

**ORGANIZATIONAL
CHANGE TO PROMOTE
PATIENT SAFETY:**

BEST PRACTICES

Your Panelists

Bob Armstrong (*Moderator*)

- Executive Director, SCSIL, Eastern Virginia Medical School
- President, Society for Simulation in Healthcare

Jennifer Arnold, MD, MSc, FAAP

- Medical Director, Simulation Center Johns Hopkins All Children's Hospital

Bre Banks, Ph.D.

- Director of Clinical Education Centerstone Research Institute

Jennifer Cowart, MD

- Assistant Professor of Medicine, Mayo Clinic Florida Internist, Pharmacologist Mayo Hospital System

Paul Phrampus, MD, FACEP, FSSH, CPPS

- Medical Director, Patient Safety, UPMC Health System

Ginny Riggall, DNP, RN, ACCNS-AG, CHSE

- Clinical Practice Consultant for Simulation and TeamSTEPPS Kaiser Permanente Northern California Regional Risk and Patient Safety

LCDR Rachel Slayton, USPHS, Ph.D. MPH

- Mathematical Modeling Unit Lead Division of Healthcare Quality Promotion Centers for Disease Control and Prevention

JENNIFER ARNOLD, MD, MSC

Medical Director, Center for Medical Simulation and Innovative Education

Johns Hopkins All Children's Hospital, Saint Petersburg, FL

SIM-BASED FRAMEWORK FOR PROMOTING HRO

AIM

Reduce harm and improve quality of care by enhancing **high-reliability** within organization through use of simulation

(Wallin et al, 2016)

DRIVERS

ANTICIPATION:
Pre-occupation with failure

ANTICIPATION:
Reluctance to simplify

ANTICIPATION:
Sensitivity to operations

CONTAINMENT:
Commitment to resilience

CONTAINMENT:
Deference to expertise

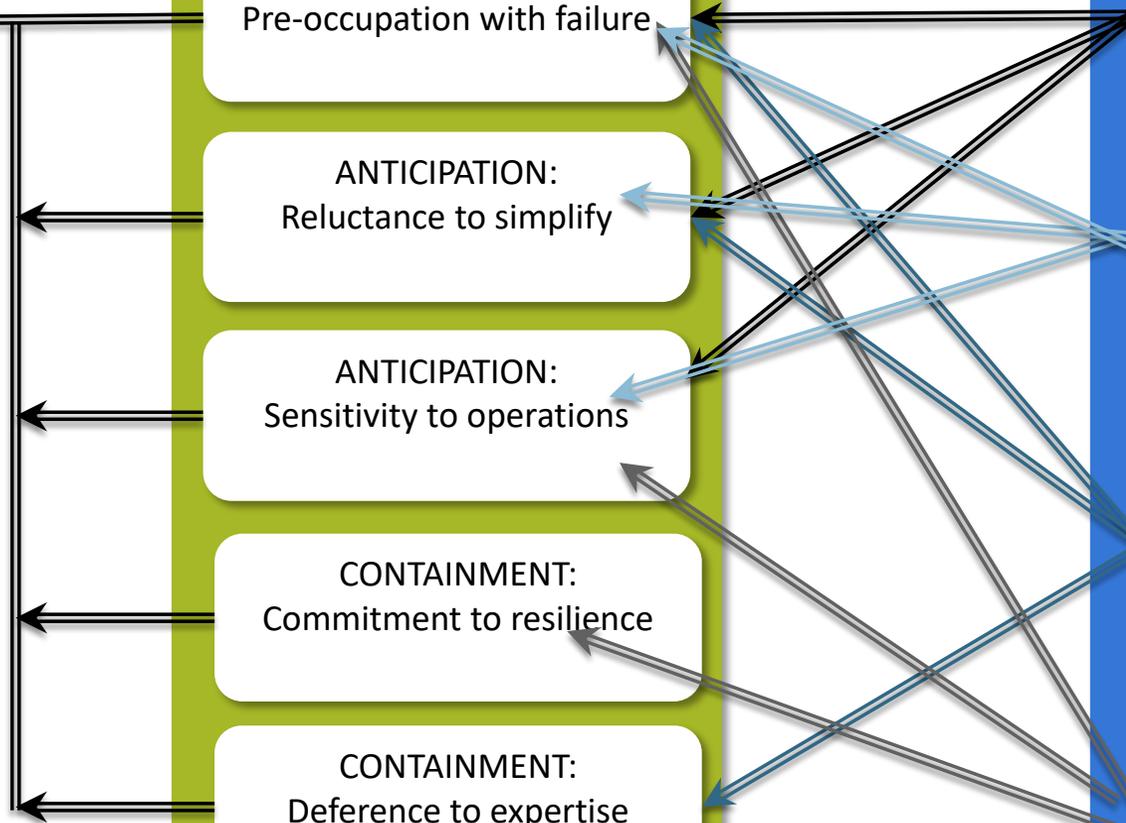
INTERVENTIONS

Simulation-based **Clinical System Testing** with Failure Modes and Effects Analysis (FMEA)

Simulation-based **Clinical Rehearsals** of patient specific clinical situations

Simulation-based **Solution Testing** using Rapid Cycle Improvement tools (PDSA)

Simulation-based **“Education and Training** as response to Identified Patient Safety Needs



BRE P. BANKS, PH.D.

