

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

Spreading Change: Locally and Nationally



Disclosures

NONE

Agenda

- 1) **Sustainability and Spread**
- 2) **QI Writing**
- 3) **Asking for Resources → Grants**
- 4) **IRB: QI vs Research**





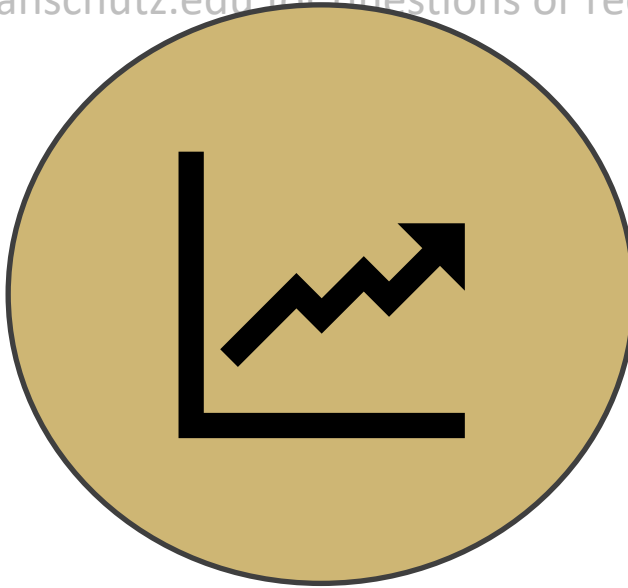
Session	2025-2026 Dates & Times* (All sessions are 1-4 p.m. MT)
Quality Improvement & Change Management	August 14, 2025 August 27, 2025 January 8, 2026 January 14, 2026
Applied Patient Safety	August 21, 2025 January 22, 2026
Acquiring Data to Drive Change	September 11, 2025 February 5, 2026
Designing for Change	September 25, 2025 February 12, 2026
Spreading Change Locally and Nationally	October 1, 2025 February 26, 2026
Coaching and Managing Quality Improvement	October 9, 2025 March 5, 2026



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



Sustainability



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

33% - 70% of (successful) innovations are **NOT** sustained

"Improvement evaporation effect"

Buchanan D., Fitzgerald L. & Ketley D. (2007) The Sustainability and Spread of Organizational Change: Modernizing Healthcare. Routledge, London, UK.

Fleischer AR, Semenic SE, Ritchie JA, Richer MC, Denis JL. The sustainability of healthcare innovations: a concept analysis. J Adv Nurs. 2015 Jul;71(7):1484-98. PMID: 25708256.





These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

**Agency for Healthcare
Research and Quality**

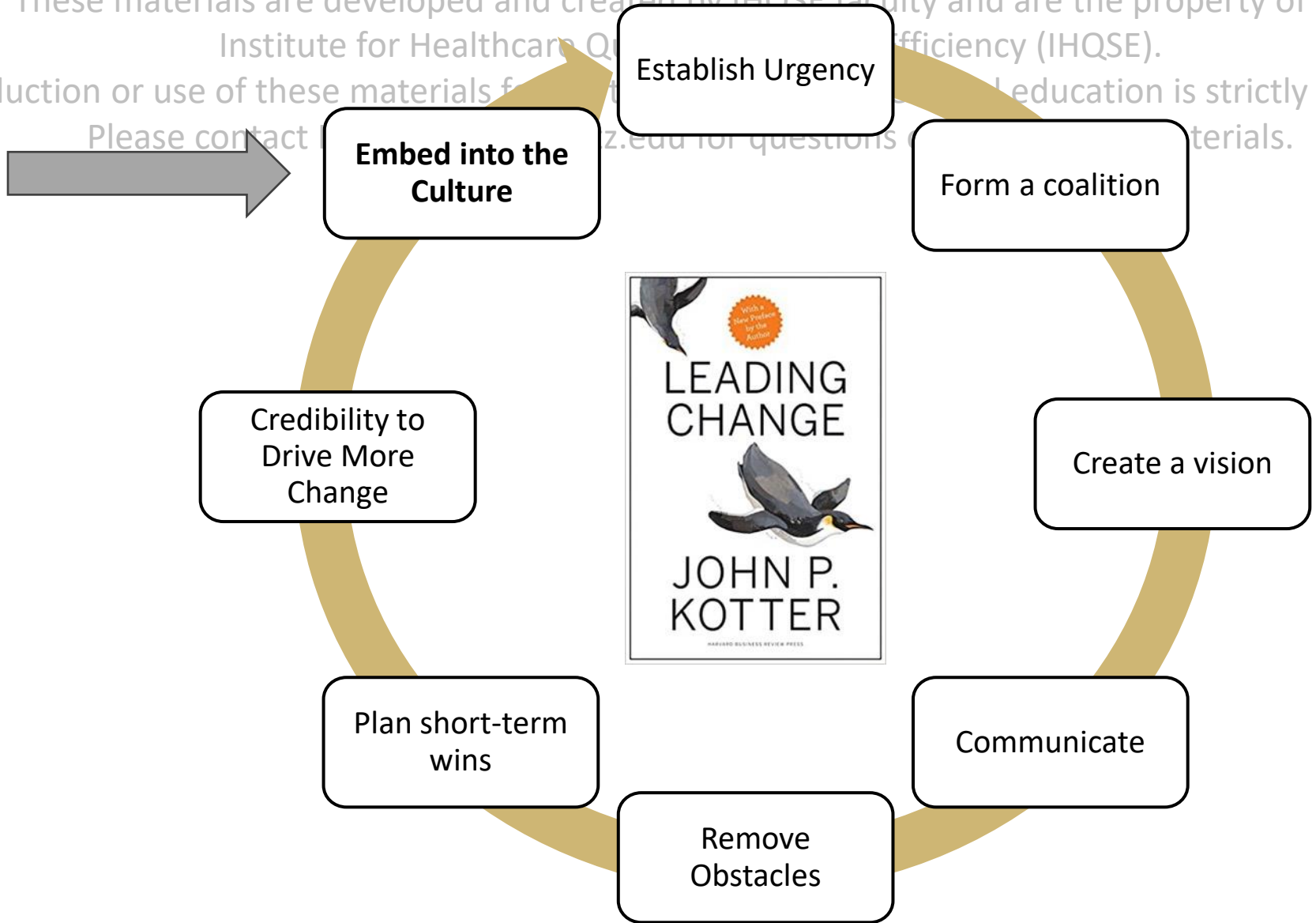
Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

“Sustainability occurs when **processes or improved outcomes last within an organization *after* implementation has occurred.** An improvement that has become part of the organizational culture and has been maintained **regardless of workforce turnover** is an example of a sustained improvement.”



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality and Efficiency (IHQSE).
Reproduction or use of these materials for any other purpose without the written permission of IHQSE is strictly prohibited.
Please contact ihqse@colorado.edu for questions or materials.



Factors important to sustainment described across numerous studies...



Intervention characteristics



Agency (institutional) characteristics





These materials are developed and created by IHQSE faculty and are the property of the

Intervention characteristics

University of Colorado Anschutz Medical Campus (IHQSE).
Reproduction or use of these materials for anything other than personal education is strictly prohibited.

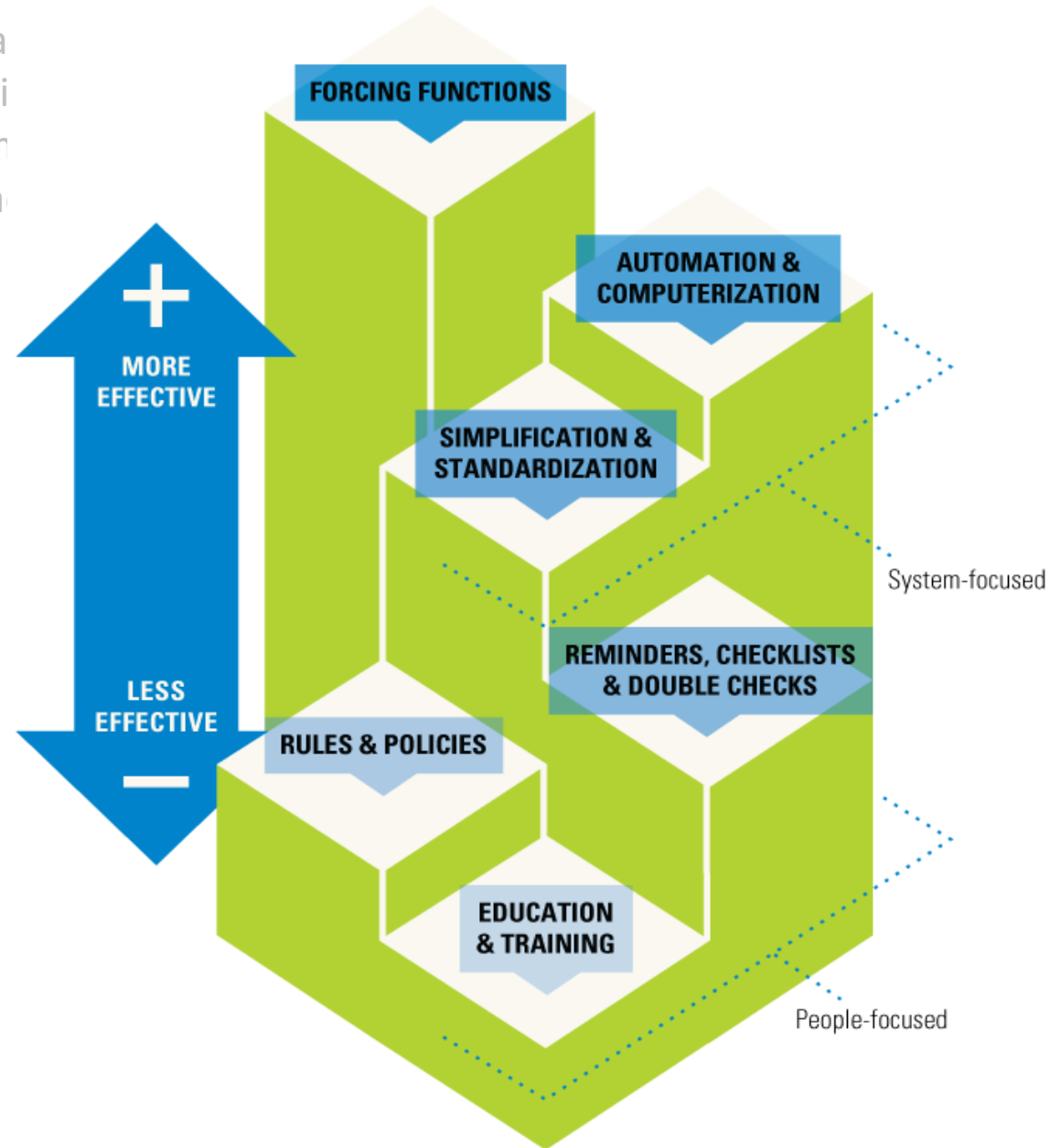
Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

1. Capacity to routinize innovations and processes
2. Value to the institution
3. Adaptability of the intervention components to fit different areas



These materials a
Insti
Reproduction or use of th
Please conta

erty of the
strictly prohibited.
aterials.





These materials are developed and created by IHQSE faculty and are the property of the

Agency (institutional) characteristics

Production or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

Enhance Sustainability

Alignment between business-centered and (patient)-centered practices

Early staff engagement – adds legitimacy

Embedding data integration: making the connection with quality improvement

Limit Sustainability

Lack of evidence of impact on bottom line

Data roadblocks

High levels of staff turnover



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE)

Reproduction or use of these materials for anything other than the intended purpose is prohibited. Please contact IHQSE@cuanschutz.edu for more information.

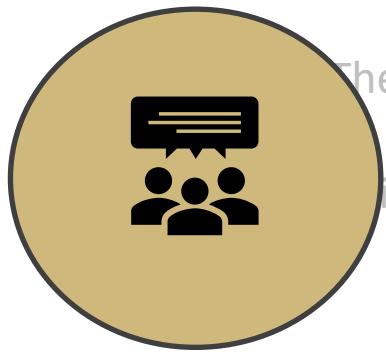
New Idea Scorecard

Name of innovation:	Score
Relative advantage	
Simplicity	
Compatibility	
Trialability	
Observability	
Total	

Score on 1-5 rating (1 = none, 5 = very)

- **Relative Advantage** –degree to which an innovation is perceived as better than the idea it supersedes
- **Simplicity** – degree to which innovation is perceived as being simple to understand and use
- **Compatibility** – the degree to which an innovation is perceived as being consistent with the existing values, experiences, beliefs, and needs of potential adopters
- **Trialability** – degree to which an innovation can be tested on a small scale
- **Observability** –degree to which use of an innovation and results it produces are visible to those who should consider it.





These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).
No reproduction or use of these materials for anything other than personal education is strictly prohibited.
Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



Breakout #1

10 minutes

- 1. Introduce yourselves**
- 2. Assess POCUS as a proposed intervention using a “New Idea” scorecard.**



These materials are developed and created by IHQSE faculty and are the property of the

Point of Care Ultrasound (POCUS)

Institute for Health Care Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE)

Reproduction or use of these materials for anything other than the intended purpose is prohibited. Please contact IHQSE@cuanschutz.edu for more information.

