Building Capacity to Improve the Implementation of Plan-Do-Study-Act Cycles

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Agenda

- Welcome, Introductions, and Ice Breaker

- Overview of CQI

- Organizational Culture

- Exploring the PDSA Cycle

- Voices from the Field

- Setting your Intention

Objectives

- Enhance participants' skills in implementing Plan-Do-Study-Act cycles as part of the quality improvement process.

- Build participants' understanding of their sphere of influence in improvement culture and how to support change at any level of an organization.

- Develop participants' knowledge about learning cultures and strategies for embedding PDSAs as part of reflective practices.

Icebreaker: Coin spinning

Overview of Continuous Quality Improvement (CQI)

CQI is a cyclical process of problem solving activities that requires the deliberate use of evidence.

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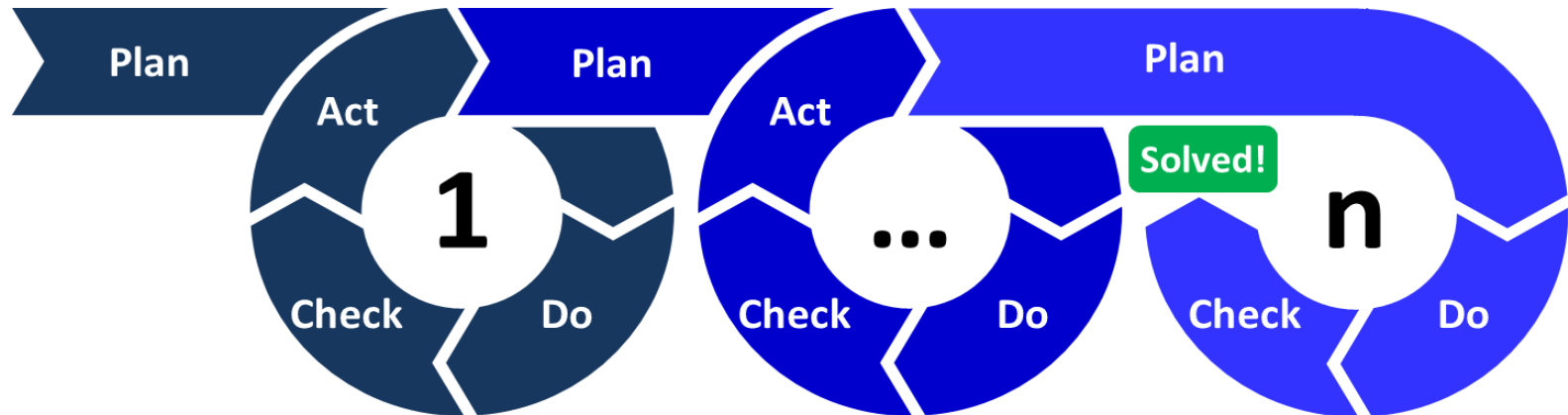
The Role of CQI, QA, & Evaluation

Continuous Quality Improvement (CQI)	Quality Assurance (QA)	Evaluation
Focused on improvement; leadership shared at all levels of staff community	Focused on accountability and directed "top down"	Focused on assessment and often led independently or externally
An activity integrated with regular practice	A separate activity	An external examination of regular practice
Uses fluid constantly changing standards that are established by stakeholders and consumers working alongside professionals	Uses standards that are established by professionals, compliant with professional requirements	Uses evidence-based standards determined by research questions
Is agency-wide and crosses all functions	Involves selected staff and functions	Involves a cross-section of actors and functions related to a single set of processes or outcomes
Is an ongoing process	Is event-based	Is retrospective
Seeks to prevent errors by continuously clarifying and improving policies and protocols	Relies on reviews or checks to identify errors or non-compliance	Identifies factors or activities associated with outcomes or impact

Continuous Quality Improvement

- The CQI approach identifies, describes, and analyzes strengths and challenges and then tests and revises solutions.

- CQI relies on an organizational culture that is proactive, supports continuous learning and is firmly grounded in the overall mission, vision, and values of the agency.

- Quality CQI efforts depend upon the active inclusion and participation of staff at all levels of the agency, children, youth, families, and stakeholders throughout the process.

- A high quality CQI approach incorporates the rigorous use of evidence.

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The Influence of Culture

Organizational culture eats strategy for breakfast, lunch and dinner

Culture

Strategy

TORBEN RICK – WWW.TORBENRICK.EU

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I don't get it. We still do the wrong things

