

Antimicrobial Stewardship, Infection Prevention & Implementation Science Symposium

JULY 7, 2023 | 8:30 AM – 1:00 PM

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Advancing the Practice of Infection Prevention & Antimicrobial Stewardship through Implementation Science

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Albert Einstein College of Medicine

Montefiore

No conflicts of interest

Disclaimer: I am not an implementation scientist

Learning Objectives:

ASK

What knowledge and research gaps exist in Infection Prevention (IP) & Antimicrobial Stewardship (AS?)

AND

How can we apply an implementation science (IS) framework to IP & AS?

APPRAISE

Recent IS publications in SHEA* journals (ICHE & ASHE) on IP & AS

- Are SHEA journals a good fit for IS research?

EVALUATE

What are broader areas for exploration in IP, AS & public health using an IS framework?

*Society for Healthcare Epidemiology of America journals:
Infection Control & Hospital Epidemiology and
Antimicrobial Stewardship & Healthcare Epidemiology

What is IS & why apply it to IP & AS?

IS According to OpenAI's ChatGPT (and other sources)

An interdisciplinary field that focuses on the systematic study of strategies for effectively **integrating evidence-based interventions into real-world settings**

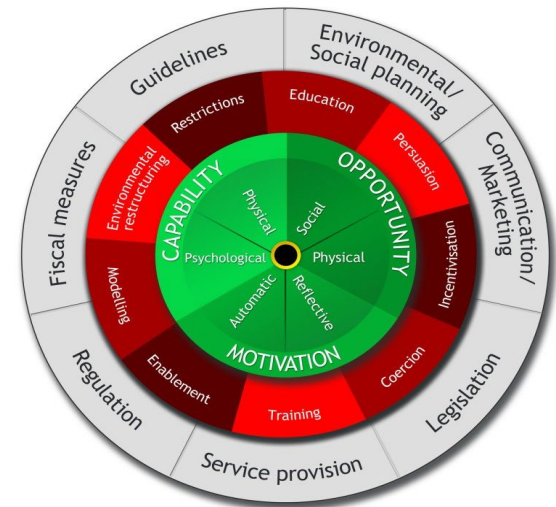
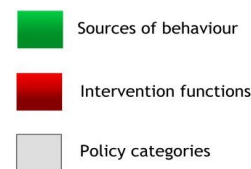
It seeks to **bridge the gap between research and practice** by examining the processes, factors, and outcomes associated with the adoption, implementation, and sustainment of innovations

It involves studying the complex interactions between the **intervention, the individuals or organizations implementing it**, and the context

Primary goal: to improve the implementation & uptake of evidence-based practices to positively impact outcomes for individuals, organizations, and communities

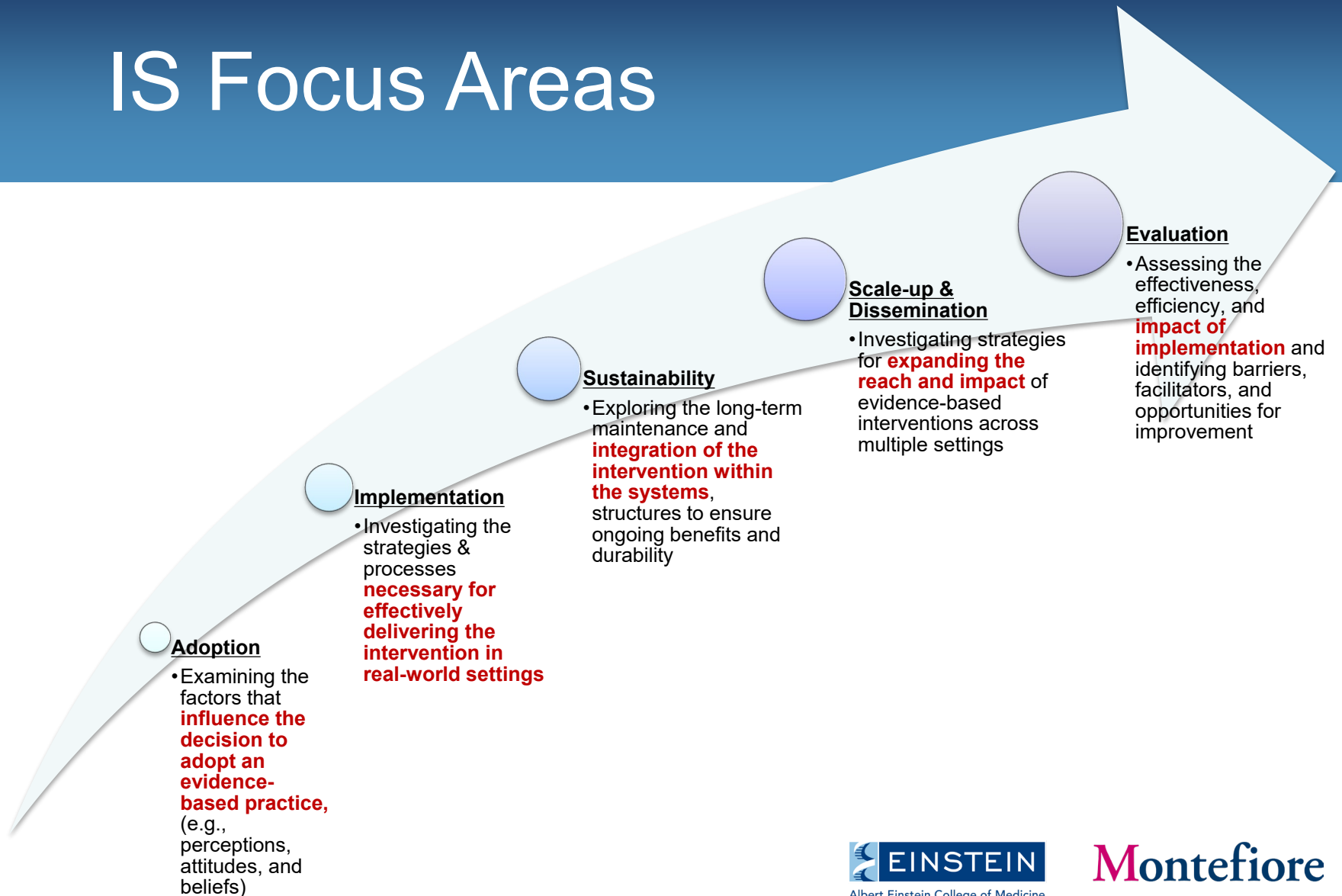
IS... When Common Sense Won't Cut It

- Interventions are often designed without evidence or analysis of target behaviors, e.g., “*implicit common-sense models of behavior*”
- Organizations fail to consolidate gains or institutionalize successful initiatives
- To improve the translation of research into policy and practice, we must utilize the science/technology of behavior change
- Bottom line: IS provides conceptual model to drive behavior change (e.g., the “how to”)