New Idea Scorecard

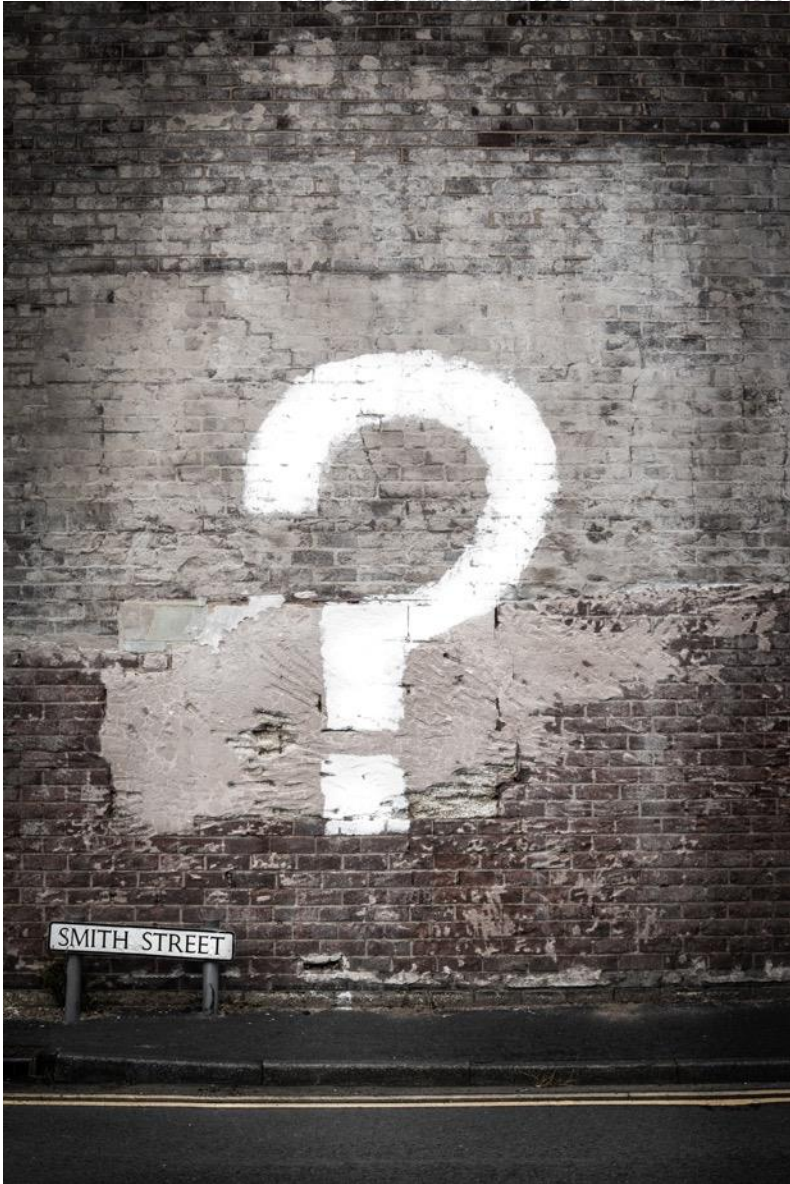
Name of innovation:	Score
Relative advantage	
Simplicity	
Compatibility	
Trialability	
Observability	
Total	

Score on 1-5 rating (1 = none, 5 = very)

- **Relative Advantage** –degree to which an innovation is perceived as better than the idea it supersedes
- **Simplicity** – degree to which innovation is perceived as being simple to understand and use
- **Compatibility** – the degree to which an innovation is perceived as being consistent with the existing values, experiences, beliefs, and needs of potential adopters
- **Trialability** – degree to which an innovation can be tested on a small scale
- **Observability** –degree to which use of an innovation and results it produces are visible to those who should consider it.

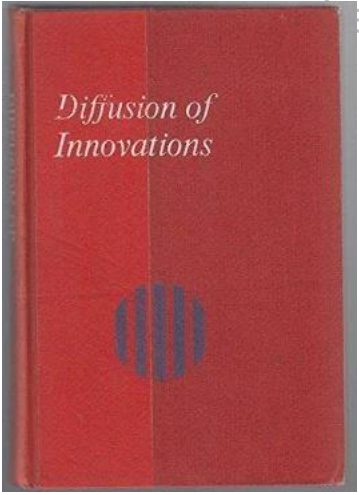


These materials were developed and created by IHQSE faculty and are the property of the Healthcare Quality, Safety and Efficiency (IHQSE).
Materials for anything other than personal education is strictly prohibited.
@cuanschutz.edu for questions or requests for materials.

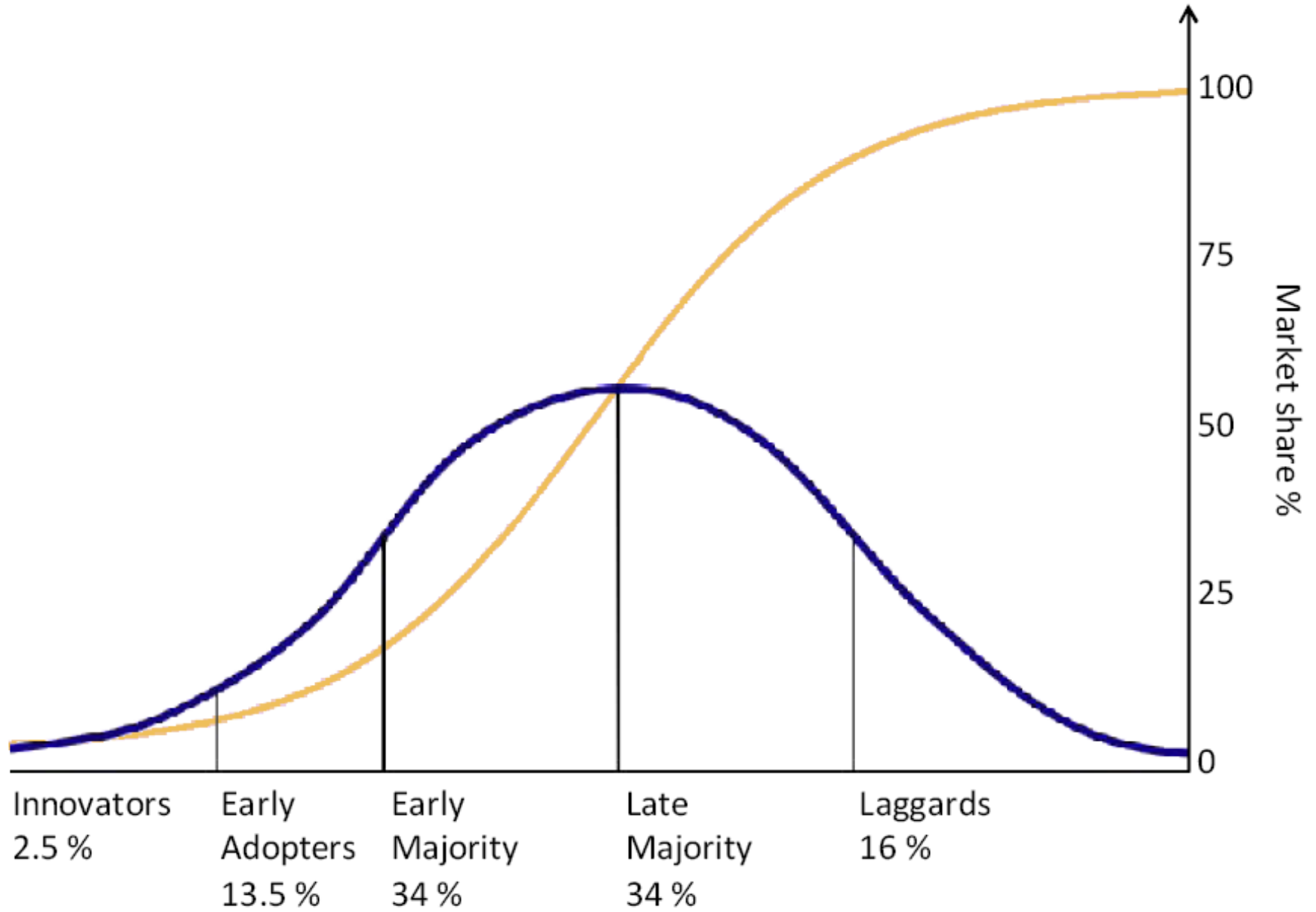


How do you know when something will be sustained?

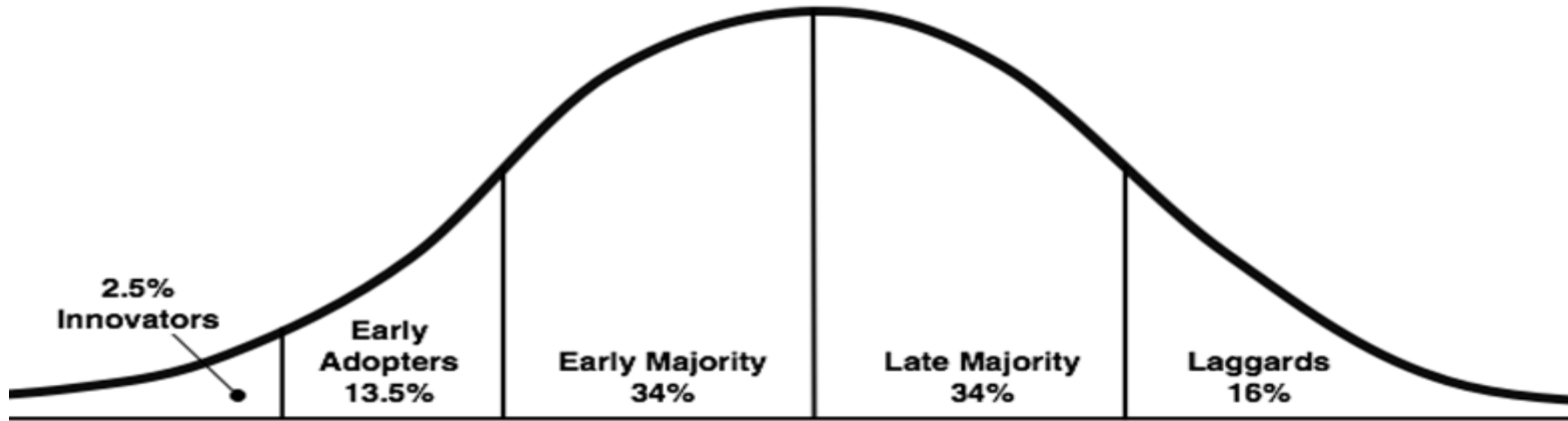
Can you predict it?



Everett Rogers, 1962



Tipping Point: % of population required before large-scale social change occurs

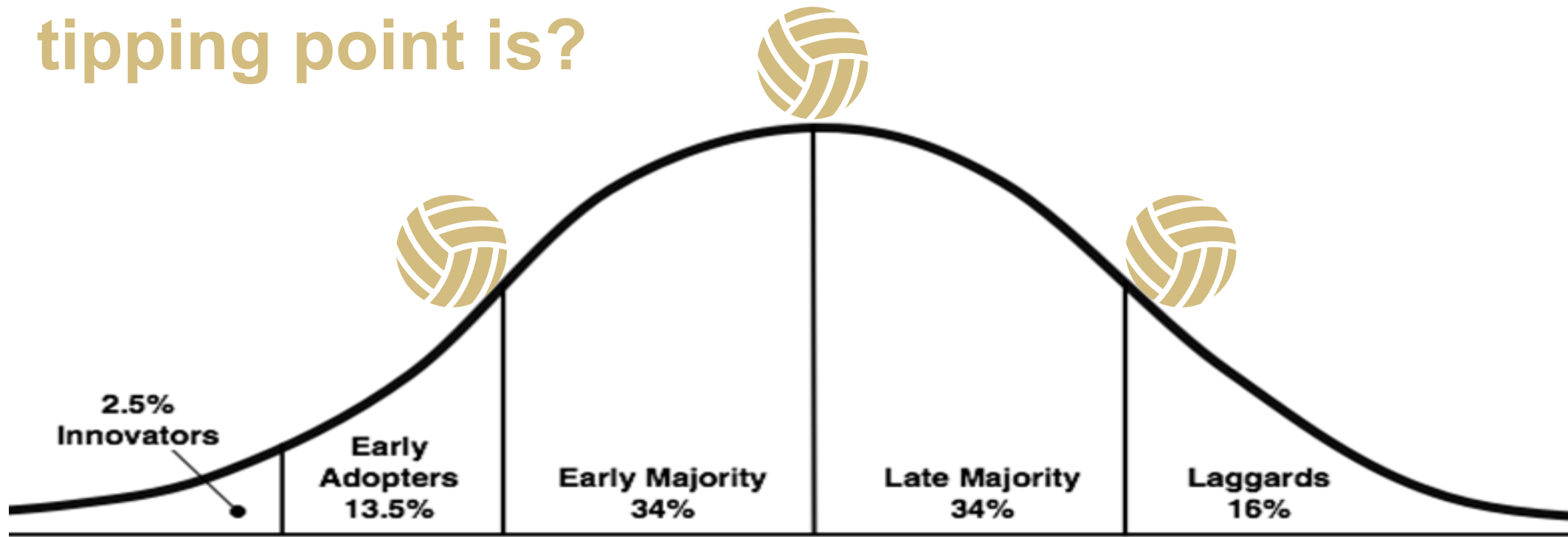


Source: Everett Rogers, Diffusion of Innovations model

Tipping Point: % of population required before large-scale social change occurs



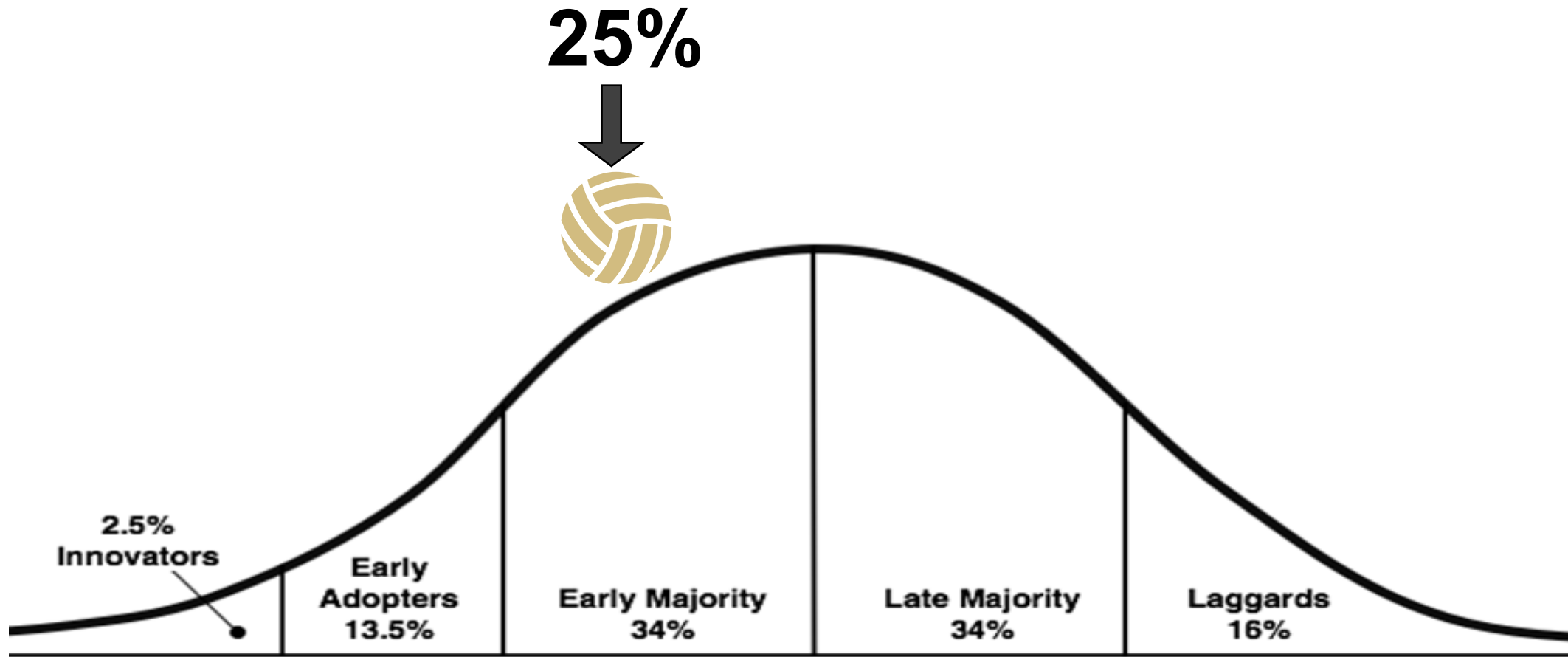
Where do you think the tipping point is?



