

# You are Already Doing This!

## Nurses & Antimicrobial Stewardship

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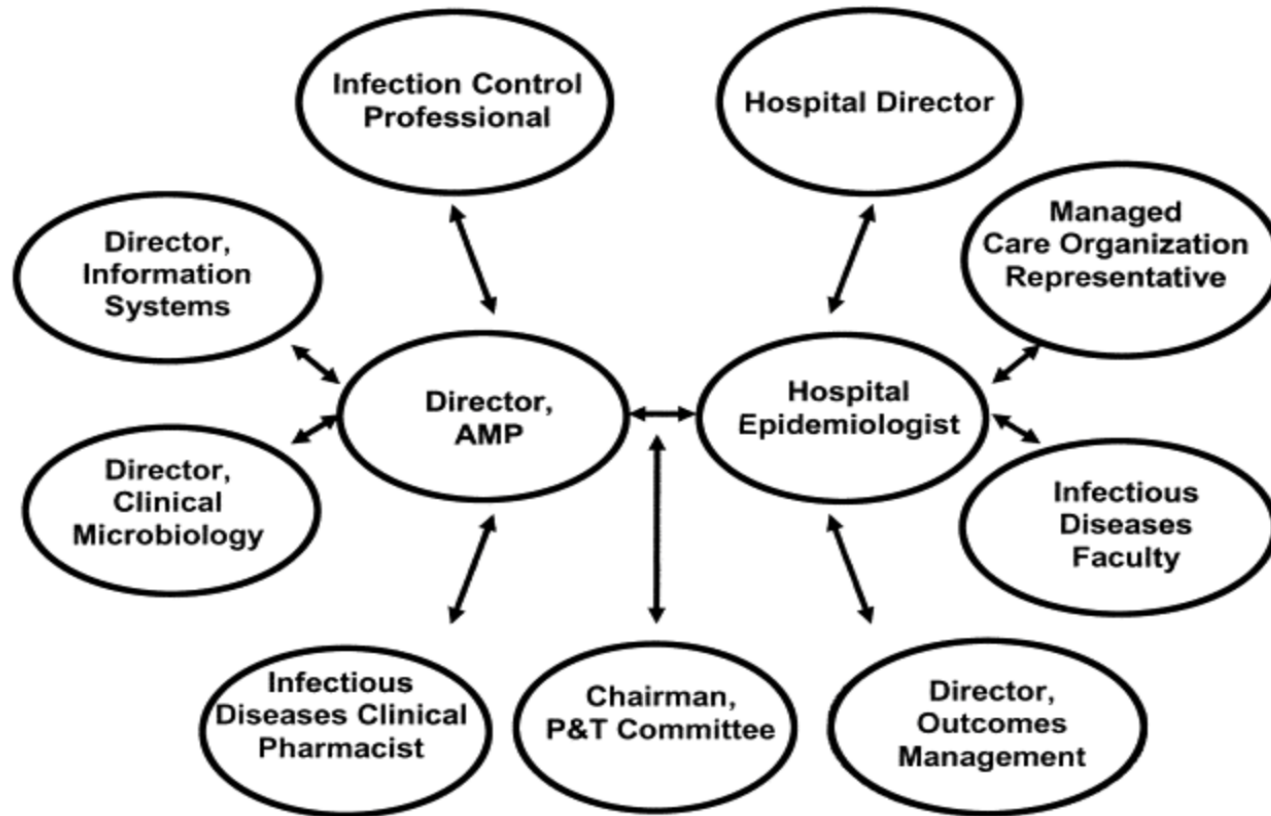


**Identify nurses as critical frontline providers of care in organizations' antimicrobial stewardship efforts**

Describe value-added benefits when nurses are recognized as integral to antimicrobial stewardship efforts

