

LEAN Internship Program

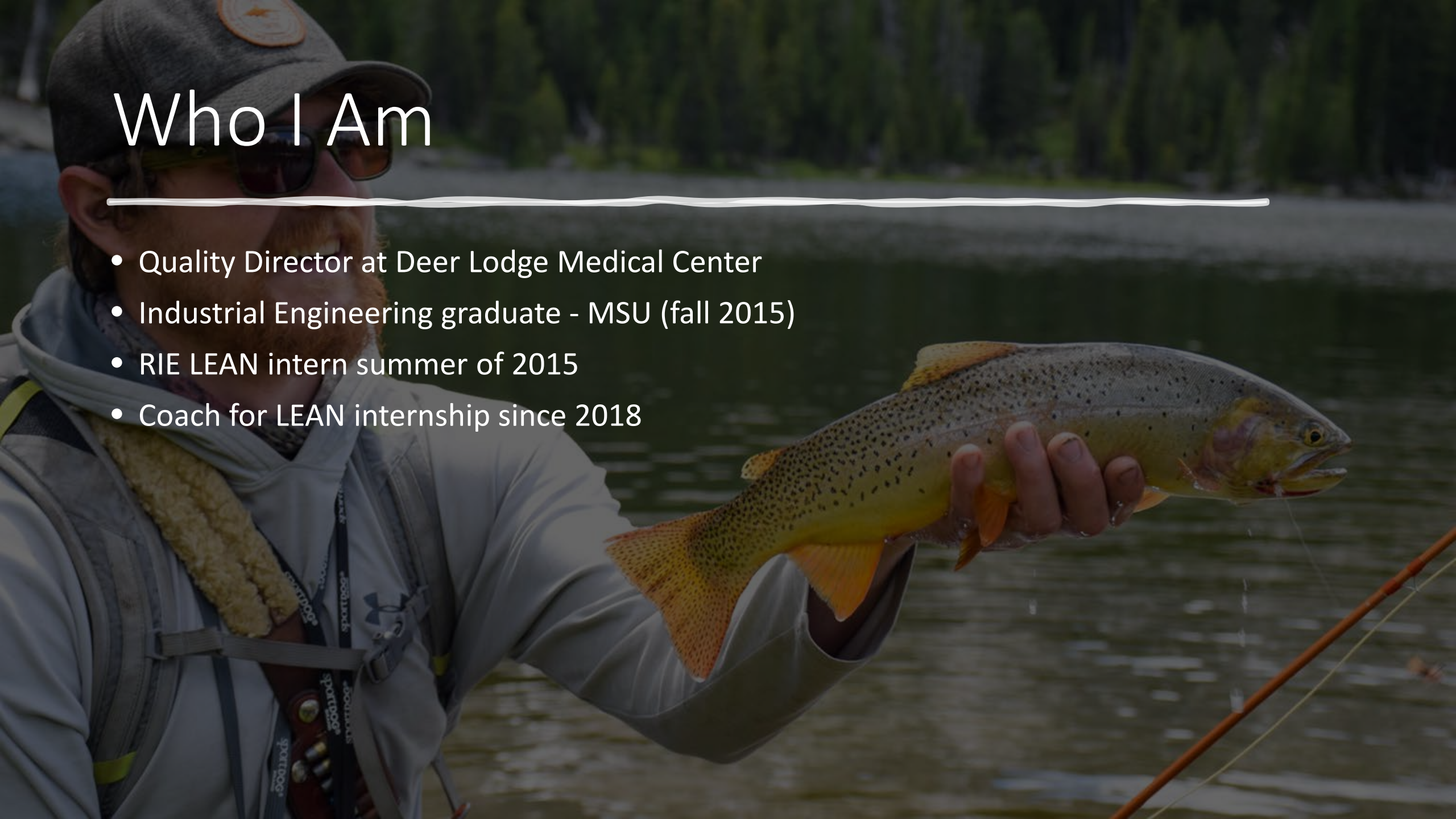
An overview of the CAH LEAN internship sponsored
by the MT FLEX program in partnership with Montana
State University summer interns