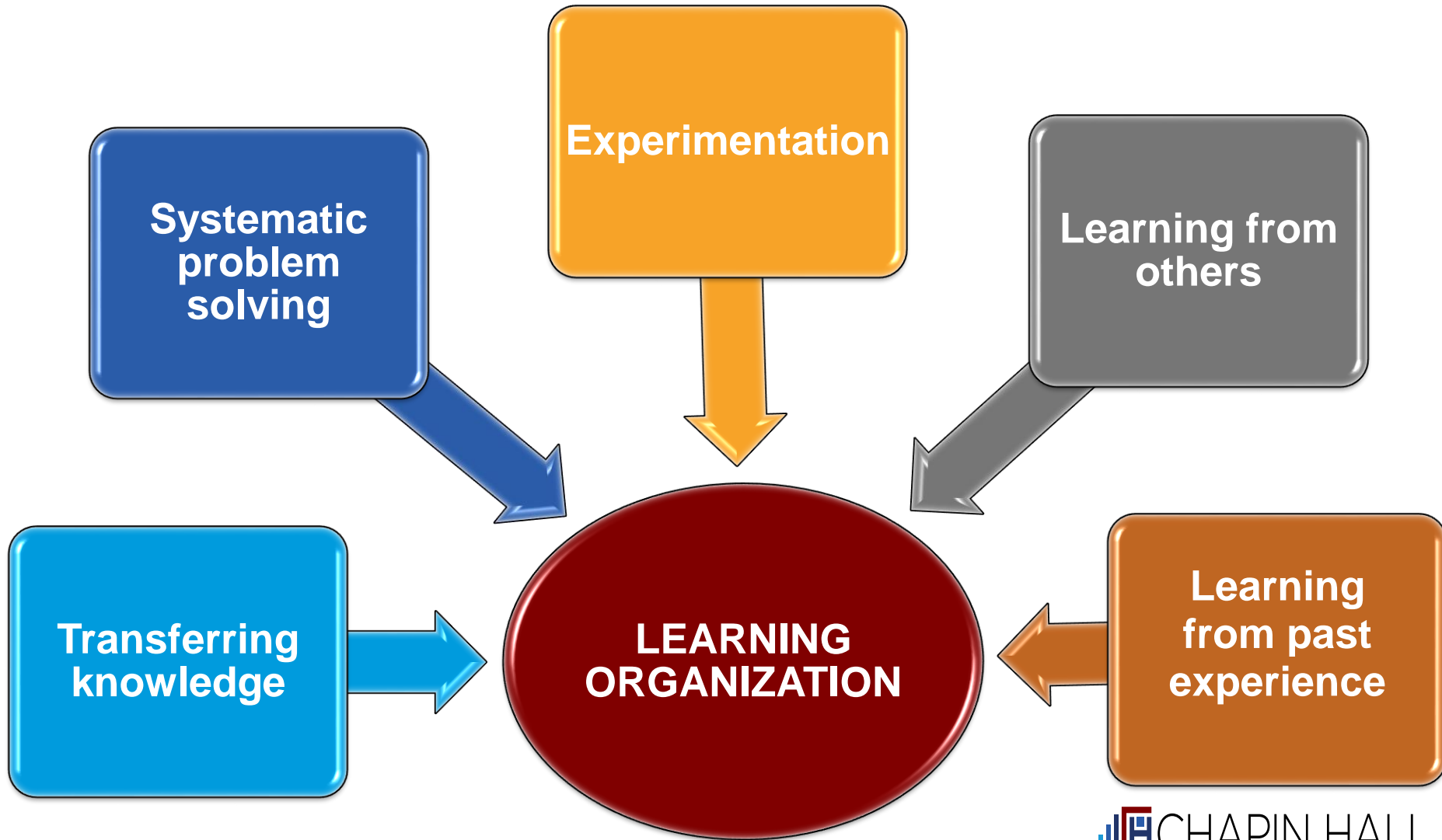Yes, but we have learned to do them very well

© Anders Hemre

Culture supports - or creates barriers for systems' efforts to innovate and learn.

Cultural attributes that positively influence quality improvement implementation and impact:

- Employee empowerment
- Decentralized decision-making
- Team-work, consensus building
- Adaptability, flexibility, growth

