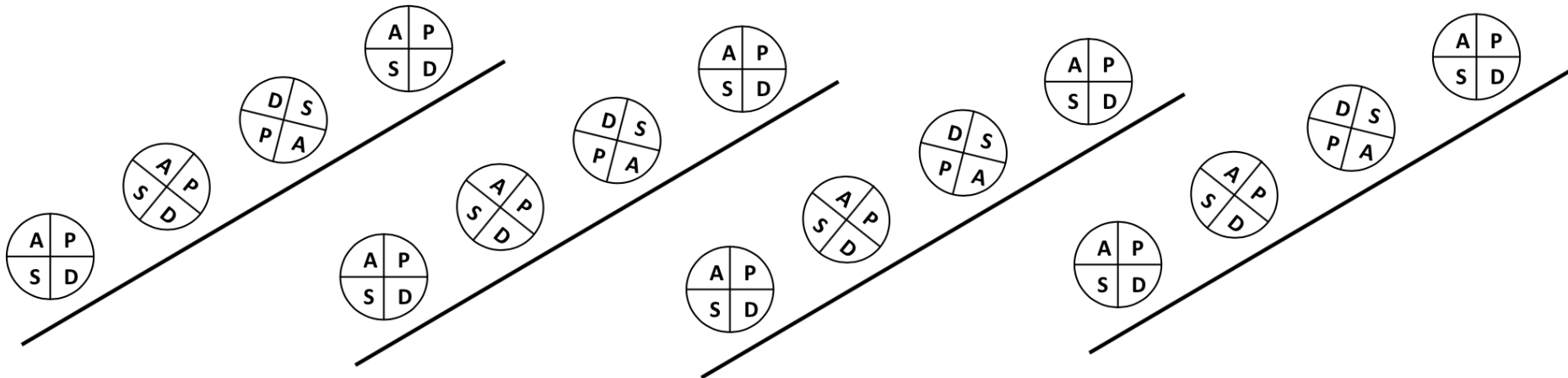
- Select an action based on the results of the test...
  - Adopt, Adapt, Abandon
- If appropriate, plan the next test and start over again at the beginning of the PDSA Cycle scaling up
- Keep your momentum moving
  - Use what you learned in this cycle to fine-tune changes for the next cycle if possible

# Ramps: Scaling Up...





# Scaling Up Example...



**Change Idea 1:**  
 Develop form to  
 track safe sleep

**Change Idea 2:** Develop  
 picture-driven  
 educational tool about  
 safe sleep and cribs

**Change Idea 3:**  
 Develop educational  
 tool about sleep  
 locations and  
 surfaces

**Change Idea 4:** Use  
 safe sleep videos  
 with clients to  
 increase motivation

# CQI Projects: Tasks vs. Tests

- **Task = an activity that needs to be completed or something that needs to get done**
- **Examples of common tasks:**
  - Brainstorming
  - Information gathering
  - Training stakeholders
  - Collecting data / creating a data collection instrument
  - Deciding when the test will be done or who will run it



- **Test = trying a change on a small scale to see if the change results in improvement**
- **Tests of change:**
  - Answer a specific question
  - Require a theory and a prediction
  - Are done on a small scale, collecting data over time
  - Build knowledge sequentially over multiple cycles
  - Area completed in a wide range of conditions