Presented by: Kyle Kohn



Who I Am

- Quality Director at Deer Lodge Medical Center
- Industrial Engineering graduate - MSU (fall 2015)
- RIE LEAN intern summer of 2015
- Coach for LEAN internship since 2018





Agenda

- Background of LEAN internship program
- PDCA framework
- Key elements of a successful Rapid Improvement Project (RIE)
- Previous project outcomes review
- Looking towards to 2023 LEAN internship

LEAN Internship Background



Internship program first conducted summer 2009

83 Projects completed in MT CAHs since 2011
34 different MT CAHs have participated in a project



2 student interns from MSU engineering program

Coaching / mentorship provided

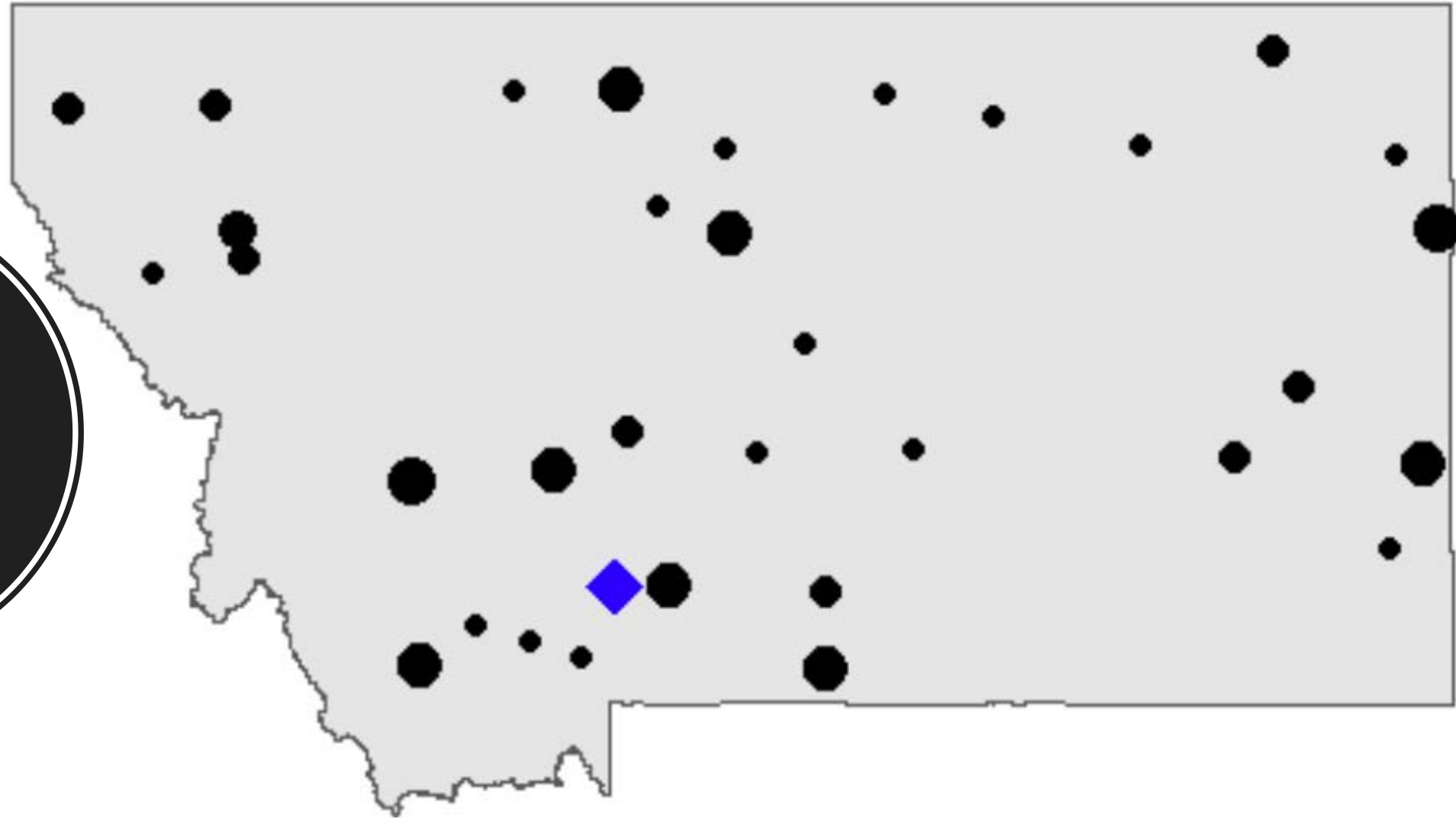


On-site at each CAH for 2 weeks (10 Business days)



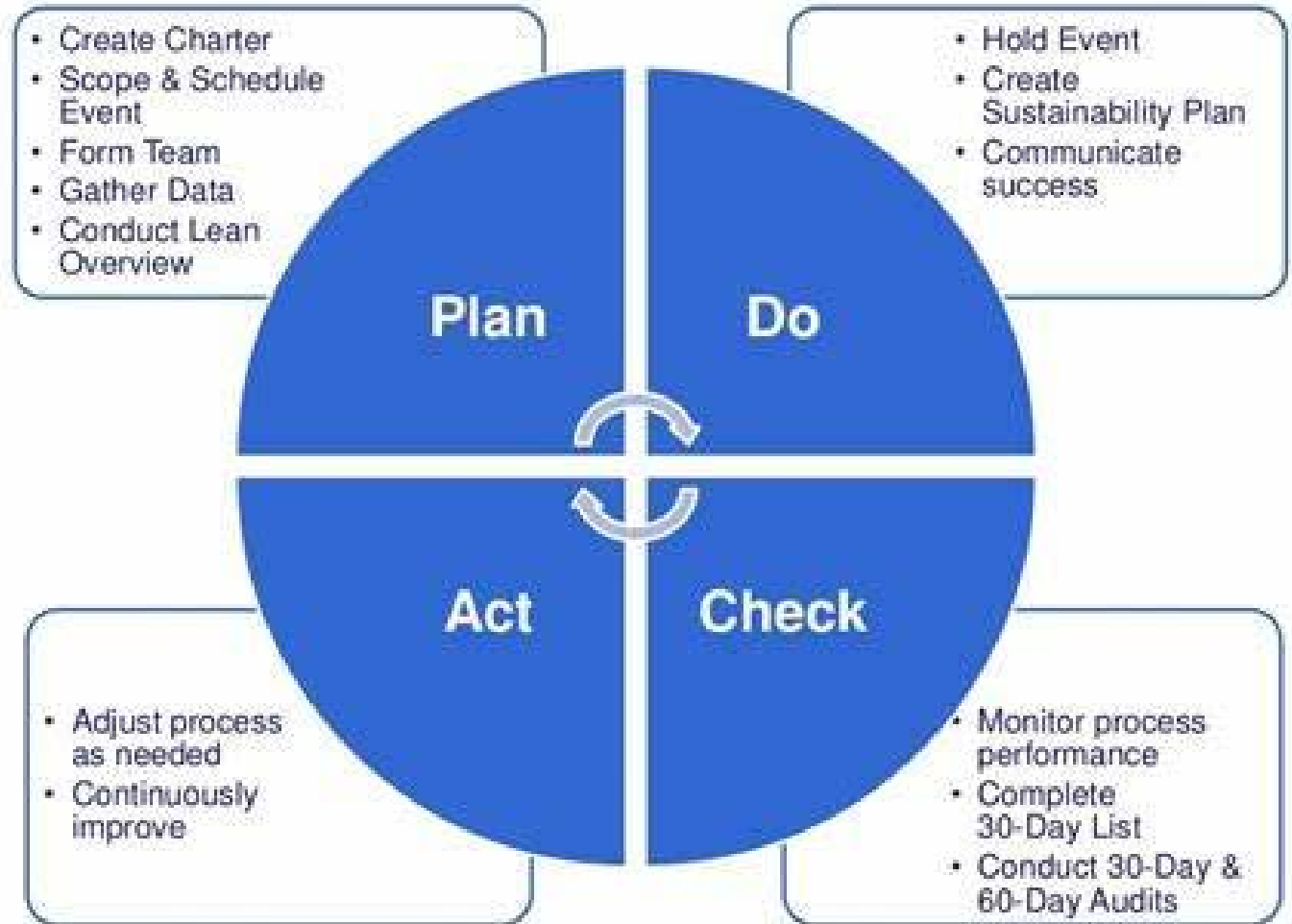
Goal of every project is an implemented solution!