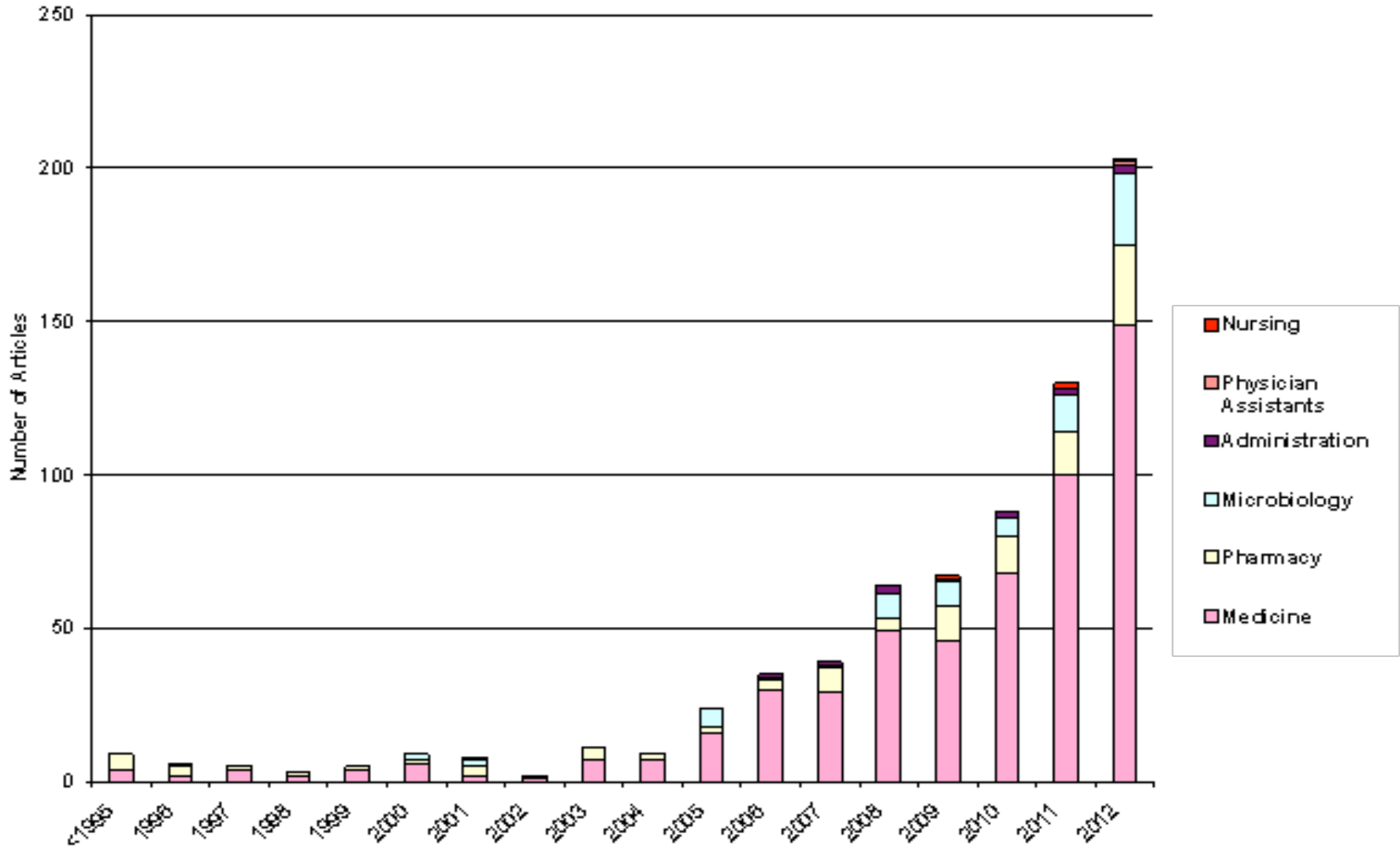
Recognize those nursing activities that are critical to antimicrobial stewardship outcomes

Fig 4. Members of the comprehensive **multidisciplinary** antibiotic management program (AMP) team at the Hospital of the University of Pennsylvania (Philadelphia, PA). P&T, Pharmacy and Therapeutics.