Cultures that emphasize affiliation, teamwork, and coordination implement and sustain more CQI initiatives.
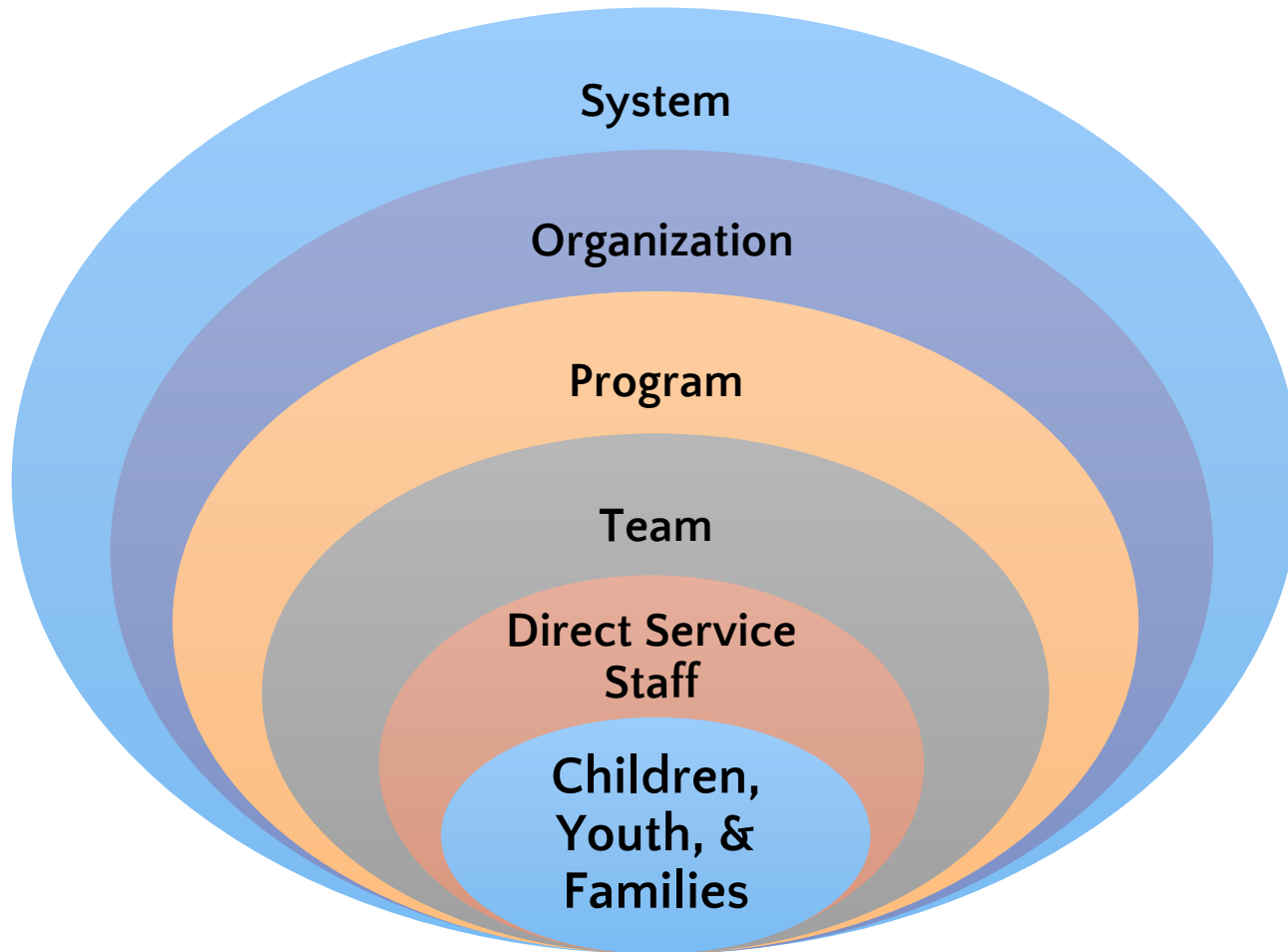
(Glisson & Green, 2006; Leape, 2014; Zayas et. al., 2013)

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What makes a Learning Organization?

Line of Site (LOS)

- An employee's understanding of the organization goals and what actions are necessary to contribute to those objectives.

- Involve staff in organizational decision-making processes through direct communication in addition to company-wide information sessions.

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Spheres of Influence

System

Organization

Program

Team

Direct Service Staff

Children, Youth, & Families

THINK
PAIR
SHARE

What is your sphere of influence?

What can you do within your sphere of influence to promote a culture of learning?

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Unpacking CQI

Essential Components of a CQI Process

- Organizational commitment to CQI
- CQI plan
- Data collection
- Data analysis & reporting
- Improvement planning & decision-making

Improvement Planning & Decision-Making Framework

PLAN

Data:
- Administrative
- Case review
- Surveys, focus groups

- We observe that…
- We think its because…
- So we plan to…
- Which we think will result in…

ACT

- Determine the extent to which the problems still exist
- Make decisions to continue, modify, or discontinue solutions

DO

Process of care investments

Implement solution; monitor implementation

Quality of care investments

- Review ongoing data
- Talk to stakeholders and decision-makers about progress and impact

Investments in capacity

Adapted from: Wulczyn, F., Alpert, L., Orlebeke, B., & Haight, J. (2014). 'Principles, language, and shared meaning: Toward a common understanding of CQI in child welfare." Chapin Hall at the University of Chicago.

STUDY

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Data & Evidence

- Points to the outcomes that need improvement (PLAN)
- Informs action planning (DO)
- Guides the assessment of the action plan (STUDY)
- Informs decision about what to do in light of those results (ACT)

Getting Started

- What are you trying to improve? What are the questions you are trying to answer?
- How does it relate to your organizational outcomes?
- What sources of information do you have to inform your decision-making?
- How will you know if you're making progress?
- What will it take to sustain and scale effective practices?

