Infection Control Assessment and Response (ICAR) in **Long-term Care**

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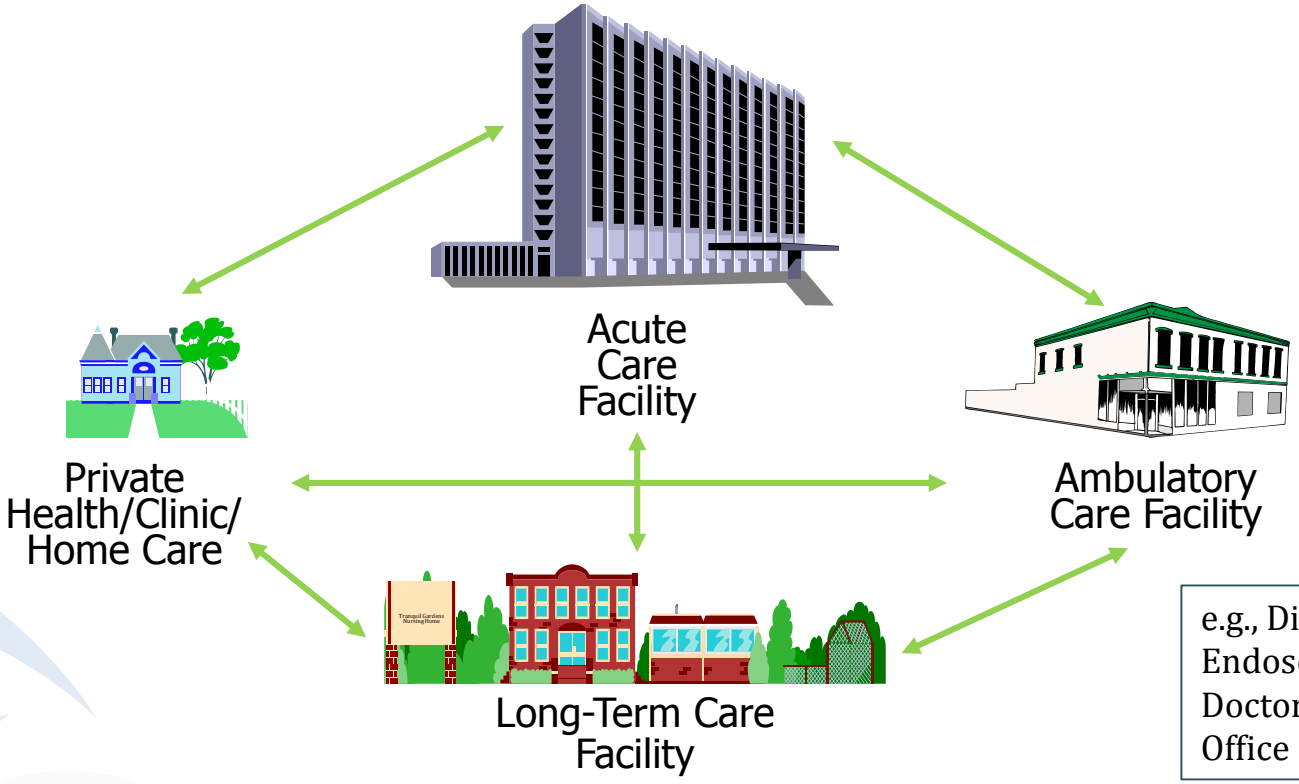
Communicable Disease Service
New Jersey Department of Health

Agenda

- ICAR Introduction
- ICAR Findings LTC
- ICAR Education & Resources
- ICAR Webinars
- ICAR Future Plans



Attention to Basic Infection Prevention Must Extend Across the Entire Healthcare Continuum

Facilities work together to protect patients.