Director of Clinical Education
Centerstone's Research Institute

A NEW PARADIGM IN TRAINING FOR
PATIENT SAFETY:

SIMULATION IN BEHAVIORAL HEALTH

Bre P. Banks, Ph.D. | Director of Clinical Education
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CLINICAL TRAINING IN BEHAVIORAL HEALTH: OUR CURRENT LANDSCAPE

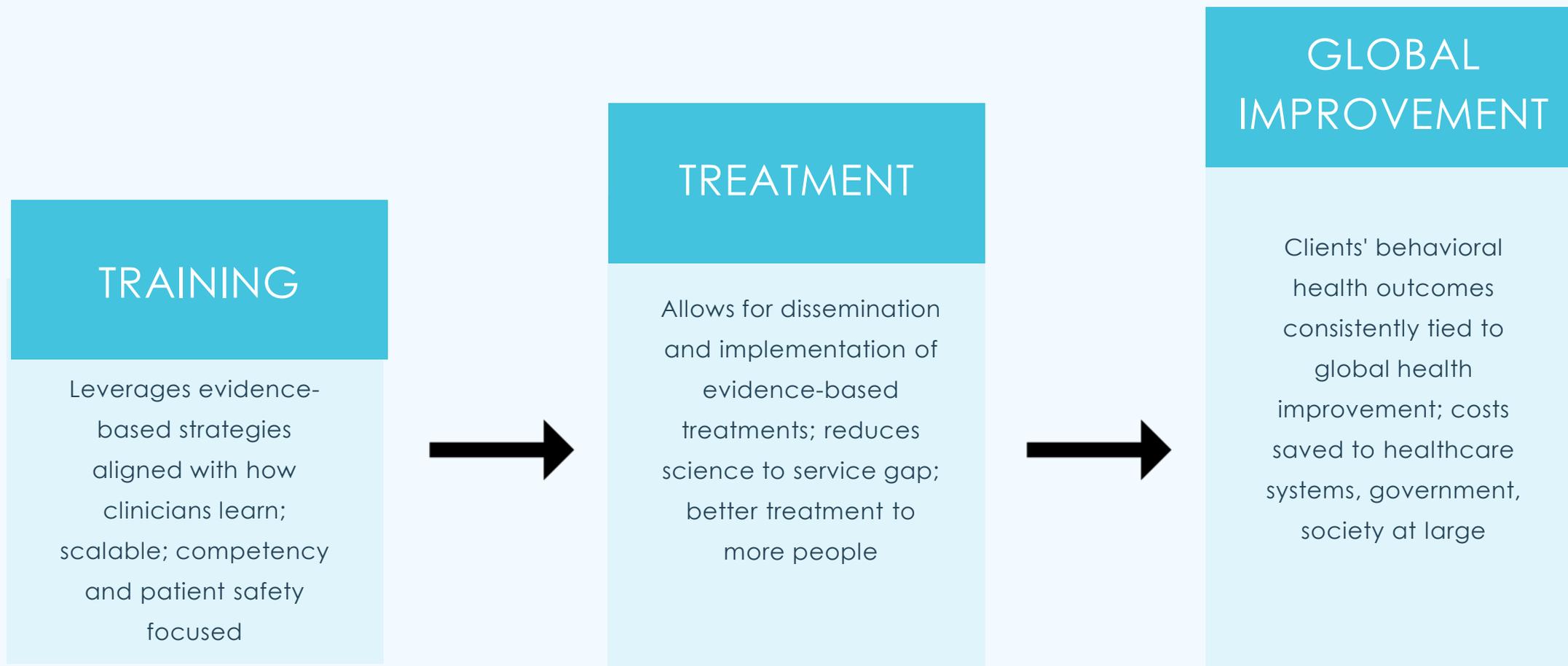
Virtually no mandates for training behavioral health providers in evidence-based practices (i.e., psychotherapies, case management approaches, etc.)

