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Advancing Implementation and Improvement Science Education (AdvISE) Initiative

Presented by:

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Thank you to my co-authors:

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- Kathryn Montgomery, PhD, RN, NEA-BC
- Kathleen Buckley, PhD, RN



Objectives

- 1: Outline the need for expanding quality improvement dissemination and implementation expertise among DNP faculty and students.
- 2: Describe how schools of nursing are working to expand the use of implementation and improvement science theories, frameworks, models, and tools among DNP faculty and students.
- 3: Identify strategies and tactics for expanding the use of implementation and improvement science among DNP faculty and students in order to more rapidly and effectively close the evidence into practice gap.



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Objective 1: Outline the need for expanding quality improvement dissemination and implementation expertise among DNP faculty and students.



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Institute of Medicine - 2001

It takes **17 years** to translate research into action.

Institute of Medicine (2001). Crossing the quality chasm: A new health system for the 21st Century, pg. 5.



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*“...engaging in quality improvement is
NOT purely discretionary...”*

Everyone is responsible

Baily, M.A., Bottrell, M., Lynn, J., & Jennings (2006). Special report: the ethics of using QI methods to improve healthcare quality and safety. The Hastings Center: Garrison New York, pg. S6.



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Education about quality and safety are
necessary components to improve patient
outcomes and meet DNP Essentials



DNP graduates with expertise in translation or diffusion of research into practice using QI methods are the key to reducing the 17-year research-to-practice gap!



2016 there were

- 2,857,180 RNs compared to 338,620 physicians and surgeons
- 303 DNP Programs
- 25,289 DNP Students enrolled nationally
- 4,855 DNP graduates



AT UMSON over 200 DNP students have graduated approximately 450 DNP students are enrolled



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*"Although respondents' beliefs about EBP were positive, they reported **their ability to implement EBP as extremely low.**"*

Warren, J.I., McLaughlin, M., Bardsley, J., Eich, J., Esche, C.A., Kropkowski, L., & Risch, S. (2016). The strengths and challenges of implementing EBP in healthcare systems. *Worldviews on Evidence-Based Nursing*. 12(1), pg. 19.



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Vision:

New DNP graduates will be implementation scholars.

They will graduate with the knowledge, skills, and confidence to develop and lead quality improvement initiatives that transform population health and healthcare.



- Implementation Science and QI expertise is needed to increase evidence-based practices which improve the quality and safety of healthcare and reduce moral distress and burnout among RNs.



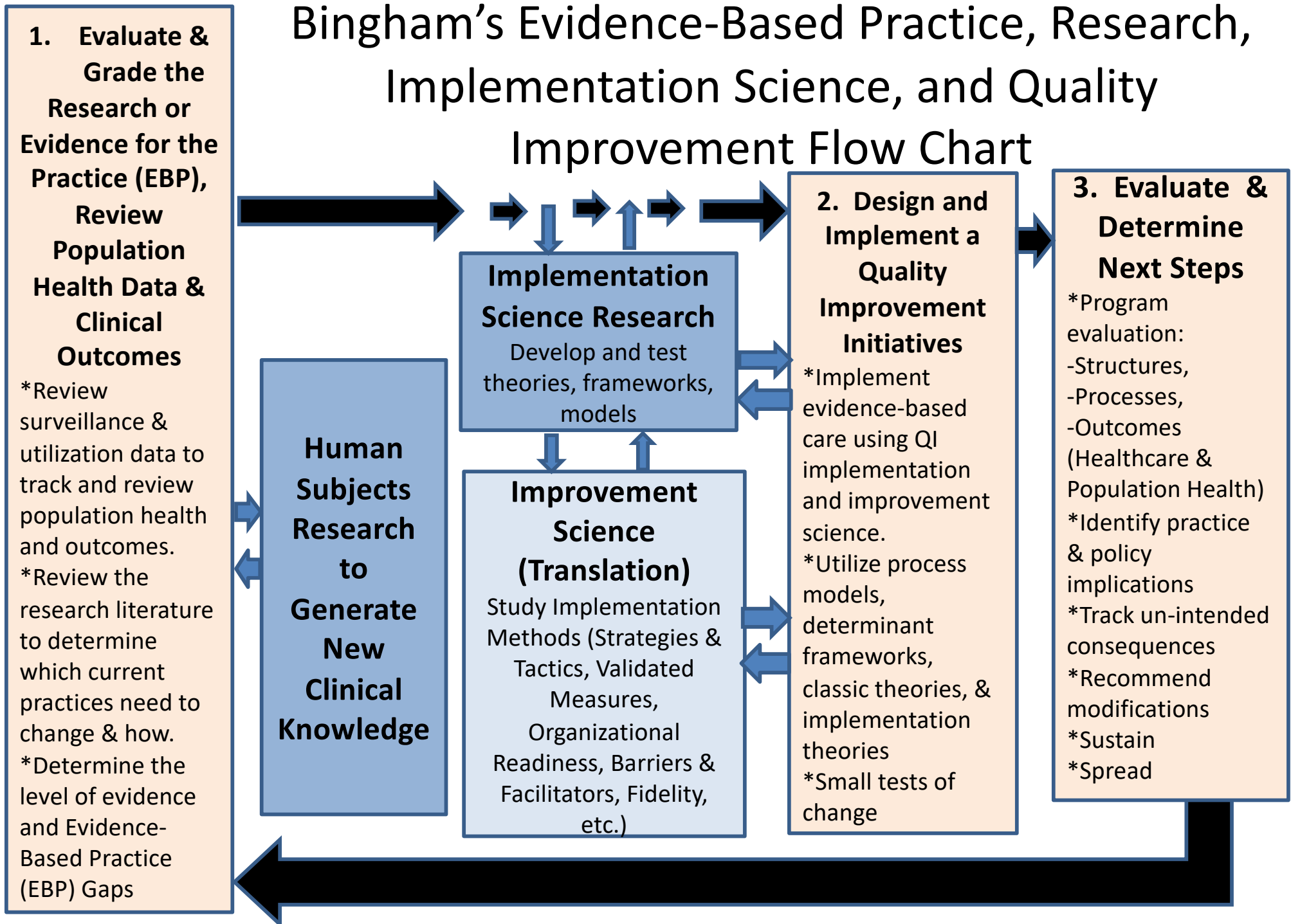
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Definition of Quality Improvement (QI)

*“... systematic, **data-guided** activities designed to bring about immediate, **positive changes** in the delivery of health care in particular settings.”*

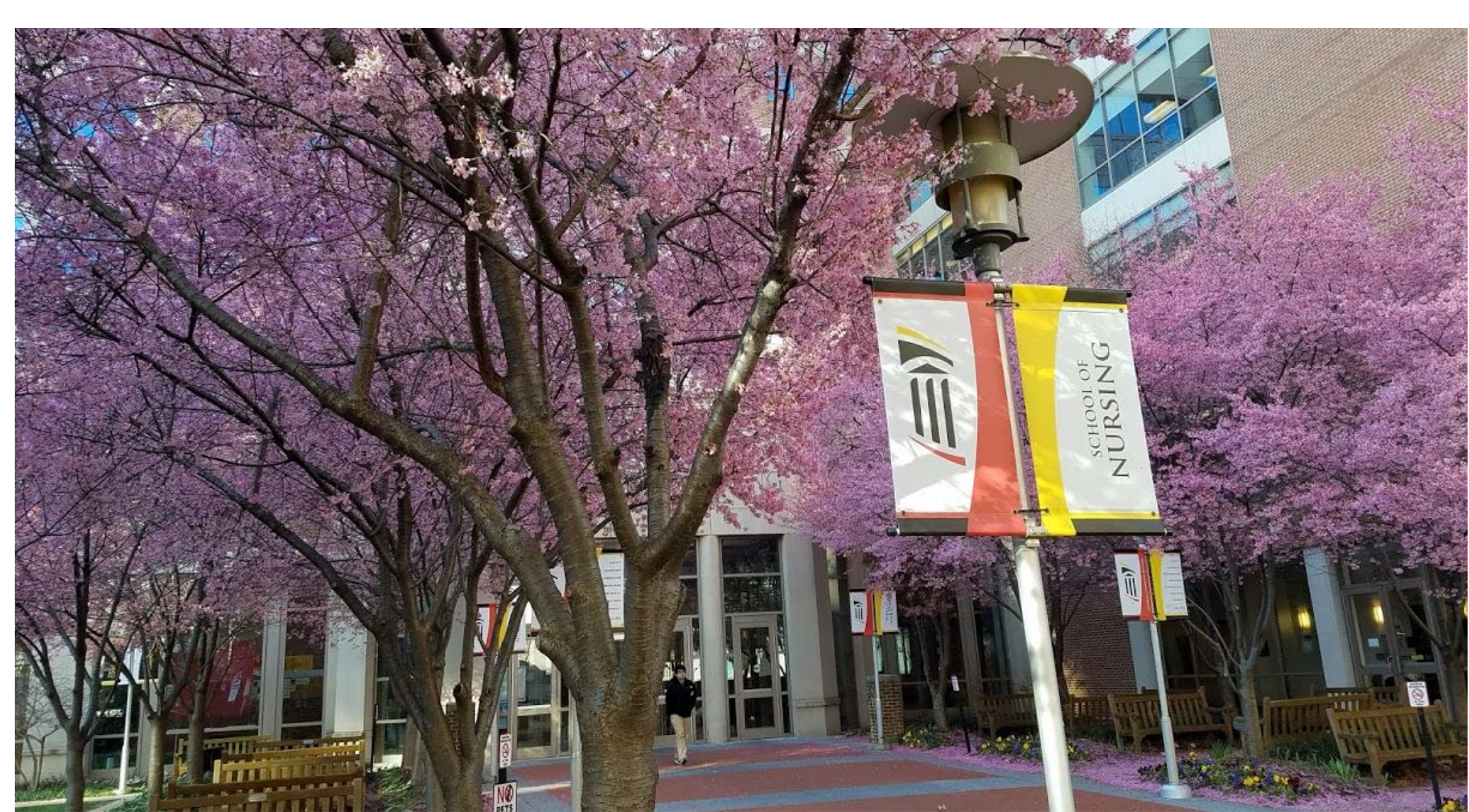
Baily, M.A., Bottrell, M., Lynn, J., & Jennings (2006). Special report: the ethics of using QI methods to improve healthcare quality and safety. The Hastings Center: Garrison New York, pg. S5.

Bingham's Evidence-Based Practice, Research, Implementation Science, and Quality Improvement Flow Chart





Objective 2: Discuss how schools of nursing are working to expand the use of implementation and improvement theories, frameworks, models, and tools among DNP faculty and students



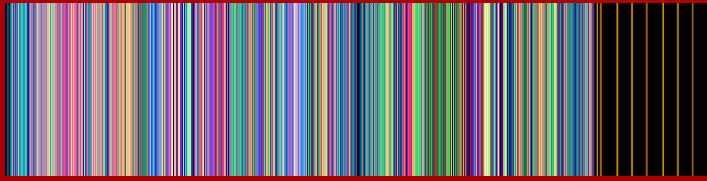
How are you working to expand
QI and Safety expertise among your faculty and
students?