Common Approach *(Not enough)*

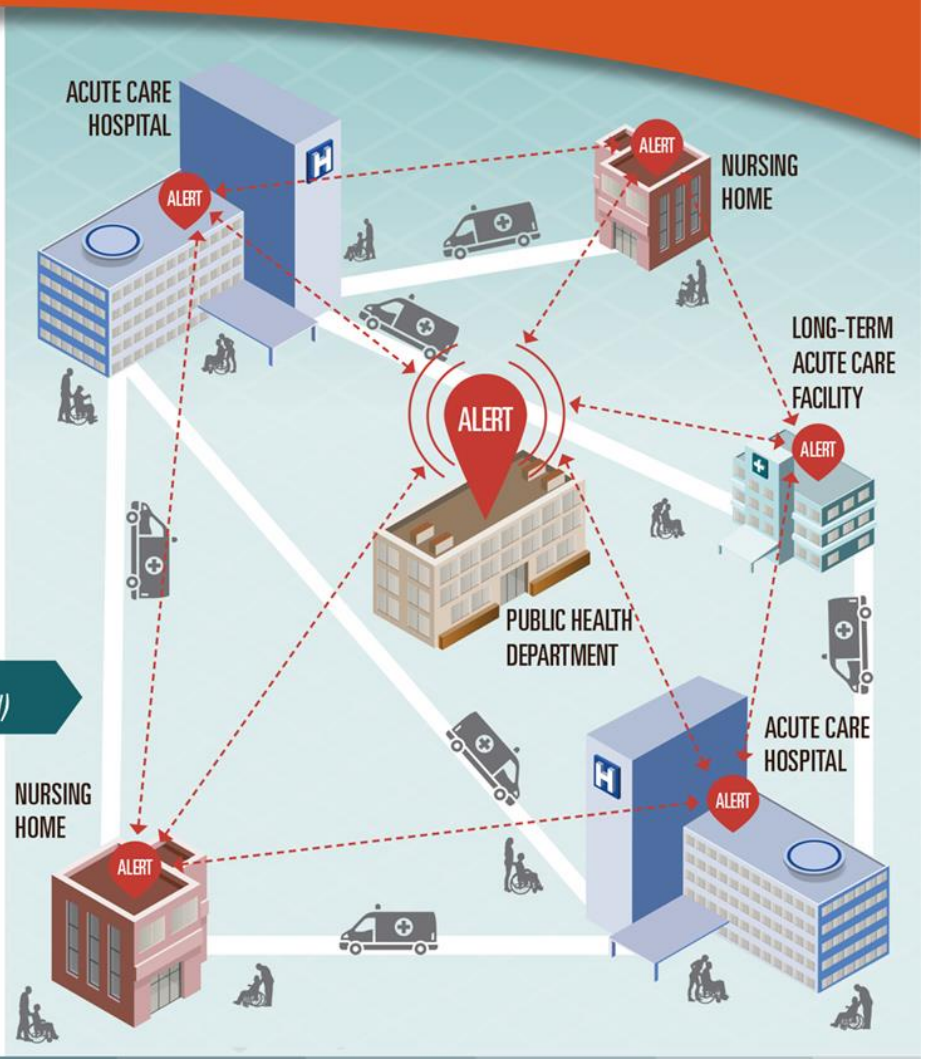
- Patients can be transferred back and forth from facilities for treatment without all the communication and necessary infection control actions in place.

Independent Efforts *(Still not enough)*

- Some facilities work independently to enhance infection control but are not often alerted to antibiotic-resistant or *C. difficile* germs coming from other facilities or outbreaks in the area.
- Lack of shared information from other facilities means that necessary infection control actions are not always taken and germs are spread to other patients.