**CAUTION: You will likely need to complete some tasks to complete a PDSA cycle, but a task is NOT a test.**

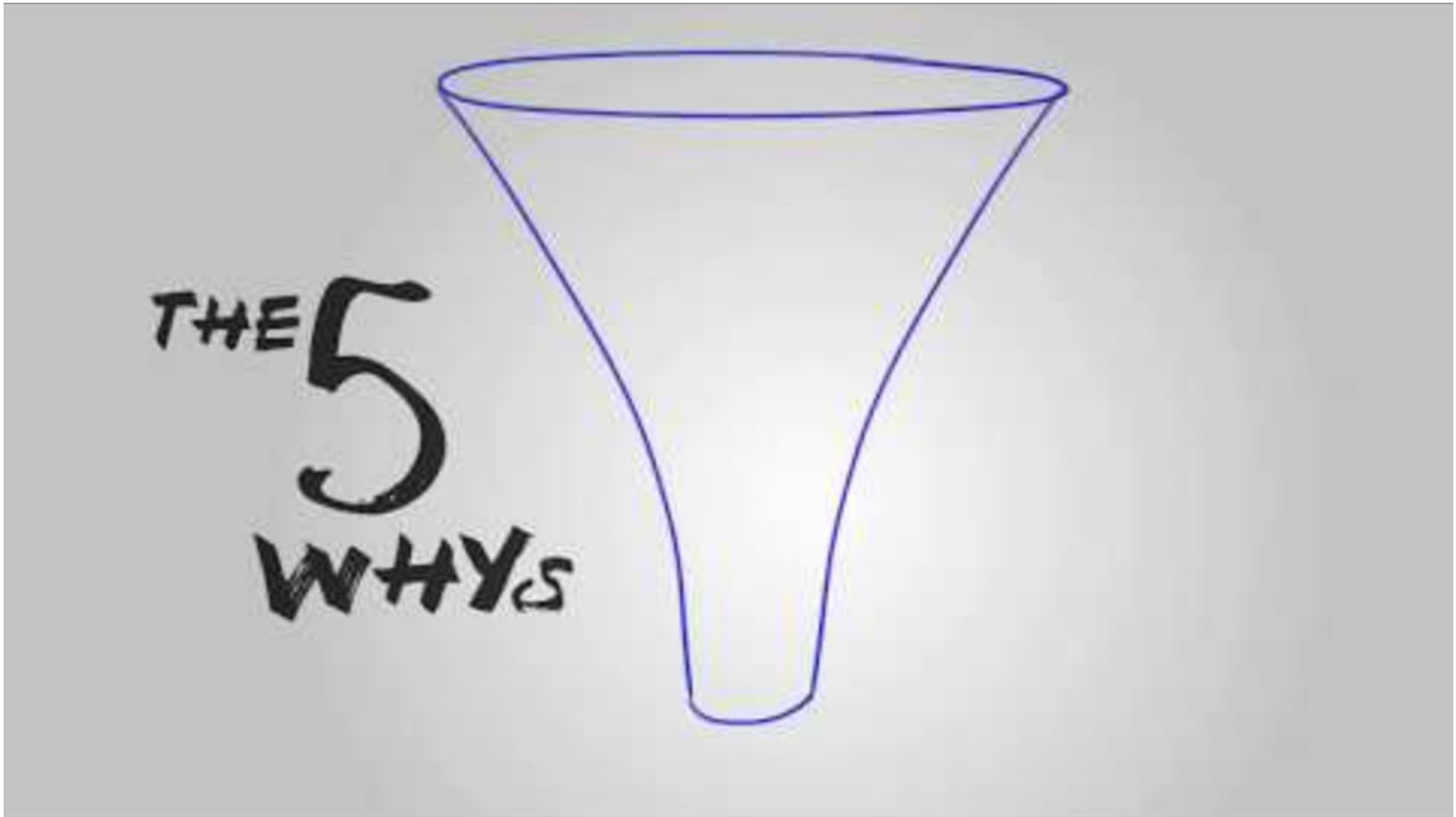
# Root Cause Analysis: 5 Why's

- This is a brainstorming tool, like the Fishbone Diagram

Discuss as a team:

- How many steps did it take to discover the root cause?
- Did the team have any difficulty coming up with potential responses to the why questions?
- Did the team gain new insight into the problem? If not, why not?
- When would this tool be helpful in improvement efforts?

# Walk Through a Problem with 5 Whys



# CQI Tool: Process Mapping

- A visual representation of a series of actions leading to an end
- A useful tool to understand how a current system works
  - Simplify a process by eliminating unnecessary steps or changing inefficient ones
  - Identify data elements to use
  - Articulate the roles and responsibilities for individuals in each process step
- A useful tool to identify how a new system *should* work
  - Identify the necessary process steps needed for a system to achieve desired outcomes

Adapted from: Massoud R., Askov K., Reinke J., Franco L. M., Bornstein T., Knebel E., & MacAulay C. (2001). A modern paradigm for improving healthcare quality. *QA Monograph Series 1*. Bethesda, MD: Quality Assurance Project, US Agency for International Development (USAID).

# Different Process Maps

	High Level	Detailed
<b>What are they?</b>	<ul style="list-style-type: none"> <li>• “Bird’s eye view”               <ul style="list-style-type: none"> <li>• Show only the basic steps</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Detailed view               <ul style="list-style-type: none"> <li>• Show all the steps and activities</li> </ul> </li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Easy to build</li> <li>• Identify key participants quickly</li> <li>• Create rapid consensus in the group</li> <li>• Inform high-level measures</li> </ul>	<ul style="list-style-type: none"> <li>• Identify steps that should be redesigned to improve efficiency</li> </ul>
<b>When to use</b>	<ul style="list-style-type: none"> <li>• First step</li> <li>• When short on time and need a general shared vision of the process</li> </ul>	<ul style="list-style-type: none"> <li>• Identify parts of the process that require improvement</li> </ul>