Source: Everett Rogers, Diffusion of Innovations model

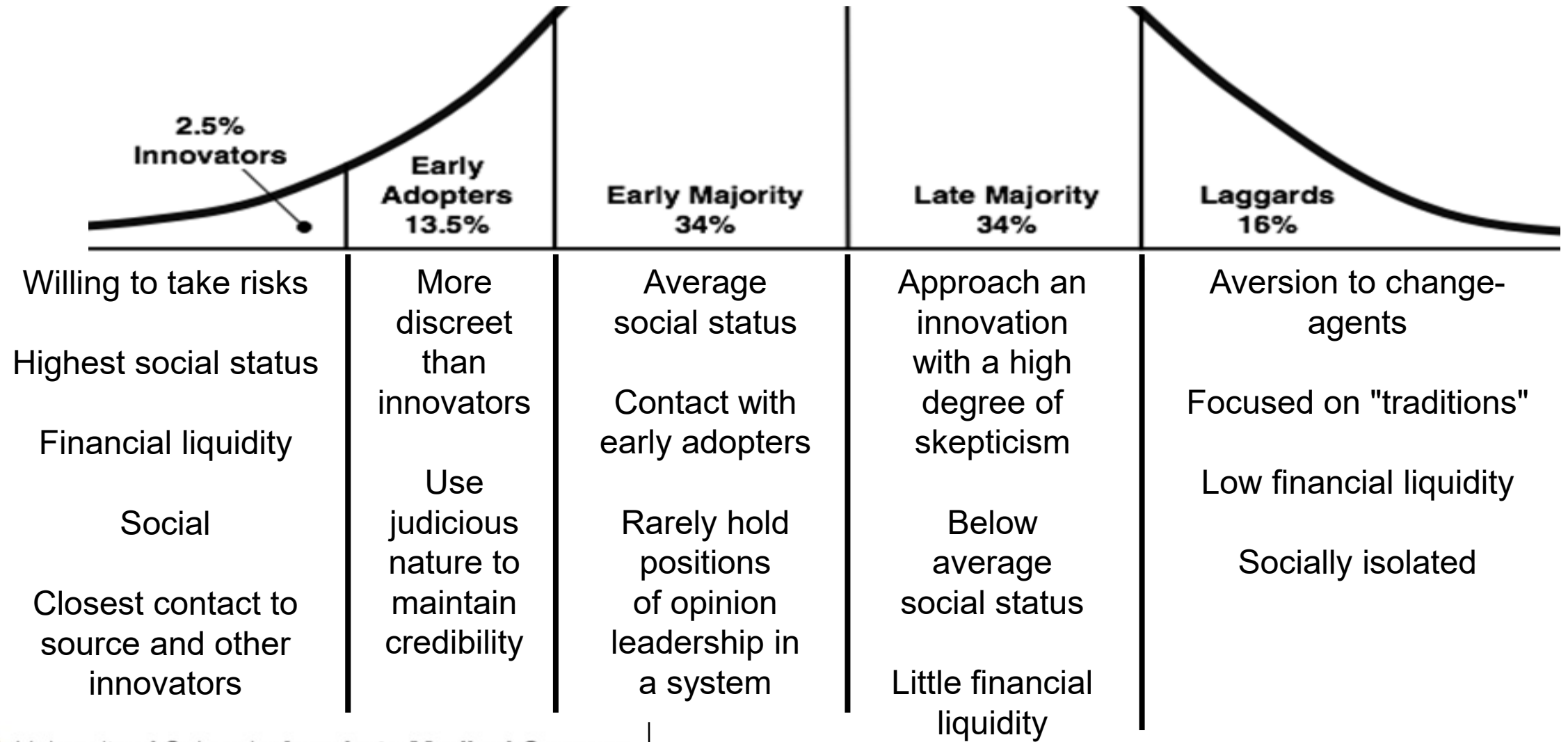


Tipping Point: % of population required before large-scale social change occurs



Source: Everett Rogers, Diffusion of Innovations model

Characteristics of the Adopters



These materials are developed and created by IHQSE

POCUS Adoption/Diffusion

Please contact IHQSE@cuanschutz.edu for quest

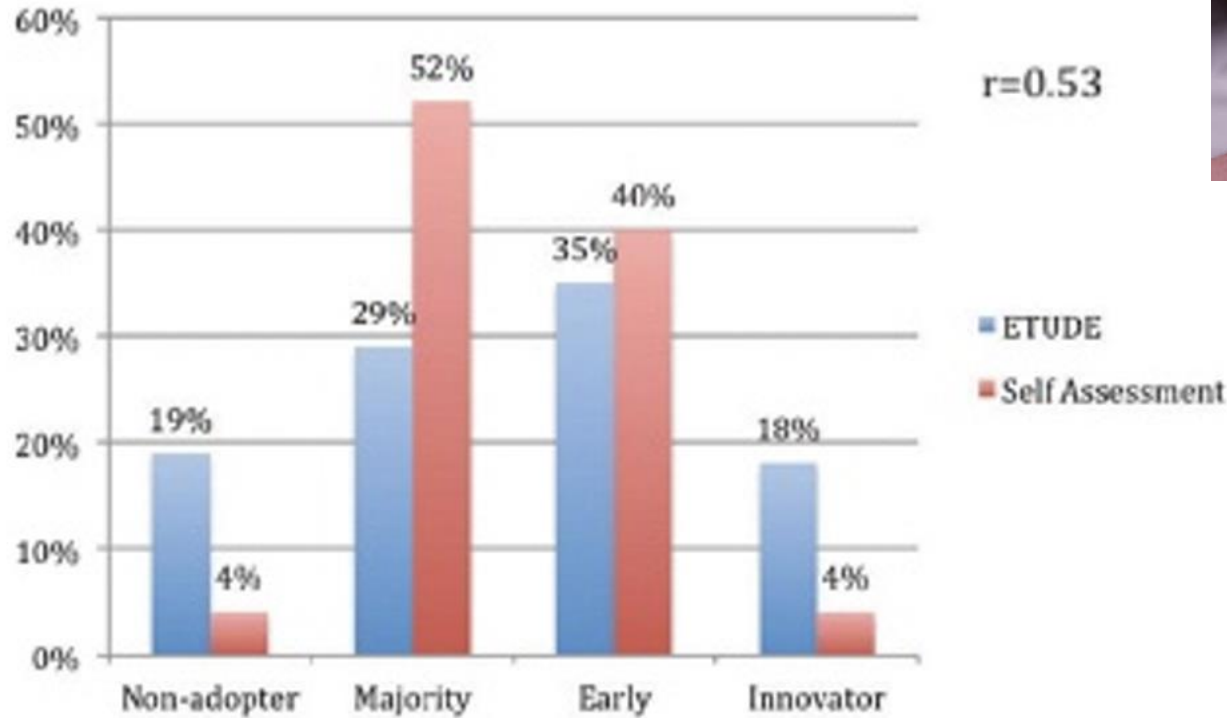


Figure 8. Comparison of the Evaluation Tool for Ultrasound skills Development and Education (ETUDE) category with self-assessment.



Stages of Individual Adoption

These materials were developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

1. Knowledge: exposure but no active role in seeking more information.
2. Persuasion: seeks more information.
3. Decision: weighs risk/benefits and decides whether to adopt or reject.
4. Implementation: trial and error, determining when and when to not to employ
5. Confirmation: individual finalizes behavior



Characteristics of the Innovation

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety, and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



Relative advantage (relative to current tools or procedures)

Compatibility with the pre-existing system

Complexity or difficulty to learn

Trialability or testability

Potential for reinvention

Observed effects



Judged
as a
whole



These materials are developed and created by IHQSE faculty and are the property of the
Institute for Healthcare
Reproduction or use of these materials for
Please contact IHQSE@cuansc

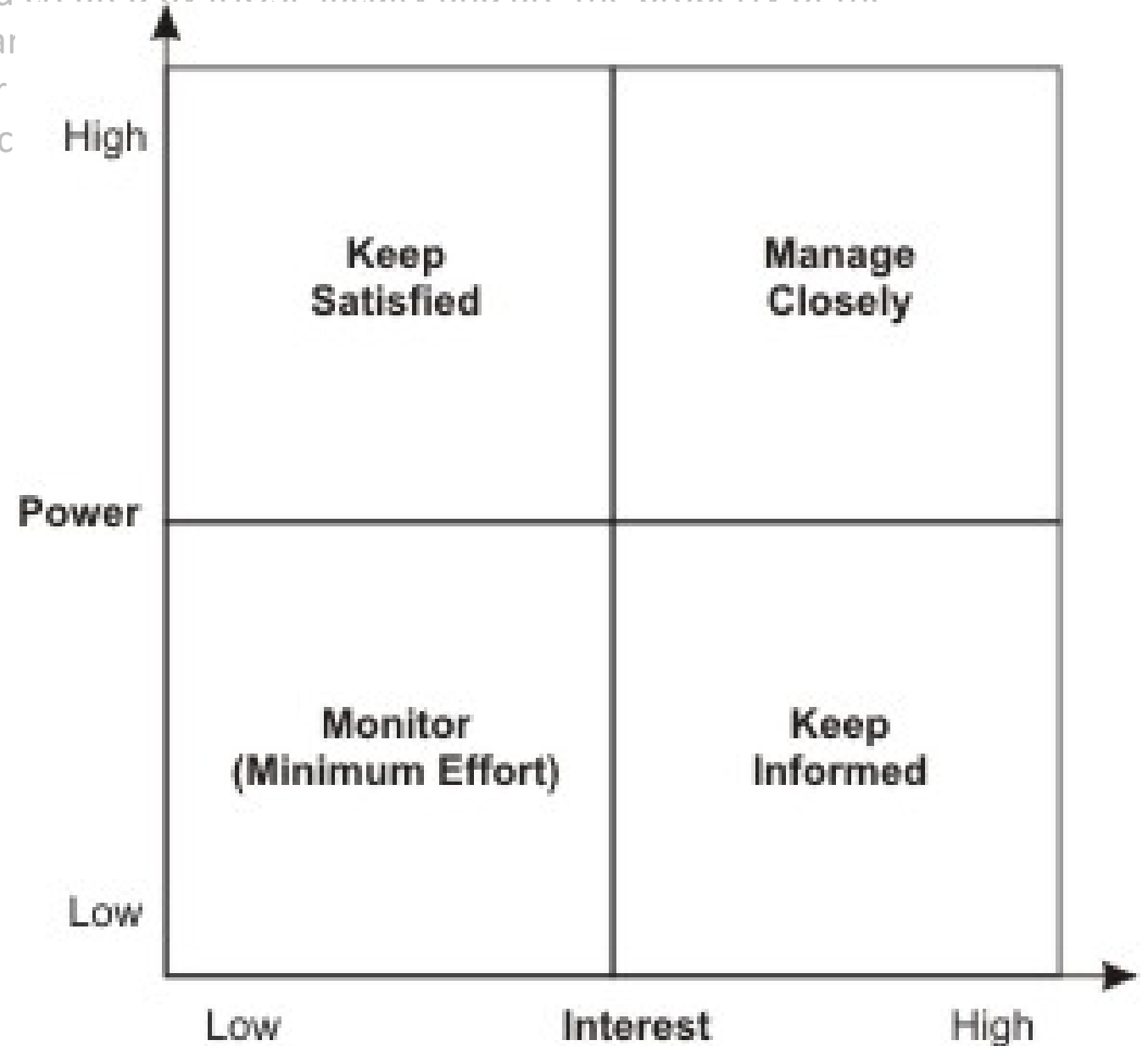
Key Partner Map

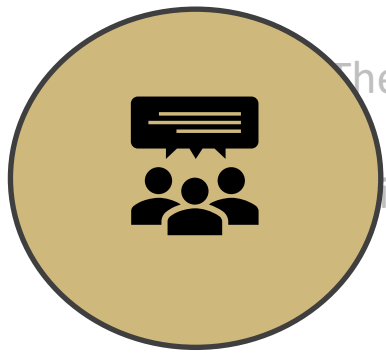
Key Stakeholder

Step 1: Identify

Step 2: Prioritize

Step 3: **Understand**





These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).
No reproduction or use of these materials for anything other than personal education is strictly prohibited.
Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



Breakout #2

8 minutes

- 1. Describe your project or problem you want to solve.**
- 2. Determine where your key partners they lie on the Diffusion of Innovation curve – try to list one person or group into each category.**



Top (Adoption) Mistakes

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

1. We assume that evidence matters in the decision making of potential adopters.

Evidence is most important to only a subset of early adopters and is most often used by them to reject interventions.

Solution: Emphasize other variables in the communication of innovations such as compatibility, cost, and simplicity.

2. We substitute our perceptions for those of potential adopters.

Solution: Seek out and listen to representative potential adopters to learn wants, information sources, advice-seeking behaviors, and reactions to prototype interventions.

