

THE
AMERICAN
BOARD OF RADIOLOGY

EXCELLENCE • PROFESSIONALISM • PUBLIC TRUST • EST. 1934

PQI

Practice Quality Improvement

G. Donald Frey, Ph.D.

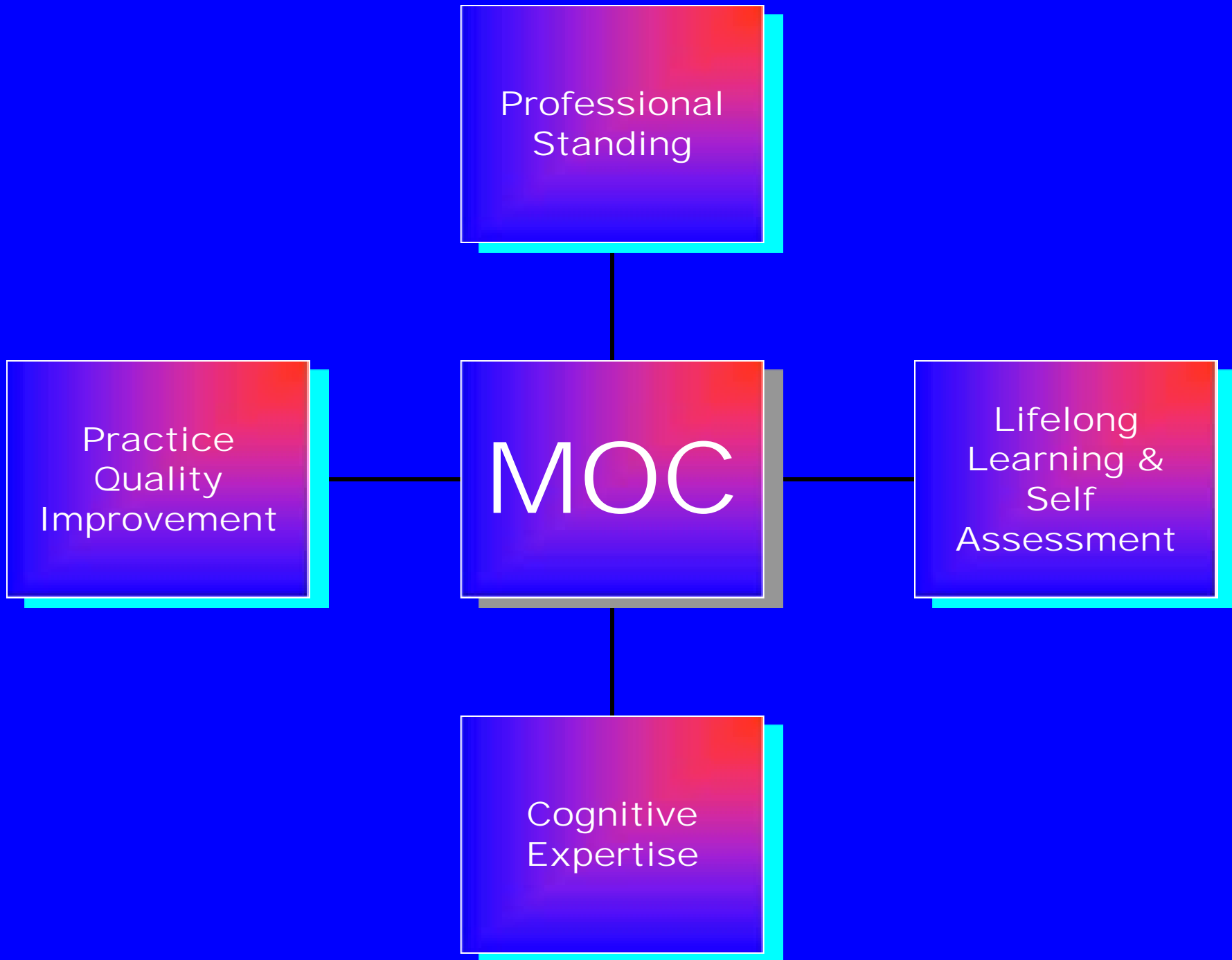
Mission

The mission of The American Board of Radiology is to serve patients, the public, and the medical profession by certifying that its diplomates have **acquired, demonstrated, and maintained a requisite standard of knowledge, skill and understanding essential to the practice** of diagnostic radiology, radiation oncology and radiologic physics

Why do we have MOC?