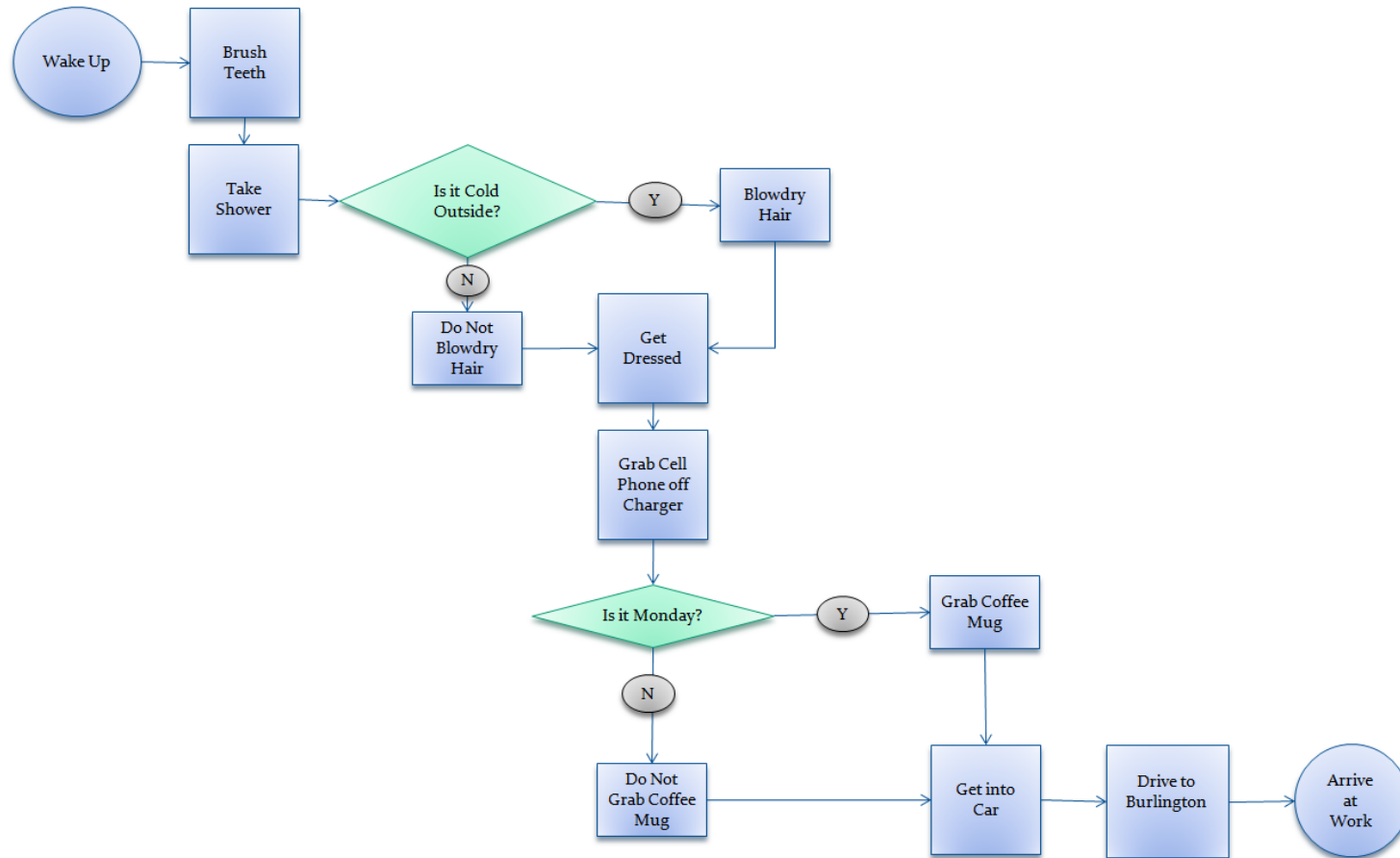
- From: Nocito, S. & Zeribi, K. (n.d.) Building a Swim Lane Flow Chart. Tutorial for ImproveCareNow. (n.p.)

# High Level Process Mapping



Adapted from: Nocito, S. & Zeribi, K. (n.d.) Building a Swim Lane Flow Chart. Tutorial for ImproveCareNow. (n.p.)