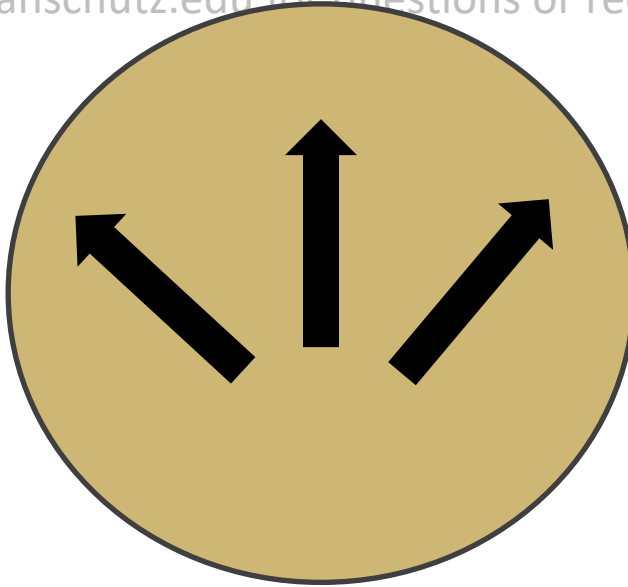
3. We confuse authority with influence



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

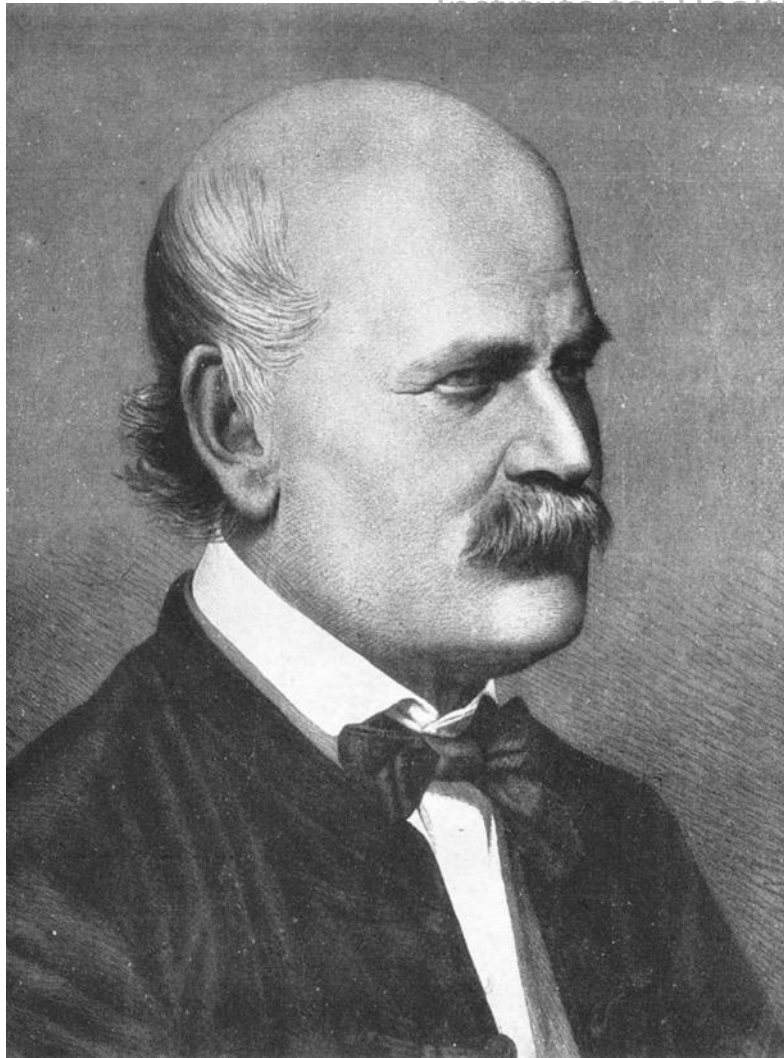
Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



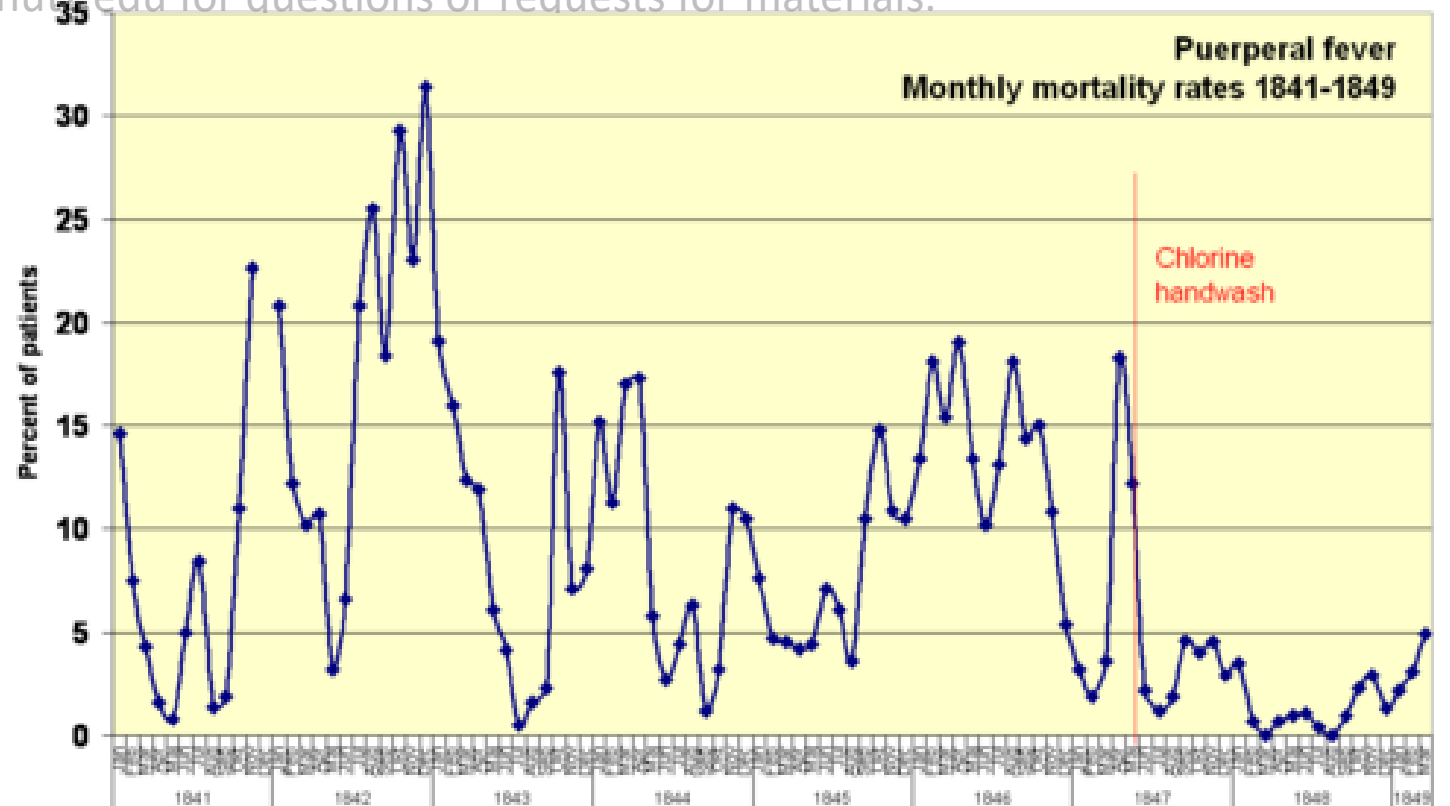
Spread



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).
for anything other than personal education is strictly prohibited.
nschutz.edu for questions or requests for materials.



Ignaz Semmelweis, 1818 - 1865



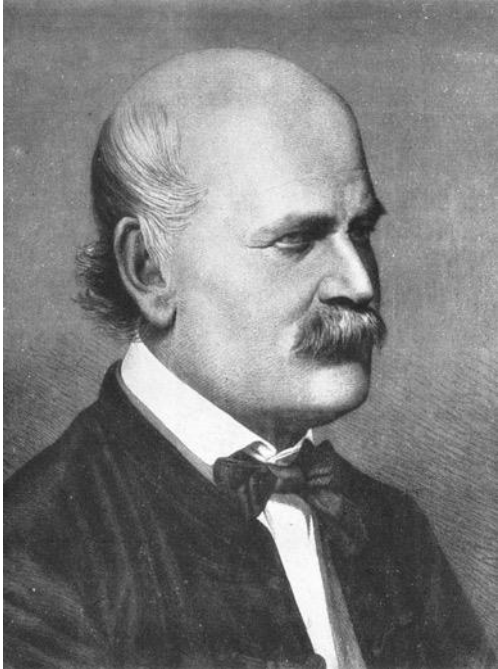
<https://www.npr.org/sections/health-shots/2015/01/12/375663920/the-doctor-who-championed-hand-washing-and-saved-women-s-lives>

https://en.wikipedia.org/wiki/Ignaz_Semmelweis

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited. Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

You'd think everyone would be thrilled. Semmelweis had solved the problem! But they weren't thrilled.



1. Doctors were upset because Semmelweis' hypothesis made it look like they were the ones giving childbed fever to the women.
2. Semmelweis was not very tactful. He publicly berated people who disagreed with him and made some influential enemies.

Eventually the doctors gave up the chlorine hand-washing, and Semmelweis — he lost his job.





These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

**Agency for Healthcare
Research and Quality**

Use of these materials for anything other than personal education is strictly prohibited. Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

Learning Health Systems



Systematically gather and
create evidence.

Apply the most promising evidence
to improve care.

Learning health system: a health system in which internal data *and* experience are systematically integrated with external evidence, and that knowledge is put into practice.



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited. Contact IHQSE@cuanschutz.edu for questions or requests for materials.

Learning Health Systems

- Have leaders who are committed to a culture of continuous learning and improvement.

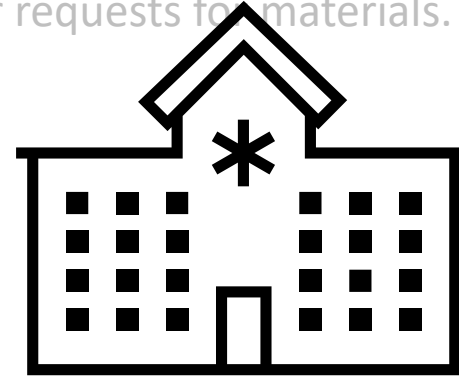
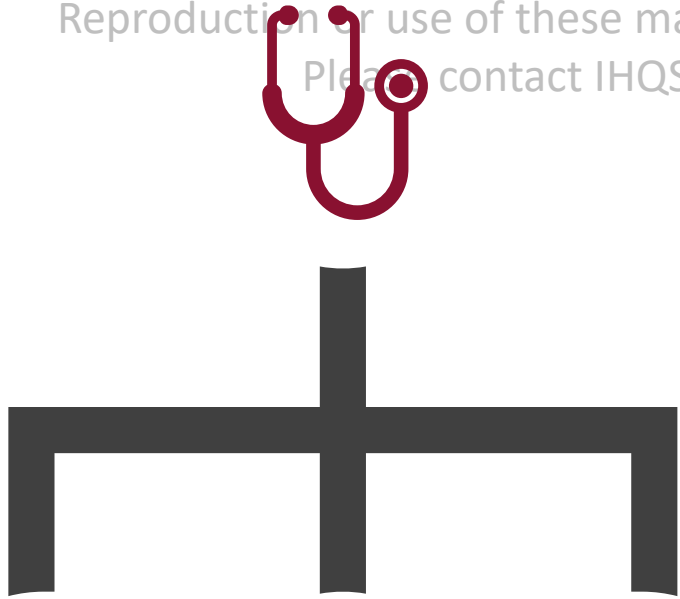
- Systematically gather and apply evidence in real-time to guide care.
- Employ IT methods to share new evidence with clinicians to improve decision-making.
- Promote the inclusion of patients as vital members of the learning team.
- Capture and analyze data and care experiences to improve care.
- Continually assess outcomes refine processes and training to create a feedback cycle for learning and improvement



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



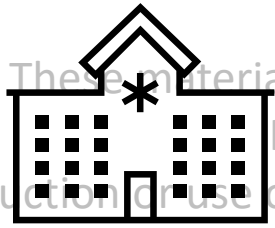
University of Colorado Hospital (UCH)

**Order (Set)
Modify**

**Order (Set)
Modify
+
In-line
CDS**

**Order(Set)
Modify
+
Interruptive
CDS**





UCH

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



**Order (Set)
Modify**

WINNER!

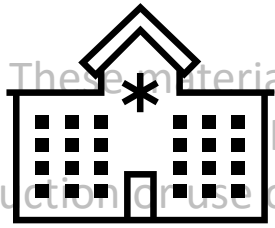
Order (Set)
Modify
+

**In-line
CDS**

Order(Set)
Modify
+

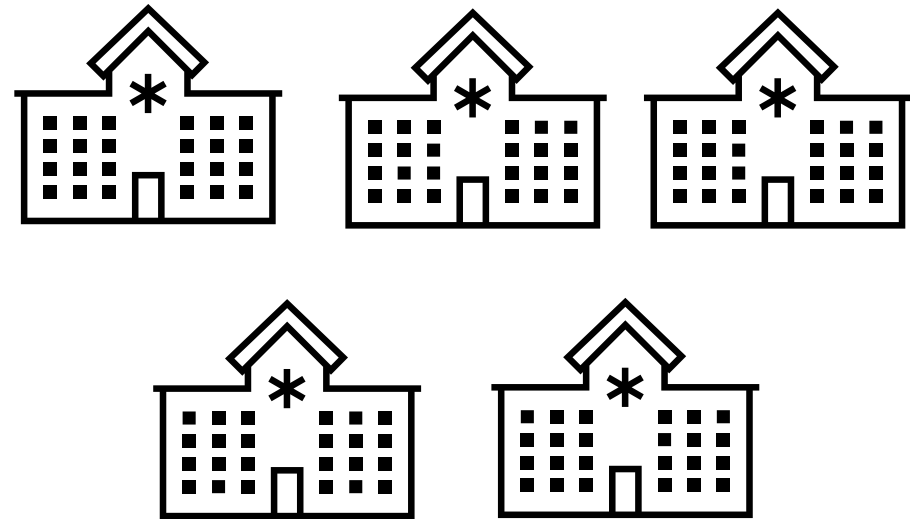
**Interruptive
CDS**





UCH

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).
Reproduction or use of these materials for anything other than personal education is prohibited. Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



**Order (Set)
Modify**

WINNER!