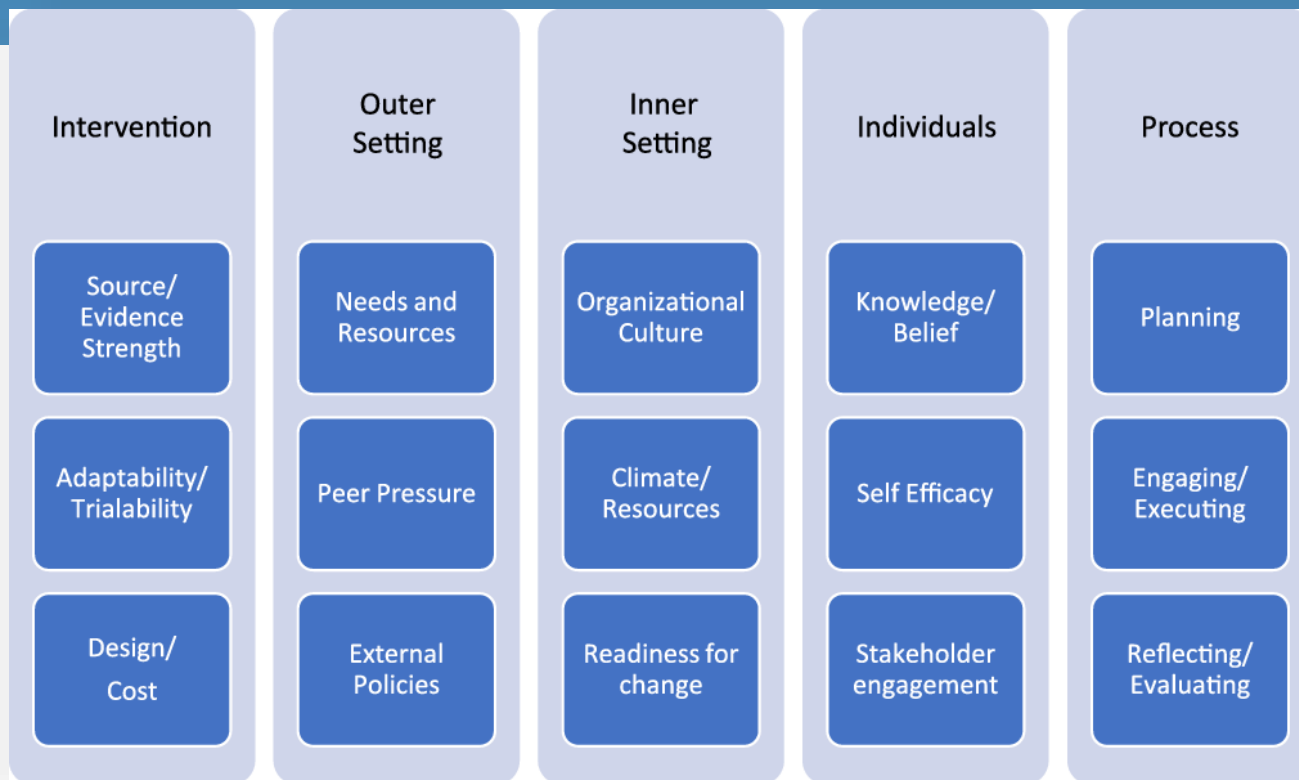


1. Michie, S., van Stralen, M.M. & West, R. The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Sci* 6, 42 (2011).
2. Saint S, Howell JD, Krein SL. Implementation science: how to jump-start infection prevention. *Infect Control Hosp Epidemiol*. 2010 Nov;31 Suppl 1(Suppl 1):S14-7. doi: 10.1086/655991. PMID: 20929360; PMCID: PMC3074260.

IS Focus Areas

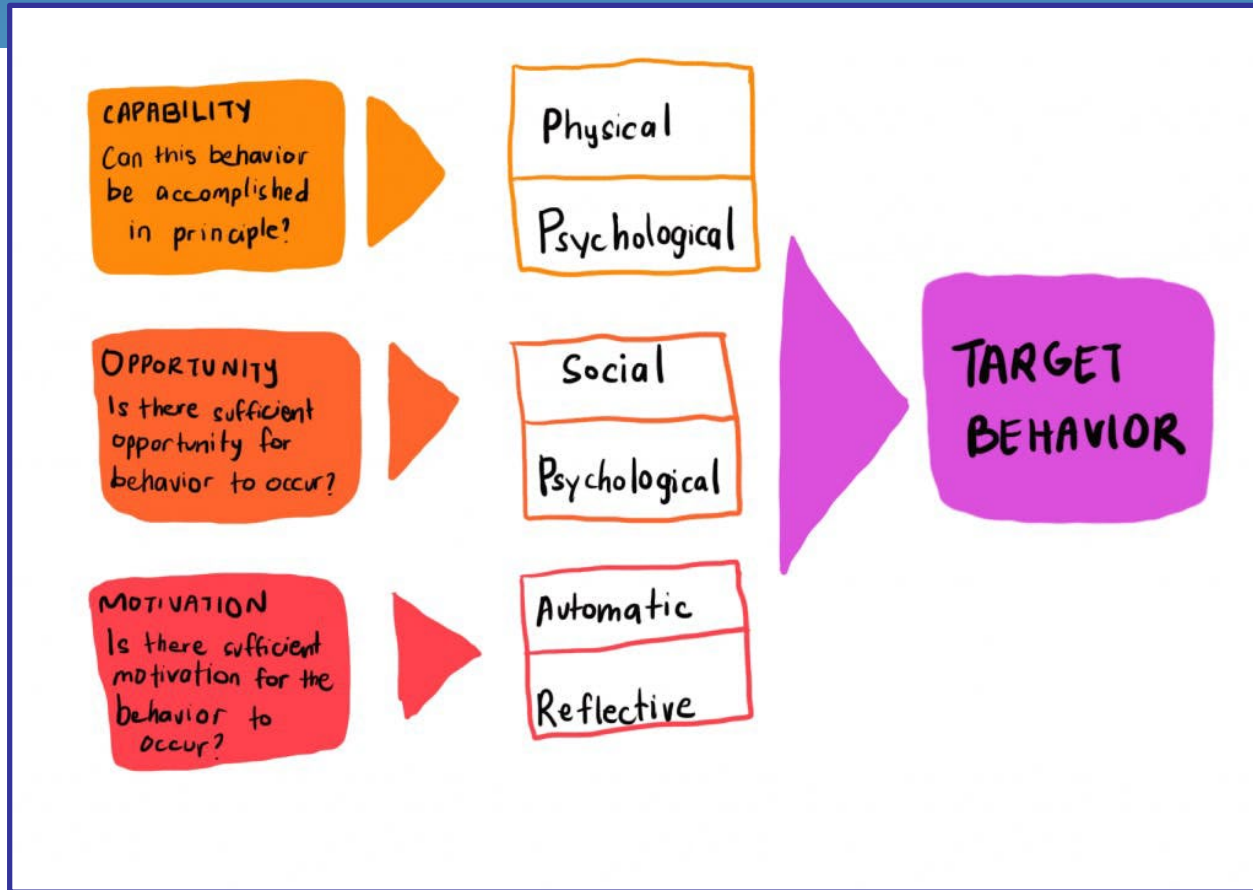


Consolidated Framework for Intervention Research (CFIR) constructs for implementation (& de-implementation)



Advani, S., & McKay, V. (2023). Beyond implementation: Uncovering the parallels between de-implementation and antimicrobial stewardship. *Antimicrobial Stewardship & Healthcare Epidemiology*, 3(1), E73.

COM-B Model



Quality Improvement vs. Implementation Science

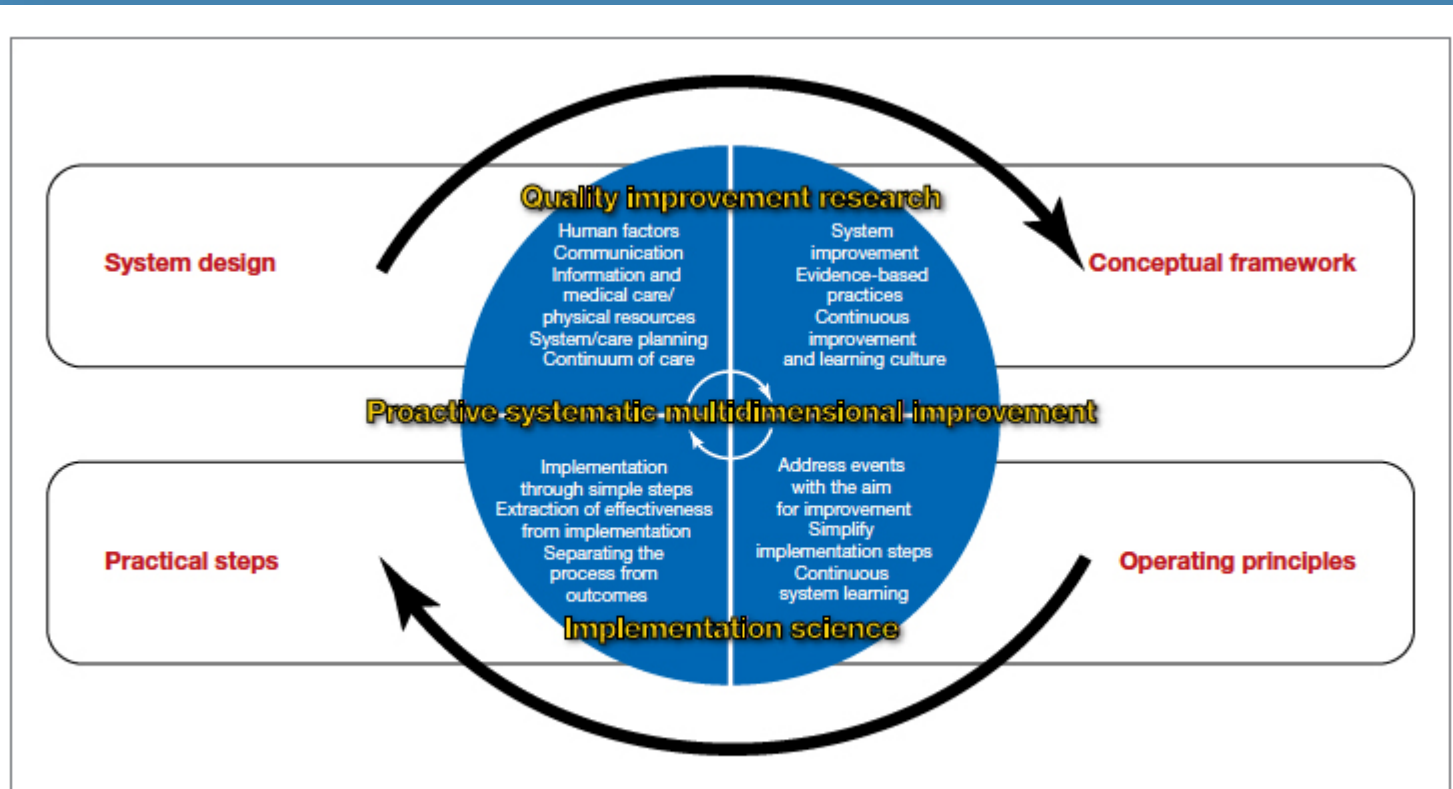


Figure. The intersection of clinical quality improvement research and implementation science