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The University of Maryland School of Nursing has launched the:

Advancing Implementation Science Education (AdvISE) Initiative



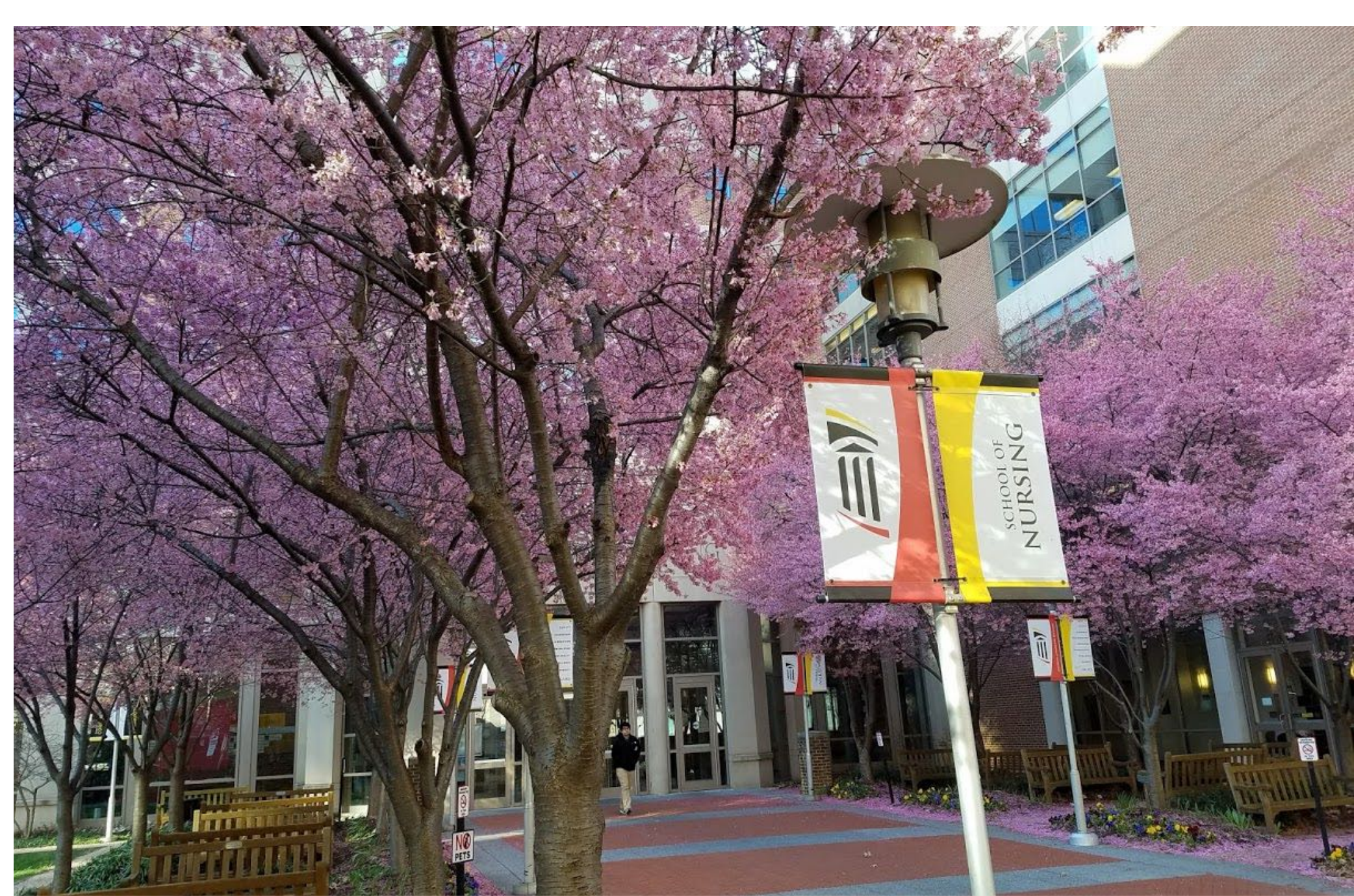
Four
Components
of the
UMSON
initiative to
Enhance the
DNP
Education
about Quality
Improvement
and Safety

Expertise of Faculty

Expertise of Students

Curriculum Review

Local, Regional, and
National Reputation



Expertise of Faculty and Students



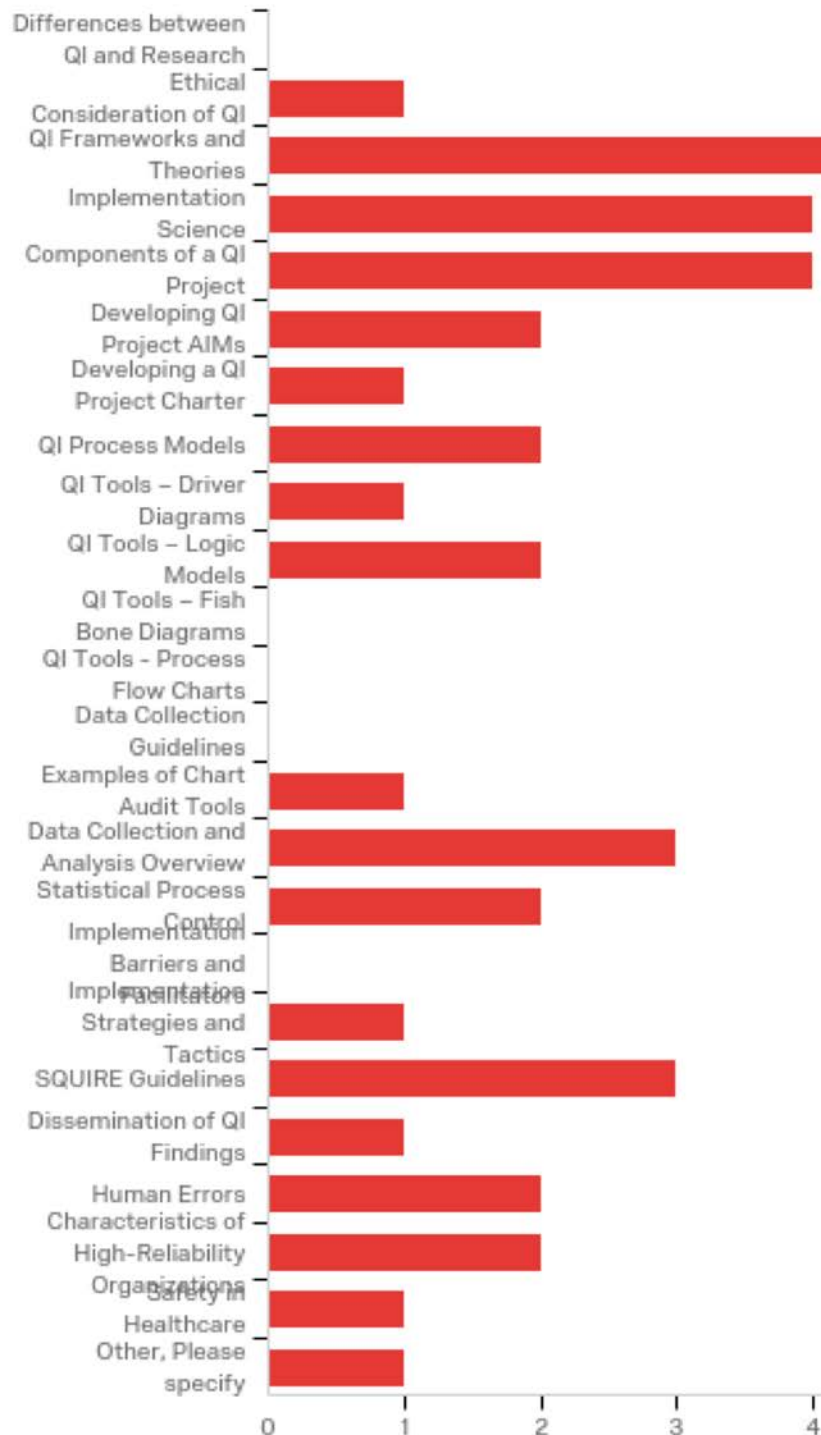
Challenges

- Science on quality improvement and implementation science is rapidly expanding
- The journal of Implementation Science is only 11 years old
- It is hard for faculty to keep up-to-date
- Many faculty may not have had education or experience implementing and evaluating QI



Spring 2017 UMSON Faculty Survey

- 21 (54%) out of 39 faculty members responded
- 76% had more than 5 years of experience
- Of the 23 quality improvement, dissemination and implementation, and safety topics surveyed:
 - 10% stated they were expert
 - 43% stated they were proficient
 - 43% stated they were somewhat proficient
 - 5% stated they were not very familiar



Topics of Greatest Interest

- QI Frameworks & theories
- Implementation Science
- Components of a QI Project
- Developing AIMS
- QI Process Models
- Logic Models
- Data Collection & Analysis
- Statistical Process Control
- SQUIRE Guidelines
- Human Errors
- High Reliability

(Spring 2017 Faculty Survey)



Efforts to Expand Expertise

- QI Briefs – Online Short Introductory Slides/Videos, with handouts, references, and resources
- Emails
- In Person Discussion Groups
 - Discuss key concepts & articles
 - Develop examples or case studies
- One-on-one consultations
- List of references and resources
- Other Activities as Identified



QI Briefs are in Blackboard and Are Available to Faculty and Students

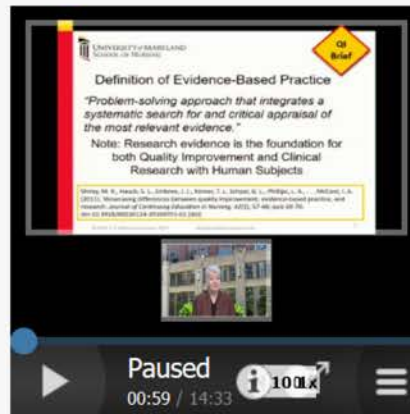
Modules > Segment 1: QI Concepts > QI Brief 1.3: The Differences Between QI and Research (14.22 min.)

QI Brief 1.3: The Differences Between QI and Research (14.22 min.)

Description

The Objectives of QI Brief 1.3 *The Differences Between QI and Research* are:

- 1) Define Evidence-Based Practice (EBP), Quality Improvement (QI) , and Research.
- 2) Describe the relationships among EBP, QI, and Research.
- 3) Describe the components of Ogrinc, et al.'s Instrument to *Assess the Differences between QI and Clinical Research with Human Subjects*.