Map of
project
locations /
frequency

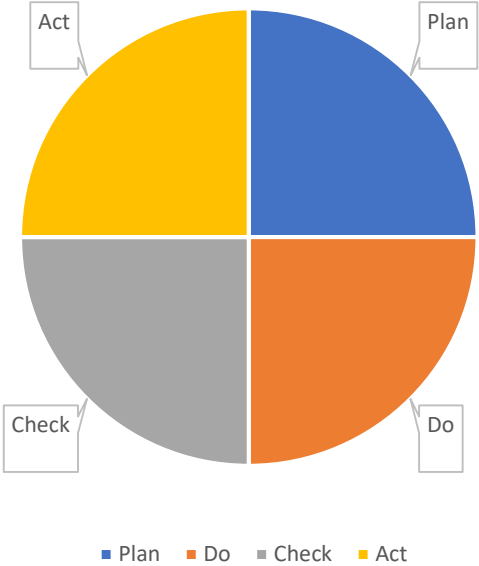


Rapid Improvement Event (RIE)– Kaizen Event

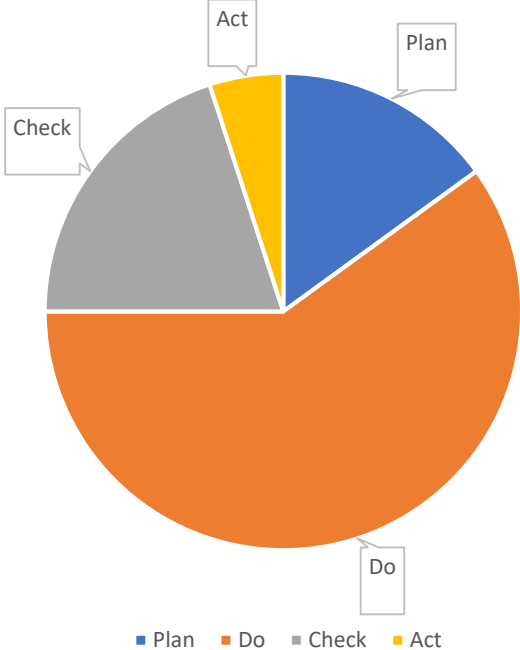
Kaizen Events - Macro PDCA Cycle



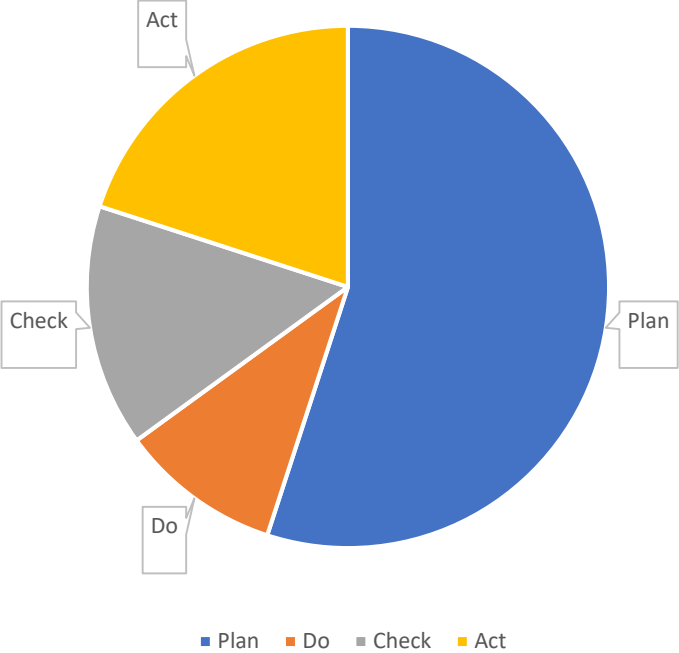
PDCA - Basic approach to every problem



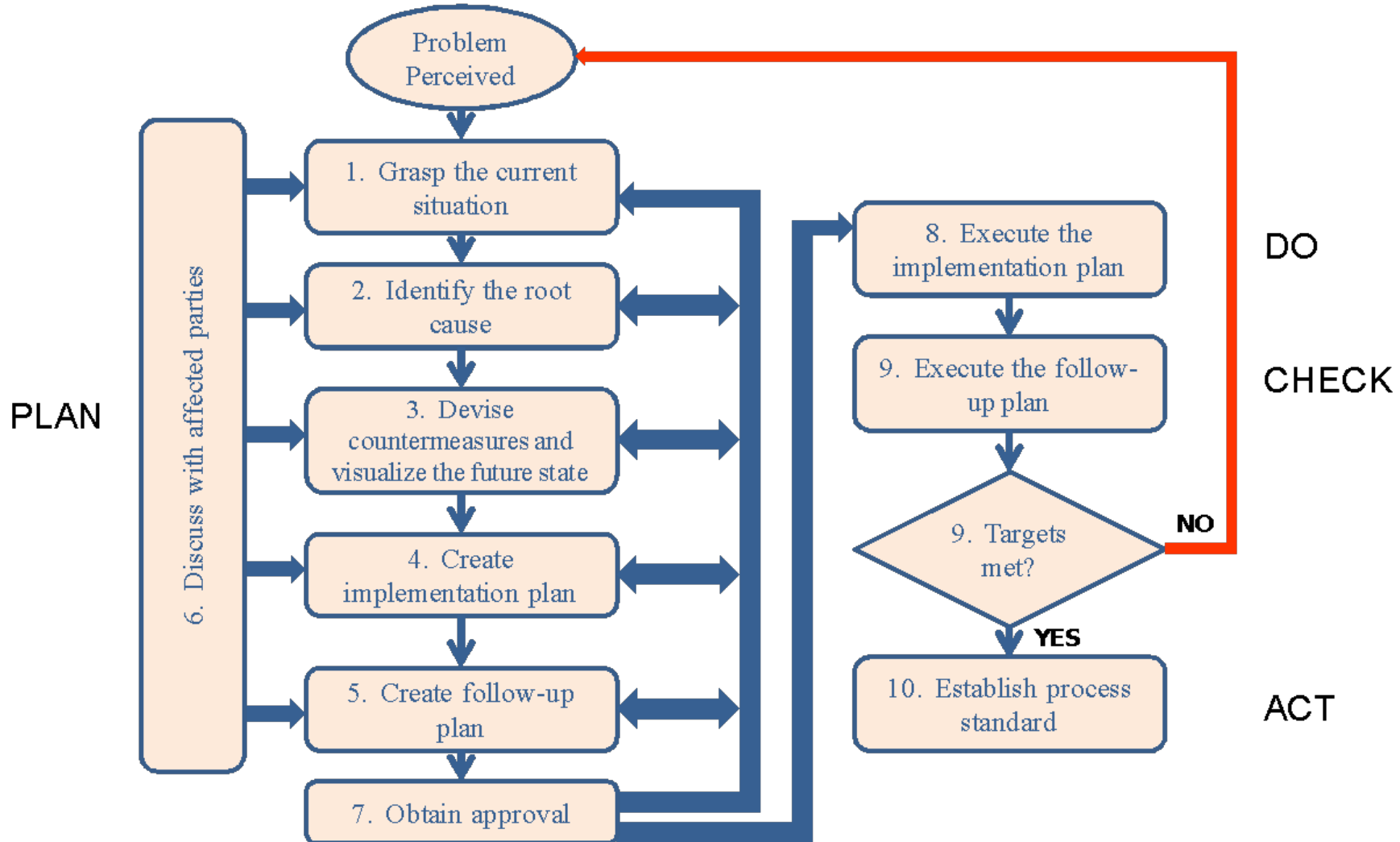
Typical US problem solving



LEAN Organizations



PLAN - DO - CHECK - ACT



A3

- Serves as a working document for the interns and hospital staff throughout project
- Mirrors the PDCA process

○ **THEME:** "What are we trying to do?"

Background

- Background of the problem
- Importance of the problem; how it impacts company's goals or values

Current Condition

- Diagram of how the current process or design works
- Key problem(s) clearly illustrated
- Quantified measures of the extent of the problem(s), displayed graphically

Goal: measurable objective for what we want to accomplish

Cause Analysis

- Key problem(s), and most likely root cause(s)
Why?
 Why?
 Why?
 Why?
 Why?

○

○

Problem-solving A3

To: _____
By: _____
Date: _____

Countermeasures

- Illustration or description of the specific countermeasures or solutions implemented