Order (Set)
Modify
+
In-line
CDS

Order(Set)
Modify
+
Interruptive
CDS

Communication and Support

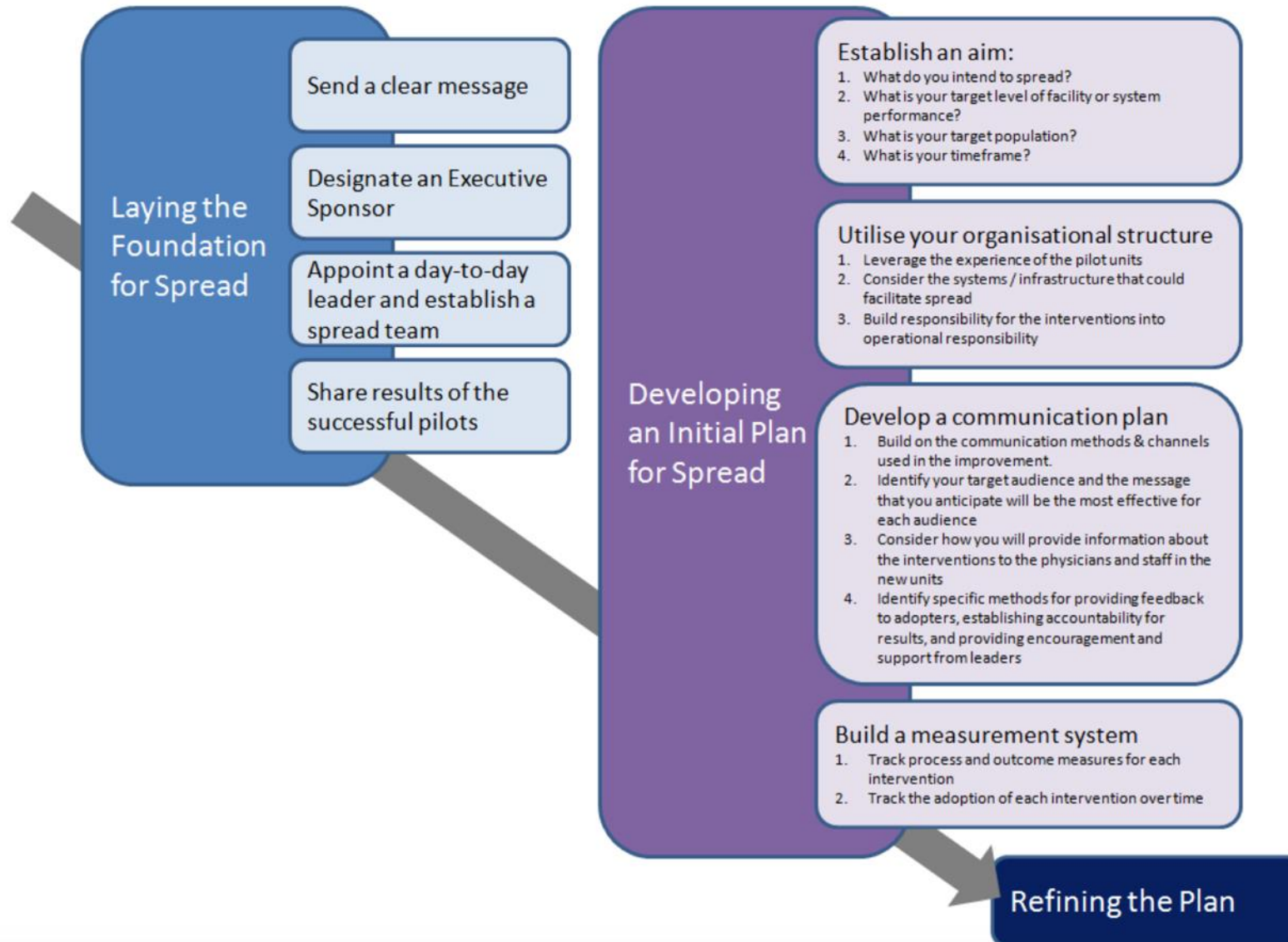


The materials presented here were developed and supported by IHQSE, a faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction

F

hibited.



Resources

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

A Framework for Spread: From Local Improvements to System-Wide Change



How to cite this paper:

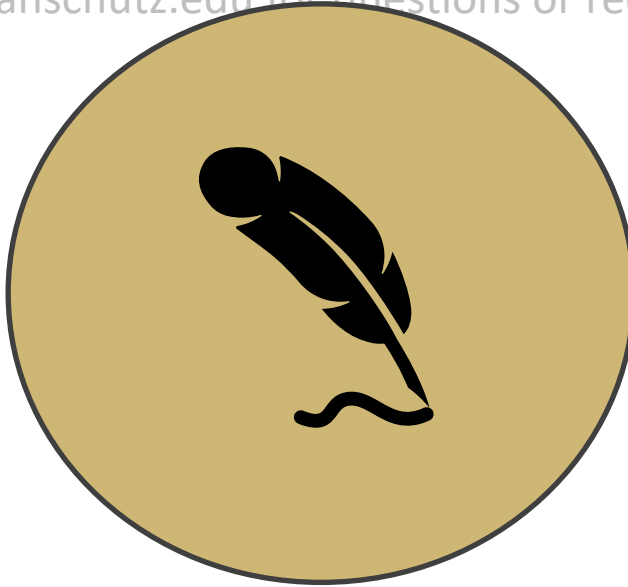
Massoud MR, Nielsen GA, Nolan K, Schall MW, Sevin C. *A Framework for Spread: From Local Improvements to System-Wide Change*. IHI Innovation Series white paper. Cambridge, MA: Institute for Healthcare Improvement; 2006. (Available on www.IHI.org)



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



Sharing your QI success & Making QI Academic





Created by IHQSE faculty and are the property of the
Improvement Quality, Safety and Efficiency (IHQSE).
Anything other than personal education is strictly prohibited.
Contact ihqse@colorado.edu for questions or requests for materials.

**Congratulations! You have a
successful QI Project and want
to share it with the world.**

But how? Where? Who?



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited. Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

**Places to
consider sharing
your success.**

Conference Posters

Conference Presentations

Internal memos

Press releases

Papers/Manuscripts





ne property of the
(QSE).
ation is strictly prohibited.
for materials.

Ready to Roll: Team Effort Bucks Sedation Trend

Cardiothoracic ICU supports awake and mobile for better patient care

6 minute read

Written by Debra Melani on July 31, 2023

Early mobilization can lead to:

- Less cognitive impairment
- Less ICU-acquired weakness
- Better quality of life

Reduced ICU sedation can decrease:

- Mortality
- Delirium
- Mechanical ventilation time
- Hospital length of stay
- Long-term consequences



These materials are developed and created by IHQSE faculty and are the property of the

UCHealth launches new virtual respiratory therapist program

The new position will focus on getting patients off of ventilators sooner.

Author: Jon Glasgow

Published: 12:18 PM MDT October 25, 2022

Updated: 12:18 PM MDT October 25, 2022



(SE).
tion is strictly prohibited.
or materials



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for assistance.

Start with the basics...

Define your objective(s)

What do you want to achieve by sharing your work?

Map your audience

Who is most affected by your work?

Who might find it most valuable?

What is it you want them to take away?

Frame your work

What they might want or need to hear from you, rather than what you want to tell them.



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

Internal memos and press releases are great, ***and*** I really want (or need) to academically disseminate my work.



Posters/Presentations



Publications



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Other than personal education is strictly prohibited.
Questions or requests for materials.



QI project **D-O-N-E!**
Now let's publish it!



But sadly...

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



- You forgot to collect demographics
- You can't remember why you made decision "X" or when?
- You didn't collect balance metrics
- There is a paper just like yours...but **BETTER!**





Created by IHQSE faculty and are the property of the Quality, Safety and Efficiency (IHQSE).
Anything other than personal education is strictly prohibited.
Contact ihqse@colorado.edu for questions or requests for materials.

”An ounce of prevention is worth a pound of cure.”

Benjamin Franklin, 1706 - 1790

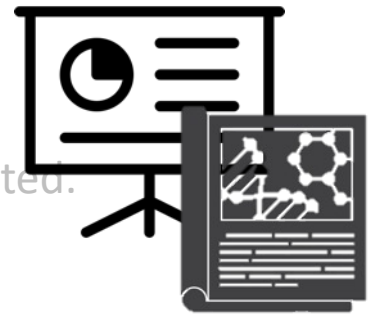


FINER Criteria

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



Feasible *

Interesting

Novel

Ethical *

Relevant *

Generally used (in conjunction with PICOT), for crafting a good research question.

* Determined BEFORE you start

Adapted from: Valerie Vaughn, MD, MSc. University of Utah

Fandino W. Formulating a good research question: Pearls and pitfalls. Indian J Anaesth. 2019 Aug;63(8):611-616. PMID: 31462805



FINER Criteria

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).


Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

Feasible * budget, complexity of the design, recruitment, sample size, measurement time, commitment of clinicians/end-users

Interesting

Novel

Ethical * Potential risks and benefits need to be carefully weighed  **IRB**

Relevant * Are the results important? Even if negative?

FINER Criteria

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

Feasible *

Interesting Who cares? Does it benefit – patients? clinicians? system?

Novel Often the death nell of QI – but it doesn't have to be

- New setting
- New population
- Confirmation / expansion of prior study

Ethical *

Relevant *

Adapted from: Valerie Vaughn, MD, MSc. University of Utah

Fandino W. Formulating a good research question: Pearls and pitfalls. Indian J Anaesth. 2019 Aug;63(8):611-616. PMID: 31462805





Promoting Excellence in Healthcare Improvement Reporting

Standards for Quality Improvement Reporting Excellence, 2.0

Framework for reporting system level work to improve quality, safety and value.

Title and Abstract

Introduction

Methods

Results

Discussion

Why did you start?

What did you do?

What did you find?

What does it mean?



For both poster/presentation abstracts *and* papers.



Title Describes an *initiative to improve* healthcare

KEY WORDS

- Quality
- Safety
- Effectiveness
- Patient-centeredness
- Timeliness
- Cost
- Efficiency
- Equity of healthcare



- Use the FEWEST words possible to accurately describe the content of the paper
- Consider thinking of what you would search for if looking for your paper.



1. Parachute use to prevent death and major trauma related to gravitational challenge: systematic review of randomised controlled trials – BMJ, 2003
2. COVID-19: Clean up on IL-6 – AJRCMB, 2020
3. Invasive Fungal Disease Complicating Coronavirus Disease 2019: When It Rains, It Spores – CID, 2020
4. Vancomycin and the Risk of AKI: Now Clearer than Mississippi Mud – CAJSN, 2016
5. Fantastic yeasts and where to find them: the hidden diversity of dimorphic fungal pathogens – COM, 2019
6. Bats in the Bedroom, Bats in the Belfry: Reanalysis of the Rationale for Rabies Postexposure Prophylaxis – CID, 2009
7. Hogwarts Headaches – Misery for Muggles – NEJM, 2003
8. Clinical use of the polymyxins: the tale of the fox and the cat – IJAA, 2018
9. Experimental replication shows knives manufactured from frozen human feces do not work – JASR, 2019
10. Bundle in the Bronx: Impact of a Transition-of-Care Outpatient Parenteral Antibiotic Therapy Bundle on All-Cause 30-Day Hospital Readmissions – OFID, 2017

Have fun with the title – especially for posters and presentations abstracts!



Introduction Why did you start?

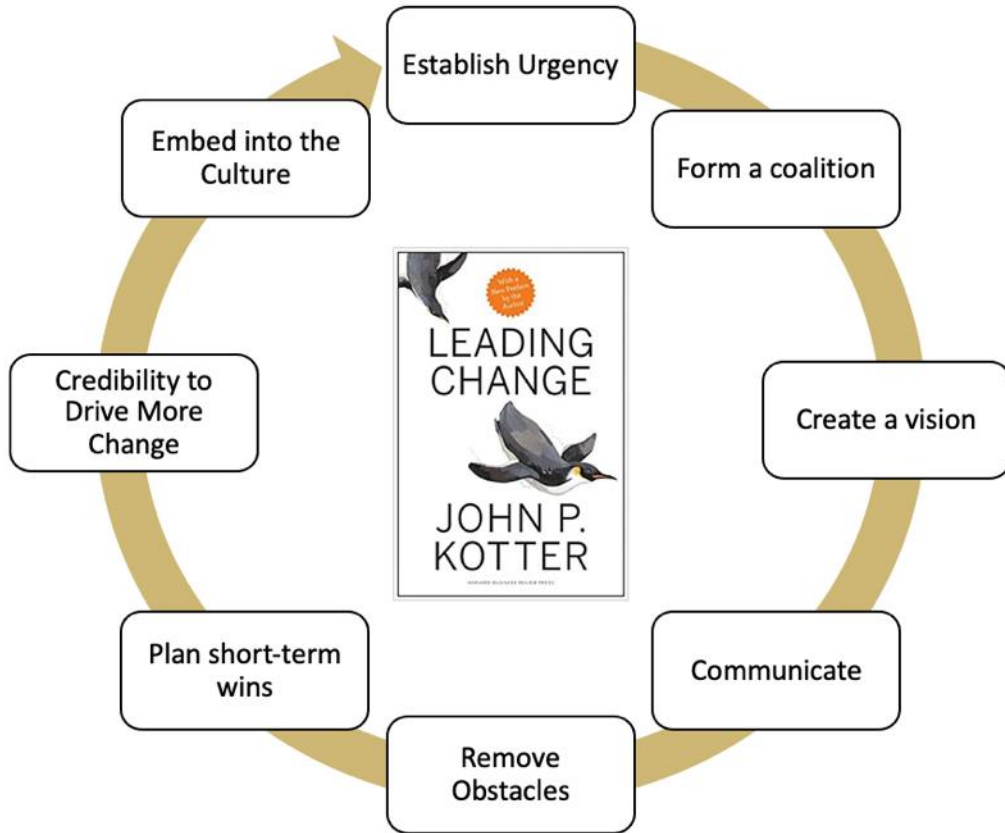
Answer these questions:

- What is/was the problem?
- Why is it important (who cares)?
- What is the rationale for why it exists?
- What was your intervention and why did you think it would work?
- What was your Aim?



Can (and should) mimic your elevator pitch!





1. Establish Urgency

3. Create a Vision

4. Communicate



Methods What (exactly) did you do?

Context of the Intervention Setting and participants.

Intervention(s) Detailed description of the implementation strategy.

Measurement of the intervention + impact Rational for selection of process/outcome measures.

Analysis Description of the approach of the ongoing assessment of the contextual elements that contributed to success/failure/efficiency.

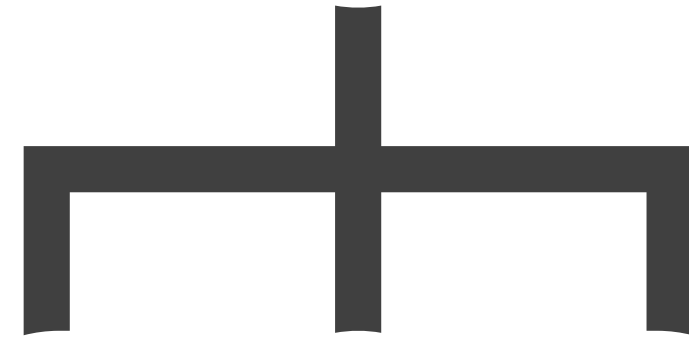
Ethical Review  **IRB**



Methods What (exactly) did you do?