Identifying Outcomes

Mission & Vision

Strategic Plan

Program Plans

Logic Model

Outcomes

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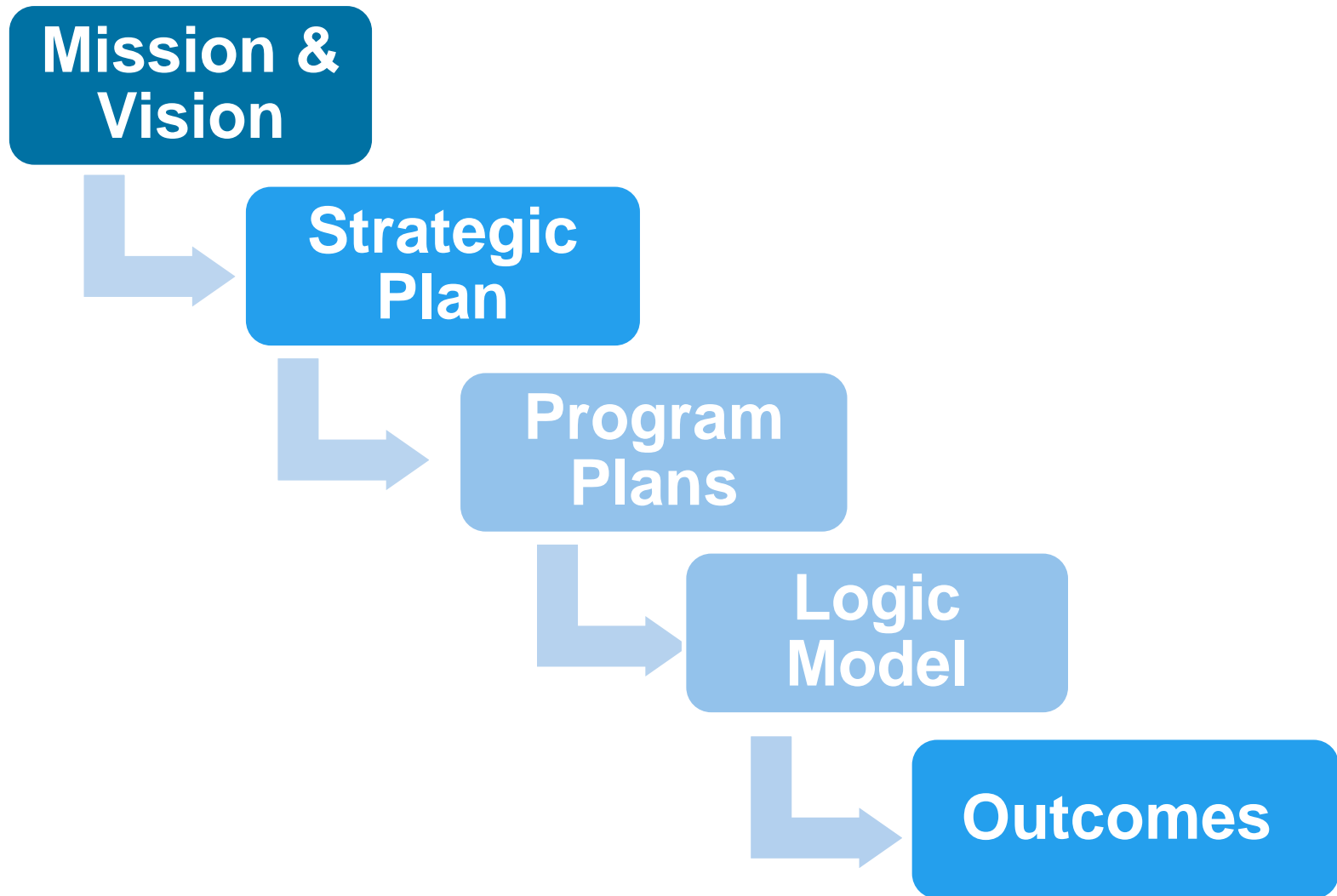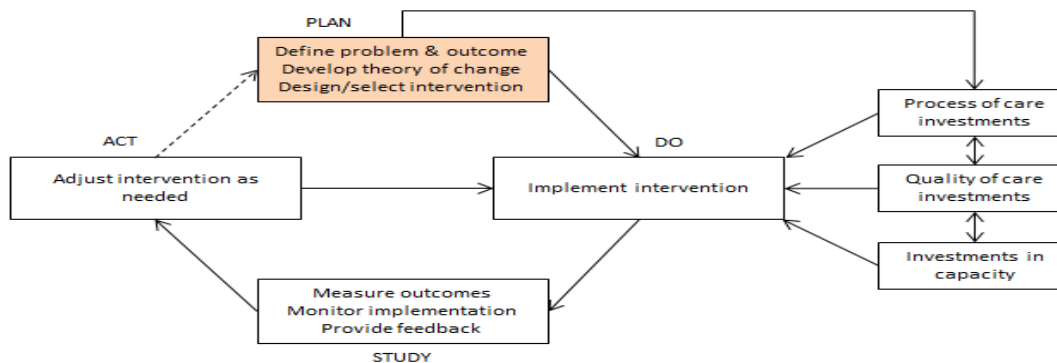
The PLAN Phase

TASK 1: We observe [some outcome that we want to improve].

TASK 2: We think it's because of [this reason].

TASK 3: So we plan to [implement this action plan/solution/intervention].

TASK 4: Which we think will result in [an improved outcome].

The PLAN Phase

TASK 1: We observe [some outcome that we want to improve]

- Make observations from the data about the problem you are trying to solve.

  - How does the data inform the outcomes and goals you are concerned about?
  - What other sources of information are needed to define the area of focus for improvement?