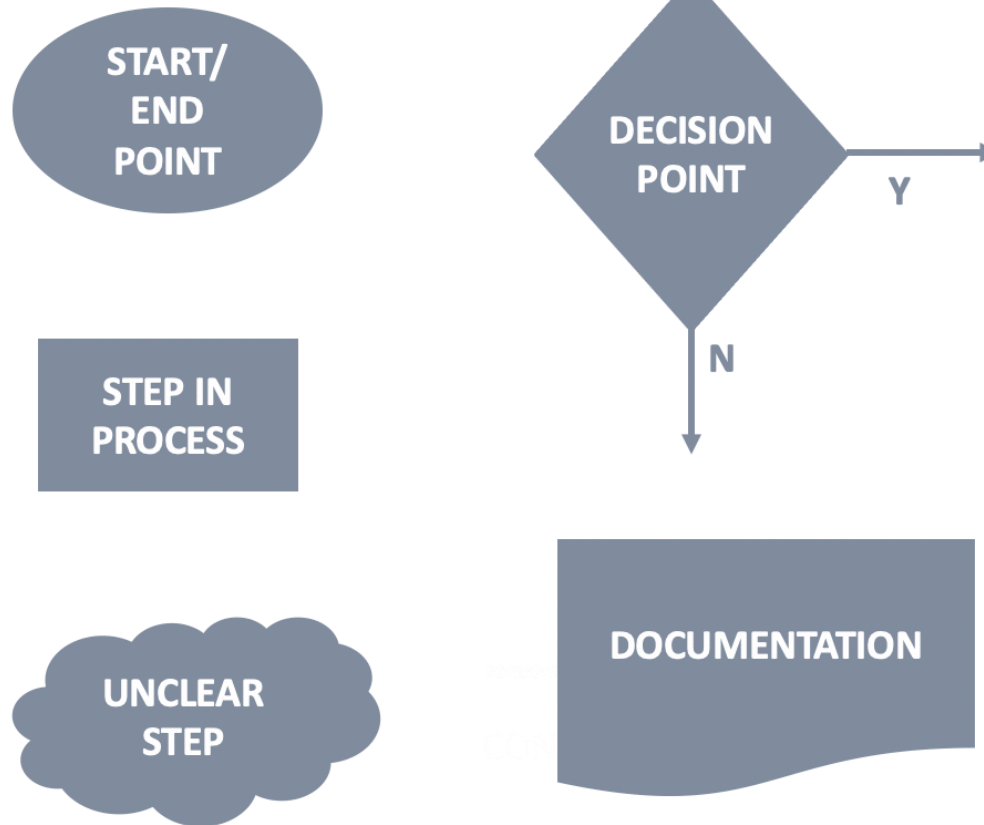
# Detailed Process Mapping



Nocito, S. & Zeribi, K. (n.d.) Building a Swim Lane Flow Chart. Tutorial for ImproveCareNow. (n.p.)