- Society is demanding that someone “police” the medical professions

The Boards want the public and governmental authorities to accept participation in MOC as being reasonable evidence that the practitioner is maintaining his or her professional skills



**PQI is the MOST
important
component of
MOC**

PQI - Rationale

- Significant issues of quality and safety in medicine
 - Institute of Medicine “To Err Is Human”
- Industrial Experience from Manufacturing
 - Process Control

Institute of Medicine Report



- 44k to 98k deaths per year from medical errors
- “Break the cycle of inaction

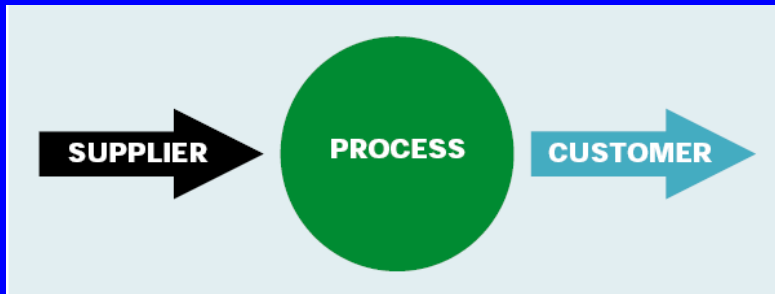


Aphorism

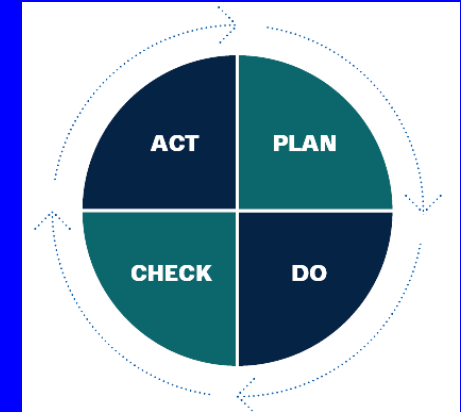
*Physicians kill patients
one at a time. Medical
physicists kill them in
large groups*