All providers



Order (Set)
Modify

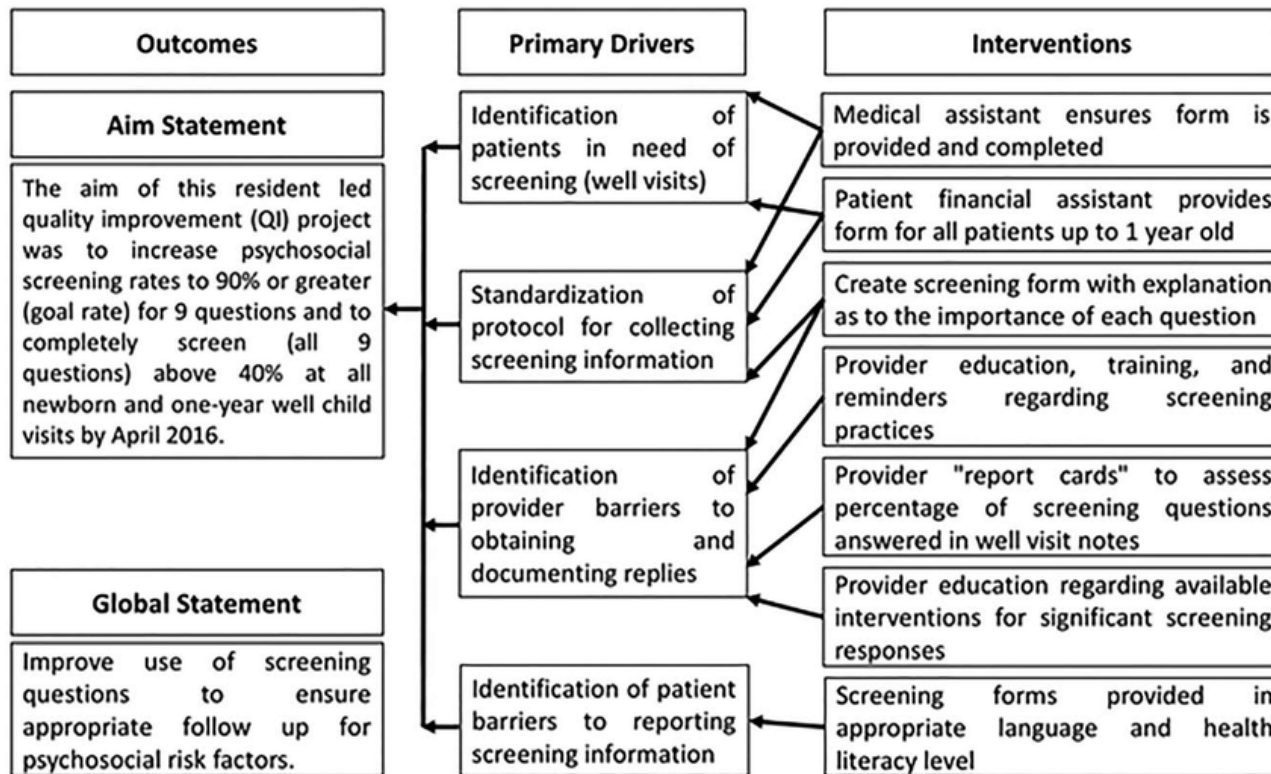
Order (Set)
Modify

Order (Set)
Modify

+
In-line
CDS

+
Interruptive
CDS

Quality Improvement Key Driver Diagram



Results What (exactly) did you find?

- Steps of the intervention and evolution over time
- Process measure outcomes
- Associations
- Unintended consequences
- Missing data

Tables and Figures

Table 1: Patient +/- provider characteristics

Figure 1: Subject flow diagram (if relevant)

Figure 2: Data over time (run chart or SPC)



Discussion What does it mean?

- **Brief** summary of the results
- Primary finding in context of established literature
- Secondary finding(s)
- Interpretation of associations between intervention and outcomes
- Impact, policy implications
- Limitations
- Strengths
- Future studies



A few notes...

Explanation and elaboration of the SQUIRE (Standards for Quality Improvement Reporting Excellence) Guidelines, V.2.0: examples of SQUIRE elements in the healthcare improvement literature

Excellent resource with explanations and examples for each of the elements of SQUIRE 2.0

Exceptions to every rule:

- Intervention design/rationale
- Table 1 Demographics
- Statistics

A few notes...

The work focus



The publication focus



Do what works best for the story **YOU** want to tell.

Target Journals for QI work

BMJ Quality and Safety

BMJ Quality Improvement Reports

Joint Commission Journal on Quality and Patient Safety

Journal for Healthcare Quality

American Journal of Medical Quality

Journal of Clinical Outcomes Management

or....

most
specialty
specific
journals





Insert your title and/or abstract here: (or, click [here](#) to search using keywords)

[Scramble](#) [Clear](#) [Show extra options](#)

[Find journals](#) [Find authors](#) [Find articles](#)



Every article has a home...

These materials are developed and created by IHQSE faculty and are the property of the

Summary

Reproduced



hibited.



**Project
(FINER)**

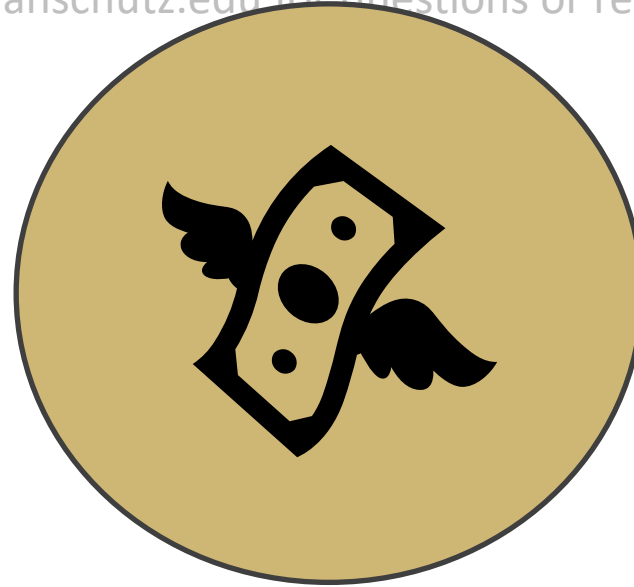
SQUIRE 2.0



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



QI Grant Writing

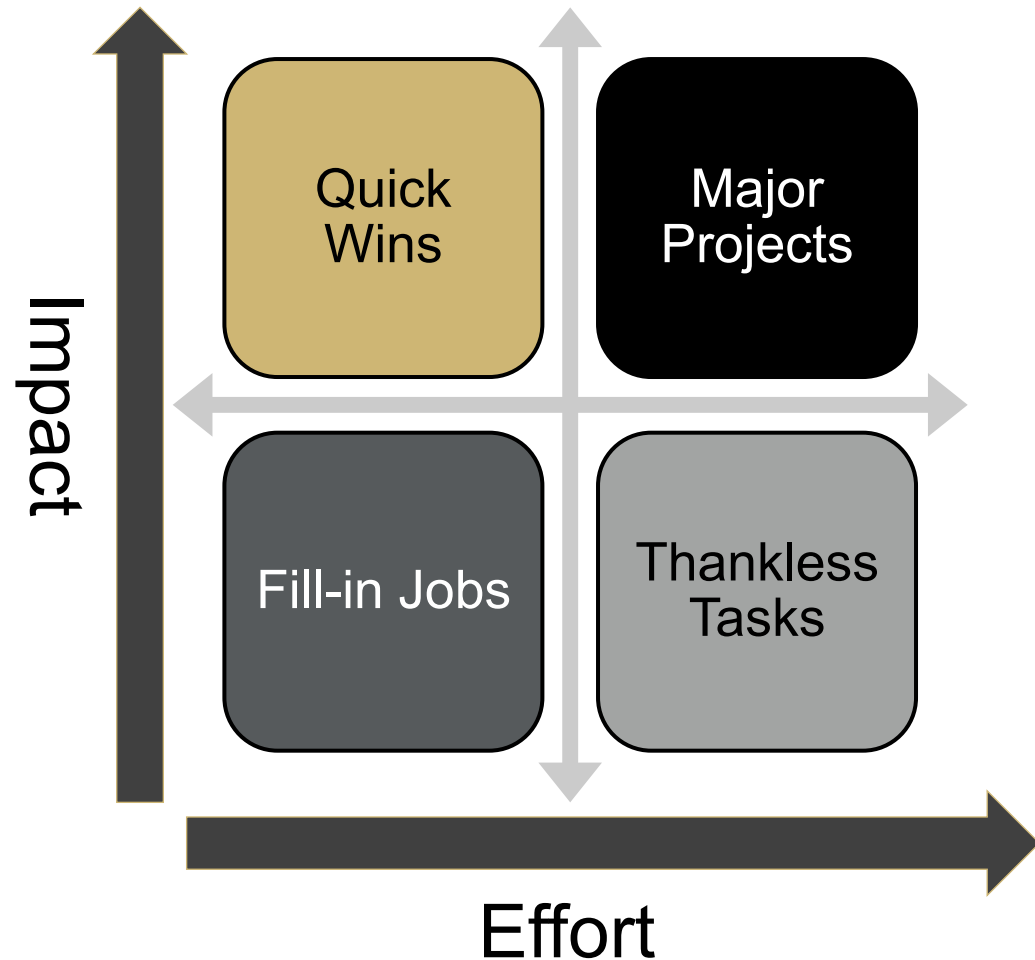


These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Why Do I Need to find QI Grant Funding?

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

- QI takes time and money
- Prestige
- Academic promotion

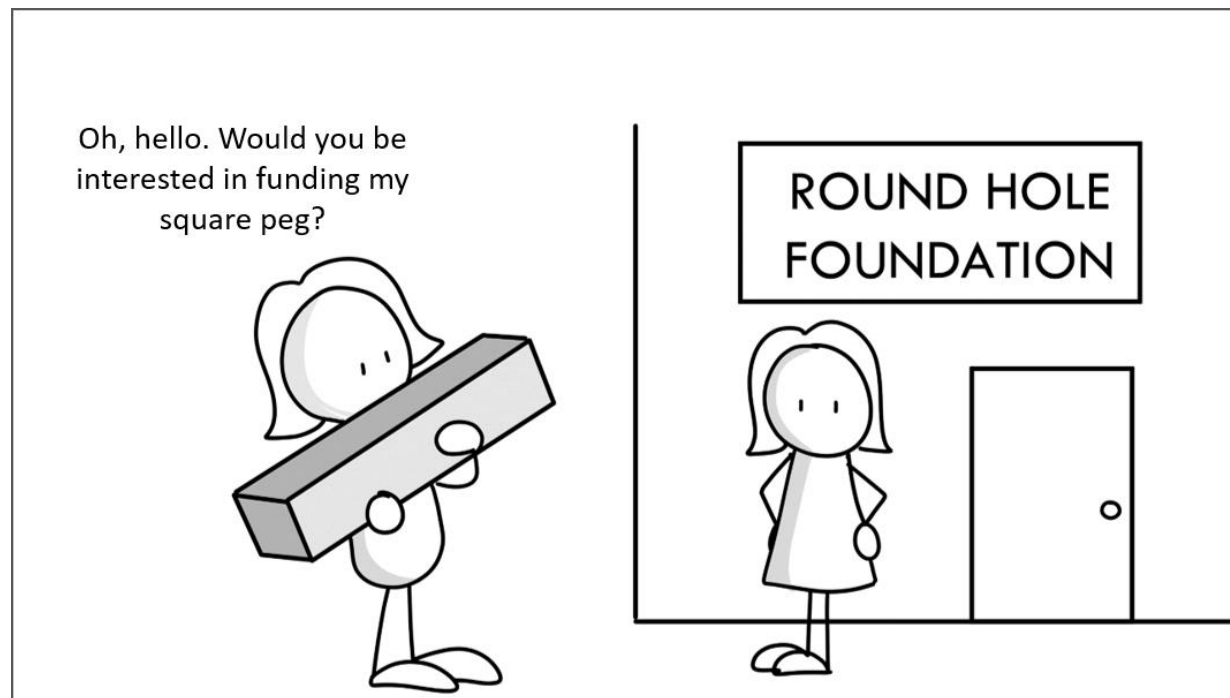
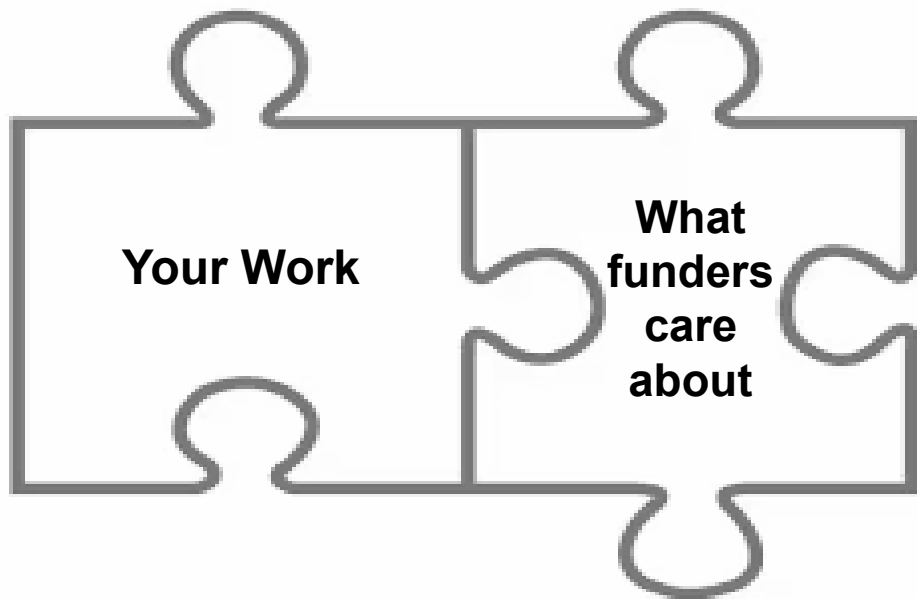


Unfortunately...not all grant mechanisms fund QI work

These materials are developed and created by IHQSE faculty and are the property of the University of Colorado Anschutz Medical Campus. All rights reserved. (IHQSE)

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Key Terms for Finding (QI) Grants

Reproduction or use of these materials for any other than personal educational purposes is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

- Quality
- Improvement
- **Innovation**
- Value
- Intervention
- IOM Dimensions of Quality Care



8 Tips for Writing a QI Grant

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

1. Spell out the need for the grant = **WHY**
2. Sell yourself/your team = **WHO**
3. Eliminate jargon from your grant application = **SIMPLE**
4. Be a good storyteller = **STORY**
5. Ensure your solutions/interventions are clear AND feasible = **WHAT**
6. Ensure your budget makes sense = **DUH, but really.**
7. Recruit an objective reviewer.
8. Pay close attention to details.



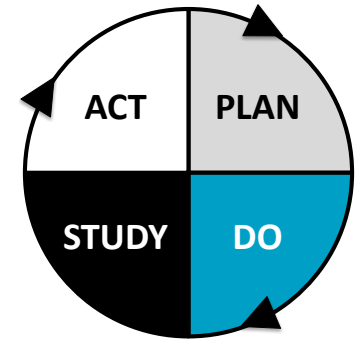
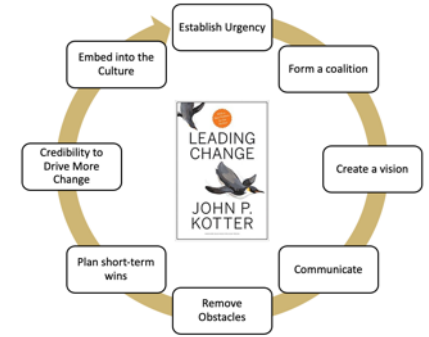
8 Tips for Writing a QI Grant

These materials are developed and created by IHQSE faculty and are the property of Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

1. Spell out the need for the grant = **WHY**
2. Sell yourself/your team = **WHO**
3. Eliminate jargon from your grant application = **SIMPLE**
4. Be a good storyteller = **STORY**
5. Ensure your solutions/interventions are clear AND feasible = **WHAT**
6. Ensure your budget makes sense = **DUH, but really.**
7. Recruit an objective reviewer.
8. Pay close attention to details.