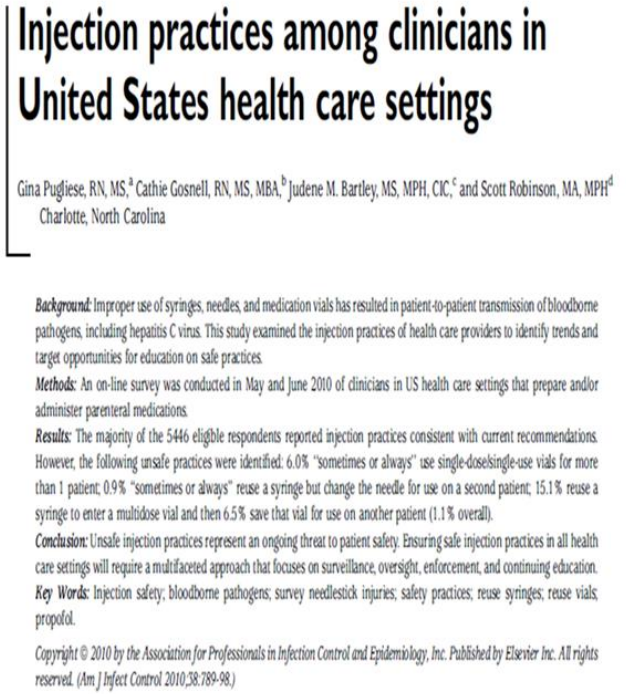
Coordinated Approach *(Needed)*

- Public health departments track and **alert** health care facilities to antibiotic-resistant or *C. difficile* germs coming from other facilities and outbreaks in the area.
- Facilities and public health authorities share information and implement shared infection control actions to stop spread of germs from facility to facility.



How common are these breaches?

- Anonymous survey of 5,500 US HCWs, primarily RNs
- 1% "sometimes or always" reused a syringe on a 2nd patient
- 1% "sometimes or always" reused a multi-dose vial after accessing with a reused syringe
- 6% use single dose/single use vial for more than one patient



Injection practices among clinicians in United States health care settings

Gina Pugliese, RN, MS,[a] Cathie Gosnell, RN, MS, MBA,[b] Judene M. Bartley, MS, MPH, CIC,[c] and Scott Robinson, MA, MPH[d]
Charlotte, North Carolina

Background: Improper use of syringes, needles, and medication vials has resulted in patient-to-patient transmission of bloodborne pathogens, including hepatitis C virus. This study examined the injection practices of health care providers to identify trends and target opportunities for education on safe practices.

Methods: An on-line survey was conducted in May and June 2010 of clinicians in US health care settings that prepare and/or administer parenteral medications.

Results: The majority of the 5446 eligible respondents reported injection practices consistent with current recommendations. However, the following unsafe practices were identified: 6.0% "sometimes or always" use single-dose/single-use vials for more than 1 patient; 0.9% "sometimes or always" reuse a syringe but change the needle for use on a second patient; 15.1% reuse a syringe to enter a multidose vial and then 6.5% save that vial for use on another patient (1.1% overall).

Conclusion: Unsafe injection practices represent an ongoing threat to patient safety. Ensuring safe injection practices in all health care settings will require a multifaceted approach that focuses on surveillance, oversight, enforcement, and continuing education.

Key Words: Injection safety; bloodborne pathogens; survey needlestick injuries; safety practices; reuse syringes; reuse vials; propofol.

 (Am J Infect Control 2010;38:789-98.)

Pugliese, et al 2010. AJIC.
Available at: http://www.cdc.gov/injectionsafety
http://www.ajicjournal.org/article/PIIS0196655310008539/abstract

Why are there Lapses in **BASIC** Infection Prevention Practices?

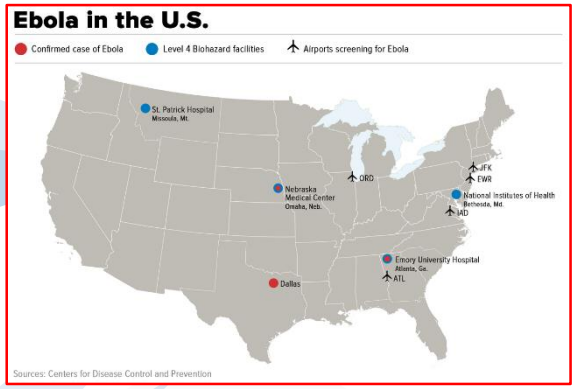
- Lack of awareness
- Poor/insufficient training
- Economics
- Lax or non-existent policies

Ebola hits the U.S.