The **PLAN** Phase

TASK 2: We think it's because of [this reason]

- Identify possible causes using root cause analysis techniques
  - 5 Whys
  - Mapping, flow charts

- Engage internal and external stakeholders in a review of the data to inform possible causes (collaborative process)

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The PLAN Phase

TASK 3: So we plan to [implement this action plan/solution/intervention]

- What evidence supports potential solutions, strategies?
- What "small tests of change" will have the intended effect on the target population?
- Review you are trying to achieve and identify adjustments in:
  - PROCESS – how the work is done
  - QUALITY – how well the work gets done – e.g., timely, accurate and comprehensive service plans, assessments, case notes
  - CAPACITY – what is needed to get the work done well (tangible and human capital resources) – e.g., new agency-wide database, hiring more case aides

The PLAN Phase

TASK 4: Which we think will result in [an improved outcome]

- Set performance targets, considering:
  - ✓ mandates
  - ✓ available resources, and
  - ✓ organization's capacity to track performance

- Use performances target(s) to monitor progress towards indicators
- Identify a "starting point"/baseline
  - o *A baseline is the standard against which all subsequent changes are measured*

Shifting from PLAN to DO

The PLAN phase results in:

- Articulation of the question you are trying to answer

- A hypothesis about why improvement is needed

- A theory of change that outlines what can be done to improve

- An action plan that guides the small test(s) of change

- A Data Measurement Plan and Data Collection Sheet to guide how data will be used to monitor the small test(s) of change

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Data Measurement Plan

Outcome	Indicator(s)	Metrics	Data Source(s)
What overall changes do you want to make?	How will you know when you've achieved the outcome (lag measure)? What will you measure that tells you if you are likely to achieve the outcome (lead measure)? What will you measure to ensure the solution is implemented as intended (fidelity measure)?	How much change are you aiming for? Have baselines & targets been established? How will you measure the small test of change?	What data will you use to monitor progress toward the desired changes?

Performance Indicators Checklist

✓ Are the outcomes related to the "core business" of your program?

✓ Do your indicators make sense in relation to the outcomes they are intended to measure?

✓ Are your indicators directly related to the outcomes? Do they define the outcome?

✓ Are your indicators specific?

✓ Are your indicators measurable or observable? Can they be seen (i.e., observed behavior), heard (i.e., participant interview), read (i.e., client records)?

✓ Is it reasonable that you can collect data on the indicators?

✓ Is it likely within your resources to collect data?

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Data Collection Planning Sheet

Small Test of Change	When will data be collected?	Who will collect the data?	How will data be collected?	How will data collection be monitored?
Describe the strategies that will be implemented to impact/influence /support the desired change(s).	*Describe the timing and frequency of data collection.*	*Identify who will be responsible for collecting the data.*	*Describe the steps that will be taken to implement the data collection.*	*Identify processes to monitor the data collection for quality, consistency, and alignment with target(s)*

Stories From The Field

- **Relunda Washington, DCFS**
- **Valeria Bundy, Spero Family Services**

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DCFS Home Team:
  Field Service Manager-Office of Monitoring
  Innovation & Technology
  Placement Team Supervisor
  Quality Assurance Field Reviewer
  Quality Assurance Specialist

Define the problem: In March 2018, we observed that the selected Placement Team was at 69.5% in compliance for youth in care receiving dental exams. We want to improve the compliance by 15%.

Evidence that supports the problem we observed:
Through case reviews and documentation that there is difficulty in youth in care obtaining dental exams. In March there were 57 children assigned to the placement team, 30.5% (roughly 18) youth lacked a dental exam. Focusing on the 18 youth, 5 received dental exams, an increase of 28% compliance.

Hypothesis - we think its because: We observe that not all children over the age of 2 years old or older, in care in Illinois are getting the minimal yearly dental exams:
 *Fluidity
 *Lack of dental providers
 *Unclear roles and expectations of the case manager and foster parents
 *Lack of priority

Team Strategy:

Provide reminders to foster parents in foster parent meetings

Discussion and plan to include dental examinations on service plan during foster parent/ worker visits.

Encourage supervisors to include conversations regarding dental exams during supervision, devise a plan, follow up and document.

Call the foster parents and inquire about the youth's dental health, exam past and upcoming dates and ask that they call to make an appointment if outdated.

Provide education relating to the importance of dental care to the case manager and foster parents.

Remind case managers that child well being includes dental health and required under federal child welfare case reviews.

Desired Outcomes:

- **Healthier child.**
- **Increased compliance for dental care and exams.**
- **Improved relationship between case manger and foster parents.**
- **Improved compliance relating to child welfare reviews and service plans.**

Strengths of Planning Phase

- **Focus**
- **Sample size was small and able to be measured**
- **Supervisory staff involved**