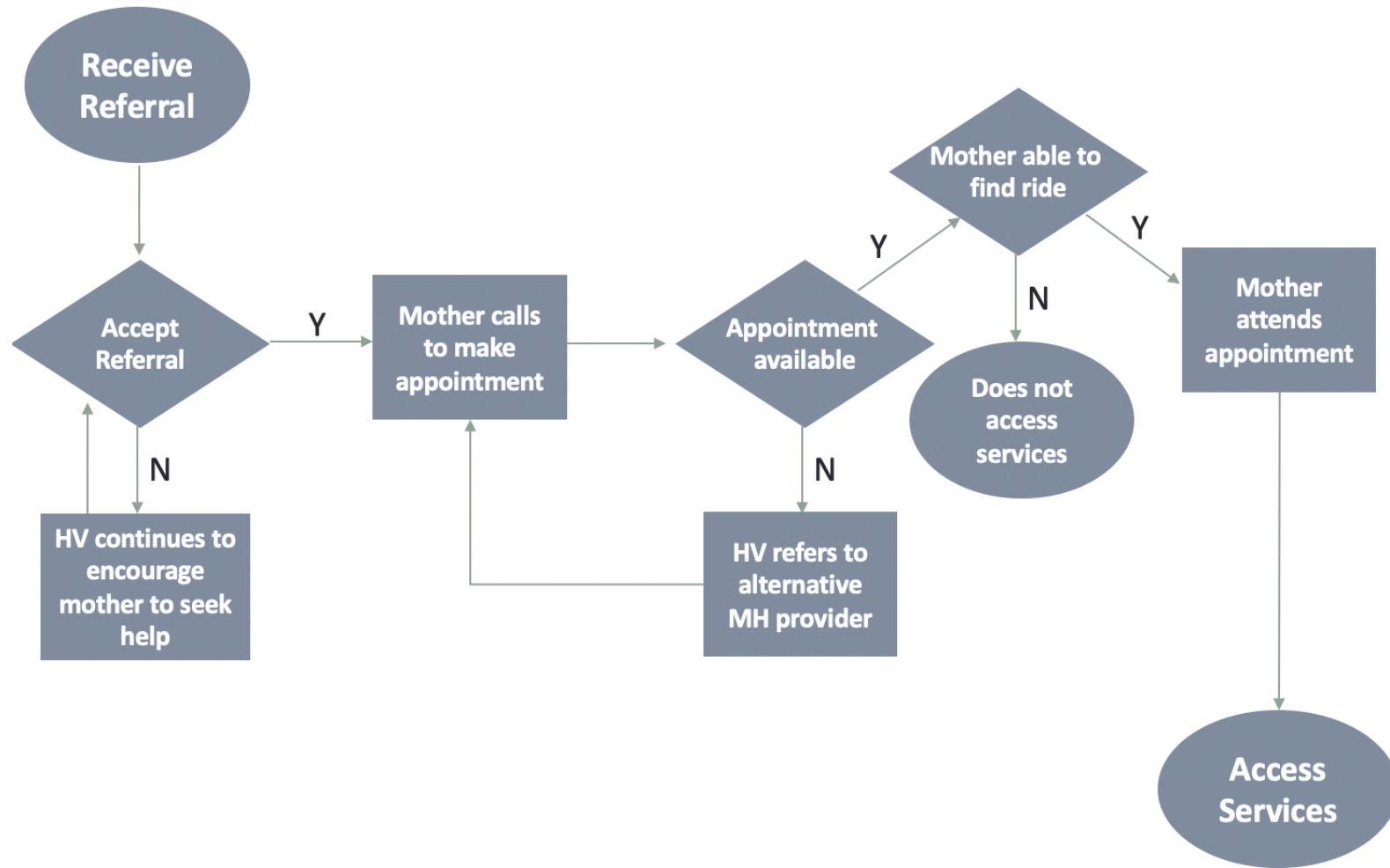
# Process Mapping Symbols

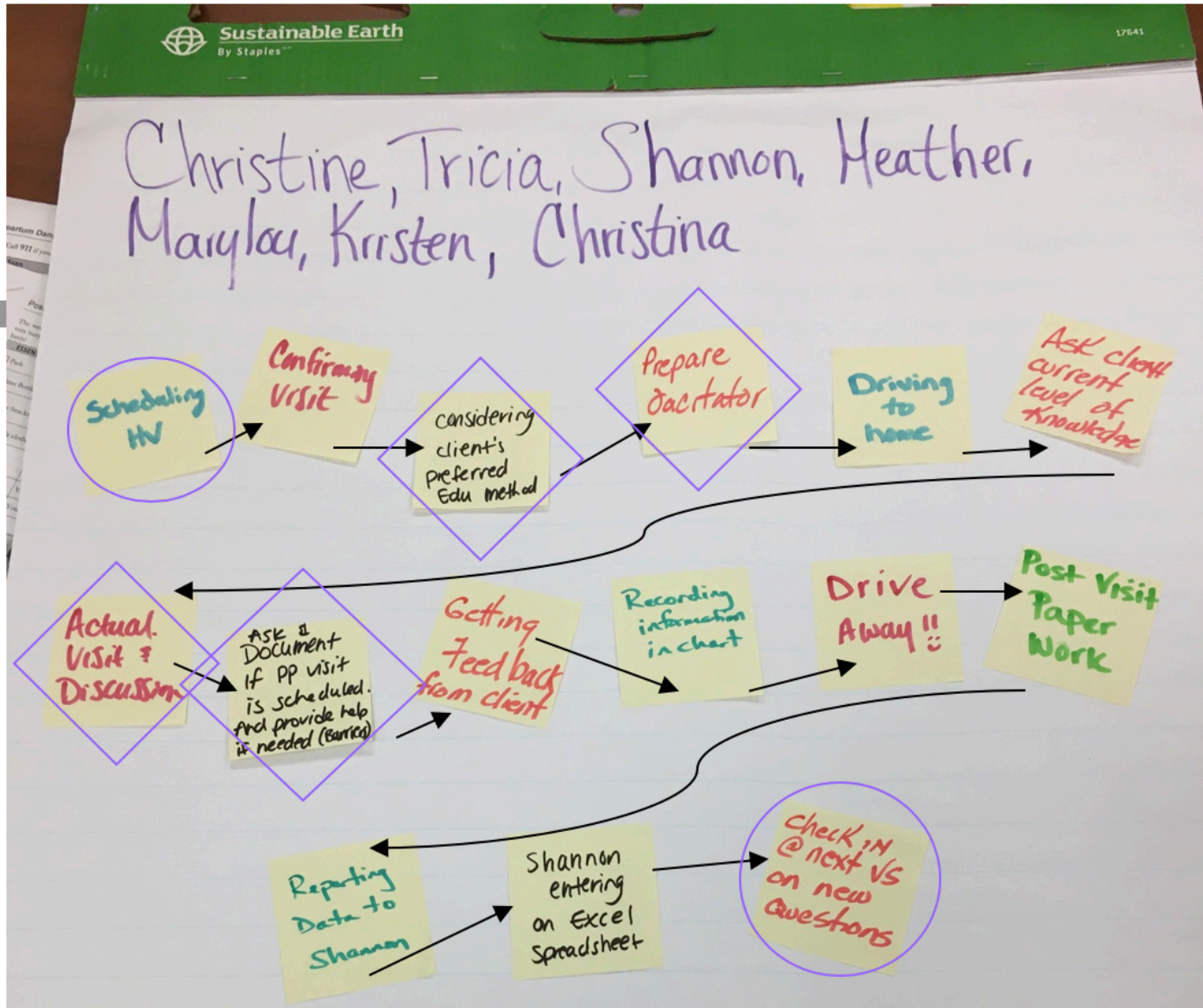


# Process Mapping Tips

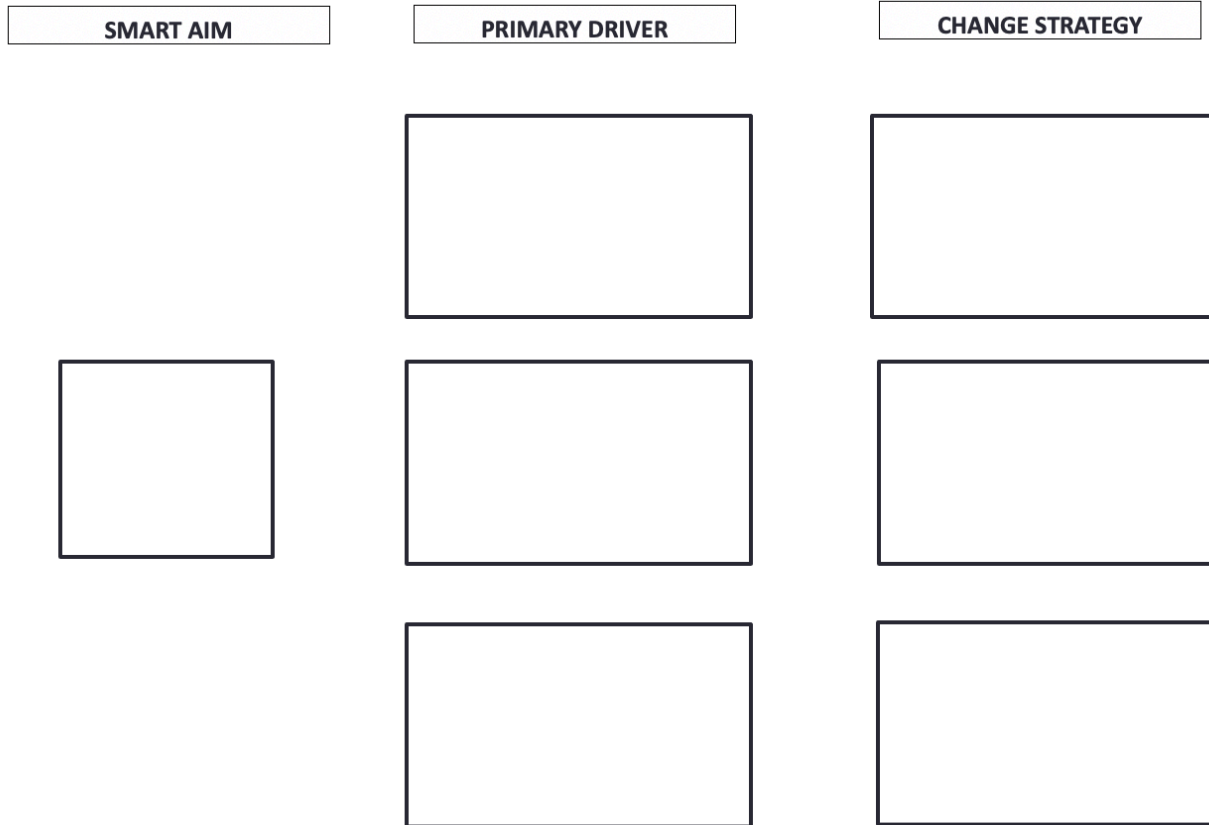
- Include only steps relevant to the scope of improvement effort
- Have people who understand the process at the table
  - Consider the role of the caregiver
- Consider role playing to identify all steps in the process
  - Make this a fun CQI activity!