NUMBER OF EBOLA CASES AND DEATHS as of Sept. 30

	Country / State		Probable/ suspected	Confirmed	Total of confirmed and probable/suspected
A	Guinea	Cases	207	950	710 deaths
		Deaths	175	535	1,157 cases
B	Liberia	Cases	2,769	927	1,998 deaths
		Deaths	1,108	890	3,696 cases
C	Sierra Leone	Cases	228	2,076	622 deaths
		Deaths	48	574	2,304 cases
D	Nigeria	Cases	1	19	8 deaths
		Deaths	1	7	20 cases
E	Congo	Cases	40	30	42 deaths
		Deaths	N/A	42	70 cases
F	Senegal	Cases	0	1	
		Deaths	0	0	1 case
G	U.S.A. -Texas	Cases	0	1	
		Deaths	0	0	1 case

Graphic: Staff
Source: World Health Organization



ICAR Goals

- Assessments
  - Request prior self assessment
- Identify/share best practices
  - **Steal Shamelessly & Share Selflessly**
- Facilitate discussions
- Identify & help mitigate gaps
- Bolster outbreak response/reporting
- Establish relationships

Infection Prevention Has No Walls!

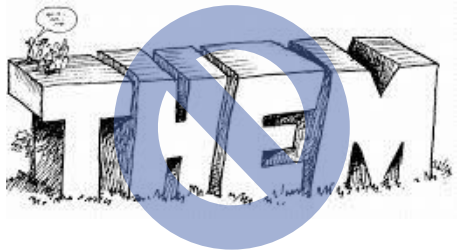
ICAR Team

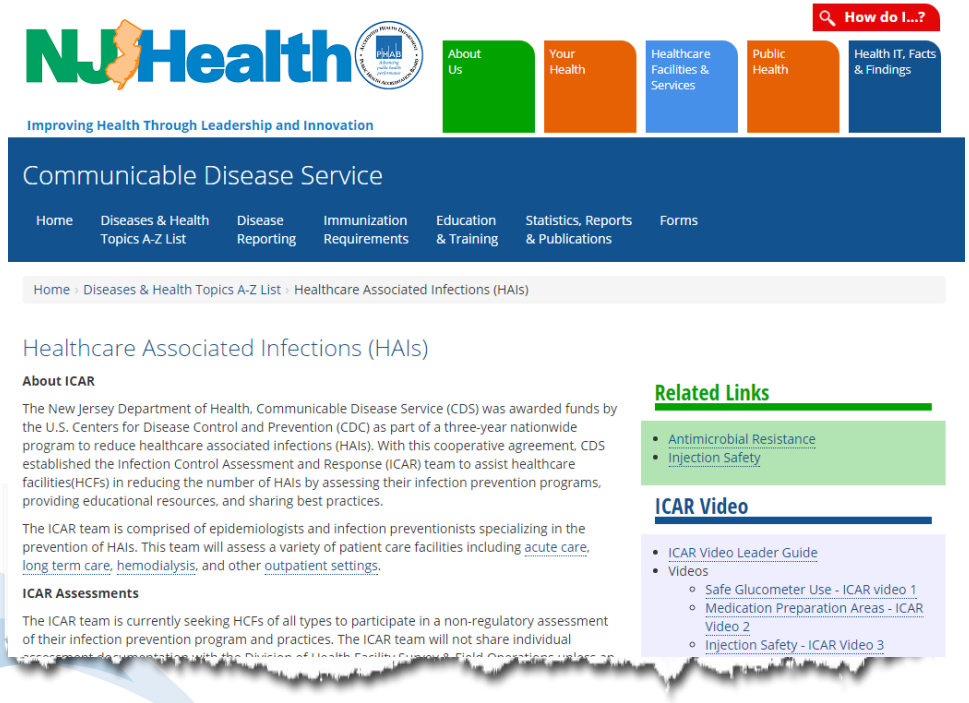
- Core team
  - 0.5 FTE IP Carol Genese, MBA
  - 1 FTE IP Jessica Felix, BSN, RN, CIC
  - 1 FTE Epidemiologist Rini Jose, MPH
  - 0.5 FTE IP Bridget Farrell, RN, CIC, CPHQ
- ICAR Support
  - Rebecca Greeley, Infectious Disease Team Lead
  - Jason Mehr, HAI Coordinator
  - Laura Taylor, Health Educator
  - Patty Barrett, Antimicrobial Resistance Coordinator
  - Local Health Department Representation
  - Subject Matter Experts within NJDOH