*WHO was MISSING ?*

# Burgeoning literature by specialty on Antimicrobial Stewardship



CLINICAL PRACTICE: Ellie J. C. Goldstein, Section Editor

## The Critical Role of the Staff Nurse in Antimicrobial Stewardship—Unrecognized, but Already There

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An essential participant in antimicrobial stewardship who has been unrecognized and underutilized is the “staff nurse.” Although the role of staff nurses has not formally been recognized in guidelines for implementing and operating antimicrobial stewardship programs (ASPs) or defined in the medical literature, they have always performed numerous functions that are integral to successful antimicrobial stewardship. Nurses are antibiotic first responders, central communicators, coordinators of care, as well as 24-hour monitors of patient status, safety, and response to antibiotic therapy. An operational analysis of inpatient admissions evaluates these nursing stewardship activities and analyzes the potential benefits of nurses’ formal education about, and inclusion into, ASPs.

**Keywords.** antimicrobial stewardship; antimicrobial stewardship program; antibiotic resistance; nursing; turnaround time.

Nurses

Physicians

Pharmacists

**ID**



# What is Gallup telling us about the patients and families we serve?

	Very High	High	Average	Low	Very Low
	%	%	%	%	%
Nurses	29	55	13	2	1
Pharmacists	15	52	26	6	2
Medical doctors	15	50	29	5	2
Engineers	13	52	29	4	1
Dentists	10	49	34	5	2
Police officers	16	42	29	10	3
College teachers	10	37	32	12	6
Clergy	12	32	39	9	4
Psychiatrists	6	32	45	9	3
Chiropractors	5	33	45	10	3
Bankers	2	22	46	22	8
Journalists	4	19	34	23	18
Lawyers	3	15	45	26	11
State governors	2	16	45	27	8
Business executives	2	15	50	23	9
Stockbrokers	2	10	46	28	11
HMO managers	1	11	48	23	8
Senators	1	11	37	36	14
Advertising practitioners	1	10	46	29	11
Insurance salespeople	1	10	51	28	10
Car salespeople	1	8	45	31	15
Members of Congress	1	7	31	39	20

Dec. 7-11, 2016

GALLUP



LOVE IT!  
IMPROVE IT!  
MEDICARE  
FOR ALL!

LOVE IT!  
IMPROVE IT!  
MEDICARE  
FOR ALL!



LOVE IT!  
IMPROVE IT!  
MEDICARE  
FOR ALL!

Nurses Campaign  
to Heal America

LOVE IT!  
IMPROVE IT!  
MEDICARE  
FOR ALL!

LOVE IT!  
IMPROVE IT!  
MEDICARE  
FOR ALL!

# Improving Antibiotic Use

## Roles for Nurses

- ✓ Take a good recent antibiotic use history
- ✓ Nuanced antibiotic allergy
- ✓ Appropriate cultures, appropriately
- ✓ Monitor patient response to antibiotic therapy
- ✓ *C. difficile* differential testing / diagnosis
- ✓ Improved transitions in care
- ✓ Interdisciplinary communication
- ✓ Patient & family engagement
- ✓ Public education

# Nurses, and Antimicrobial Stewardship

Nurses already perform activities of stewardship, but current models of stewardship programs in hospitals do not integrate their contributions in the stewardship paradigm