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).


Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Project Aim: Clearly state the project's overarching goal(s) and the specific objectives for accomplishing these goals.

An aim statement should address **HOW MUCH** improvement (e.g., baseline measure and targets) and by **WHEN** (e.g. w/in 12 months).



“I want to be a better skier.”

A black and white photograph of a skier in a white jacket and helmet, leaning into a turn on a snowy slope. The skier is wearing dark pants and gloves, and is holding ski poles. The background shows a vast, snow-covered mountain range under a clear sky.

“By the end of the 23/24 season, I will be able to make it down a double-black diamond slope without falling.”



Make sure timeline and budget is feasible and within grant requirements

- Don't have a 2 -year timeline for a 1-year grant
- Visuals are helpful

Table 8. Timeline of Proposed Research Activities

Aim	Activity	Y1	Y2	Y3	Y4	Y5
Aim 1	Finalize interview guides; Conduct interviews	■	■			
	Coding and analysis		■			
Aim 2	Identify final set of implementation strategies			■		
	Create implementation strategies			■		
Aim 3	Collect 1.5 yrs of retrospective pre-implementation data; Finalize survey & interview guide			■		
	Pilot pragmatic hybrid trial (deploy strategies followed by 2-month washout)			■	■	
	Conduct surveys & interviews; Analyze data (<i>primary outcome</i>)				■	■
	Collect 1.5 yrs of retrospective post-implementation data; Analyze data (<i>secondary outcomes</i>)				■	■
All	First-author manuscripts: preparation & submission of 1-2 per aim		SA1	SA2	SA3	SA3
	R01 grant: preparation & submission (initial in Y4; resubmit, if needed, in Y5)				R01	



These materials are developed and created by IHQSE faculty and are the property of the



Grant Outline

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

Grants will be rated on the following criteria: importance (magnitude/scope, alignment with institutional goals), impact (expected outcomes, processes and cost), feasibility (PI and project team, resources, time frame) and approach (QI methodology, multidisciplinary, innovative).

This grant program will NOT support the development of new technologies and the application of them into medical practice (translational research). No grant funds may be used to offset faculty salaries, though funds may be used for consultants and research assistants. These projects should utilize multidisciplinary approaches and make use of QI methodologies (e.g., PDSA cycles) when possible.

Maximum amount awarded: \$25K per project

Grant Cycle: 12 months with an option to extend NO longer than an additional 6 months

GRANT PROPOSAL #1

This document was developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

The aim of this project is to implement ERAS protocols for patients undergoing colon surgery at the University of Colorado Anschutz Medical Campus within 12 months. Our goals are to increase the use of multimodal pain management in this patient population from currently <20% to >90%. Furthermore, we aim to improve compliance with Opioid Prescribing Engagement Network (OPEN) guidelines to >90% from our current compliance rates of 50% for colon surgeries. We will be monitoring prescribed analgesics in the preoperative, intraoperative, and postoperative periods to evaluate compliance with the ERAS protocols and with OPEN guidelines for opioid prescriptions.

We will also be evaluating patients' pain scores in postoperative recovery, throughout inpatient stay, and at 48 hours after discharge from the hospital. Chart review will be utilized to evaluate pain scores while patients are hospitalized. Patients will also be called after discharge and questioned about pain score and medication use.

We will complete multiple PDSA cycles to test the implementation of the pathways, evaluate compliance with pathway components, and use what we learn to determine what modifications should be made to the pathways and the process to further refine the ERAS protocol. We will provide feedback to the multi-disciplinary team at the study step of each PDSA cycle and will generate a monthly report of prescribing practices which will be available to providers and will be presented monthly at the Colon Surgery Research Meeting.



GRANT PROPOSAL #2

This content was developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

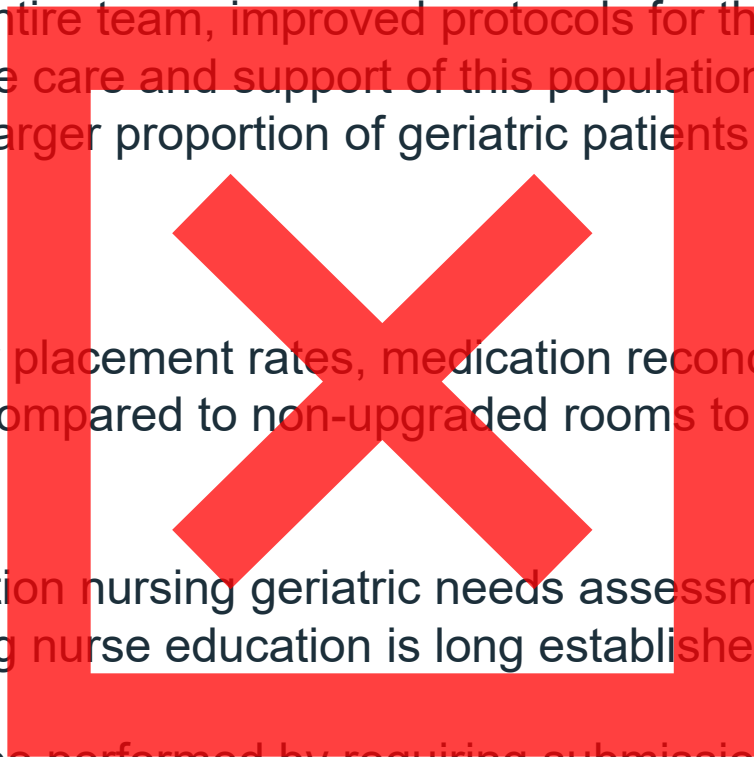
Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

The primary goal is to improve the quality of care given to geriatric patients treated at UCH. We seek to expand the knowledge base of our entire team, improved protocols for the treatment of elderly patients, and a physical environment optimized to the care and support of this population. In concert, we will launch a geriatric consult unit, allowing a larger proportion of geriatric patients seen to receive their care in an outpatient setting.

We will also track falls, foley catheter placement rates, medication reconciliation rate, and restraint use. Rates in upgraded geriatric rooms can be compared to non-upgraded rooms to further assess the impact of this intervention.

We will perform pre- and post-education nursing geriatric needs assessment to assess the impact of the education. This process for assessing nurse education is long established in our department.

Tracking of physician education will be performed by requiring submission of CME certificates.



GRANT PROPOSAL #3

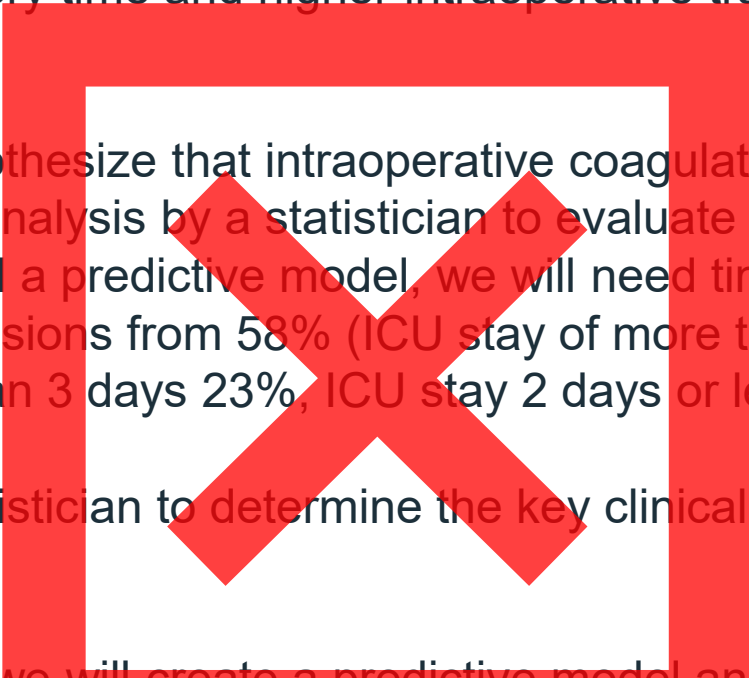
Materials developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

The goal of this project moving forward is to continue to collect data, perform statistical analysis of our data set and create a predictive model that will further aid in disposition decision making. Our early data review indicates that patients with longer surgery time and higher intraoperative transfusion requirements are more likely to require an ICU admission.

Additionally, members of our team hypothesize that intraoperative coagulation scores may also predict ICU admission. We need further statistical analysis by a statistician to evaluate our hypotheses. Once we have statistical analysis and we have created a predictive model, we will need time to test the model. In the last 16 months, we have decreased ICU admissions from 58% (ICU stay of more than 3 days 41%, ICU stay 2 days or less 17%) to 36% (ICU stay of more than 3 days 23%, ICU stay 2 days or less 13%).

Our next step will be to work with a statistician to determine the key clinical factors that predict the need for an ICU admission post operatively.

Once we have identified these factors, we will create a predictive model and present that model to our collaborative working group for input. We will work together to agree on a predictive model and implement that model. With the creation of a predictive model, we aim to decrease the ICU stays of 2 days or less to less than 10% post-op. Once implemented, we will need at least 9-12 months of data collection with the predictive model to have an adequate data set to compare to our current baseline data.



These materials are developed and created by IHC
Institute for Healthcare Quality, Safety
to protect and improve these materials for anything other
Please contact IHQSE@cuanschutz.edu for qu

All grants

- Application
- Internal support (ODC)
- Indirect payments
- Letters of support

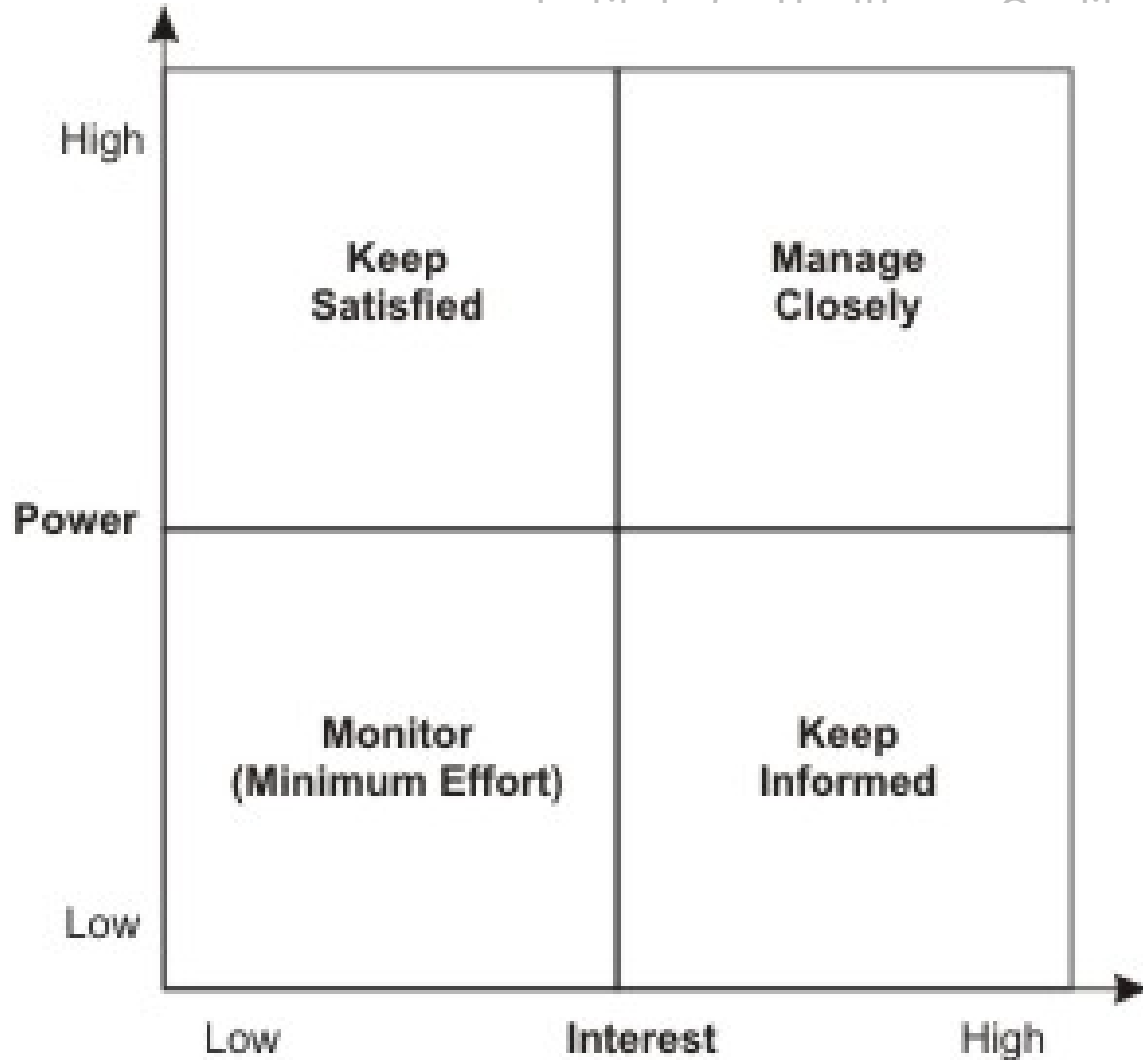


#it'scomplicated



These materials are developed and created by IHQSE faculty and are the property of the University of Colorado Anschutz Medical Campus. All rights reserved. Safety and Efficiency (IHQSE).

Other than personal education is strictly prohibited. For more information or questions or requests for materials.



Everything we've discussed you could use to seek internal support for your work.



You (still) decide you need to look for external funding...



These materials are developed and created by IHQSE for
the study of Health Care Quality, Research and Quality
Education of future medical professionals.

Please contact IHQSE@cuanschutz.edu for questions.



National



American Academy
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN®



AMERICAN COLLEGE OF SURGEONS
Inspiring Quality: Highest Standards, Better Outcomes



**Agency for Healthcare
Research and Quality**

These materials are developed and created by IHQSE faculty and are the property of the
University of Colorado Anschutz Medical Campus. Reproduction for use other than Quality, Safety and Efficiency (IHQSE).

Reproduction for use other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

- **Invests in** research that goes beyond the "what" of health care to understand "how" to make health care safer and improve quality
- **Mission** is to produce evidence to make health care safer, higher quality, more accessible, equitable, and affordable, and to work within the U.S.