UMSON Quality & Safety Briefs Series

- Start Here
- Announcements
- Faculty Information
- Course Information
- Course Model/Schedule

Modules

- Discussion Board

Tools

- Help

ORGANIZATION MANAGEMENT

- Control Panel
- Files
- Organization Tools

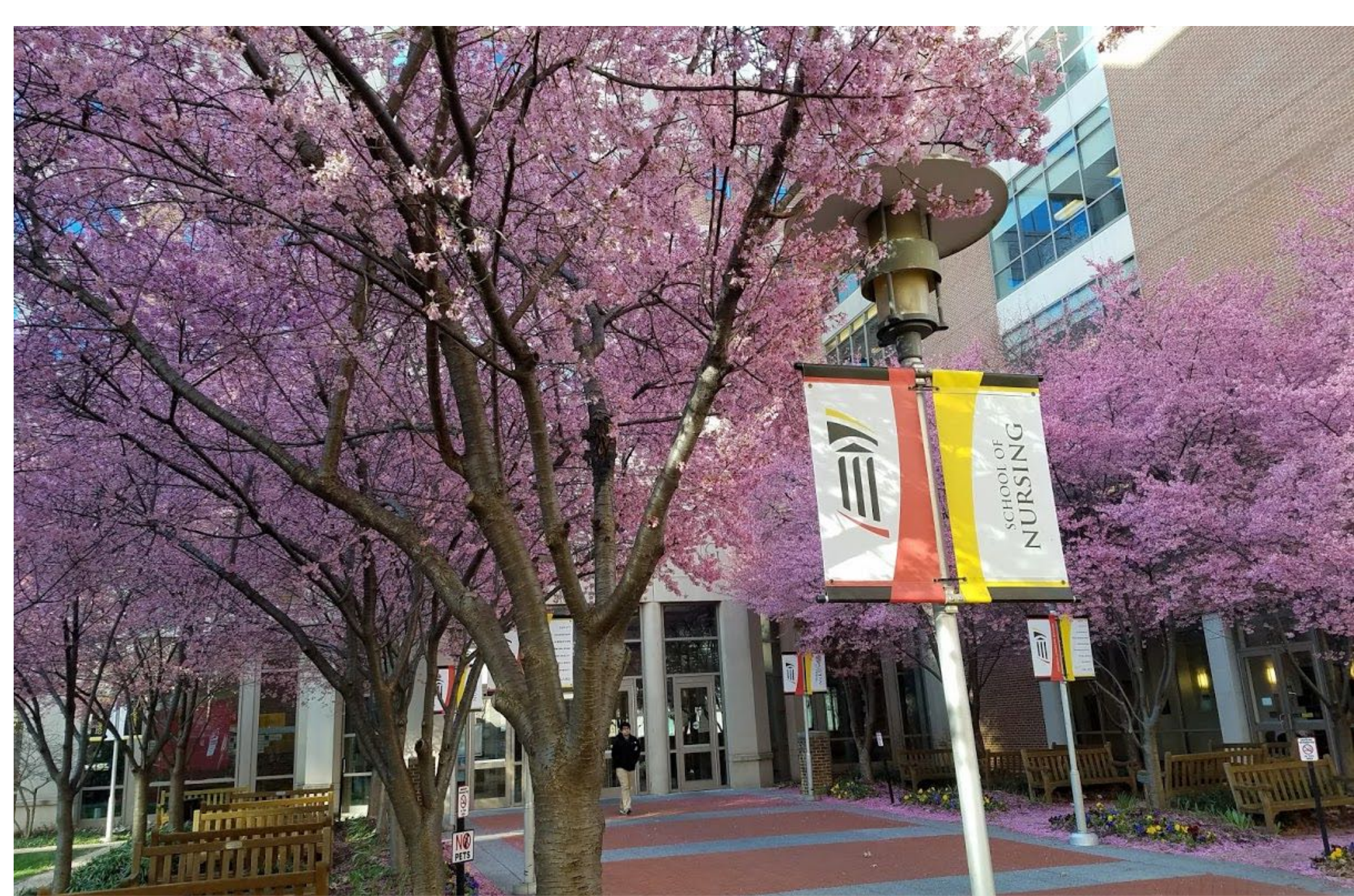


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QI
Brief

Quality Improvement(QI) Briefs Course Model





Curriculum Review



National Standards Used in UMSON's Curriculum Crosswalk

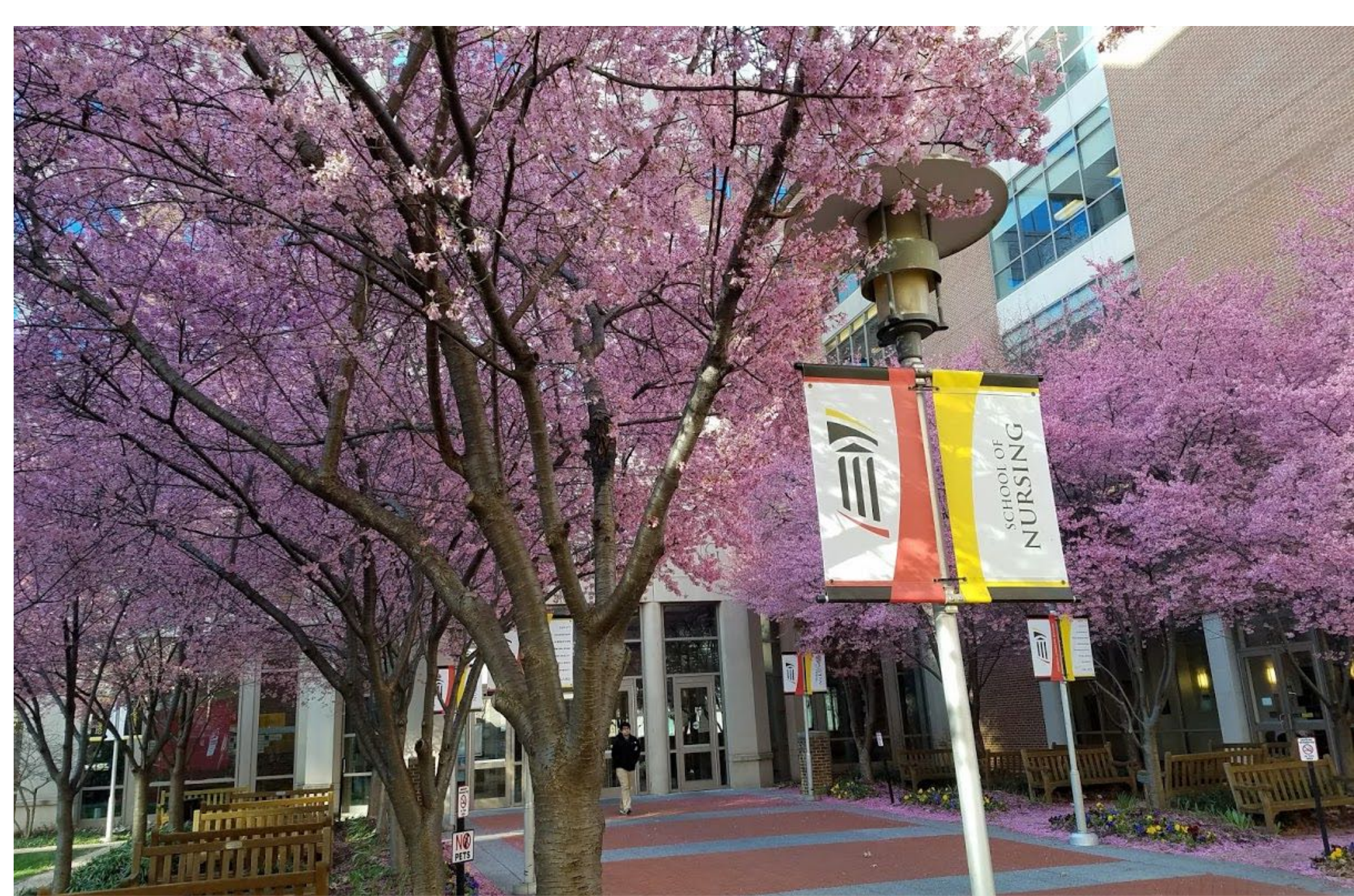
- AACN DNP Essentials
- Nurse Practitioner Core Competencies
- Nurse Anesthetists Professional Competencies
- Clinical Nurse Specialist Core Competencies
- Graduate-Level Quality and Safety Education in Nursing Competencies



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Four Sub-Work Groups Formed

- Leadership
- Theory
- Measurement and Data
- DNP Project Courses



Local, State, National Reputation



Dissemination of Scholarship

- Student posters, presentations and publications
- Faculty posters, presentations and publications
- New modalities
 - Social Media
 - Other technological platforms
 - Infographics



Objective 3: Identify strategies and tactics for expanding the use of implementation and improvement science among DNP faculty and students in order to more rapidly and effectively close the evidence into practice gap.



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No two DNP Projects are identical

**Yet ---- all DNP Projects share a
similar road to success**



- Implementation Theories – Predicting & explaining
 - Roger’s Diffusion of Innovations
 - Klein and Sorra Determinants and Consequences of Implementation Effectiveness
- Frameworks – Planning and describing, checklists
 - Consolidated Framework for Implementation Research (CFIR)
 - Integrated Promoting Action on Research Implementation in Health Sciences (i-PARIHS)
- Process Models – Implementation Plan or Protocol
 - PDSA
 - MAP-IT
 - Six Sigma DAMAIC



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www.perinatalqi.org

IMPLEMENTATION SCIENCE IS THE PHYSIOLOGY OF QUALITY IMPROVEMENT

*Posted By Institute for Perinatal Quality Improvement, Thursday,
December 21, 2017*

Author: Debra Bingham, DrPH, RN, FAAN

*Have you ever been a part of a quality improvement (QI) effort
that felt like a waste of time?*

*Have you gone to meeting after meeting or collected a lot of data
but no changes were ever made?*

Or have you made changes that did not improve outcomes?

*Have you wondered what you could do to make QI efforts more
effective?*

While thinking about how to reduce QI-related frustration, I was reminded of when I first became a labor and delivery nurse. Initially I did not understand the physiology behind the patterns I was seeing. I knew how to recognize some fetal heart monitoring patterns, but I was like the proverbial blind man

Subscribe to the blog.