Challenges of Planning Phase

- **Who was going to do what**
- **Case managers not wanting to "take on more task"**
- **In the planning phase it was hypothesized that foster parents did not have dental appointments scheduled and in the "Do" phase it was determined that some dental appointments were completed and not entered**
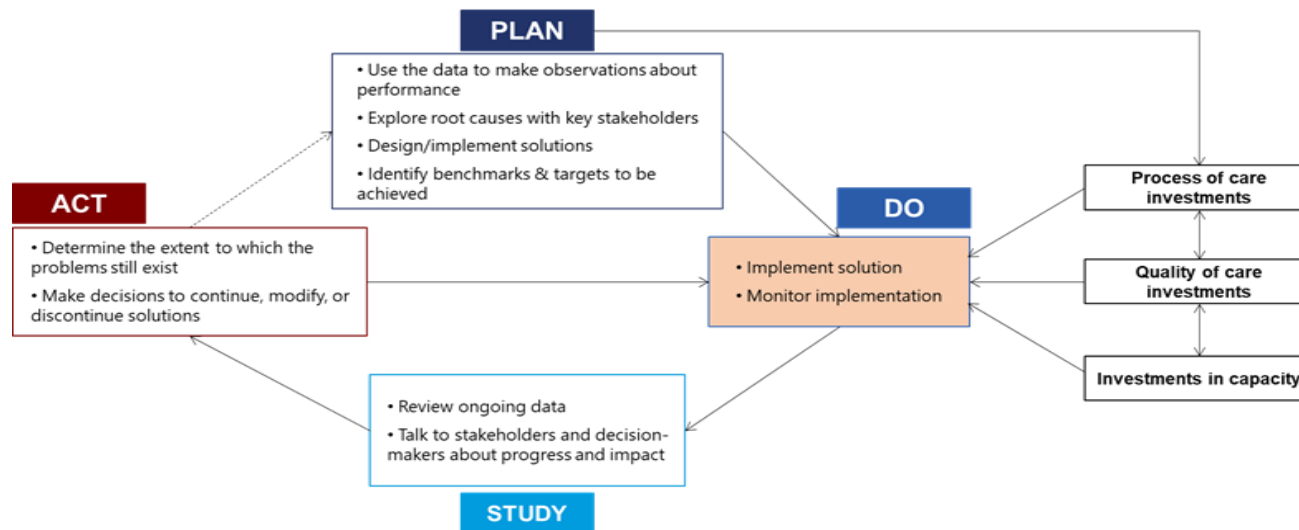
Overall Successes

- **Do success: calling was beneficial in that it gave information on why youth did not have dental completed**
- **Study success: learned that not all foster parents knew of the local providers, youth at home are not exempt**
- **Act success: adopting this cycle remains to be implemented**

Overall Challenges

- **Geography**
- **CYCIS data incorrect**
- **Medicaid appointments for new patients were well into the future**

The DO Phase

PLAN
- Use the data to make observations about performance
- Explore root causes with key stakeholders
- Design/implement solutions
- Identify benchmarks & targets to be achieved

ACT
- Determine the extent to which the problems still exist
- Make decisions to continue, modify, or discontinue solutions

DO
- Implement solution
- Monitor implementation

Process of care investments

Quality of care investments

Investments in capacity

- Review ongoing data
- Talk to stakeholders and decision-makers about progress and impact

STUDY

Implement the intervention
- Collect data required for analysis of the intervention effectiveness and implementation fidelity

Monitor implementation
- What evidence is there that the intervention was effective (or not effective)?

Examples of Summary Tools

PARETO:

- When there are many problems or causes & you want to focus on the most significant.

- When analyzing broad causes by looking at their specific components.

- When analyzing data about the frequency of problems or causes in a process.

- When communicating with others about your data.

- Contains both bars and lines

Pareto Analysis
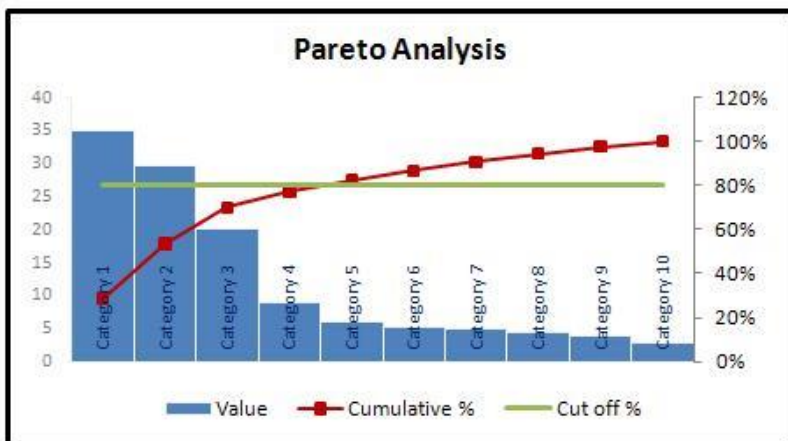
Excerpted from Nancy R. Tague's The Quality Toolbox, Second Edition, ASQ Quality Press, 2005, pages 376

RUN CHARTS:

- Quick, visual analysis of a problem; a line graph of data plotted over time

- Mr. Potato Head or other testing in the DO phase

- Finding trends or patterns in a process, how a process is operating.

- Guiding discussion regarding the small test of change.