**Table 1. Overlap of nursing activities with function attribution in current antimicrobial stewardship models**

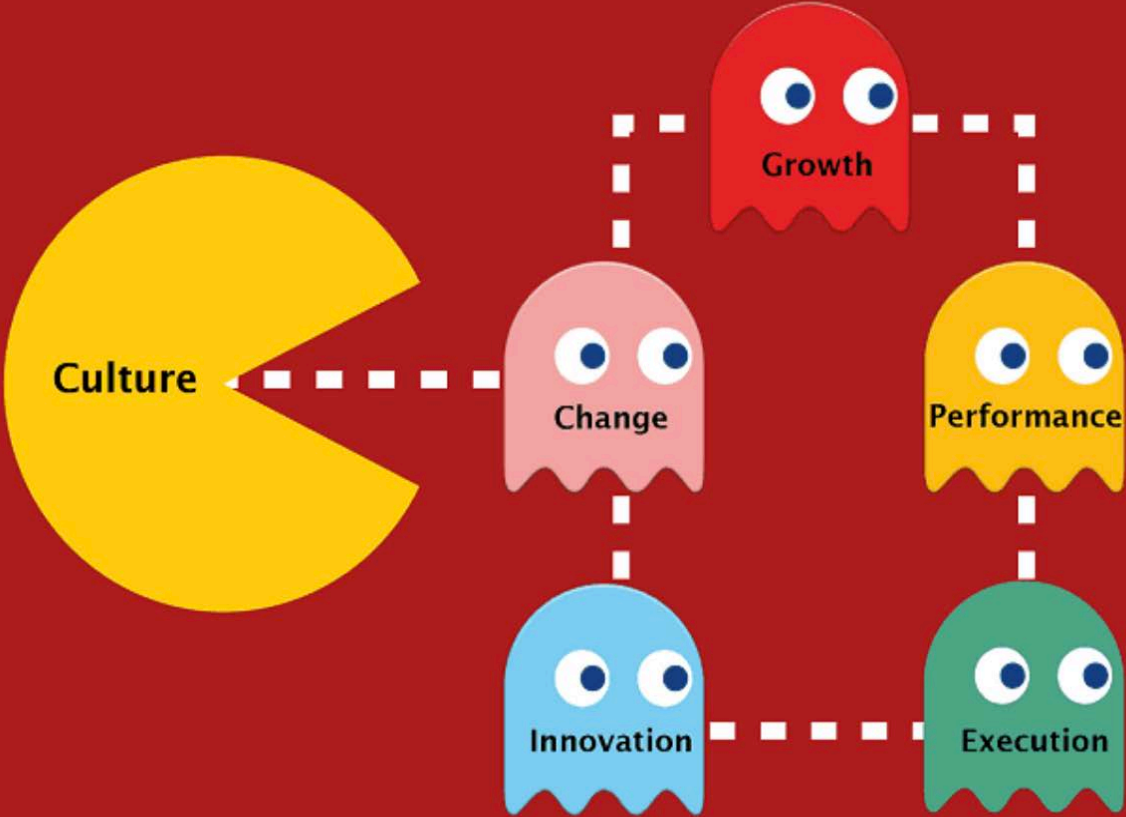
	Nursing	Microbiology	Case management	Pharmacy	Infectious Diseases	Infection Control	Inpatient Physician	Administration
<b>Patient admission</b>								
Triage and appropriate isolation	•					•		
Accurate allergy history	•			•	•		•	
Early and appropriate cultures	•	•			•		•	
Timely antibiotic initiation	•				•		•	•
Medication reconciliation	•			•			•	
<b>Daily (24h) clinical progress monitoring</b>								
Progress monitor and report	•		•		•		•	
Preliminary micro results and antibiotic adjustment	•	•		•	•		•	
Antibiotic dosing and de-escalation	•			•	•		•	
<b>Patient safety &amp; quality monitoring</b>								
Adverse events	•			•	•		•	
Change in patient condition	•				•		•	
Final culture report and antibiotic adjustment	•	•		•	•	•	•	
Antibiotic resistance identification	•	•			•	•	•	
<b>Clinical progress/patient education/discharge</b>								
IV to PO antibiotic, outpatient antibiotic therapy	•		•	•	•		•	
Patient education	•				•	•	•	
Length of stay	•		•		•		•	•
Outpatient management, long term care, readmission	•		•		•	•		•

Identify nurses as critical frontline providers of care in organizations' antimicrobial stewardship efforts

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Recognize those nursing activities that are critical to antimicrobial stewardship outcomes