1. Tyler A, Glasgow RE. Implementing Improvements: Opportunities to Integrate Quality Improvement and Implementation Science. *Hosp Pediatr*. 2021 May;11(5):536-545.
2. Barkaudah E. The Intersection of Clinical Quality Improvement Research and Implementation Science. *Journal of Clinical Outcomes Management*. 2022 May;29(3):111-112

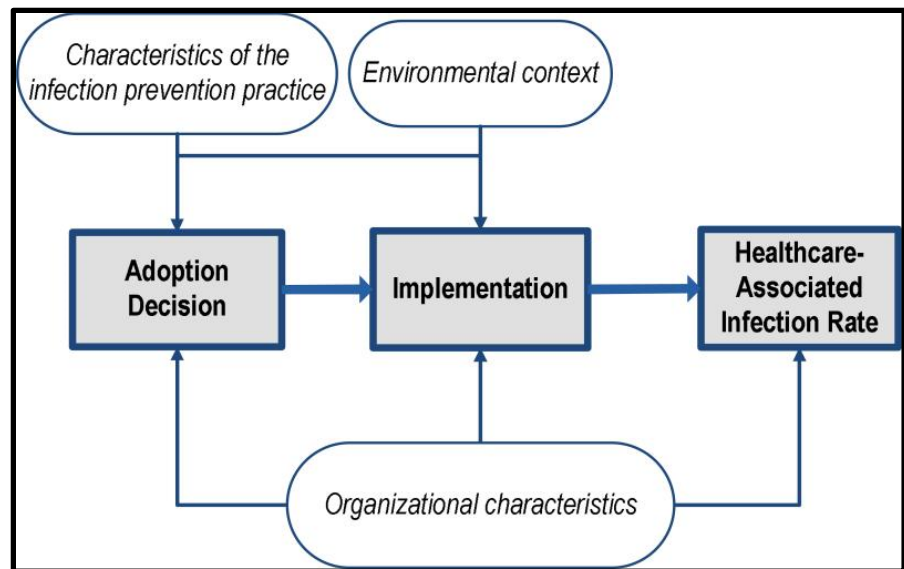
1) ASK: What
knowledge and
research gaps exist
in IP & AS?

AND

How can we apply
an IS framework to
IP & AS?

IS to “Jump-start” IP Programs

- **Harm from healthcare associated infections (HAIs) and multidrug resistant organisms (MDROs) costs >\$10B and 100k+ lives annually**
- Despite high-quality evidence on preventing HAIs, *practices are variably implemented, enforced, and audited*
- **The decision to adopt and implement an IP practice is influenced by**
 - ✓ **Practice characteristics** (e.g., cost, evidence, usability)
 - ✓ **Organization** (e.g., leadership, personnel, resources)
 - ✓ **Environmental context** (e.g., public reporting or pay-for-performance)



Saint S, Howell JD, Krein SL. Implementation science: how to jump-start infection prevention. *Infect Control Hosp Epidemiol.* 2010 Nov;31 Suppl 1(Suppl 1):S14-7.

Examples of IS Application in IP

Implementation strategy	Definition	Example
Audit and feedback	Providing clinical performance data to clinicians and administrators for monitoring, evaluating, and <u>modifying provider behavior</u>	HAI benchmark report cards
Facilitation	<u>Interactive problem-solving</u> in a context of recognized need for improvement and supportive interpersonal relationships	HAI-specific initiatives with clinical stakeholders
Tailoring	<u>Tailoring of implementation strategies</u> to address barriers and leverage facilitators identified through prior data collection	Pre-procedure checklists
Champion identification	Identification of individuals who dedicate themselves to supporting, marketing, and implementing, <u>overcoming resistance</u> w/in an organization	Clinical champions
Education	Distribution of educational materials (e.g., guidelines, manuals, toolkits)	APIC/SHEA implementation guides

[Dissemination and implementation science for infection prevention: A primer.](#)

Gilmartin HM, Hessels AJ. Am J Infect Control. 2019 Jun;47(6):688-692

Numerous Gaps & Research Needs in IP

Novel Pathogens, Surveillance & Outbreak Response:

- Continuous and improved surveillance and research for emerging pathogens, their modes of transmission, virulence, resistance patterns, and pandemic potential
- Real-time monitoring and data analysis
- Improved data sharing and predictive modeling to aid in timely outbreak response

Vaccines

- Improved vaccine development, broader coverage, enhanced efficacy, and longer-lasting immunity
- Vaccine hesitancy and effective communication strategies to increase acceptance

1. Healthcare-Associated Infections (HAIs):

- Prevention of HAIs to reduce the burden on healthcare systems
- New interventions, such as improved disinfection methods, antimicrobial stewardship, and enhanced adherence to infection control practices.

1. Environmental Contamination:

- Role of the environment in the transmission of infectious diseases
- Effective cleaning and disinfection strategies; the impact of ventilation systems, water quality, and other environmental factors on disease transmission.
- Targeted interventions to minimize disease transmission in long-term care facilities, schools, prisons, and transportation systems

1. Behavioral & Social Factors:

- Behavioral and social determinants of infection prevention to help inform targeted interventions, e.g., factors influencing hand hygiene compliance, adherence to vaccination, and compliance w/ IPC recs.

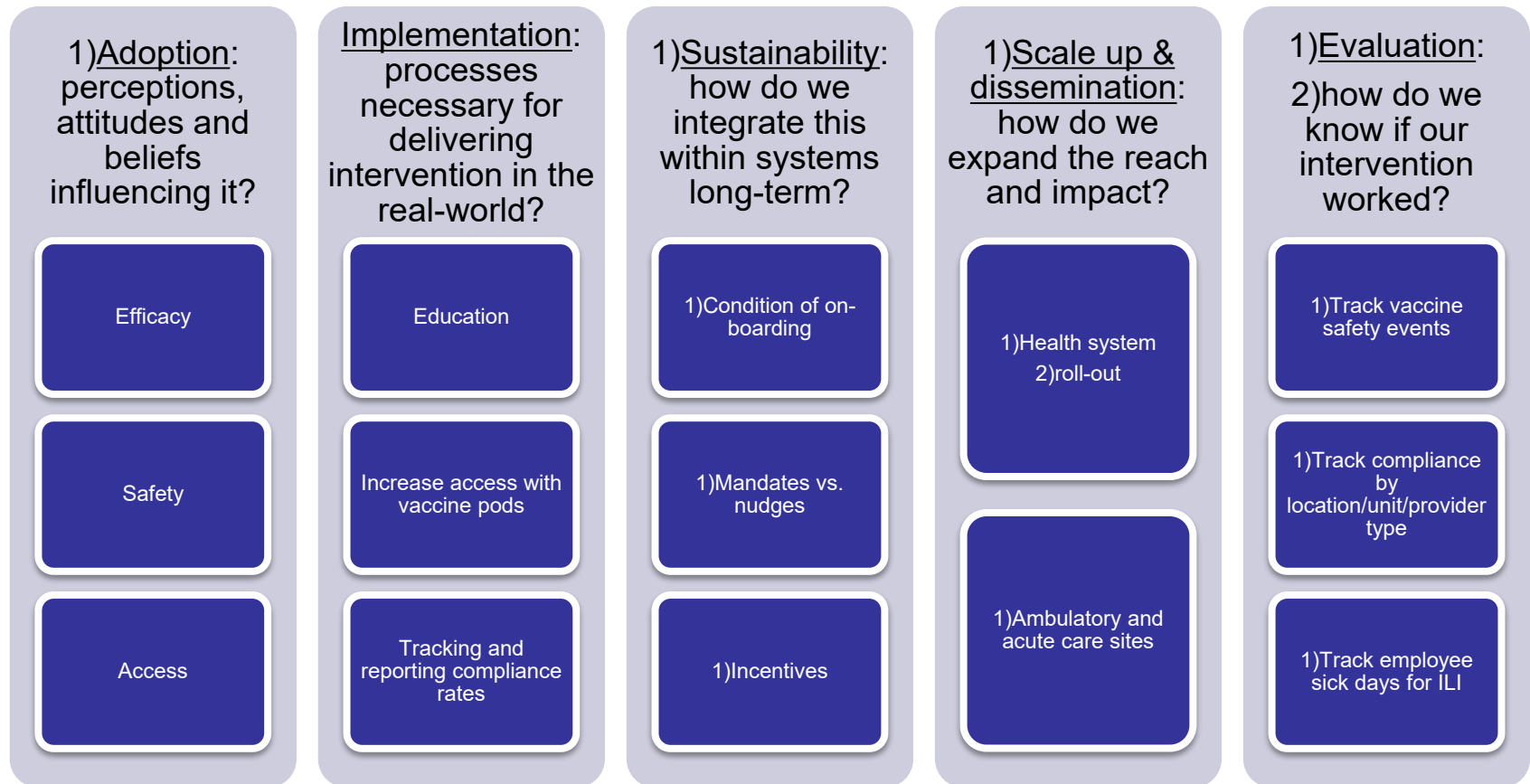
1. Global Health Disparities:

- Specific challenges faced by low-resource settings and vulnerable populations.
- Cost-effective and context-appropriate interventions that can effectively reduce the burden of infectious diseases in these populations.

1. [Dissemination and implementation science for infection prevention: A primer.](#) Gilmartin HM, Hessels AJ. Am J Infect Control. 2019 Jun;47(6):688-692.
2. <https://chat.openai.com/?model=text-davinci-002-render-sha>

Ex: increasing influenza vaccine acceptance among healthcare workers

How would you approach this from an IS framework?



Numerous Gaps & Research Needs in AS

1.Surveillance:

- Robust surveillance systems to monitor AMR patterns, track the spread of resistant pathogens, and identify emerging resistance mechanisms.
- Efficient and integrated surveillance strategies at local, regional, national, and international levels.

1.Diagnostic Methods:

- Improved diagnostic tools are needed to facilitate the rapid and accurate identification of infectious agents and their susceptibility to antibiotics.
- Development of novel diagnostic technologies, point-of-care tests, and biomarkers that can guide appropriate antibiotic prescribing.

1.Optimization of Treatment Guidelines:

- Evidence-based guidelines for antimicrobial therapy need to be continually updated and optimized.
- High-quality clinical data to inform the guidelines, appropriate duration of therapy, dose optimization, and alternative treatments.

1.Behavioral Interventions:

- Factors that influence prescribing practices to design effective interventions.
- Drivers of antibiotic overuse and developing behavioral interventions, educational initiatives, feedback mechanisms, and decision-support tools to promote appropriate antibiotic use

1.Antimicrobial Use in Special Populations:

- Children, elderly, and immunocompromised patients, w/ unique antimicrobial stewardship needs.
- Specific challenges to optimize antimicrobial use including dosing strategies, safety profiles, and impact of co-morbidities.

One Health Approach:

- "One Health" approach to AMR including human health, animal health, and environmental sectors.
- Interplay between antimicrobial use in human medicine, veterinary medicine, agriculture, and the environment to develop comprehensive strategies for reducing the spread of AMR

1.Antimicrobial Development and Alternatives:

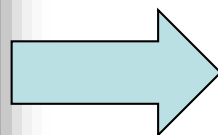
- Research on the development of novel antimicrobial agents and alternative treatments, such as phage therapy, probiotics, and immunotherapies
- New targets for drug development, combination therapies, and strategies to overcome resistance mechanisms.

1.Economic Impact:

- Cost-effectiveness of different stewardship strategies, long-term and economic incentives for appropriate antibiotic prescribing.

IS Strategies and Application in AS

Category of Implementation Strategy	Specific Strategies Within the Category
Evaluative and iterative strategies	Audit and provide feedback ^a Assess readiness for change Conduct cyclical small tests of change
Develop stakeholder relationships	Identify and prepare champions Identify early adopters Obtain commitment letters Capture and share local knowledge ^b Build a coalition Conduct local consensus discussions ^c
Train and educate stakeholders	Conduct ongoing training Develop and distribute educational materials
Support clinicians	Clinician prompts ^d Facilitate relay of clinical data to clinicians ^e
Change infrastructure	Mandate change ^f Change accreditation requirements
Adapt and tailor to the context	Tailor strategies Promote adaptability
Provide interactive assistance	Facilitation Centralize technical assistance ^g
Engage consumers	Involve patients and family members ^h Prepare patients to be active participants ⁱ Use mass media
Utilize financial strategies	Alter incentive structures for clinicians



Implementation examples
Prospective audit and feedback of antibiotic appropriateness for SSI prophylaxis
On boarding competency-based assessment on AMR and AS
“Handshake stewardship” in the PICU
Bedside nursing and medication reconciliation with patients/families at discharge
Quality incentives for fewer abx prescriptions for viral URIs

Ex: Implementation of Ambulatory Stewardship Program

How would you approach this from an IS framework?

1)Adoption:
perceptions,
attitudes and
beliefs
influencing it?

Excess
perceived cost

Leadership not
convinced of
need

Implementation:
processes
necessary for
delivering the
intervention in
the real-world?

Data on over-
prescriptions for
viral URIs

Business
case/ROI

1)Sustainability:
how do we
integrate this
within systems
long-term?

1)Hospital
invests in 0.5
FTE
pharmacists

1)EHR builds to
maximize
adherence with
best practices

1)Provider
report cards

1)Scale up &
dissemination:
how do we
expand the
reach and
impact?

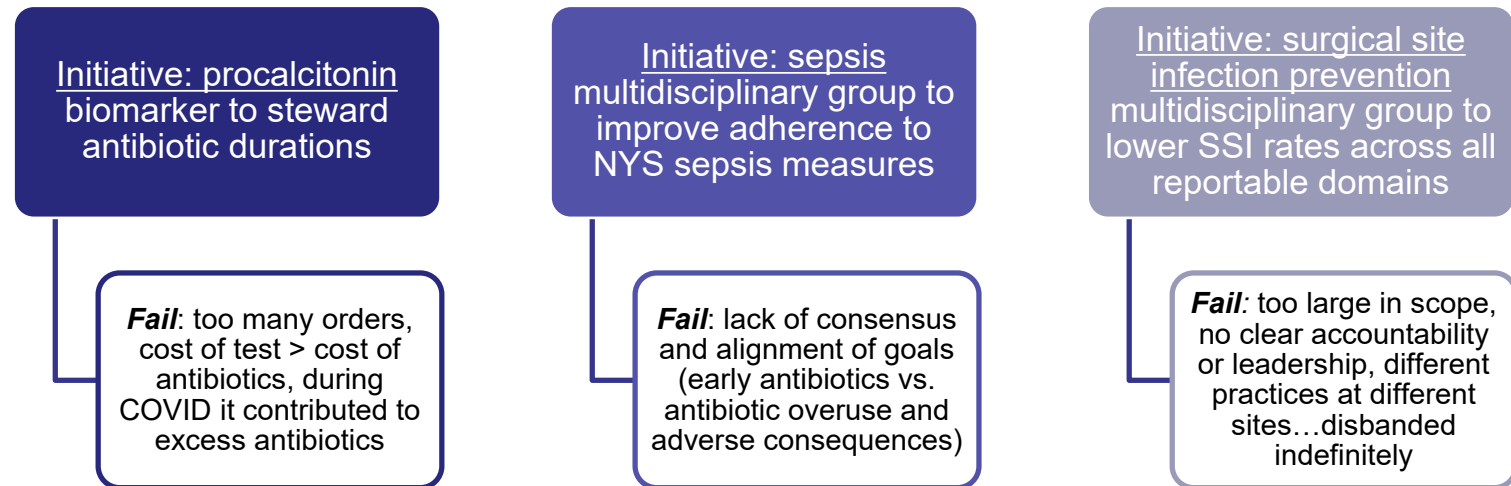
1)Health system
roll-out across
all ambulatory
sites

1)Evaluation:
2)how do we
know if our
intervention
worked?