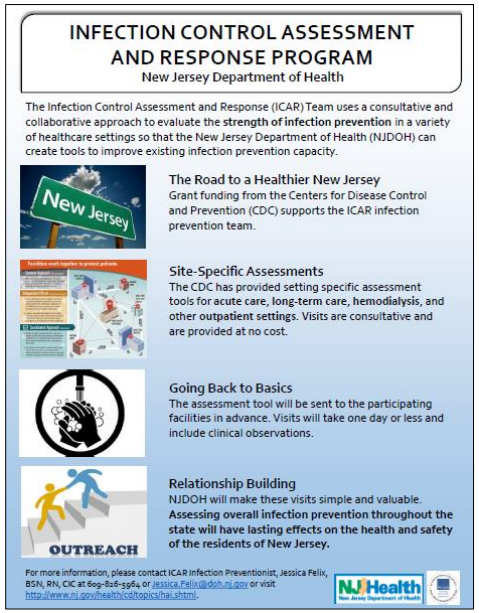
Assessments are

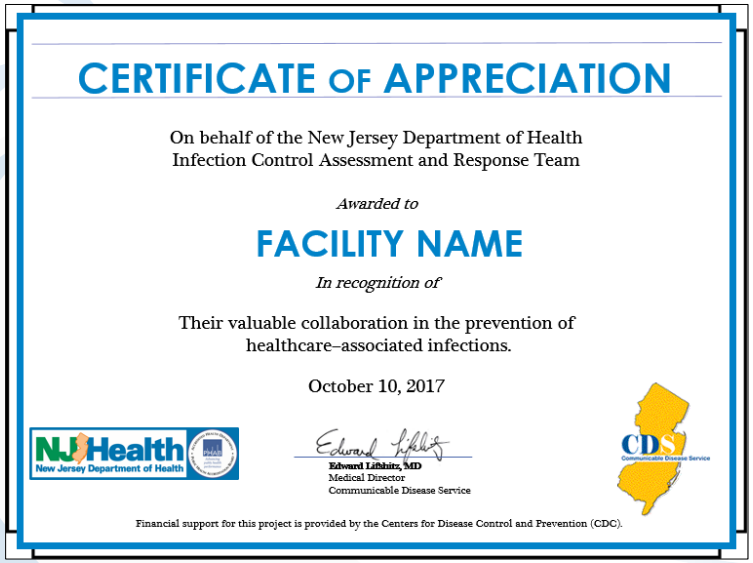
- **Non-regulatory**
- Consultative
- Collaborative
- Less than one day
- FREE
- A platform for sharing **evidence-based resources**
- Summarized
- Followed–up with a phone call (6 months)
- Followed–up with notifications/outreach