# Organizational culture eats strategy for breakfast, lunch and dinner

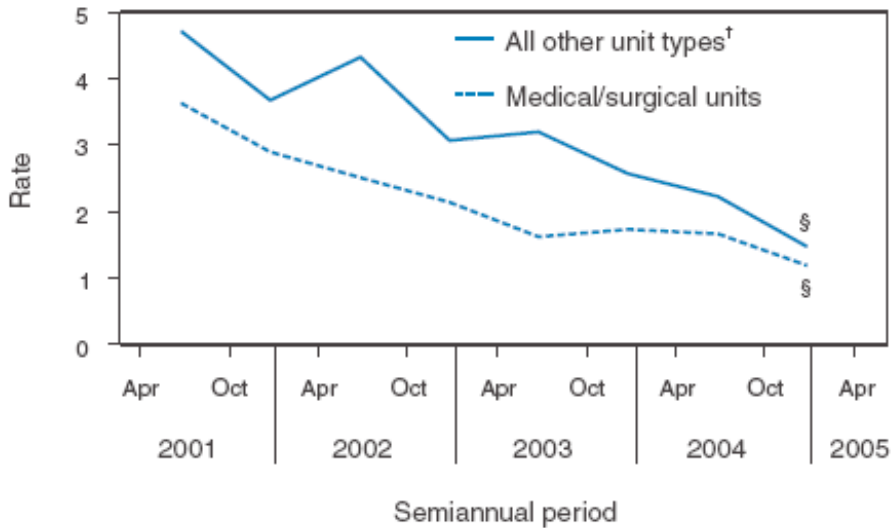




# What Happens When Nurses Are Engaged

## Pennsylvania

**FIGURE. Central line-associated bloodstream infection rate\* in 66 intensive care units (ICUs), by ICU type and semiannual period — southwestern Pennsylvania, April 2001–March 2005**



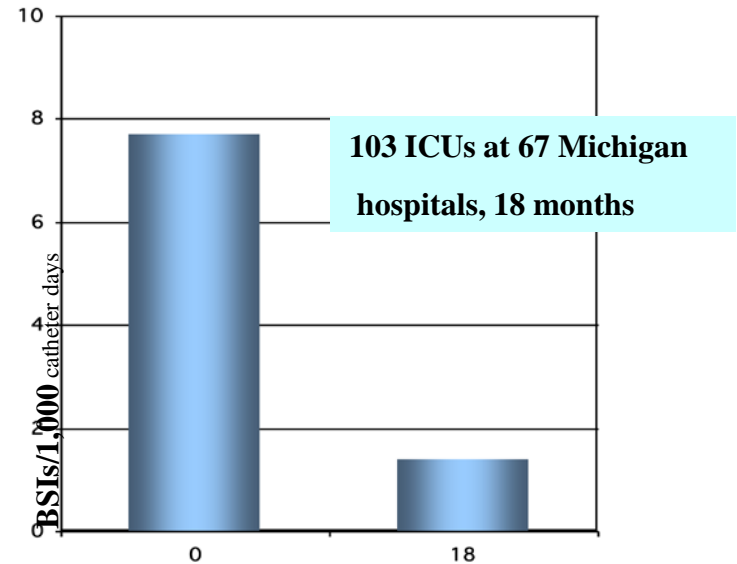
\* Pooled mean rate per 1,000 central line days.

† Includes cardiothoracic, coronary, surgical, neurosurgical, trauma, medical, burn, and pediatric ICUs.

§ p<0.001.