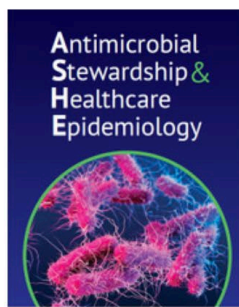
1)Tracking and
reporting
compliance with
ambulatory
quality metrics

1)Ambulatory
antibiogram

Examples of institutional “fails” due to “just do it” approach and lack of robust framework



(e.g., Bronx bombing)



Don't just do it—Conducting and publishing improvement science in infection prevention and antibiotic stewardship

Published online by Cambridge University Press: 02 March 2022

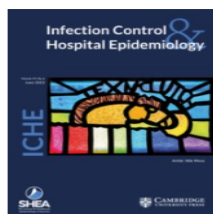
W. Matthew Linam , Kavita K. Trivedi  and Joshua K. Schaffzin 

Sh

- Pressures of public reporting and pay-for-performance have failed to yield desired outcome of reduced patient harm from HAIs and MDROs
- IS goes beyond “let’s do something” approach and can generate reproducible results that enhance practice
- **IS “may be the answer” for advancing IP and AS practice due to methodologies that address systems, context, encourage rapid experimentation, and adjust to achieve goals**
- ✓ *“It is our hope that ASHE will serve as a platform to report such work in the future, advancing knowledge and practice for the fields of IPC and stewardship”*

Linam, W., Trivedi, K., & Schaffzin, J. (2022). Don't just do it—Conducting and publishing improvement science in infection prevention and antibiotic stewardship. *Antimicrobial Stewardship & Healthcare Epidemiology*, 2(1)

2) APPRAISE
Recent IS
publications in
SHEA journals
(ICHE & ASHE)
on IP & AS



Use of Implementation Science for a Sustained Reduction of Central-Line–Associated Bloodstream Infections in a High-Volume, Regional Burn Unit

Published online by Cambridge University Press: 13 September 2017

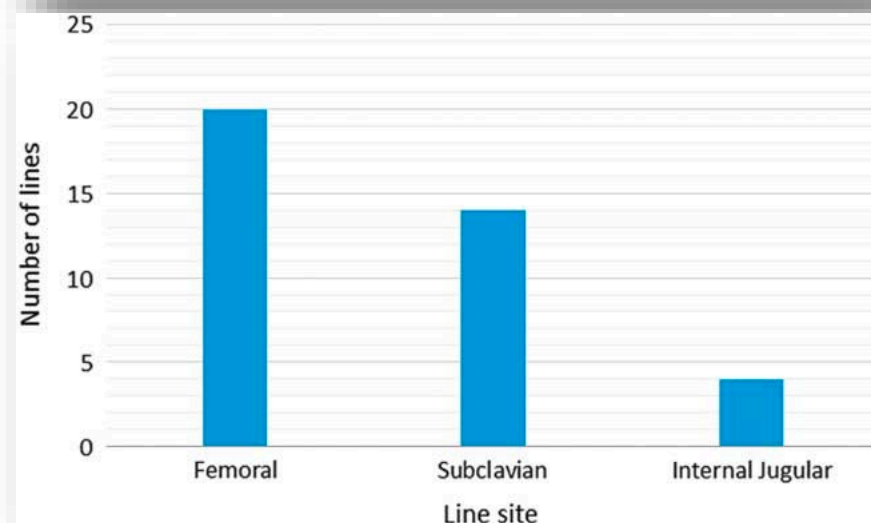
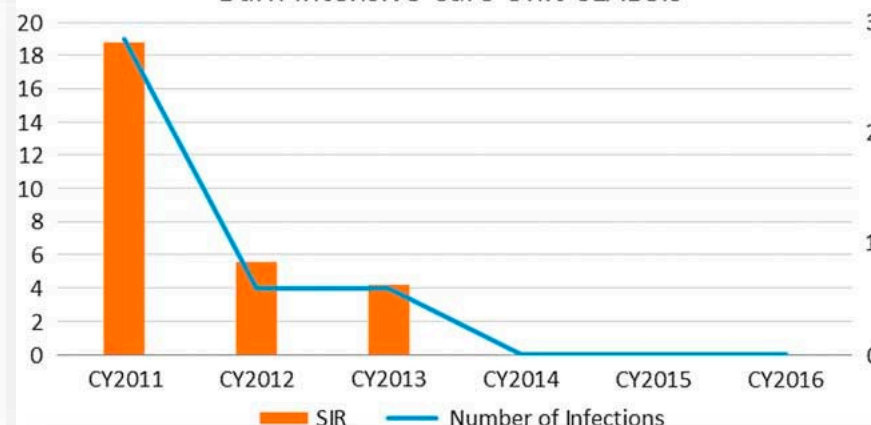
Geeta Sood, Julie Caffrey, Kelly Krout, Zeina Khouri-Stevens, Kevin Gerold, Stefan Riedel, Janet McIntyre, Lisa L. Maragakis, Renee Blanding and Jonathan Zenilman ...Show all authors

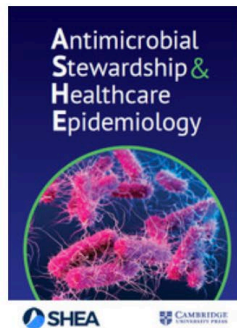
Show author details

- Goal: to reduce CLABSI rates in a burn ICU
- The *Comprehensive Unit-based Safety Program (CUSP)/ Translating Research Into Practice (TRIP) model*
- A bundle of interventions were implemented: development of new blood culture procurement criteria, implementation of chlorhexidine bathing and chlorhexidine dressings, use of alcohol impregnated caps, routine performance of root-cause analysis with executive engagement, and routine central venous catheter changes.
- **Bottom line**: use of an IS framework to guide interventions → reduction of CLABSIs from 15.5/1000 line days to **zero** sustained over 3 years

Sood, G . . . Pronovost, P. (2017). Use of Implementation Science for a Sustained Reduction of Central-Line–Associated Bloodstream Infections in a High-Volume, Regional Burn Unit. *Infection Control & Hospital Epidemiology*, 38(11), 1306-1311

Burn Intensive Care Unit CLABSIs





Beyond implementation: Uncovering the parallels between de-implementation and antimicrobial stewardship

Published online by Cambridge University Press: 17 April 2023

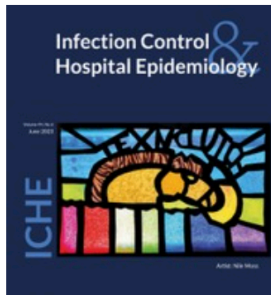
Sonali D. Advani  and Virginia McKay 

Show

- De-implementation is the process of discontinuing, removing, or replacing ineffective, or low-value practices or interventions
- Goal: minimize patient harm, maximize resources, reduce healthcare costs and inequities
- **De-implementation is inherent to diagnostic and antimicrobial stewardship**

De-implementation Approaches	Antibiotic Stewardship Examples ²²	Diagnostic Stewardship Examples ¹⁸
Reduction (in frequency and/or intensity)	Shorten the duration of antimicrobial therapy	Reduction in urine culture orders using an evidence-based algorithm
Restriction	Formulary restriction	Suppression of low-yield urine culture results in electronic medical records (require clinicians to call the laboratory if result was desired)
Discontinuation without replacement	Stop antibiotic completely	Hard stop for test (urine culture order cancelled if pyuria is absent on preceding urinalysis)
Discontinuation with replacement	Parenteral to oral antibiotic conversion	Performing “urinalysis with reflex to culture” instead of “direct urine culture”

Albert Einstein College of Medicine



Identifying, deconstructing, and deimplementing low-value infection control and prevention interventions

Published online by Cambridge University Press: 15 May 2023

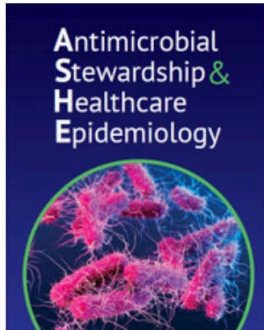
Virginia R. McKay  and Jennie H. Kwon

Show author details

- IP de-implementation:

- > IP programs should resist the compulsion to “do more” low value interventions, (e.g., more PPE, more asymptomatic screening, etc.)
- > E.g., Isolation of patients colonized with MRSA and VRE is resource intensive, based on conflicting evidence, and may cause patient harm in some cases
- > De-escalation of pandemic precautions (like universal masking) is a prime example of evidence-based IP de-implementation

1. McKay VR, Kwon JH. Identifying, deconstructing, and deimplementing low-value infection control and prevention interventions. *Infect Control Hosp Epidemiol.* 2023 Jun;44(6):1034-1035. doi: 10.1017/ice.2023.53. Epub 2023 May 15.
2. Bearman G, Abbas S, Masroor N, Sanogo K, Vanhoozer G, Cooper K, Doll M, Stevens MP, Edmond MB. Impact of Discontinuing Contact Precautions for Methicillin-Resistant *Staphylococcus aureus* and Vancomycin-Resistant *Enterococcus*: An Interrupted Time Series Analysis. *Infect Control Hosp Epidemiol.* 2018 Jun;39(6):676-682. doi: 10.1017/ice.2018.57. Epub 2018 Mar 27.