# Process Map Example





# Key Driver Diagrams



# Best Practices for Key Driver Diagrams

## Primary Drivers

- Neutral language
- Linked to aim

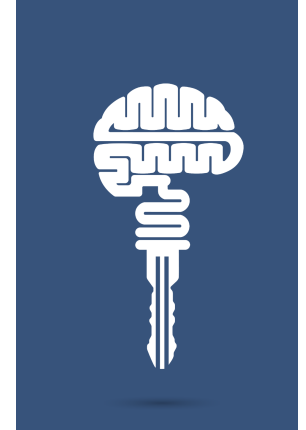
## Change Strategies

- Evidence-based
- Linked to at least one driver

Developed with help from subject matter experts

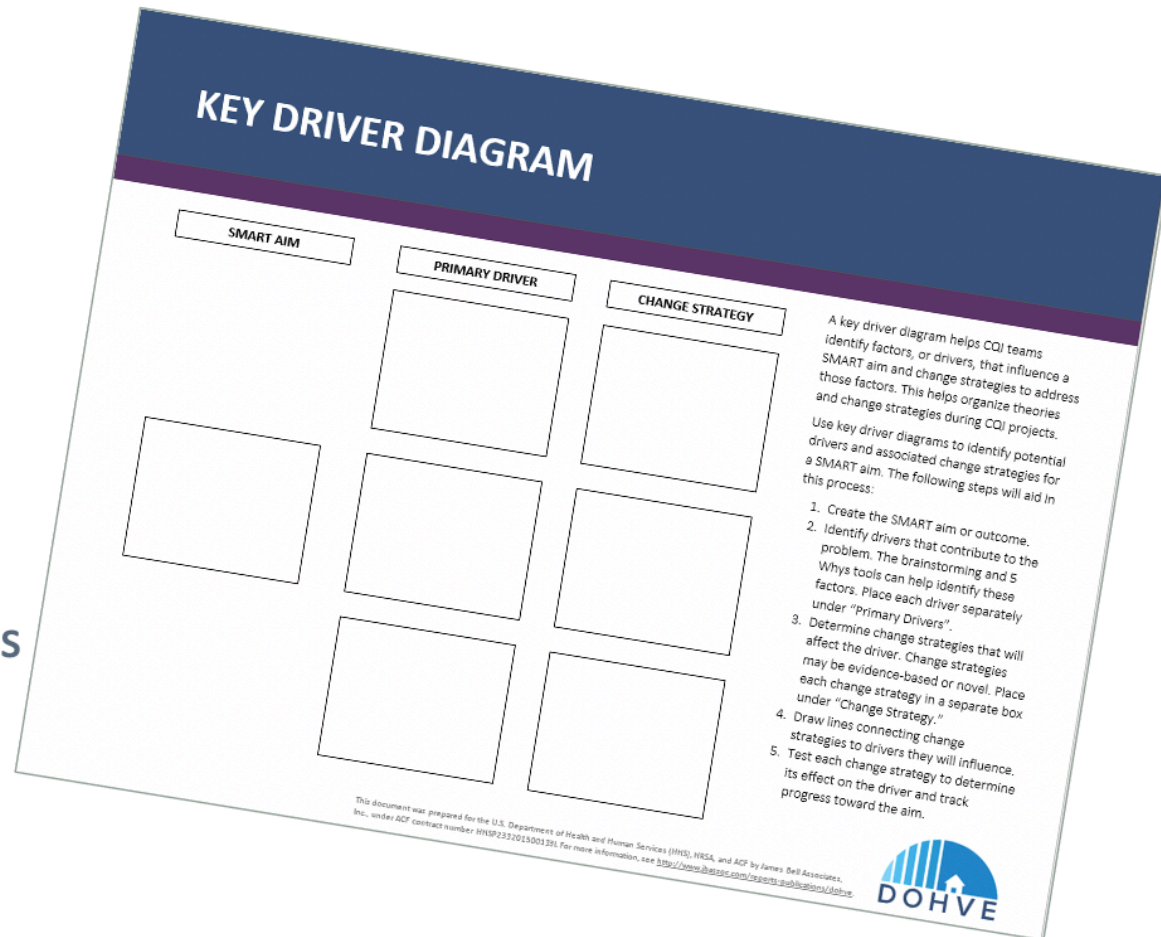
# Why Are Key Driver Diagrams Helpful?