Statistical Process Control

Deming



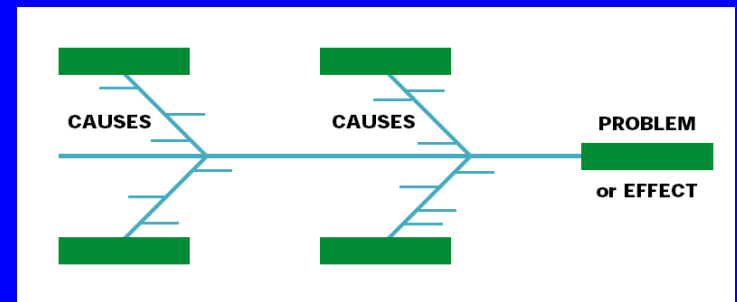
Juran



Six Sigma

TQM

Feigenbaum



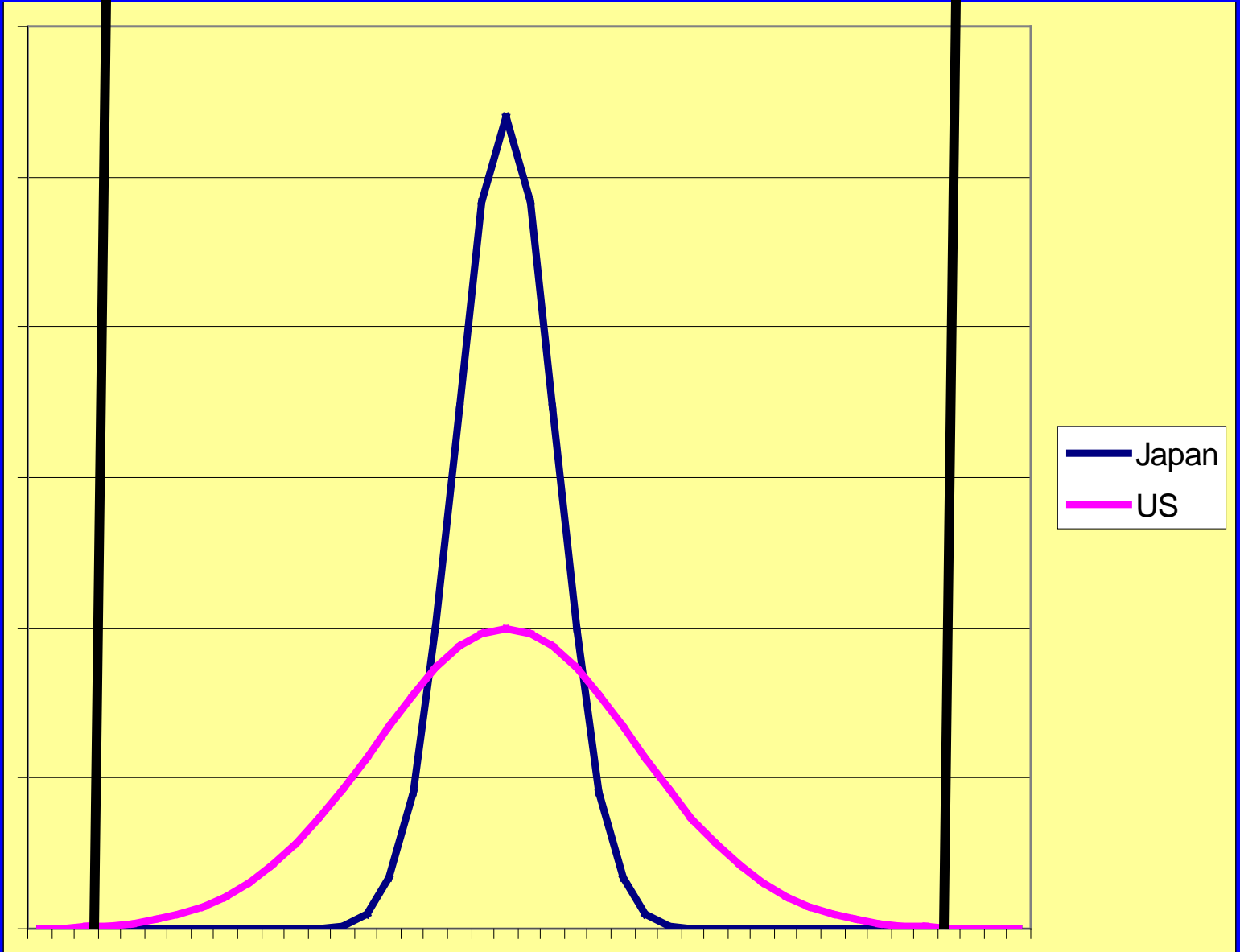
Industrial Process Control

Key Issues

- Create a constancy of purpose focused on the improvement of products and services
- Reject poor workmanship, defective products & bad service
- Do not rely on inspection to control quality
- Focus on continuous improvement