This leads to substantial inconsistency in competency in both across and within behavioral health professions

A few examples:

- ~80% of behavioral health providers receive no training in evidence-based practice for suicide intervention in their graduate training; beyond
- When training does occur, "traditional" training models do not result in long-term knowledge or clinical behavior change

Using Simulation as a Solution



OPPORTUNITIES AND NEEDS

1

RESEARCH

Federal grant funding mechanisms that include support for training and training outcomes research

3

MANDATES & POLICY

Leveraging legislative power to drive push for simulation training as requirement for behavioral health licensure

2

MANAGED CARE

Advocacy to improve reimbursement rates for clinicians trained to fidelity using simulation

4

EDUCATION TO INDUSTRY

Collaboration with higher education accreditation programs to facilitate simulation training before graduation

JENNIFER COWART, MD

Assistant Professor of Medicine, Mayo Clinic Florida

Internist, Pharmacologist, Mayo Hospital System

Patient Safety and Simulation: Multidisciplinary Process Improvement

- Bring multidisciplinary team together to learn new process
 - Physicians and clinicians including trainees
 - Nursing and allied health
- Use simulation to practice prior to “go-live”
 - Either dedicated simulation center or within the clinic
- Challenges: scheduling time

Patient Safety and Simulation: Demonstration and Role Play

- Incorporation of simulation center resources and methods for graduate medical education
 - Standardized patients and technology
- Demonstration and practice of difficult conversations
 - Feedback and debriefing
- Meets ACGME Clinical Learning Environmental Review (CLER) Pathways to Excellence
- Challenges: trainee and faculty time

PAUL PHRAMPUS, MD

Medical Director, Patient Safety, UPMC Health System

Paul E. Phrampus, MD

Director, Winter Institute for Simulation,
Education and Research (WISER)
University of Pittsburgh and UPMC
Medical Director, Patient Safety, UPMC Health System
Past President, Society for Simulation in Healthcare



Comments are mine personally, not representing institutional positions

On Patient Safety

- Shift Focus from Regulatory Perspective
- Systems Engineering Perspective
- Learning System
- Regulatory Needs
- Human Endurance / Abilities
- Manage for Safety as Much as Financial Viability

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On Simulation in Patient Safety

- Needs Should be Data Driven
- Shift focus from Education
- Regulatory Needs
- Alignment of Common Goals
- Relationships in Safety and Quality

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GINNY RIGGALL
DNP, RN, ACCNS-AG, CHSE

Clinical Practice Consultant for
Simulation and TeamSTEPPS for Kaiser Permanente Northern
California Regional Risk and Patient Safety

Organizational Change to Promote Patient Safety: Best Practices at Kaiser Permanente

Virginia Riggall, DNP, RN, ACCNS-AG, CHSE

Best Practices...

- Voice of the Patient Included in Programs
- Bi-Annual/Annual Mandatory Team Training
 - TeamSTEPPS Training
 - Simulation
- Mapping out Workflows
 - Stroke
 - Quintuplets
- Workforce Development Immersion Program for Future Perioperative Nurses



RACHEL SLAYTON, PH.D. MPH LCDR, USPHS

Mathematical Modeling Unit Lead, Division of Healthcare
Quality Promotion, Centers for Disease Control and Prevention

The Threat of Antibiotic Resistance in the United States



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

New National Estimate*

Antibiotic-resistant bacteria and fungi cause at least an estimated:



2,868,700
infections



35,900
deaths



Clostridioides difficile is related to antibiotic use and antibiotic resistance:



223,900
cases



12,800
deaths

New Threats List

Updated urgent, serious, and concerning threats—totaling 18

5 urgent threats

2 new threats

NEW:
Watch List with **3** threats

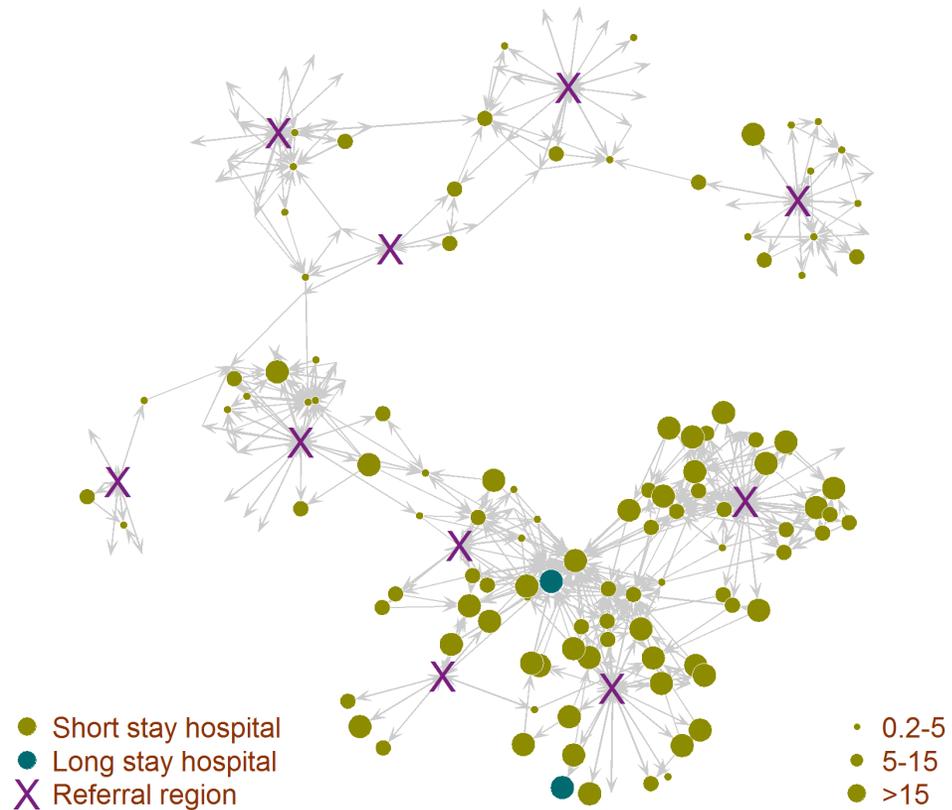


Antibiotic resistance remains a significant One Health problem, affecting humans, animals, and the environment.

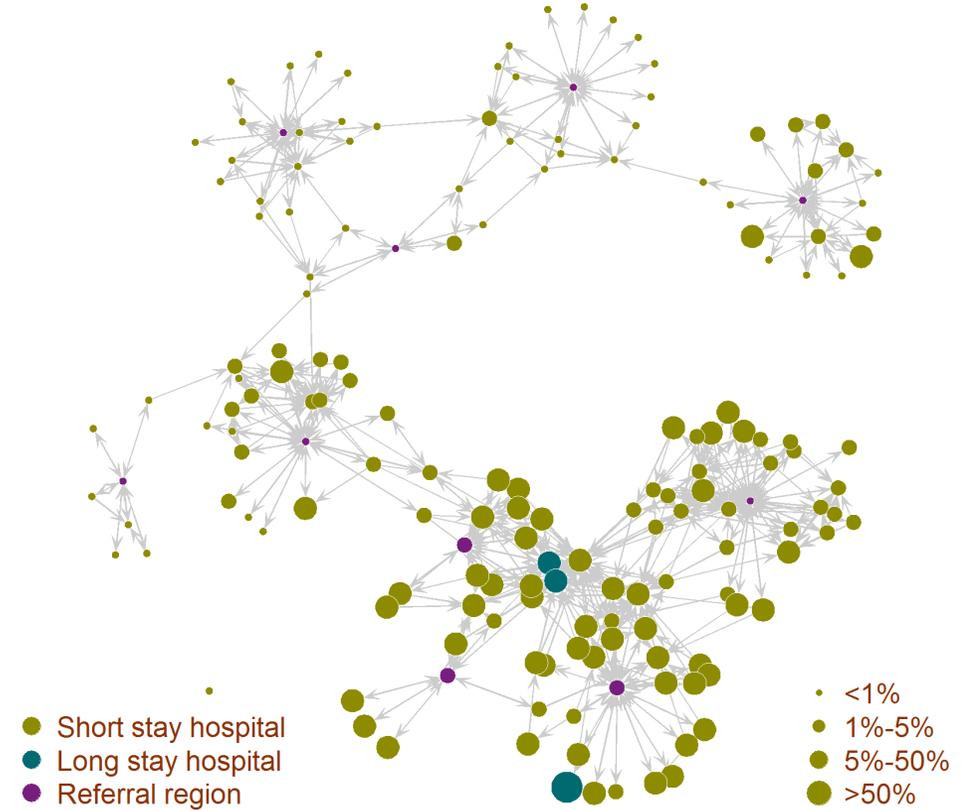
www.cdc.gov/DrugResistance/Biggest-Threats

How is CDC Using Mathematical Modeling and Simulation of Transmission to Accelerate Prevention?

Positive CRE lab tests per 10,000 admissions (NHSN 2015)



Endemic prevalence and patient transfer network



BOB ARMSTRONG

Executive Director, Sentara Center for Simulation and Immersive Learning

Eastern Virginia Medical School

President, Society for Simulation in Healthcare

Patient Outcomes, Patient Safety

- As many as **440,000** people die every year from hospital errors, injuries, accidents, and infections.
- Every year, **1 out of every 25** patients develops an infection while in the hospital—an infection that didn't have to happen.
- A Medicare patient has a **1 in 4 chance** of experiencing injury, harm or death when admitted to a hospital.
- Today alone, **more than 1000** people will die because of a *preventable hospital error*.

1000 people a day die from preventable errors

- This is the equivalent of:
 - Two jumbo jets crashing every day.
 - 75% of the enrollment of my institution, (~1,300)
 - Roughly the size of a Marine battalion, (~1,000)
 - 10% of my town, Smithfield, Virginia, (~10,000)
 - Nearly 2X the size of Congress, (535)

WE CAN DO BETTER.