NOT









http://www.state.nj.us/health/cd/topics/hai.shtml

NJHealth New Jersey Department of Health

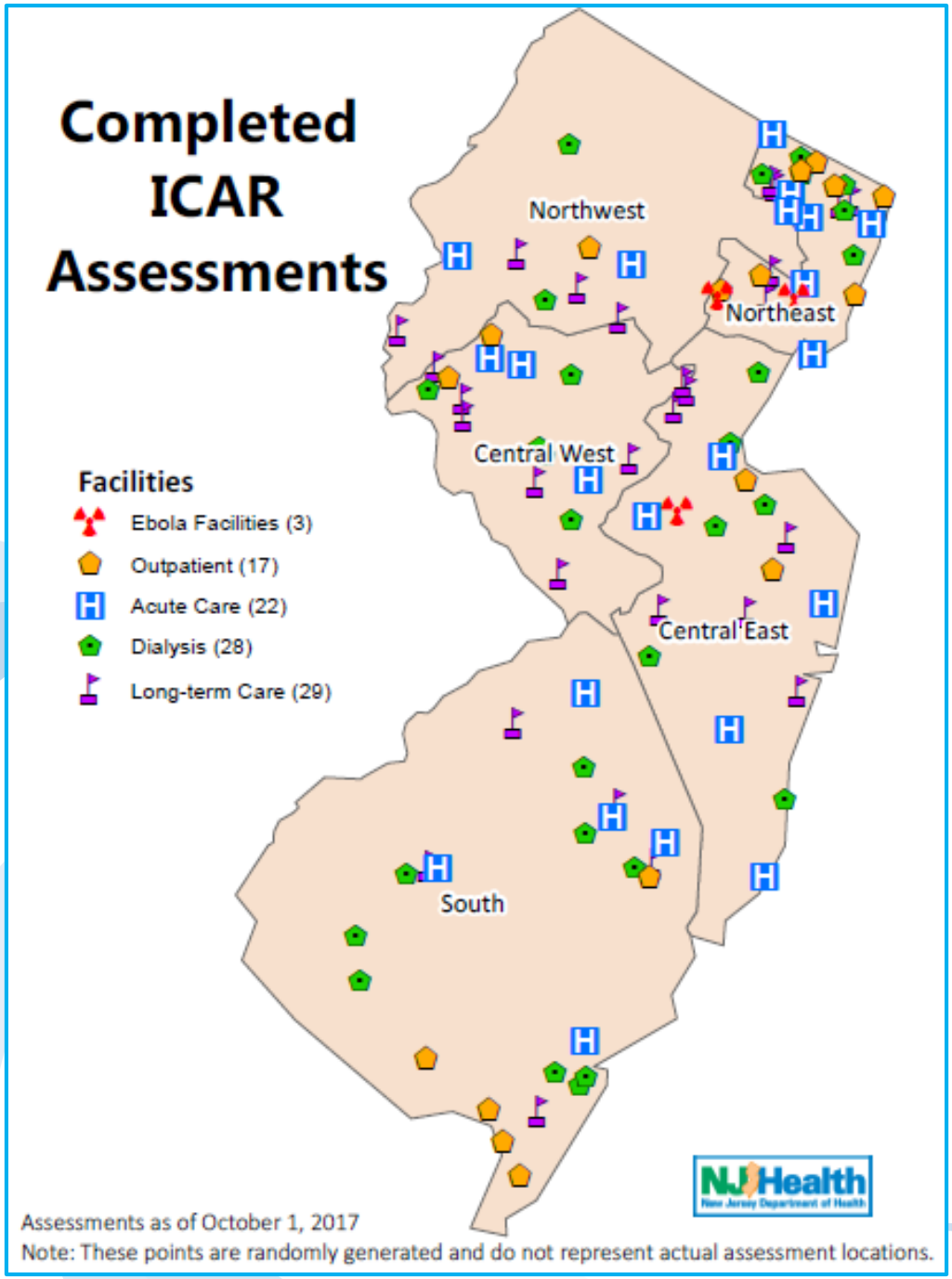
CDS Communicable Disease Service

Assessments

DOMAIN	EVD Hosp.	Other Hosp	LTC	Dialysis	OP Settings
Pre-hosp. Prep.(EMS, ED)	X				
Staffing pt. care team	X				
Transport to RX area	X				
Patient Placement	X				
Monitoring Exposures	X				
Lab Safety	X				
Management of Waste	X				
Management of Deceased	X				
Communications	X				
Special Populations	X				
PPE	X	X	X	X	X
Environmental Cleaning	X	X	X	X	X
Equipment Reprocessing	X	X			X