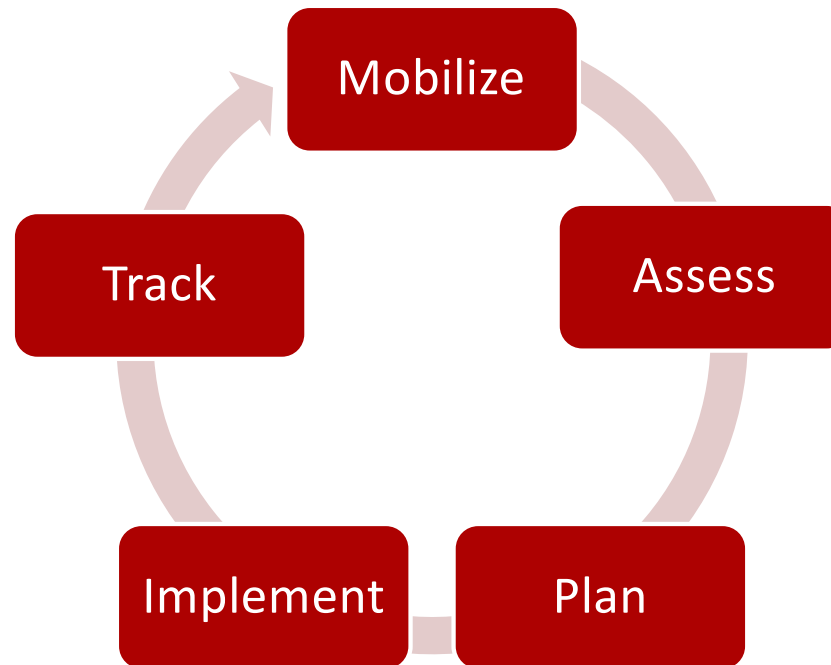
Implementation theories and frameworks should guide the strategies and tactics of the implementation plan that follows a specific QI Process Model



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MAP-IT is a QI Process Model

Mobilize – Assess – Plan – Implement – Track
(MAP-IT)



MAP-IT is the QI Process Model used by the University of Maryland School of Nursing

Guidry, M., Vischi, T., Han, R., & Passons, O. MAP-IT: a guide to using healthy people 2020 in your community. U.S. Department of Health and Human Services. The Office of Disease Prevention and Health Promotion, Washington, D.C. <https://www.healthypeople.gov/2020/tools-and-resources/Program-Planning>

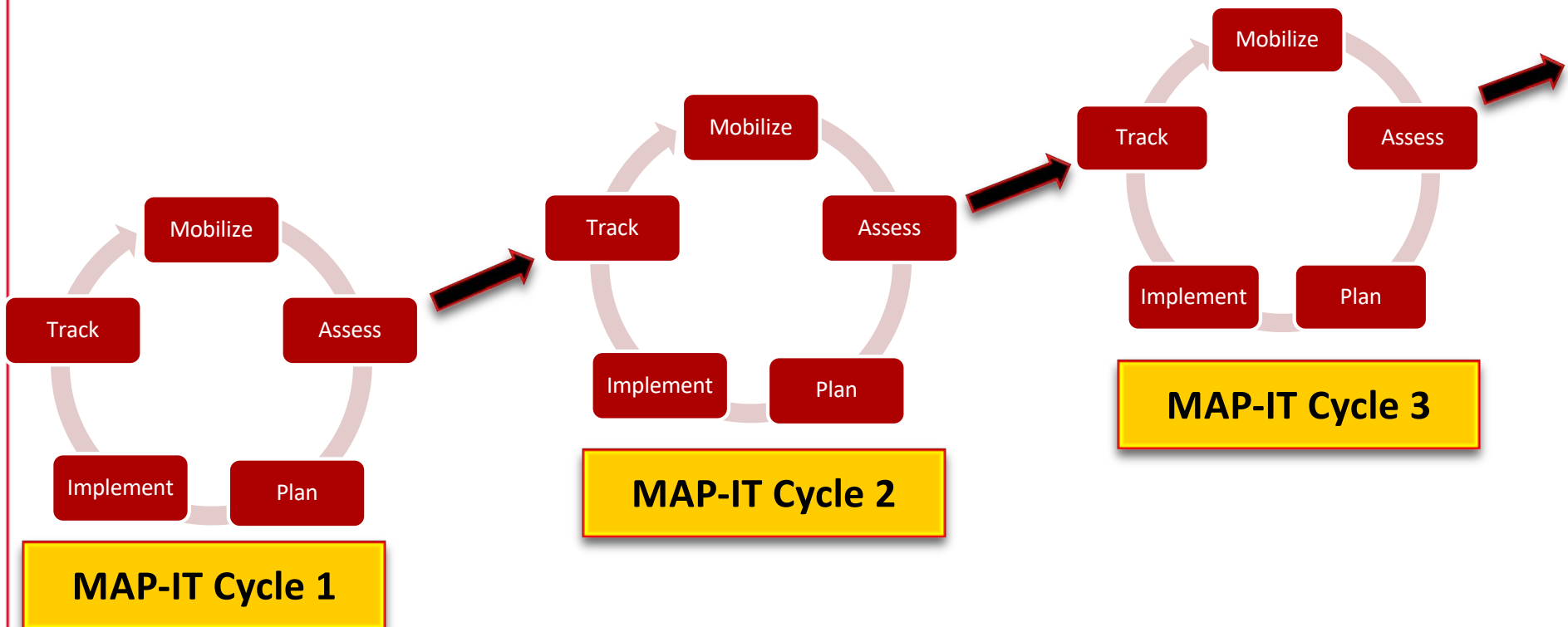


Comparing MAP-IT and Six Sigma

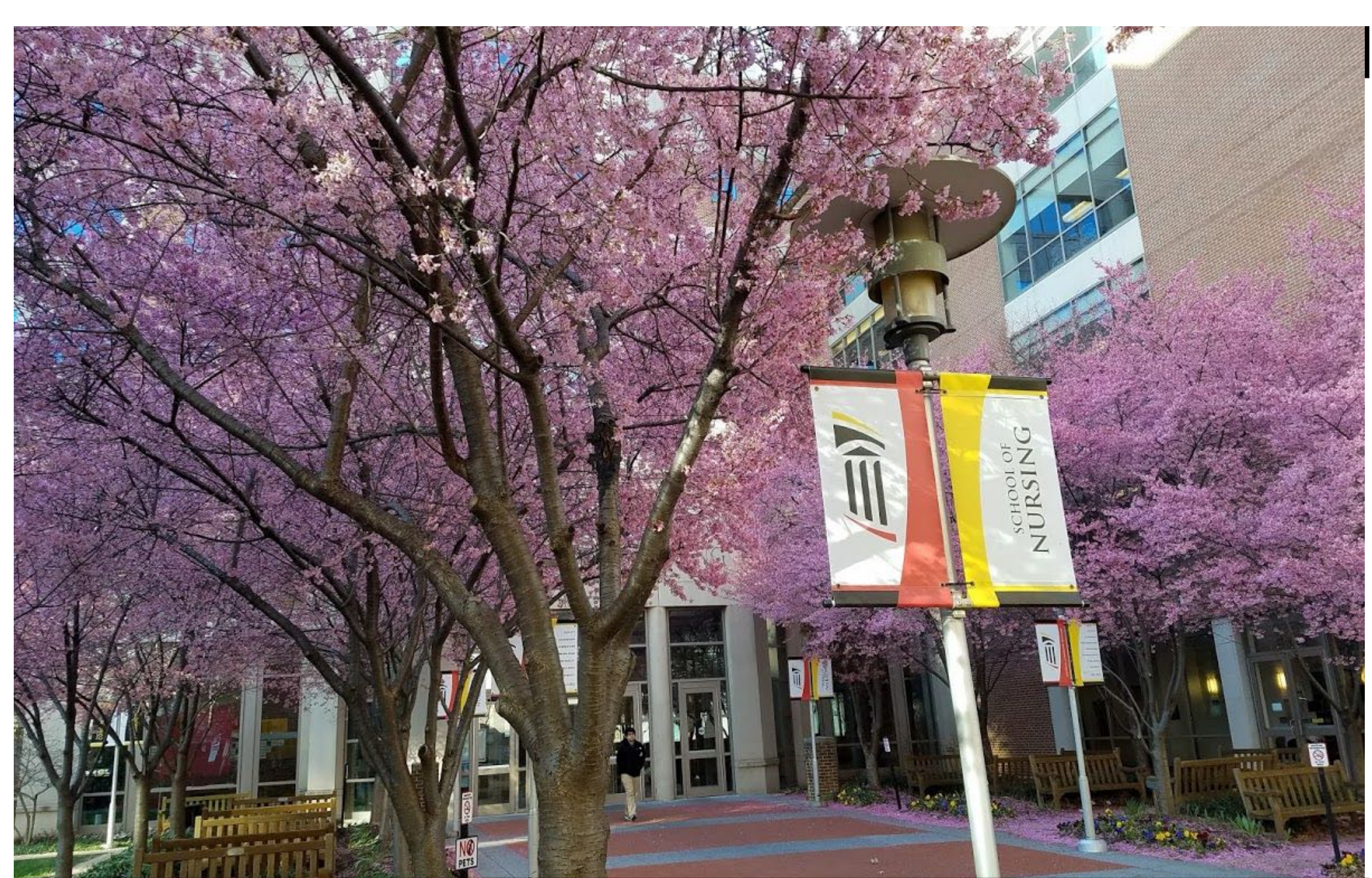
- Mobilize
 - Assess
 - Plan
 - Implement
 - Track
-
- Define
- Measure (Process Measures)
- Analyze (Process Mapping)
- Improve
- Control



Perform Small Tests of Change Learn then Adjust (as often as needed)