MMWR 2005;54:1013-16

## Michigan

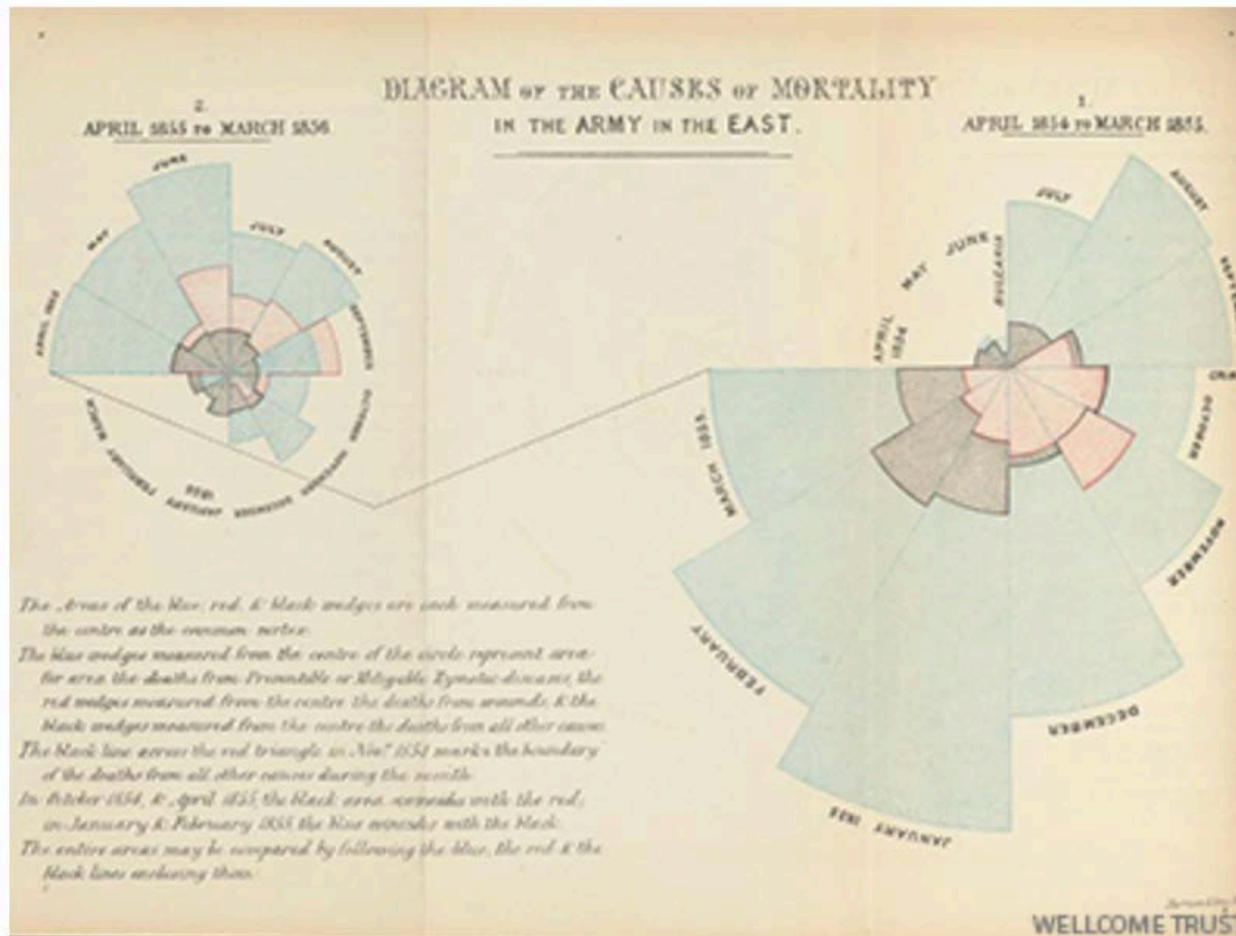


Pronovost P. New Engl J Med 2006;355:2725-32

[Slide courtesy of Arjun Srinivasan, MD]

# DIAGRAM OF THE CAUSES OF MORTALITY IN THE ARMY IN THE EAST.

Florence Nightingale, Crimean War, 1855





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# Leadership Styles

Transactional

Autocratic

Situational

Transformational

Transformational leaders search for adaptive solutions to engage hearts and minds in the change process

Great leaders may start out as  
great followers

Sheep

Yes people

Alienated deserters

Subordinates

Minor contributors

Politicians

# Effective or exemplary followers...

- Invests in themselves
- Clearly defines their own responsibilities
- Support their leader or workgroup
- Stimulate important conversations
- Follow channels of communication and responsibility