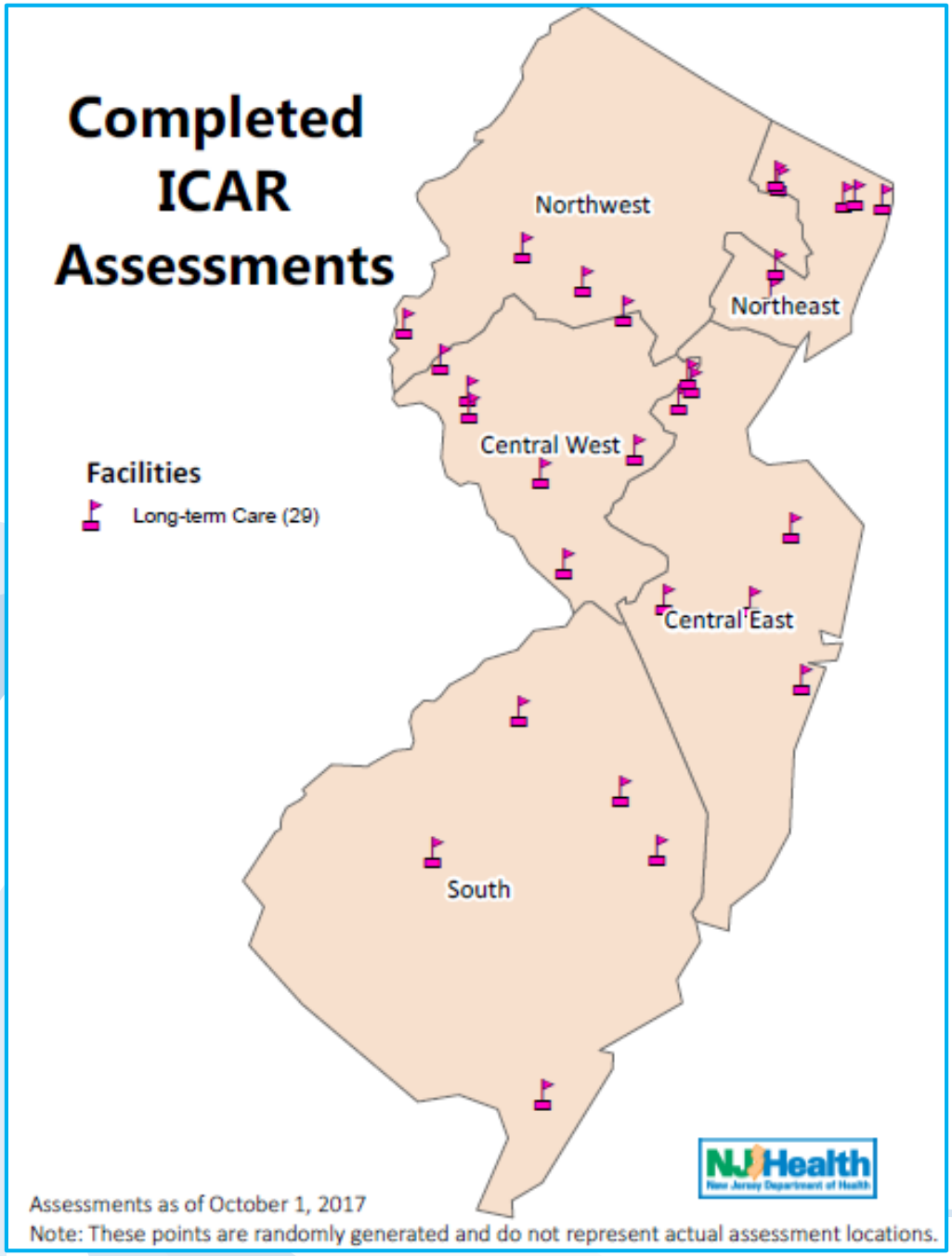
Assessments

DOMAIN	EVD Hosp	Other Hosp	LTC	Dialysis	OP Settings
Hand Hygiene		X	X	X	X
CAUTI/CLABSI/VAE/SSI		X			
Injection Safety		X	X	X	X
CDI		X			
IC Program & Infrastructure			X	X	X
HCW (& resident) Safety			X	X	X
Surveillance & Reporting			X	X	X
Resp./Cough Etiquette			X	X	X
Antibiotic Stewardship			X	X	[~X]
Point of Care Testing			X	X	X
Training & Competence					X
Sterilization of Reusable Devices					X
High Level Disinfection of Reusable Devices (including dialyzers)				X	X



NJ Preparedness Regions by Population*	
Central East	2.6 million
North East	2.4 million
South	1.8 million
North West	1.3 million
Central West	0.8 million