QI Saves Lives!
www.perinatalQI.org

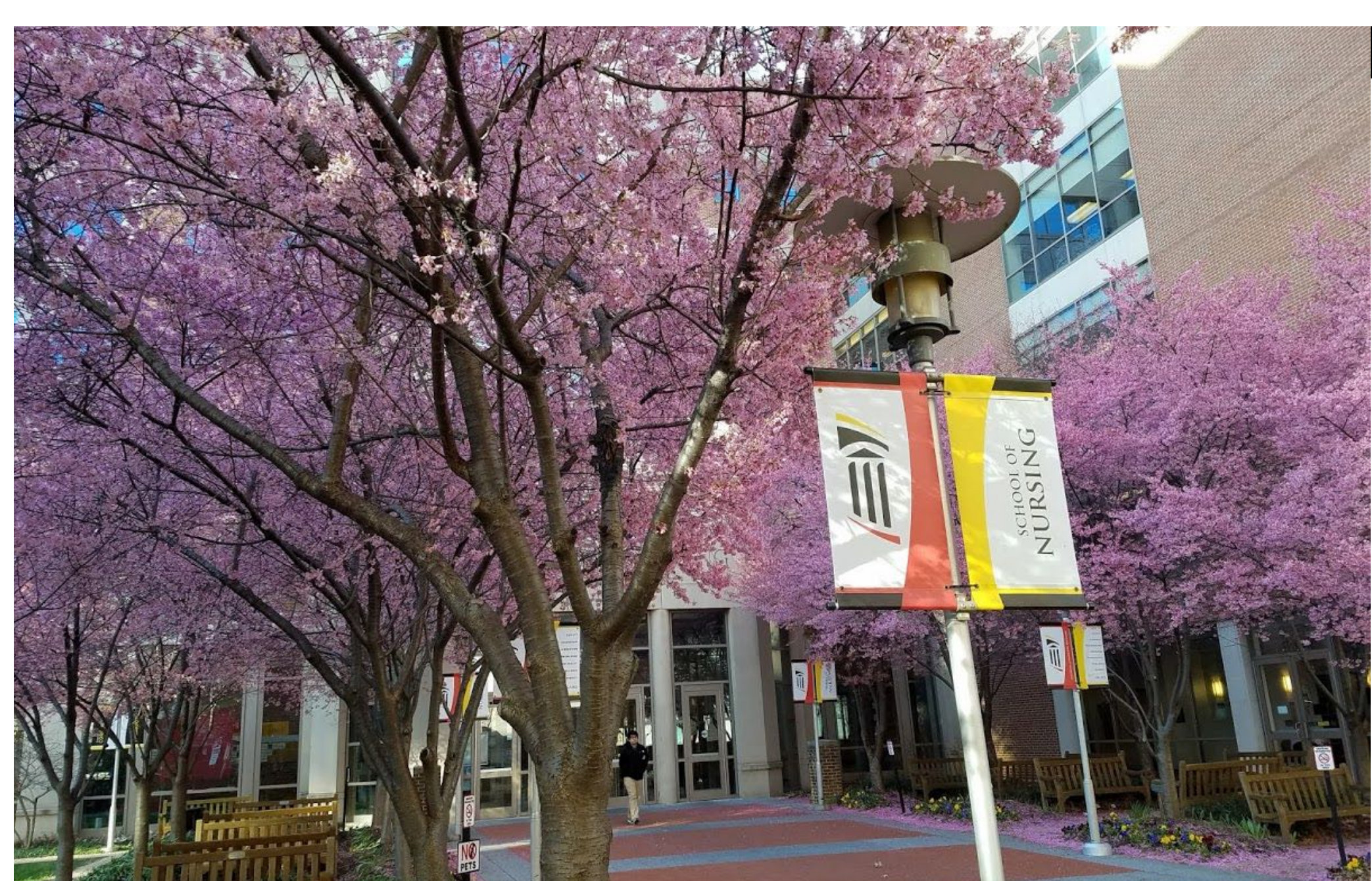


Mobilize



Mobilize

WHO will help facilitate the needed changes in structures and processes (practices)?



Assess



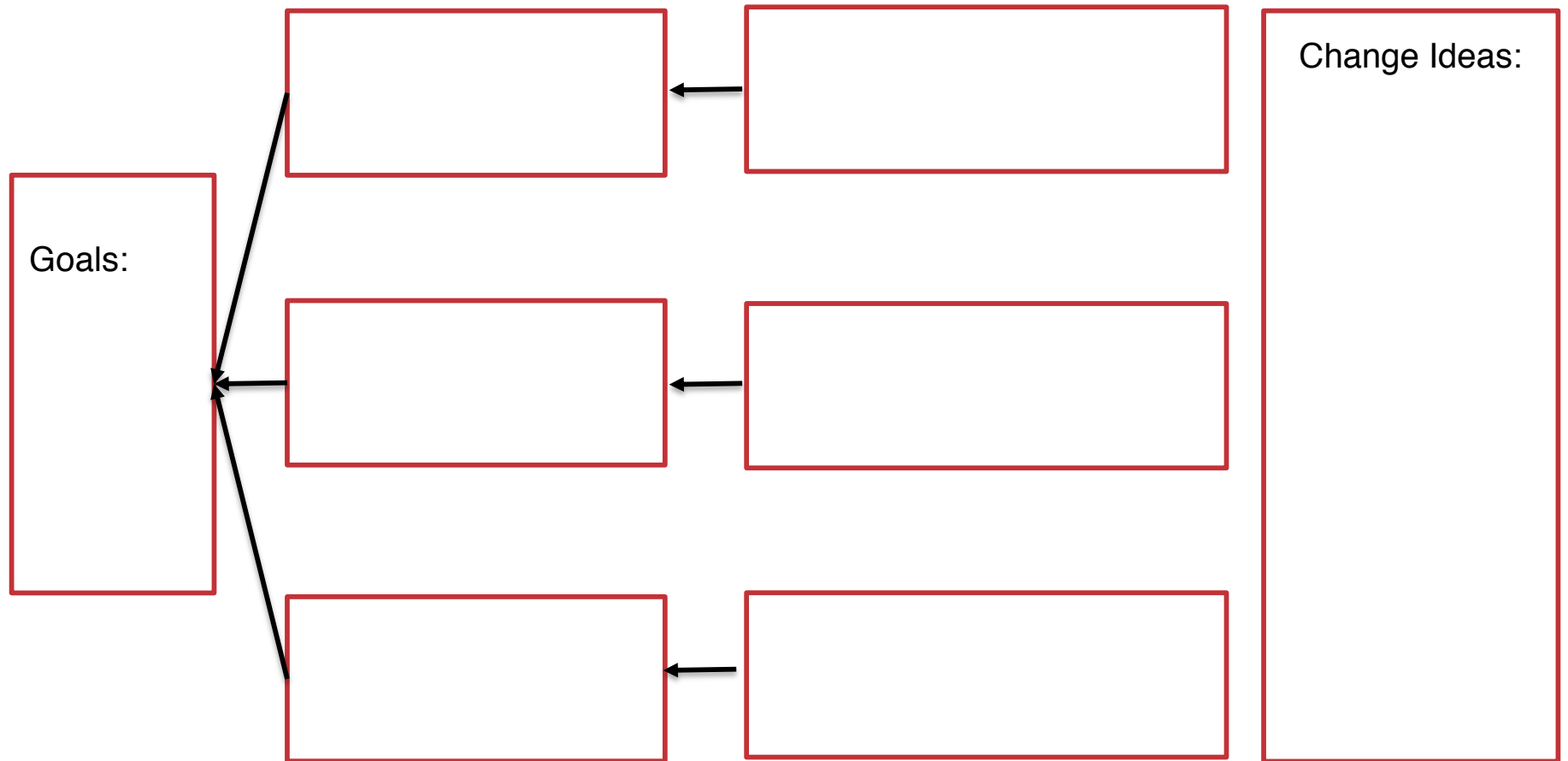
Assess

WHAT structures and processes (practices) need to change and WHY?

WHAT metrics will be used to measure progress?

WHAT is the problem?