Central Community Health Partnership: Complaints received about staff
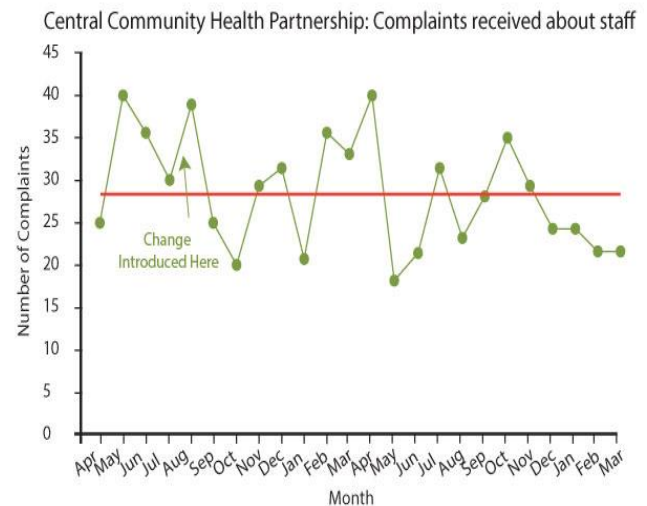
More Tools…

BAR CHARTS

- Basic visual to compare variables in columns
- Each column represents a group defined by categorical variable
- Columns may be rearranged depending on the information conveyed ie. by size or alpha
- Columns are generally the same
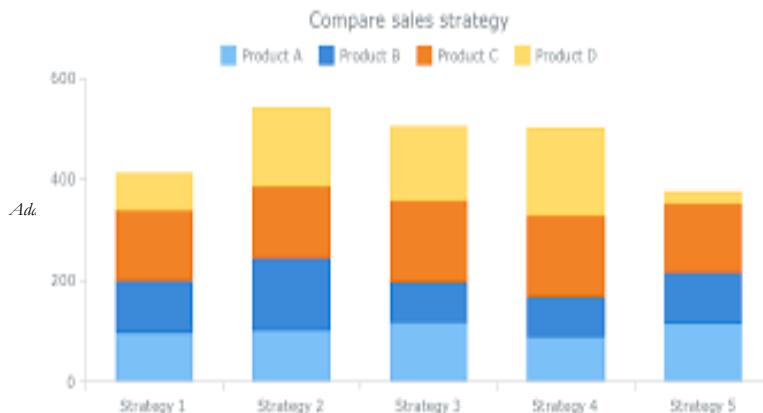
HISTOGRAMS

- Use to show distributions
- Each column represents a group defined by a continuous, quantitative variable
- Columns are placed together within a range or interval; column widths will not be the same and cannot be "re-arranged"

Compare sales strategy

Bar Graph Vs. Histogram
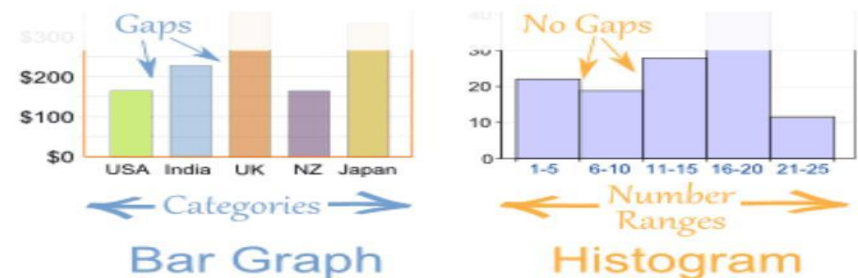
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We Observed That...
Youth placement stability in our adolescent foster care program had been declining since September 2017.

We thought that it could be because...

- **Of a decrease in pre-placement activities occurring before placement. We had quite a bit of staff turnover beginning with a new licensing worker in January 2017 & two new caseworkers and supervisor coming in within 7 months of the new licensing worker starting. Anecdotal evidence lead us to believe that things were not being done "the way they use to" and pre-placement activities had decreased.**

- **Or stability being affected by a lack/decrease in the amount of mental health services that a youth was participating in, especially in the first 120 days of placement.**

How did we decide which way to go…

- **No data to support the pre-admission hunch. Data was available to support the mental health services one.**

- **We had to expand the people that we had at the table tackling the issue to get to the root of the problem. We used the 5 Why's.   We found that with the increase in admissions we had increased our geographical footprint which caused the therapist to no longer be centrally located for all clients.**
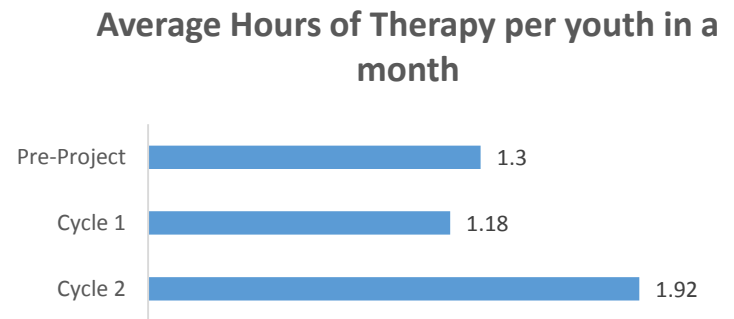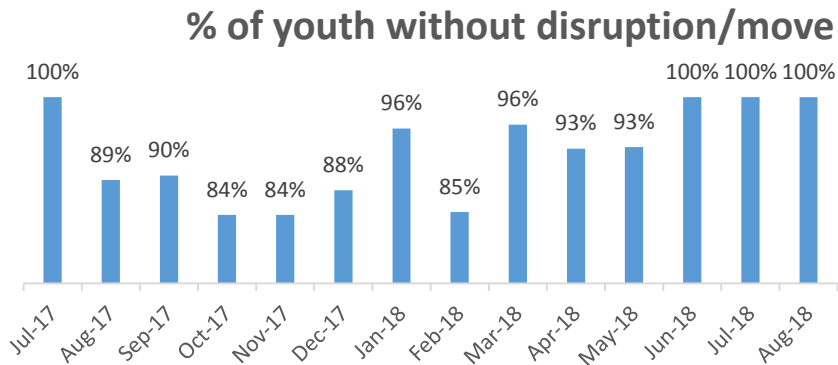
Our change was to