- Define the system to be improved
- Provide a common model for a CQI Team
- Help narrow possible change strategies
- Link specific measurement criteria to change strategies
- Focus team to test one change strategy at a time
- Help track successes and challenges



# Using Key Driver Diagrams in CQI

- **Step 1:** Develop the SMART aim
- **Step 2:** Identify key drivers
- **Step 3:** Identify change strategies



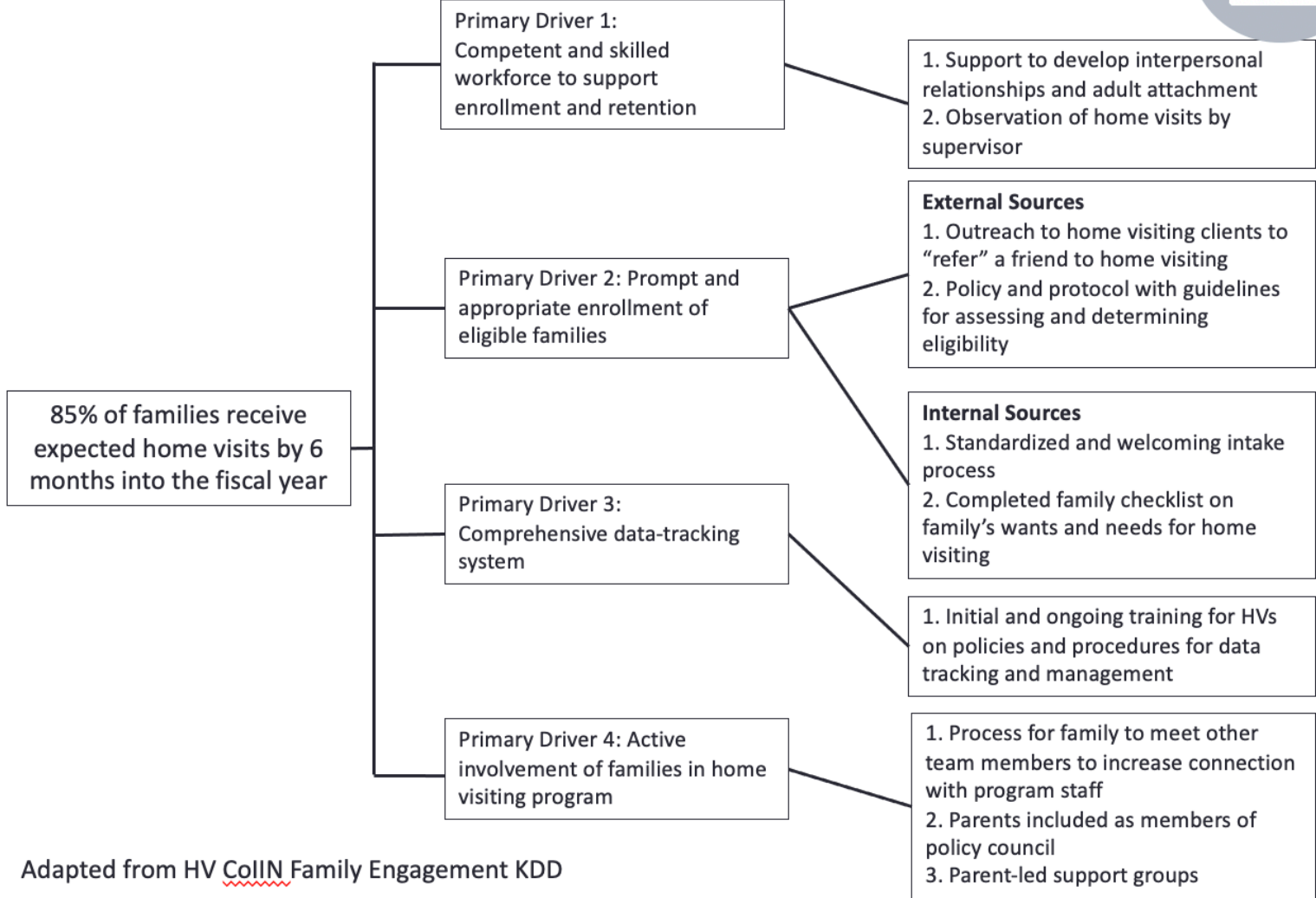




**SMART AIM**

**PRIMARY DRIVER**

**CHANGE STRATEGY**



Adapted from HV CollN Family Engagement KDD

Remember, ALL these tools will help your team find success!

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## Step 1 - Define Your Goal



# Questions?



Please remember: If any follow up is needed, or if you would like to schedule an individual CQI Coaching call, please email Christina at [cjanosky@pa.gov](mailto:cjanosky@pa.gov)

# Looking to Apply What We've Learned?

- Please download the Process Map Instructions Word Document and walk through a process your team *might* be interested in for a future CQI project.
- Take time to create a process map together and discuss:
  - Are there areas or steps where the process is unclear? If there is a step where different team members have different understandings or opinions about how it works, that step is likely not clearly defined. Put a cloud around these steps.
  - What are the differences between the ideal process and current process? Take some notes so you remember what you've learned for the future CQI project.