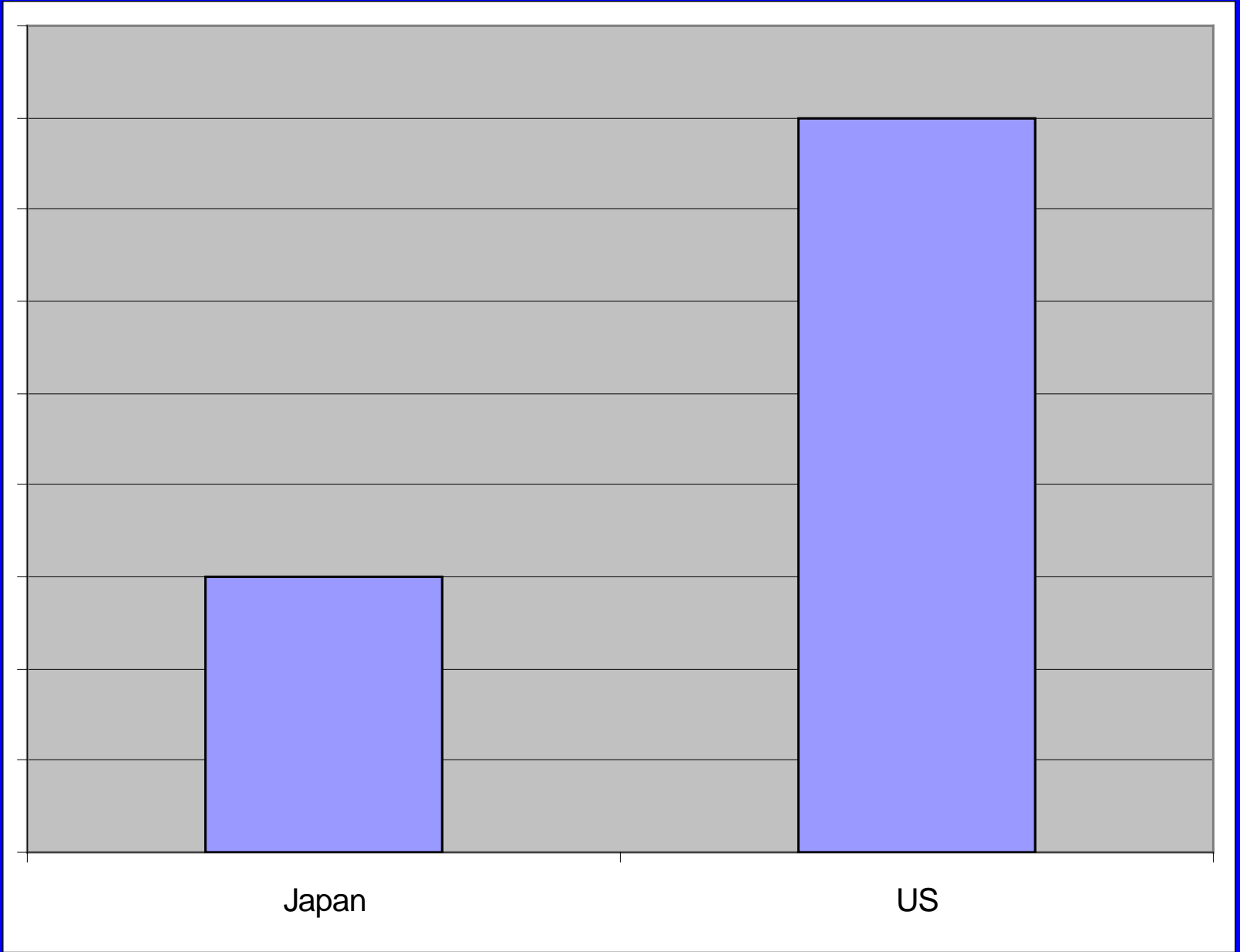
Industrial Example

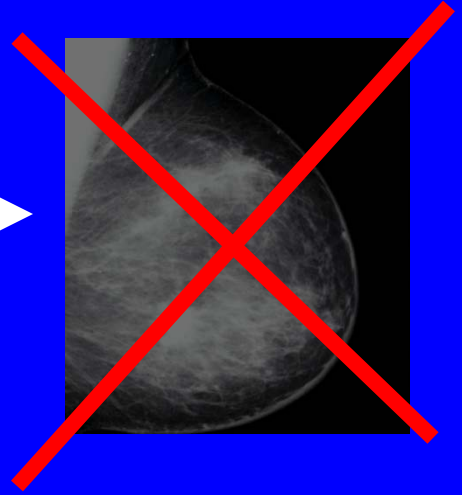
Transmission Tolerances



Distribution of Part Dimensions

Warranty Costs





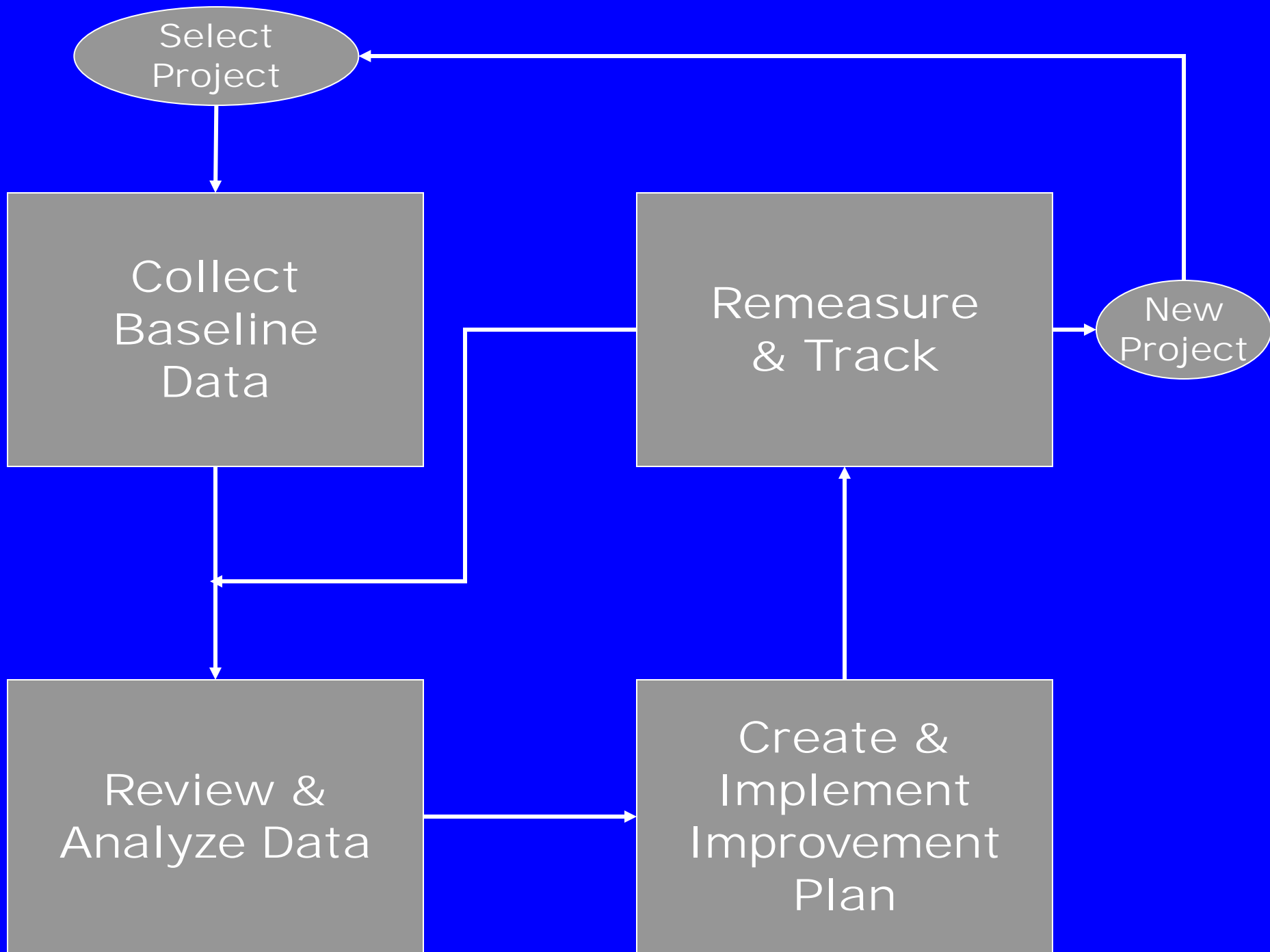
“All Radiologic Physics diplomates must be trained in the process and procedures of quality improvement

...

First Steps

- Training is the First Step
- We need to learn to do effective projects that improve health and safety
- We need to incorporate PQI into the fabric of the culture of our work
- It took Toyota more than 20 years to transform it's manufacturing culture

ABR PQI Process



The 10 yr Cycle

Year of Cycle	A guideline of what might be done each year of the ten-year MOC cycle
1	<ul style="list-style-type: none"> • Quality Improvement education (First cycle)
2	<ul style="list-style-type: none"> • Select project and metrics • Collect baseline data
3	<ul style="list-style-type: none"> • Analyze data • Create improvement plan
4	<ul style="list-style-type: none"> • Implement improvement plan • Might include data collection
5	<ul style="list-style-type: none"> • Collect data • Compare to initial baseline • Summarize, draw conclusions
6	<ul style="list-style-type: none"> • Select new project and metrics or modify improvement plan for previous project • Collect baseline data
7	<ul style="list-style-type: none"> • Analyze data • Create improvement plan (if new project)
8	<ul style="list-style-type: none"> • Implement improvement plan • Might include data collection
9	<ul style="list-style-type: none"> • Collect data • Compare to initial baseline • Summarize, draw conclusions
10	Cycle concludes

Project Categories

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graph TD; A[Project Categories] --- B[Safety for Patients, Employees & Public]; A --- C[Accuracy Of Analyses & Calculations]; A --- D[Report Turnaround Times & Communication]; A --- E[Practice Guidelines & Standards]; A --- F[Surveys];
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Safety for
Patients,
Employees
& Public

Accuracy
Of Analyses
&
Calculations

Report
Turnaround
Times &
Communication

Practice
Guidelines
&
Standards

Surveys

Types of Projects



Individual



**Society
Sponsored**

Innovations

- Templates
- Group Based PQI Projects
 - Everyone must participate
 - Cross Disciplinary – RO/MP or MP/DX
- Institutional Projects
 - Health systems
 - “Deamed Status”

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