Blank Driver Diagram

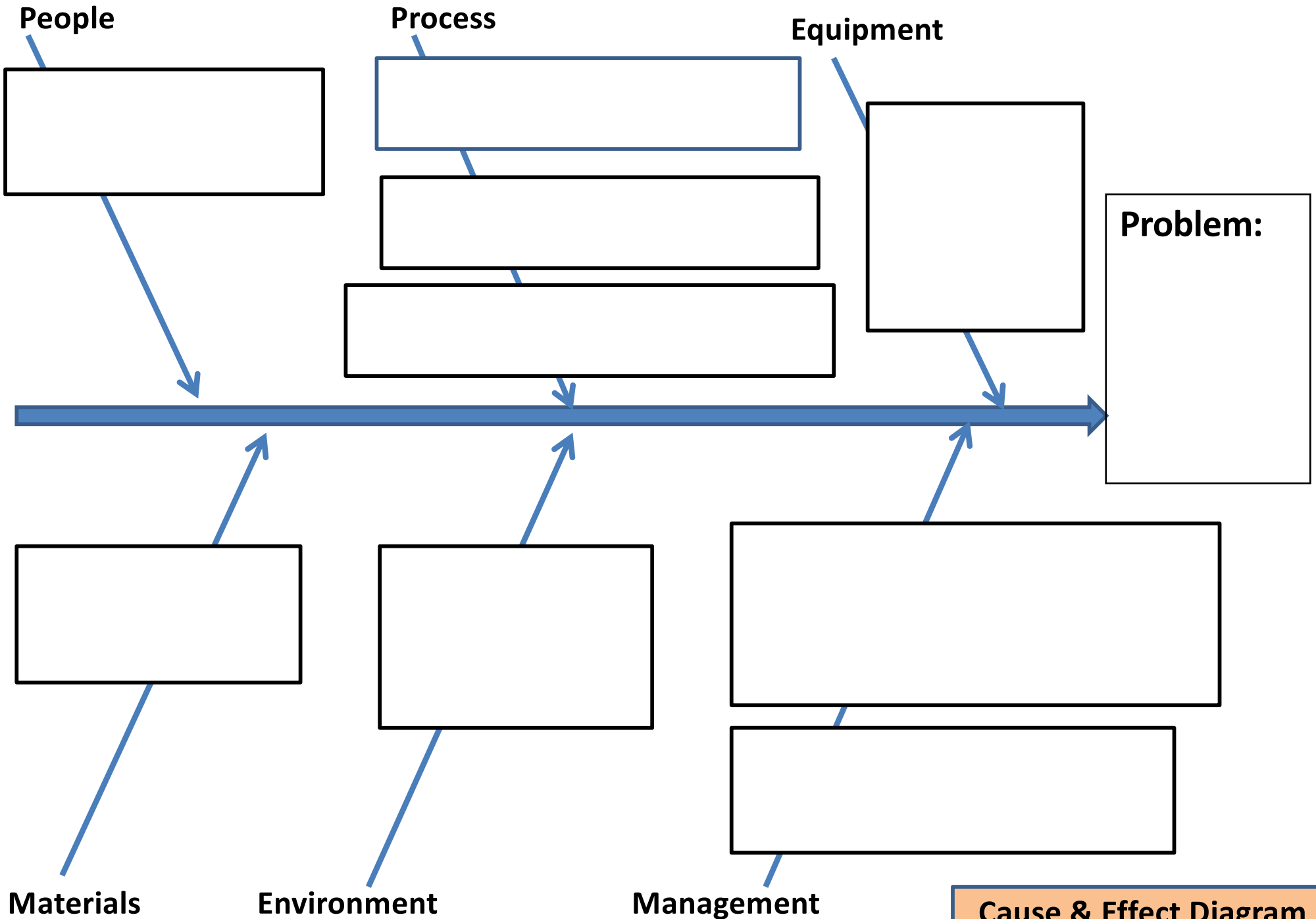


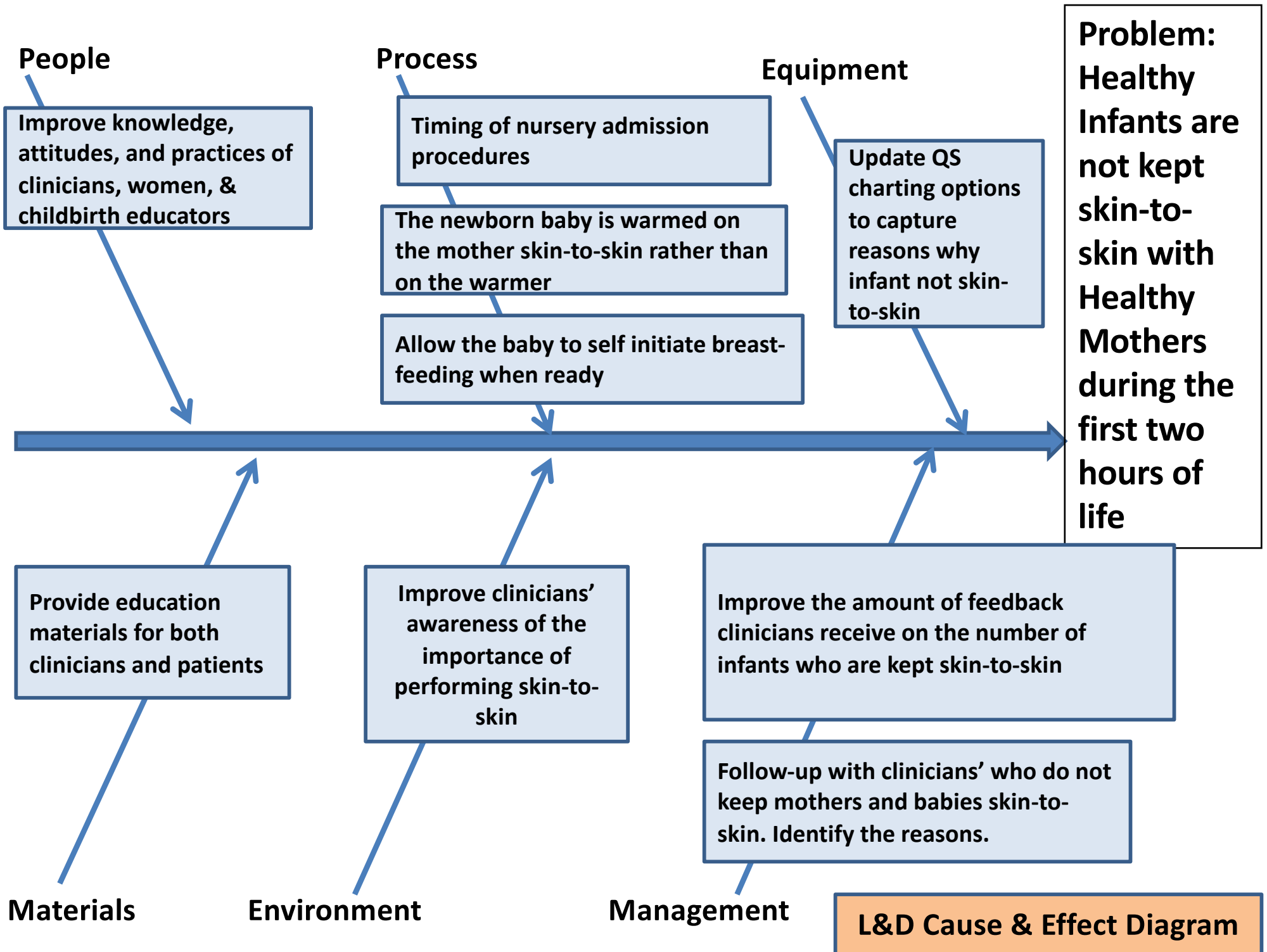
GOALS

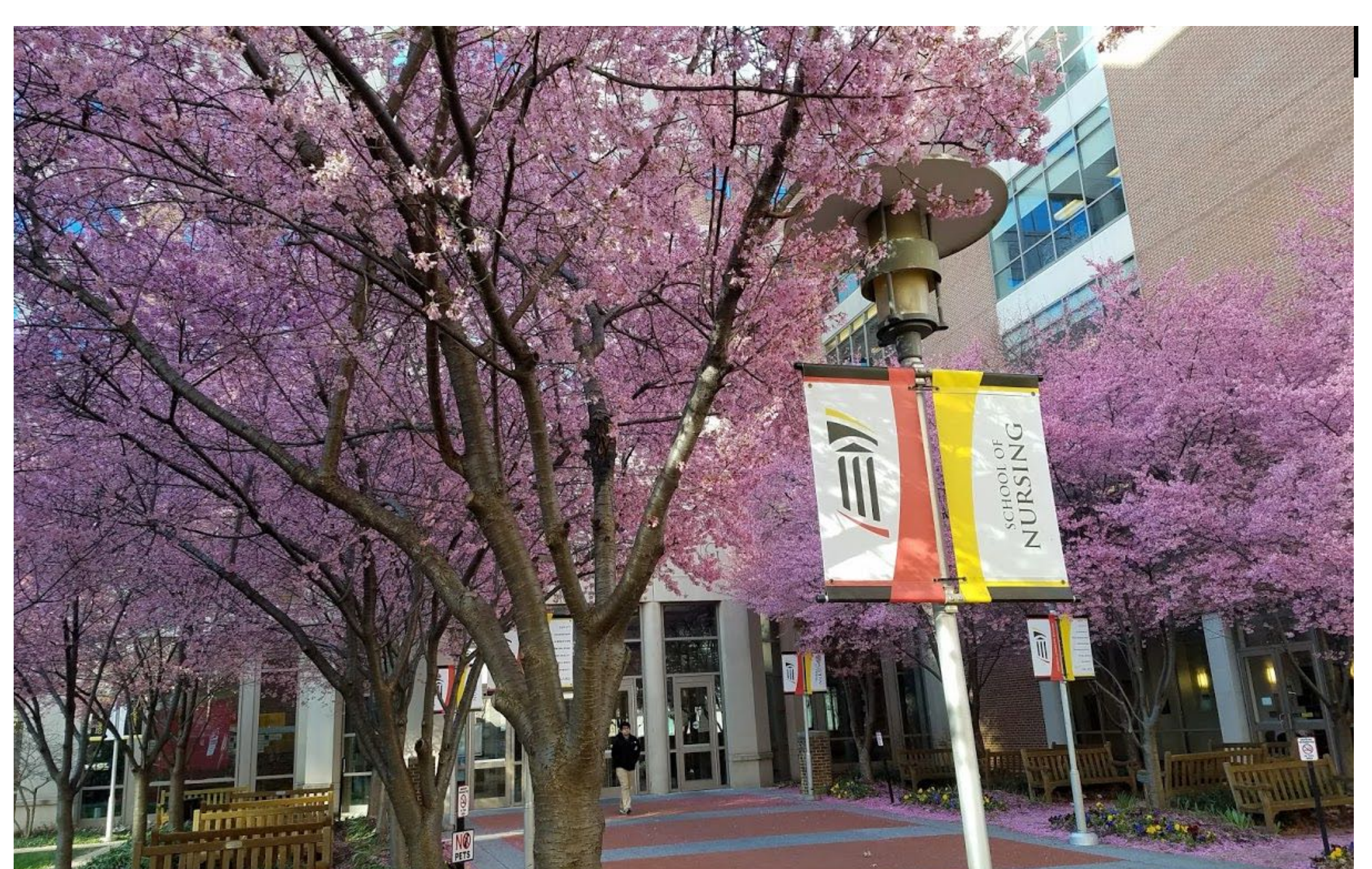
PRIMARY

SECONDARY

CHANGE IDEAS







Plan



Write Out The Plan

- Project Charter
- MAP-IT Worksheet
- Logic Model
- Measures of success



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SMART Objectives or Goals

- **S**pecific
- **M**easurable
- **A**chievable
- **R**elevant
- **T**ime

What is the difference between a
benchmark and goal?

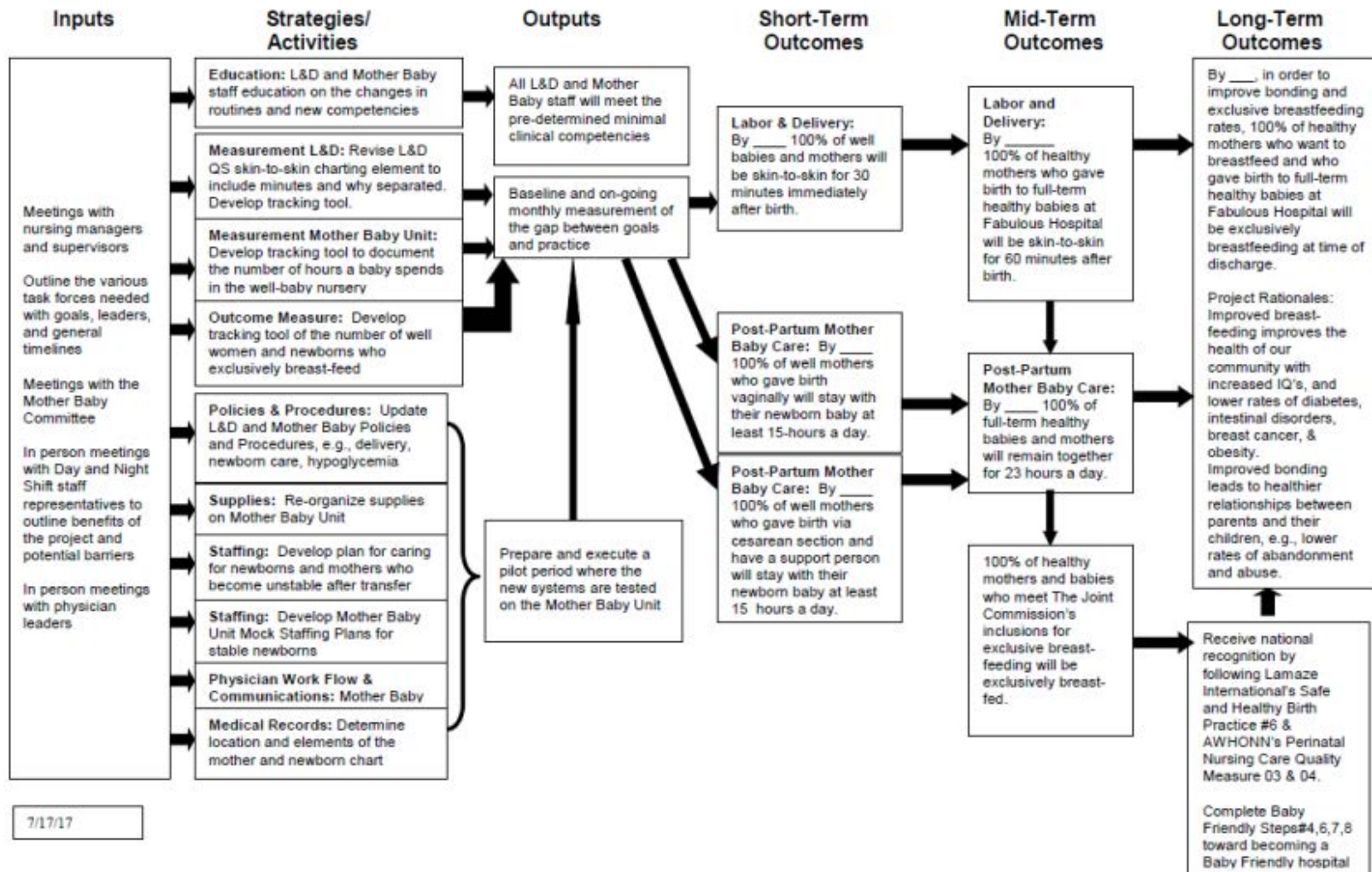
Bingham, D. (2010). Setting perinatal quality and safety goals: Should we strive for best outcomes? *Midwifery*. 26(5). pp. 483-484.