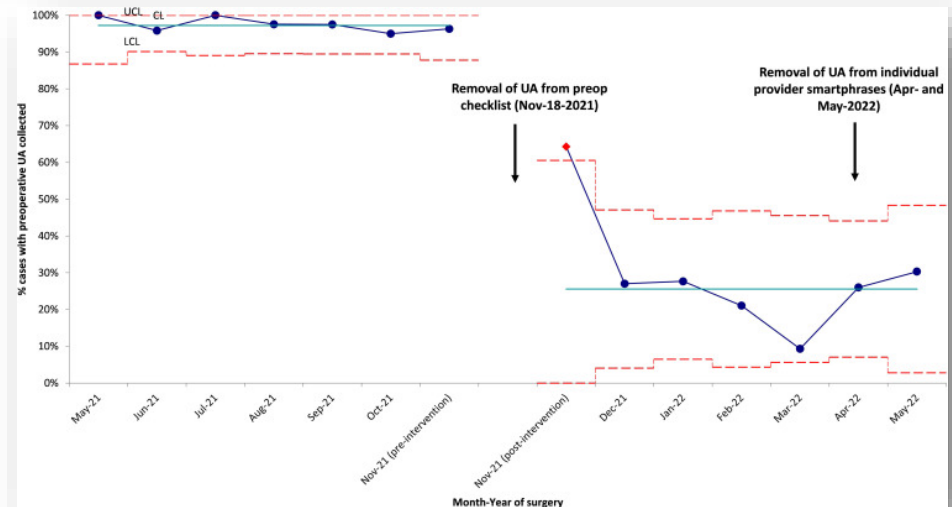
If you don't test, they will not treat: Impact of stopping preoperative screening for asymptomatic bacteriuria

Published online by Cambridge University Press: 26 May 2023

Marisa L. Winkler , Joanne Huang , Jessica Starr, David C. Hooper, Molly L. Paras, Alyssa R. Letourneau and Erica S. Shenoy

Show author details ▾

- Routine UA/culture was “de-implemented” (removed) from preop CABG checklist
- UAs decreased by 76.5%, urine cultures decreased by 87.0%
- Estimated savings of \$8,090.38
- 50% fewer antibiotic prescriptions for bacteriuria
- No increase in SSIs, CLABSI, CAUTIs, or CDI
- Challenges to scaling up intervention: persistence of checklists in templated order sets in the EHR







Winkler, M., Huang, J...& Shenoy, E. (2023). If you don't test, they will not treat: Impact of stopping preoperative screening for asymptomatic bacteriuria. *Antimicrobial Stewardship & Healthcare Epidemiology*, 3(1)



Infection Control &

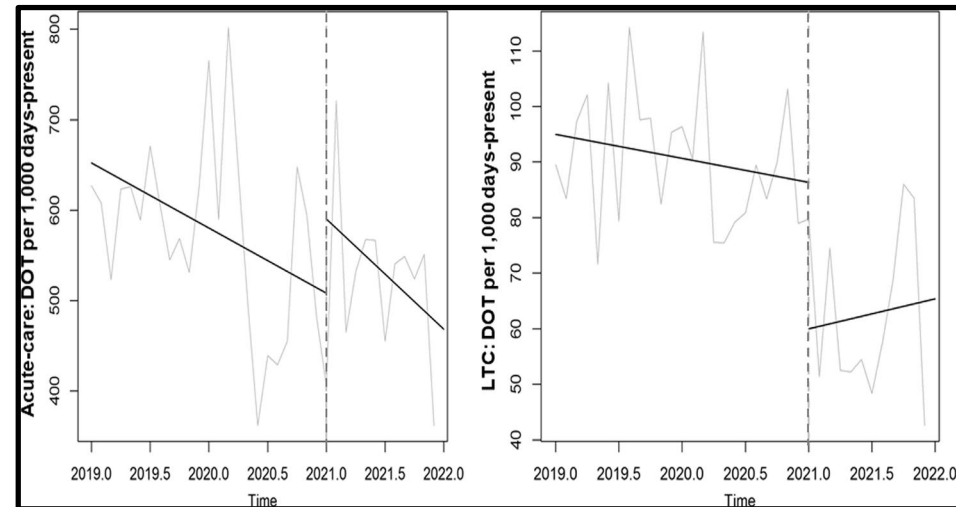
The use of telehealth-supported stewardship activities in acute-care and long-term care settings: An implementation effectiveness trial

Published online by Cambridge University Press: 14 June 2023

Daniel J. Livorsi , Stacey Hockett Sherlock , Cassie Cunningham Goedken , Sandra Pratt, David A. Goodman, Kim C. Clarke, Hyunkeun Cho, Heather Schacht Reisinger  and Eli N. Perencevich

Show author details ▾

- Implementation effectiveness study of a telehealth stewardship program using the reach-effectiveness-adoption-implementation-maintenance (RE-AIM) framework
- Intervention: Real-time audit and feedback on antibiotic prescriptions, stakeholder engagement, education, and quality monitoring
- Primary outcome – antibiotic days of therapy (DOT)/1000 days present at 3 VA sites
- Results: significant decrease in DOT in LTC units, stable DOTs in acute care units



Livorsi, D., . . . Perencevich, E. (2023). The use of telehealth-supported stewardship activities in acute-care and long-term care settings: An implementation effectiveness trial. *Infection Control & Hospital Epidemiology*, 1-8

3) EVALUATE

What are
broader areas
for exploration
in IP, AS &
public health?

“Thinking Big” in IP, AS & Public Health



Shared challenges

- Workforce burnout and ideal staffing ratios

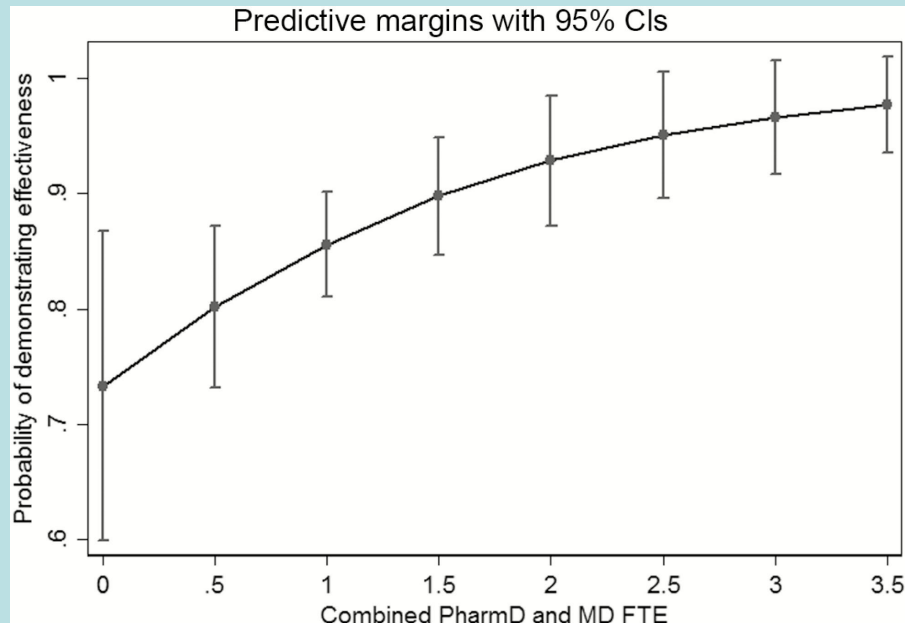
Global one health

- Global one health strategies for AMR
- Inequities in ID outcomes

Next frontiers

- Artificial Intelligence

Increased Staffing = Increased Success of IP and AS Implementation



Predicted effectiveness based on staffing levels

Table 6.