- **Have therapist establish a work day at one of agency satellite locations that was more centrally located.**

- **Have therapist implement tracking system to be proactive on making up missed/cancelled appointments.**

What happened along the way?
(and how did we adapt)

- **Turnover. Our therapist went on leave shortly after "do "phase started. We proactively met with the interim therapist to include her in on the change in an effort to keep the project momentum going.**

- **We experienced data fidelity issues because the therapist was tracking appointments on a paper but this was not getting converted into the data source we had previously used. We continue to work with her to improve her skills with that system.**

% of youth without disruption/move

Month	%
Jul-17	100%
Aug-17	89%
Sep-17	90%
Oct-17	84%
Nov-17	84%
Dec-17	88%
Jan-18	96%
Feb-18	85%
Mar-18	96%
Apr-18	93%
May-18	93%
Jun-18	100%
Jul-18	100%
Aug-18	100%

Average Hours of Therapy per youth in a month

|	
Pre-Project	1.3
Cycle 1	1.18
Cycle 2	1.92

Our youth have been experiencing less disruptions and while there is reporting issues that we are working through, we did adopt the change because we felt that it was an improvement that led to better outcomes.

The **STUDY** Phase
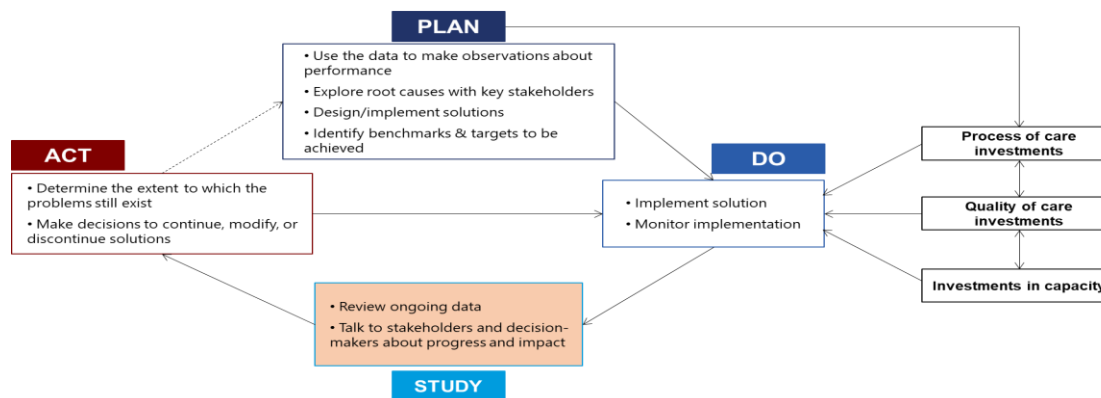
- Review collected data – does it make sense?
- Measure actual performance against the benchmarks and targets set in the PLAN Phase
- Was the "test" implemented with fidelity? How do you know?
- Share with stakeholders for feedback

The ACT Phase
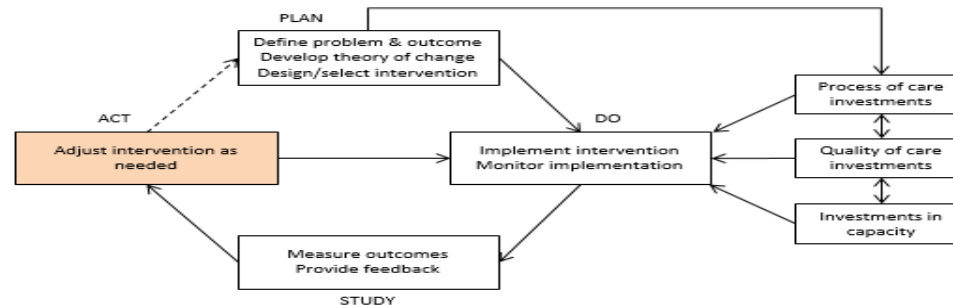
- Confirm or refute the hypothesis.

- Determine the extent to which the problem still exists; is the intervention still needed?

  - ADAPT/MODIFY – Determine changes & run another "test" cycle

  - ADOPT/CONTINUE – Test on a larger scale

  - ABANDON/DISCONTINUE – Do not do another test

Prepare for the next PDSA…

Trying out PDSA cycles

Designing and Implementing PDSA Cycles:

- Plan & implement quickly and efficiently

- Involves testing as it leads to knowledge (rather than planning or brainstorming)

- Reflecting on the theory, prediction, and outcome are essential

- Tests should be small, rapid, and sequential

YOUR COMMITMENT TO CQI

Quality is never an accident; it is always the result of intelligent effort.

John Ruskin

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