Funding/timelines vary, but often similar application to NIH grants

- R01, K08, R03, R18 etc...

\$\$\$ and prestigious

competitive and arduous



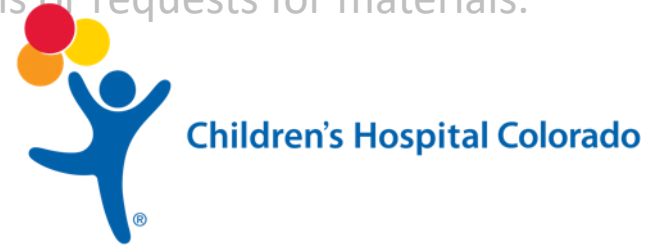
Focus on comparative effectiveness & shared decision making but
specific programs align more with QI

D&I - Promoting uptake of research findings to improve the quality and relevance of evidence available to help patients, caregivers, clinicians, and others make better-informed health decisions

- \$ and prestigious
- LOI first!
- Full grant if invited; competitive; less flexibility

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).
Distribution or use of these materials for anything other than personal education is strictly prohibited.
Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

uchealth



Local

CEPS Small Grant Program

\$25K faculty, \$10K residents/fellows

LOI Deadline: March 26, 2026



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



QI and the IRB



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for any other purpose than intended is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

Learning Objectives

1

Describe differences and similarities between QI vs. Research

2

Recognize when an IRB application should be submitted for a project

3

Identify institutional specific considerations for QI



These materials are developed and created by IHQSE faculty and are the property of the
Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

“QI is an integral part of good clinical practice and is
designed to bring about **immediate improvements in
health care in local settings.**

In contrast... Human subjects research is NOT a necessary,
integral element of good clinical practice... human subjects
research aims to **generate new, generalizable, and
enduring knowledge about health.**”



	Human Subjects Research (HSR)	Quality Improvement
Purpose	Designed to contribute to generalizable knowledge	Designed to implement knowledge, assess/improve process or program within an institution compared to established standards
Design		
Benefits		
Risks		
Participant Obligation		
Goal		
Analysis		
Dissemination of results		
IRB		

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety, and Efficiency (IHQSE).

Research

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

How can I apply this effective intervention consistently?

Please contact IHQSE@colorado.edu for questions or requests for materials.

QI

Are individuals randomized into intervention groups?

Research...?

Is there a new treatment?

Research

Is there deliberately delayed feedback of data in order to avoid biased interpretation of data?

Research

Does the project involve individuals with no ongoing commitment to the local institution?

Research

Is there greater than minimal risk to the patient as a result of the intervention?

Research



There is overlap...

These materials are developed and created by IHQSE faculty and are the property of the Institute of Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@ucdenver.edu for questions or requests for materials.

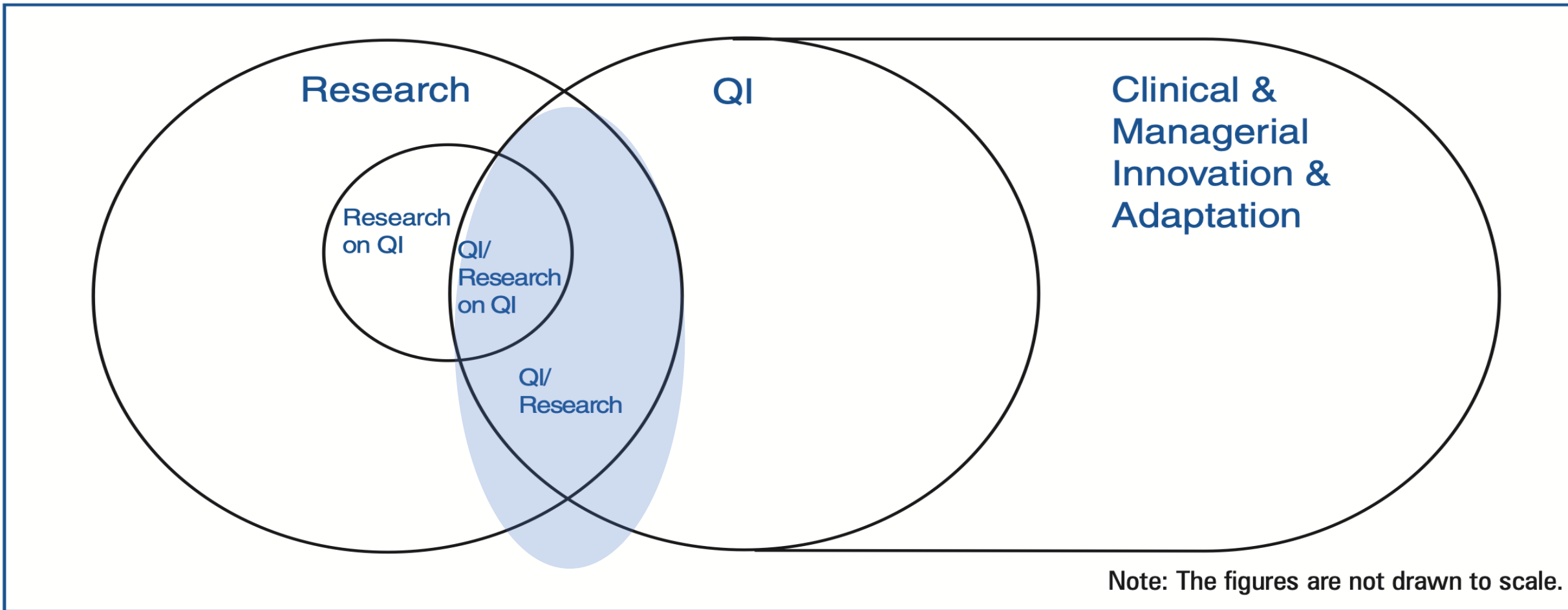


Figure 1.

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

What does “generalizable” mean?

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

Sometimes the intent is to focus on a local institution, but the knowledge generated *can be applied elsewhere*.

If QI project designed scoped to be narrow and shared for others to learn from: **QI only, not research**

If QI project is designed to improve local care *and* produce knowledge that could be used other places: **QI + Research**



These materials are developed and created by IHQSE faculty and are the property of the
Institute for Healthcare Quality, Safety and Patient Care (IHQSE)
Reproduction or use of these materials for anything other than personal education is strictly prohibited.
Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

Do I need an IRB in order to publish QI?

Office of Human Research Protections (OHRP) response:

“Planning to publish an account of a quality improvement project does not necessarily mean that the project fits the definition of research; people seek to publish descriptions of non-research activities for a variety of reasons, if they believe others may be interested in learning about those activities. Conversely, a quality improvement project may involve research even if there is no intent to publish the results.”

OHRP QI FAQ's <http://www.hhs.gov/ohrp/policy/faq/quality-improvement-activities/index.html>



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

Projects considered “research”
MUST be approved by an IRB

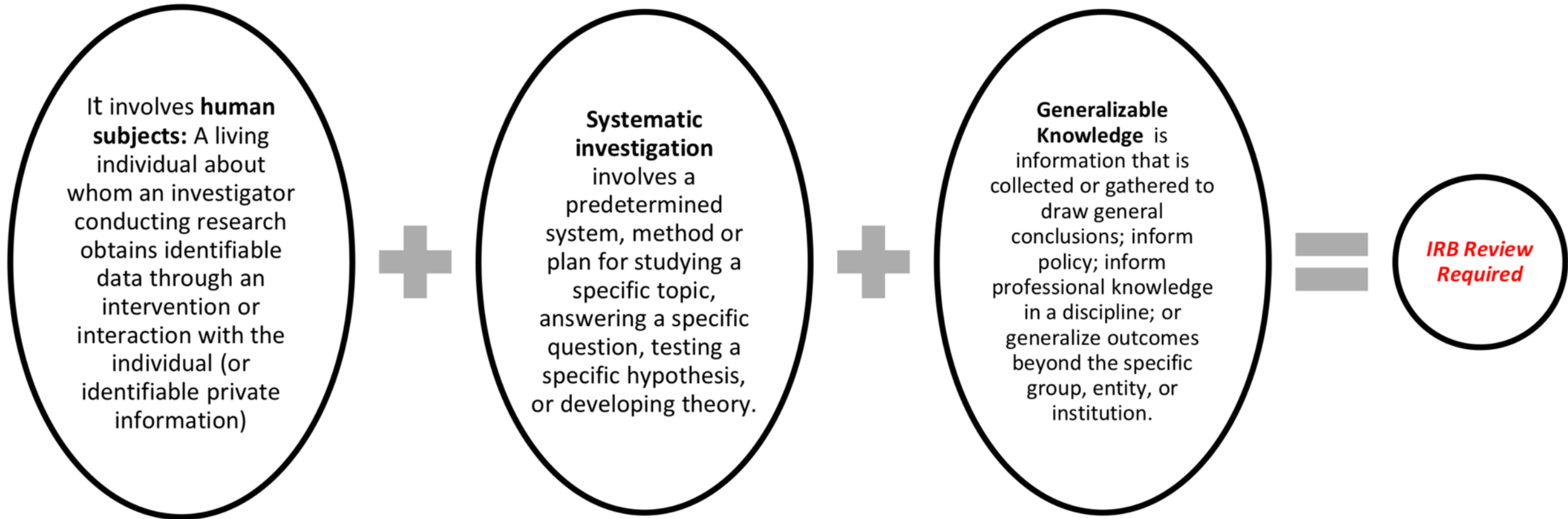


These materials are developed and created by IHQSE faculty and are the property of the

Am I conducting human subjects research?

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.



If an activity meets the definition of human subject research under 45 CFR 46.102(d), then HHS regulations apply, and IRB review is required.

These materials are developed and created by IHQSE faculty and are the property of the

Categories of submission responses from IRB

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

Not HSR: The QI project is NOT research

- IRB submission only for formal determination from IRB that it is not research
- Subsequent publication should clearly state that it is QI and not research

Not HSR: The QI project IS research, but no human subjects are involved

Exempt: The QI project is research, but meets one of the exempt criteria under the regulations

Non-exempt: Expedited vs. Full Board. The QI project IS research and does not meet exempt or not HSR criteria



These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

This study was approved by the Human Subjects Institutional Review Board (HSIRB) of the University **** and was exempt from patient consent. **The work was deemed a quality improvement project and NOT a study on human subjects.**

The study met the criteria for exemption from ethics review



Colorado Multiple Institutional Review Board (COMIRB)

“To protect human research participants’ rights and welfare and to facilitate ethical research.”



University of Colorado
Anschutz Medical Campus



Children's Hospital
Colorado



Department of
Veterans Affairs

uchealth



**DENVER
HEALTH™**

— est. 1860 —
FOR LIFE'S JOURNEY



COMPARISON

Use the chart to compare any of the research projects. If your research is

FUNDING

INTENT

DESIGN

PUBLICATION

This table may also be used as a tool to conduct and document a self-evaluation of the project. In that case, the project leader should indicate above where the project fits on each row. If any of the boxes in the research column are checked then the project must be submitted to COMIRB for review and approval. If the tool indicates that this is quality improvement (QI) or program evaluation (PE) only, complete the rest of this form, obtain any necessary signatures, and keep this in your project records.

Acknowledgment

I have appropriately used this tool to evaluate my project entitled: _____

By my signature below, I affirm that this project meets the definition of:

Circle the appropriate term: Quality Improvement Program Evaluation

I certify that I will conduct my project in compliance with all federal, state and local laws and policies. If during the course of the project it is amended in such a way as to meet the definition of human subject research under 45 CFR 46 or 21 CFR 56 then I understand that I must submit to COMIRB for review prior to continuing the project.

 Signature of Project Leader

 Date

 Signature of Mentor (*if applicable*)

 Date

I have reviewed this project proposal and determine that it meets the criteria for quality improvement or program evaluation as outlined above and is an appropriate project to be conducted within this Division/ Department/ School/.

IMPACT

 Signature of Appropriate Authority
 (*or their designee*)

 Title/Position

 Date

POPULATION

QA Program Evaluation Research Tool
 CF-195, Effective 6-5-20

Case 1

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

In critically ill adult patients, early mobilization with physical therapy has been shown to reduce delirium, hospital length of stay and in one study mortality.

- AN plans to study the effect of a standing ICU PT order with the goal to increase the proportion of patients seen by physical therapy on HD#1 from 30% to 60% over the next 6 months.
- She additionally plans to track duration of mechanical ventilation, hospital length of stay, and mortality for these patients.
- Additionally, as it is more difficult for patients with delirium to work with PT, she intends to treat half of the patients with Haldol and assess whether those patients are able to work with PT more frequently



Case 2

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

There are no standardized and validated thromboprophylaxis risk tool established in the pediatric population. Despite this, local venous thromboembolism (VTE) prophylaxis guidelines exist at most major pediatric tertiary care centers

- JL performs an analysis and finds that the hospital VTE prophylaxis recommendations are only followed 55% of the time. She assembles a team to increase adherence to the recommendations to 80% in the next 4 months
- During this time, a 6 yo patient has an intracranial bleed while on recommended enoxaparin prophylaxis. JL would like to revamp the current prophylaxis guidelines to only recommend prophylaxis in children ≥ 12 yo
- She is not sure if this will increase the rate of VTE in the < 12 yo age group. To study this, she develops a fixed protocol with the goal to study local VTE rates in age groups before and after this change. She now intends to publish the results since the pediatric VTE body of literature is lacking.



These materials are developed and created by IHQSE faculty and are the property of the
University of Colorado Anschutz Medical Campus, School of Public Health and Community Practice, and Office of Quality Improvement.

Other QI regulating agencies on campus

Reproduction or use of these materials for anything other than personal education is strictly prohibited.

Please contact IHQSE@cuanschutz.edu for questions or requests for materials.

Denver Health	Quality Improvement Review Committee (QuIRC)
University	COMIRB No additional procedures needed
VA	COMIRB + local VA approval
Children's Colorado	Organizational Research Risk and Quality Improvement Review Panel (ORRQIRP)

When in doubt, contact the IRB

Colorado Multiple Institutional Review Board (COMIRB)

Research Administration

[Get Help](#) ▼

[Submission Guides](#) ▼

[Forms](#) ▼

[Guidance and Policies](#)

[Training](#)

[IRB Members](#) ▼

[About COMIRB](#) ▼



COMIRB is the IRB for the University of Colorado Denver | Anschutz Medical Campus and affiliates

[Register for Office Hours](#) ↗



University of Colorado **Anschutz Medical Campus**

IHQSE

These materials are developed and created by IHQSE faculty and are the property of the Institute for Healthcare Quality, Safety and Efficiency (IHQSE).

Reproduction or use of these materials for any other personal education is strictly prohibited.

Please contact IHQSE@cu.edu for requests for materials.