Minimal Full-time Equivalent Support Recommended by Bed Size

Variable	Bed Size			
	100-300	301-500	501-1000	>1000
Pharmacist	1.0	1.2	2.0	3.0
Physician	0.4	0.4	0.6	1.0
Total	1.4	1.6	2.6	4.0

For hospitals with <100 beds, there were limited data to make recommendations.

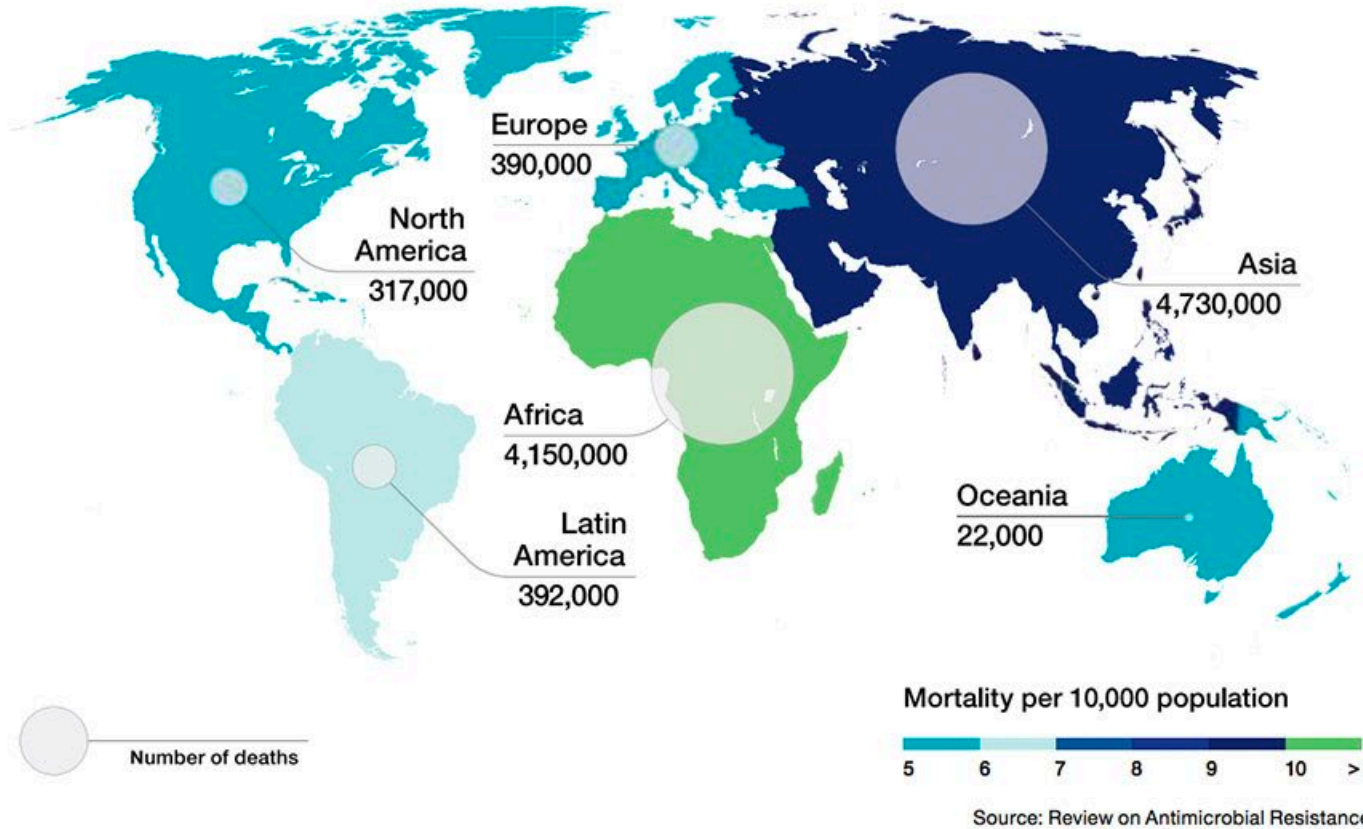
Recommended FTE by bed size

Global Inequities in Infectious Diseases Outcomes

Before designing interventions, consider:

- What impacts antibiotic consumption?
- Who is at highest risk of AMR?
- Who is being diagnosed with infections and offered anti-infectives?

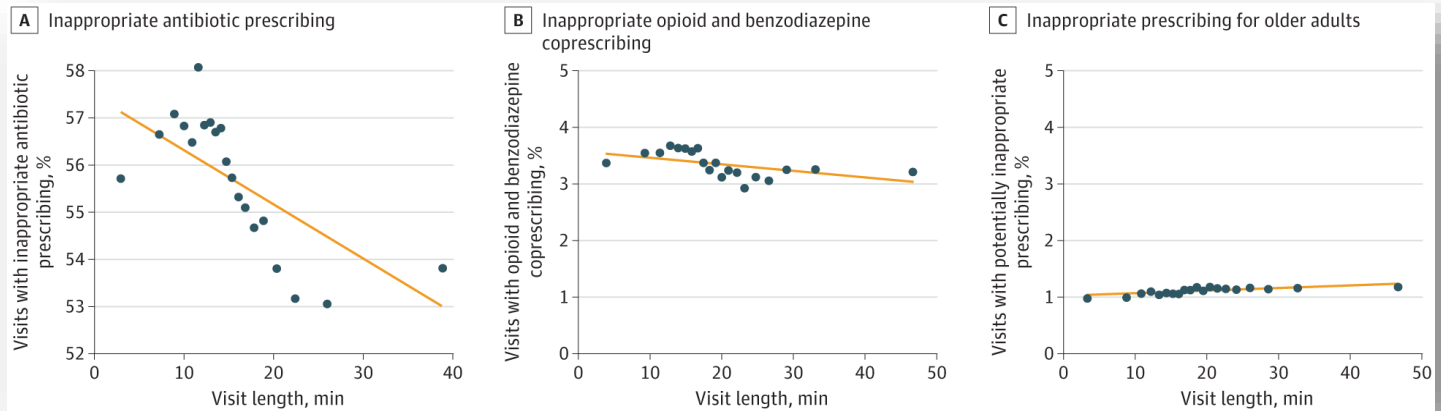
Deaths attributable to AMR every year by 2050



<https://www.publichealthpost.org/databyte/antibiotic-resistant-bacteria/>

From: **Association of Primary Care Visit Length With Potentially Inappropriate Prescribing**

JAMA Health Forum. 2023;4(3):e230052. doi:10.1001/jamahealthforum.2023.0052



Findings: cross-sectional study of 4,360,445 patients - those who were younger, publicly insured, Hispanic, or non-Hispanic Black had shorter primary care physician visits. Shorter visits were associated with a higher likelihood of inappropriate antibiotic prescribing for patients with upper respiratory tract infections and co-prescribing of opioids and benzodiazepines for patients with painful conditions.

How would you study inequities in antibiotic prescribing and AMR from an IS perspective?



Artificial intelligence...should we embrace it?

General Definitions

Artificial intelligence (AI)

Creating intelligent machines that can **perform tasks that typically require human intelligence**

Neural network

A mathematical system, modeled on the human brain, that **learns skills by finding statistical patterns in data**. It consists of layers of artificial neurons: The first layer receives the input data, and the last layer outputs the results. **Even the experts who create neural networks don't always understand what happens in between.**

Large language model

A type of neural network that **learns skills** — including generating prose, conducting conversations and writing computer code — by analyzing vast amounts of text from across the internet. The basic function is to predict the next word in a sequence, but **these models have surprised experts by learning new abilities.**

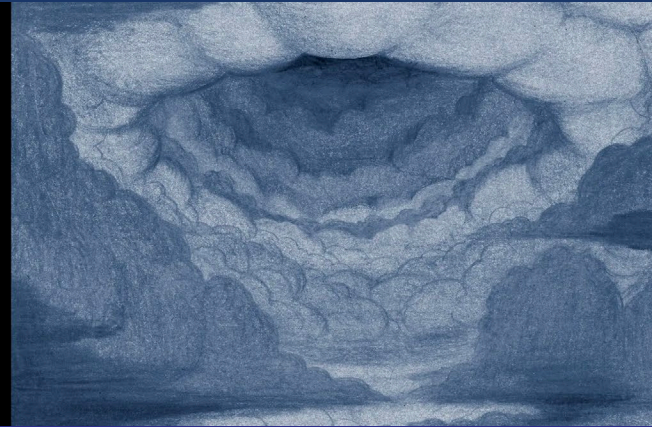
Generative A.I.