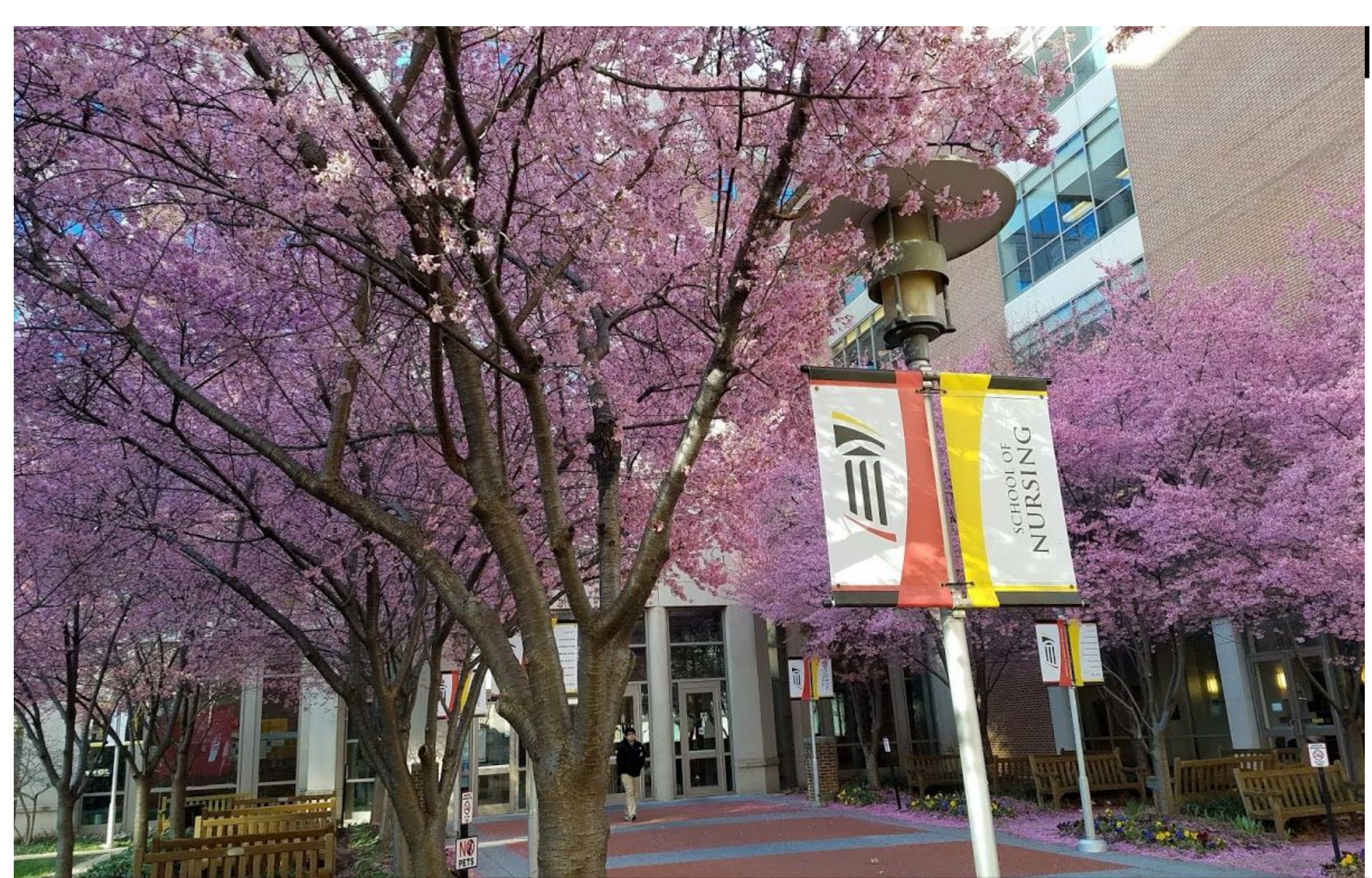
Logic Model for Nursing's Perinatal Quality Improvement Project: Keeping Mothers and Babies Together

Target Population/Entity: All healthy mothers and newborns born at Fabulous Medical Center.

Long-term Goal: Improve bonding and breast-feeding by keeping 100% of healthy mothers and babies together.



7/17/17



Implement



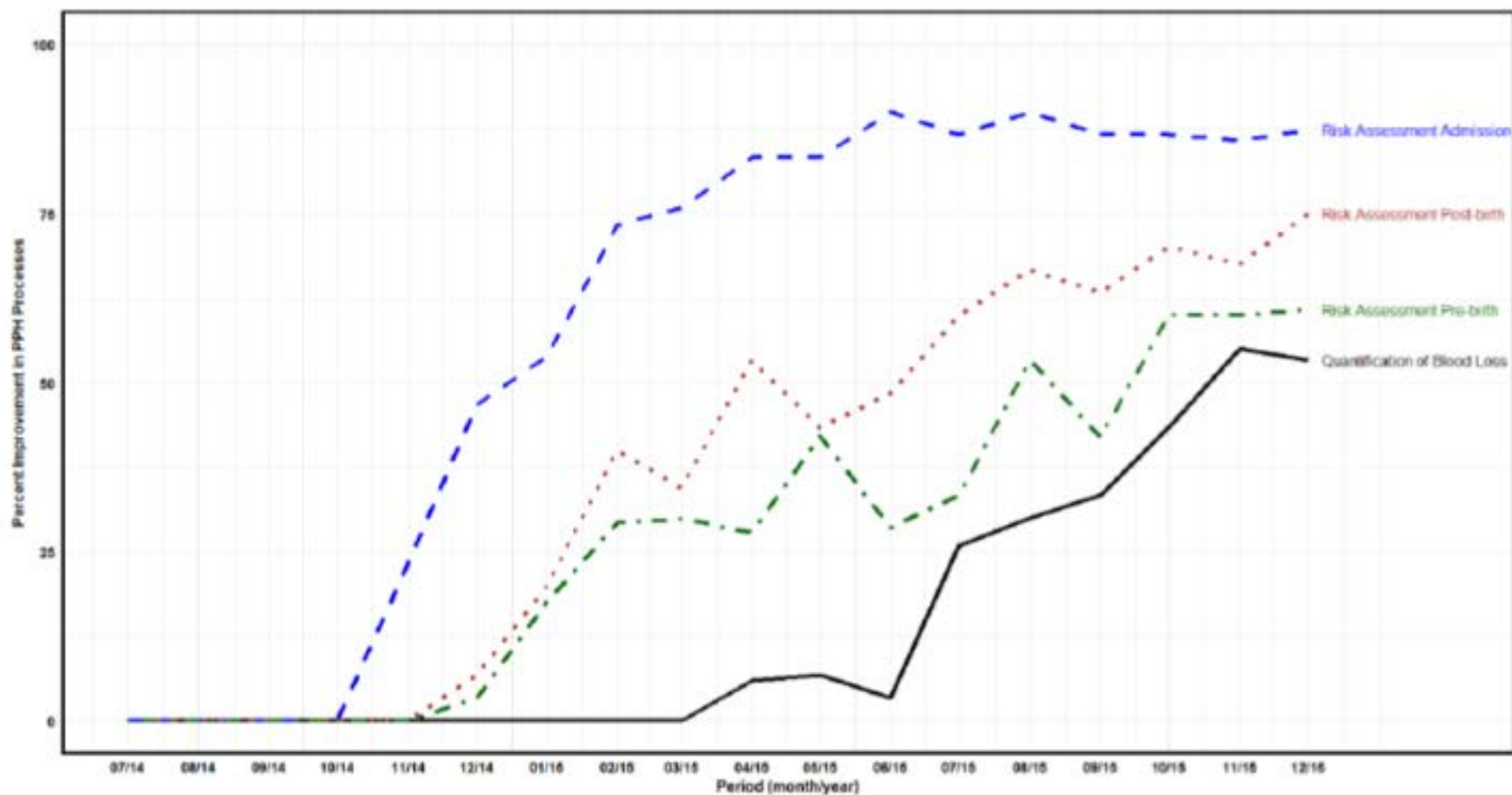
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Implementation Strategies and Tactics

- Education Strategy
 - Grand rounds, classes, conferences, simulation training, competency fairs, tests, on-line learning
- Data Strategy
 - Audits
 - Feedback
 - Public release of data
- Discourse Strategy
 - One-to-one discussion, Academic detailing
 - Reminders
 - Emails
 - Reward
 - Disciplinary discussions

Bingham, D. and Main, E. (2010). Effective implementation strategies and tactics for leading change on maternity units. *Journal of Perinatal and Neonatal Nursing*. 24(1) pp. 32-42.

Figure 1: PPH Project Process Metrics



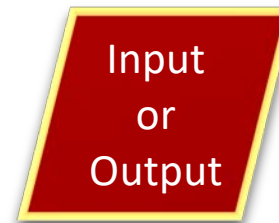
Note. Percent improvement is the median percentage of the data abstracted from randomly select chart audits each month. The charts audits were performed by the hospital-based PPH Project Leaders who then entered their data into to the Association of Women's Health, Obstetric and Neonatal Nurses PPH Project data portal.