- Diagram of how new process works

Effect Confirmation

- Measurable data displayed that demonstrates the extent to which goal has been met
- Confirms (or not) that correct root cause was identified and effectiveness of countermeasure

Follow-Up

- Further actions to be taken based on what was learned

Timeline at the CAH

Day 1: Orientation and project scoping

Days 2-4: Data collection and current state analysis

Days 5-7: Root cause and Solution development

Days 8-9: Implementation and tweaking

Day 10: Report out and final presentation

Goal is an implemented solution

Keys To A Successful Project

Before the interns arrive:

- Project selection and scope – Identify measurable goals
- Communicate with your staff – should not be a surprise when the interns arrive
- Solidify access to data

While the interns are on-site:

- Buy-in / participation from project stakeholders
- Focus on the process not the people – let data tell the story
- Willing to pilot recommended changes

Common Projects Performed:

Materials
management

Clinic
workflow

Charge
capture

ED workflow

Med Surg
workflow

Registration
workflow

Scheduling

Project Outcome Examples: 2021-2022

- Increased patients contacted within 24 hours of their Lab results available from 70.27% to 97.34%.
- Increased patient privacy from 43% to 100%.
- Reduced emergency preparedness inventory by 36%; eliminated nurses' inventory search time.
- Reduced number of HR policies by 44%; reduced search time from 2.11 min. to 19.9 seconds.
- Increased billed charges in ED in 2 weeks from 0% to 25%.
- Reduced ED visit documentation errors by 50%.
- Increased number of patients accurately documented and charged from 93.25% to 100% in the therapy setting
- Increased percentage of ED materials charged from 3.13% to 80% (~ \$86,550/yr.).
- Reduced facility on-hand materials inventory level by 68%
- Increase provider utilization by 10%

2023 RIE Internship Schedule

March

CAH project applications open
MSU interns applications open

May

RIE training at MSU as well as on-site at MT
CAH

April

- CAH's selected and schedule finalized
- MSU interns interviewed and selected

June–Aug.

RIEs conducted throughout MT at selected
facilities



Questions?