Technology that creates content — including text, images, video and computer code — by identifying patterns in large quantities of data, and then creating new, original material that has similar characteristics. Examples include ChatGPT

Machine learning

A subset of AI that involves training computer systems to learn and **improve without being explicitly programmed.**

Opinion
**The True Threat of Artificial
Intelligence**



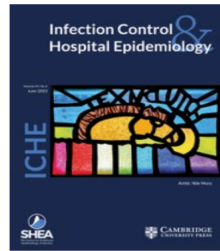
“Mitigating the risk of extinction from A.I. should be a global priority alongside other societal-scale risks such as pandemics and nuclear war” (statement by >350 tech execs in 5/23)

“...our public institutions risk becoming mere data sets for AI...”

“AI will never overcome market’s demands for profits...disruptive companies like Tesla, Uber have not ‘saved the world’...operating costs of chatGPT are 700K/day”

“AI will dull the pain of our thorniest problems without solving them”

“Good luck discerning the meaning of the Hippocratic oath by observing hospitals that have been turned into profit centers”

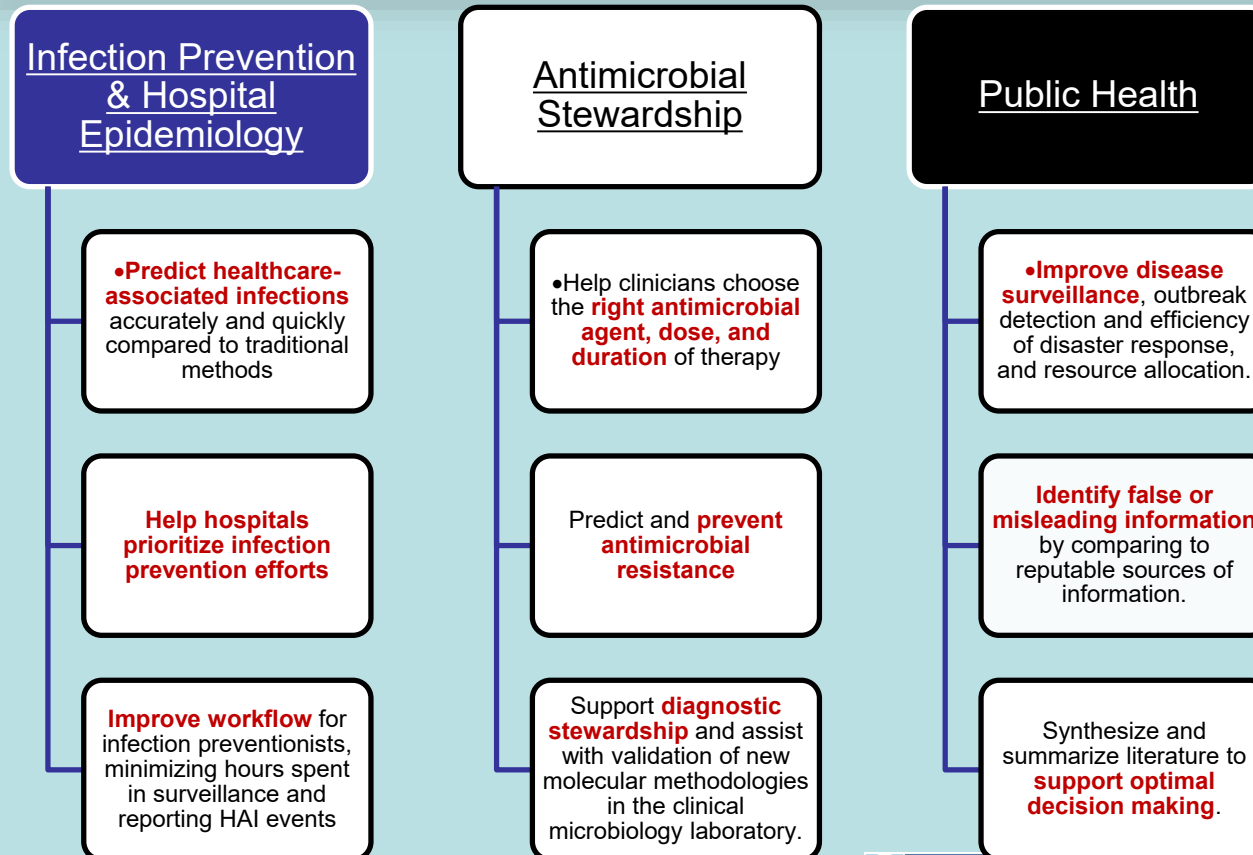


Brave new world: Leveraging artificial intelligence for advancing healthcare epidemiology, infection prevention, and antimicrobial stewardship

Published online by Cambridge University Press: 03 July 2023

Alexandre R. Marra , Priya Nori , Bradley J. Langford , Takaaki Kobayashi  and Gonzalo Bearman

[Show author details](#)



Marra, A., Nori, P., Langford, B., Kobayashi, T., & Bearman, G. (2023). Brave new world: Leveraging artificial intelligence for advancing healthcare epidemiology, infection prevention, and antimicrobial stewardship. *Infection Control & Hospital Epidemiology*

Can AI help us design & implement better interventions?

Let's ask chatGPT

P how can implementation science be applied to reducing hospital onset c.difficile infection

Implementation science can be a valuable approach to reducing hospital-onset Clostridium difficile (C. difficile) infections. Here are some steps and strategies that can be applied:

1. Identify the problem: Start by understanding the specific challenges and factors contributing to hospital-onset C. difficile infections in your setting. Analyze data on infection rates, patient populations, and existing infection control practices to gain insights into the problem.
2. Set clear goals: Define specific and measurable goals for reducing C. difficile infections. For example, you might aim to decrease the infection rate by a certain percentage or achieve zero preventable infections within a specific timeframe.
3. Engage stakeholders: Involve key stakeholders, including hospital administrators, clinicians, infection control specialists, nurses, and patients, in the implementation process. Collaborative efforts and shared decision-making increase the likelihood of successful interventions.
4. Evidence-based interventions: Use scientific evidence to guide the selection of interventions. Identify proven strategies for preventing C. difficile infections, such as implementing hand hygiene protocols, improving antibiotic stewardship, and enhancing environmental cleaning practices.
5. Adapt interventions to the local context: Tailor interventions to suit the specific characteristics and needs of your hospital or healthcare facility. Consider factors such as available resources, organizational culture, and workflow patterns. Ensure that interventions align with existing infection prevention and control policies.
6. Plan for implementation: Develop a detailed implementation plan that outlines the steps, timeline, and responsible parties for each intervention. Consider potential barriers and facilitators and devise strategies to overcome obstacles to successful implementation.
7. Training and education: Provide comprehensive training and education to healthcare personnel regarding C. difficile infection prevention measures. This includes educating staff on proper hand hygiene techniques, appropriate use of antibiotics, and effective environmental cleaning practices.

8. Monitoring and feedback: Establish a system for ongoing monitoring and feedback to evaluate the effectiveness of interventions. Regularly assess infection rates, compliance with infection control practices, and patient outcomes. Use this data to inform continuous improvement efforts and make necessary adjustments to the implementation strategy.
9. Sustainability and spread: Ensure that successful interventions are sustained over time and spread to other units or facilities within the healthcare system. Document and disseminate best practices, share lessons learned, and promote a culture of continuous learning and improvement.
10. Continuous quality improvement: Engage in continuous quality improvement activities by regularly reviewing data, analyzing outcomes, and identifying areas for further improvement. Use implementation science principles to guide the iterative process of refining and optimizing interventions.

By applying implementation science principles, healthcare organizations can effectively reduce hospital-onset C. difficile infections and improve patient safety.

Bottom line: It's a good place to start but requires human oversight to ensure accuracy

Putting it all together: How can we apply IS to inform the future of IP & AS practice?



Continue to define technical components of IP and AS interventions while focusing on adapting these to specific contexts (the “how to”)

Collaborate with organizational behavioralists & social scientists to address the dynamic role of context

Establish research networks to discover what works, why and in what settings

Determine how best to institutionalize change

Identify funders like AHRQ, CDC in the game of supporting IS research

Saint S, et al. Implementation science: how to jump-start infection prevention. Infect Control Hosp Epidemiol. 2010 Nov;31

Jay-Z gets IS

The responsibility is to keep pushing it forward, and not relying on the same old gimmicks. You have to push it forward.

JAY-Z

EVERYDAYPOWER

Thank You!



Conference organizers (Ginger & Jennie)



ASHE team (Alex Marra, Brad Langford & Lindsay MacMurray, et. al.)



Dr. Dave Calfee and ICHE Team



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