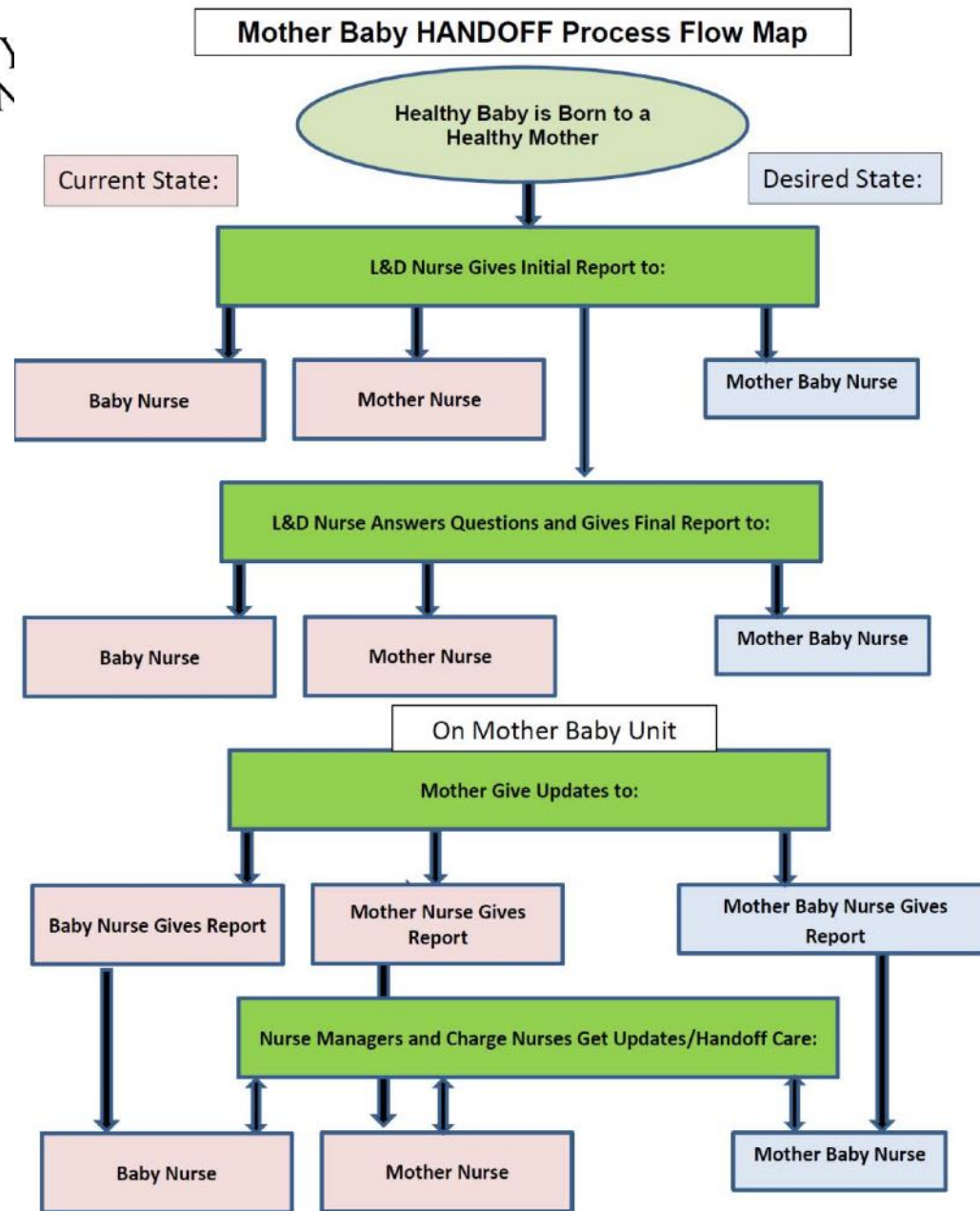
Bingham, D. et. al. (2018). JOGNN.

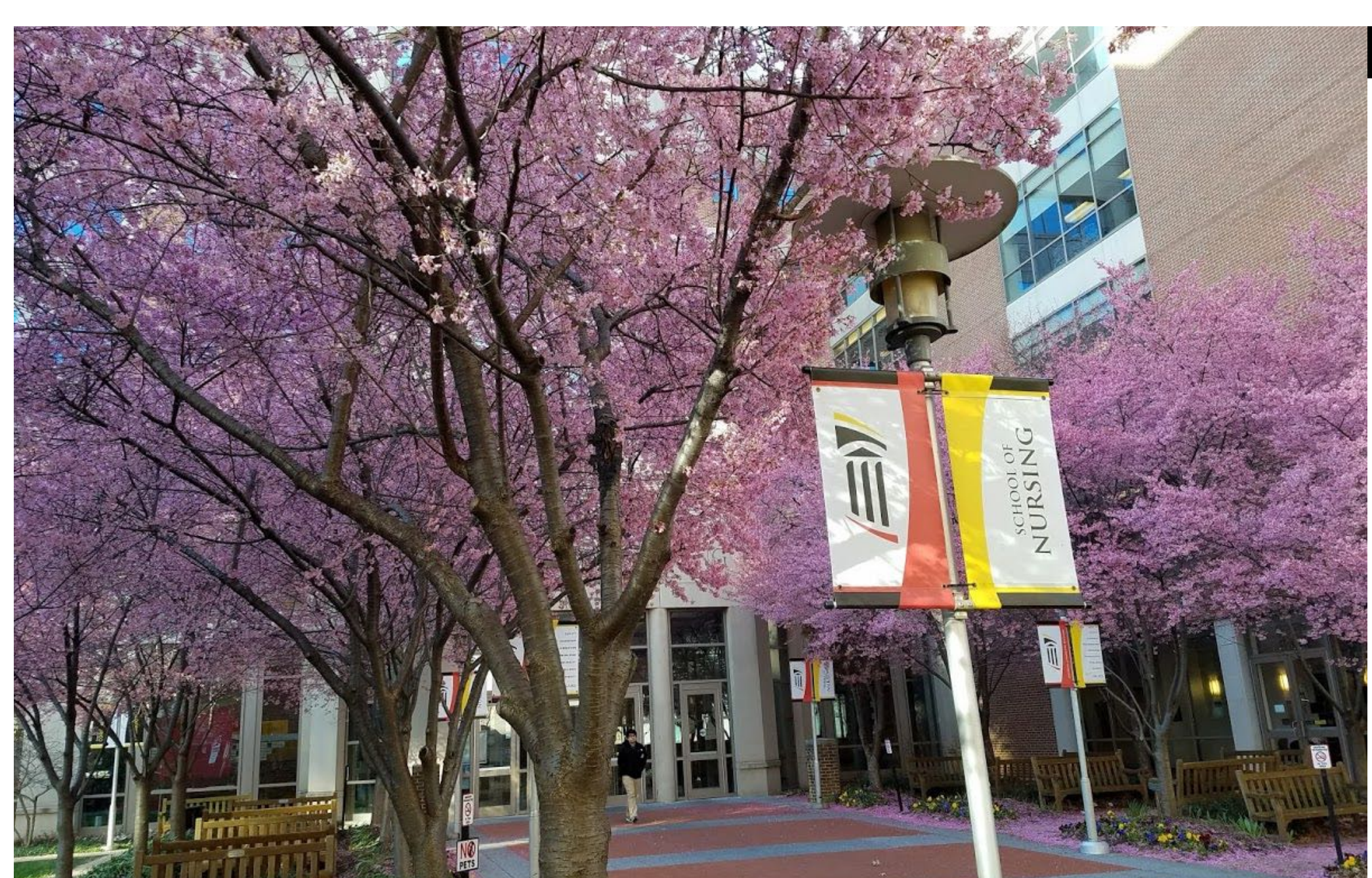


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Commonly Used Process Model Symbols





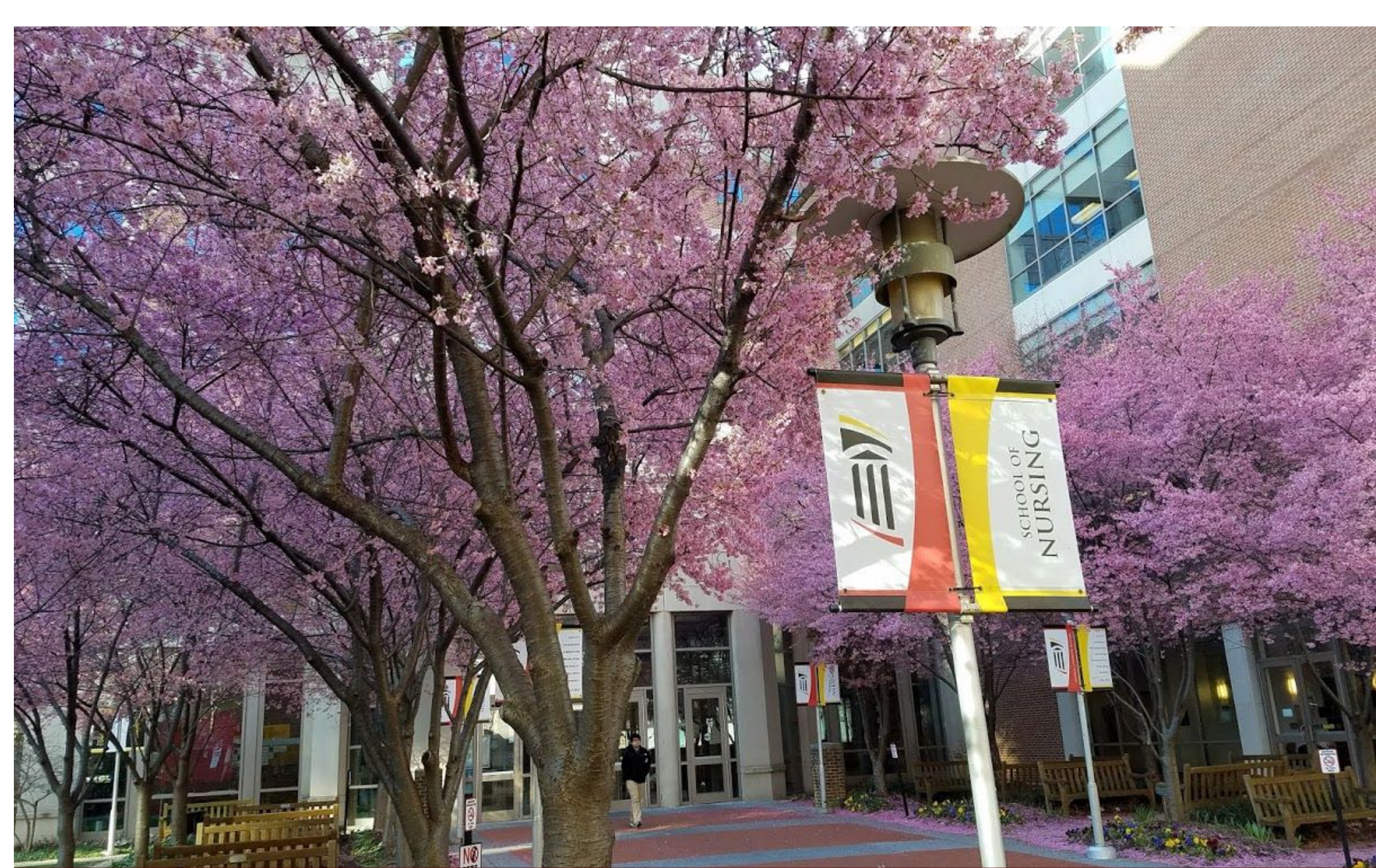


TRACK



Track

- *WHAT structures and processes (practices) were changed based on the metrics we used to measure progress (including frequency of assessment)?*
- *HOW did these changes affect outcomes?*
- *WHAT do we need to do differently to make greater progress toward improving outcomes?*



Questions?
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