*and, are frequently critically important contributors to successful outcomes*

# High Reliability Organizations

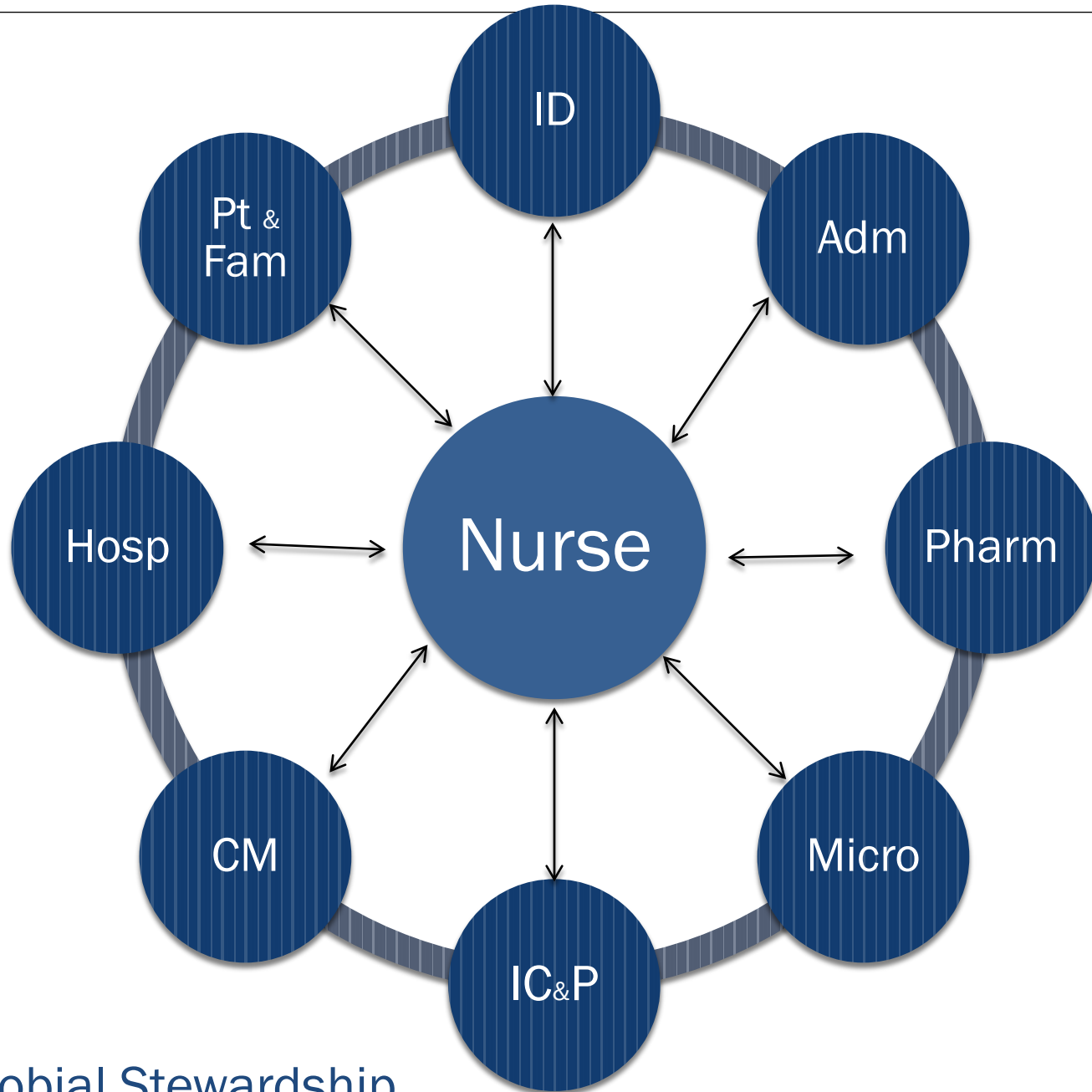
Great followers are critical for the successes of high reliability organizations.

High reliability organizations succeed in avoiding catastrophes in a complex setting where complications and confounding risks can potentially lead to poor outcomes.



Is Antimicrobial Stewardship primarily a technical problem?

Or... is it a problem that requires cultural changes?



Antimicrobial Stewardship  
Workflow Communication

Nurses

Physicians

Pharmacists

ID

# Antimicrobial Stewardship 2.0

By recognizing and better understanding each others' roles and contributions to antimicrobial stewardship,

we create a safer, more collaborative, and better integrated interdisciplinary antimicrobial stewardship process.

In doing this, we improve both our individual patient's as well as the broader public's health, now and in the future.

-R.D. Olans & R.N.Olans, 2013

*Good Nursing is Good Stewardship,  
and Good Antimicrobial Stewardship  
is Good Nursing*

The future?





Thank you,

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