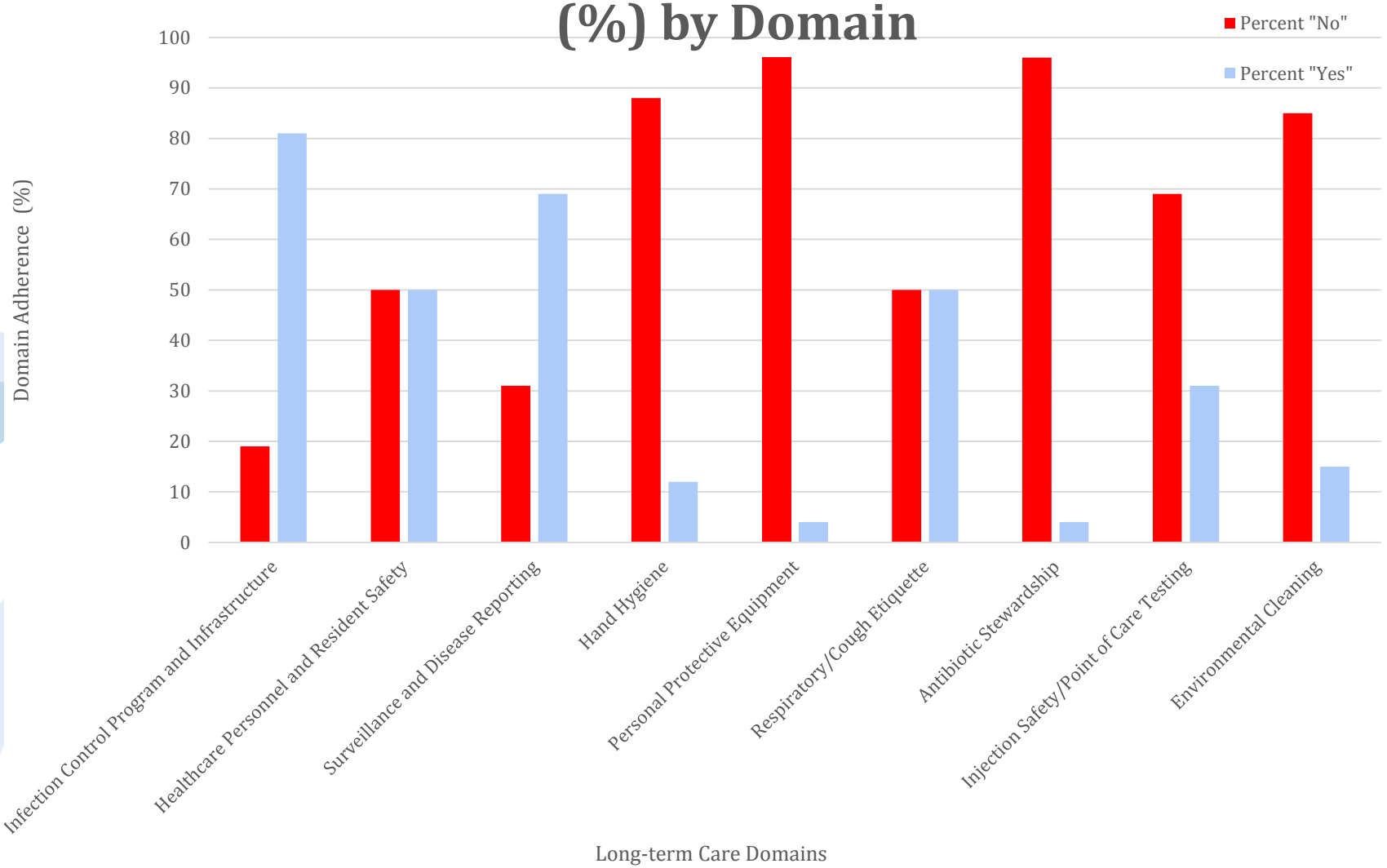
* SOURCE: Five Year 2014 American Community Survey



NJDOH Preparedness Regions by SNF Beds*	
Central East	13,496
North East	10,459
South	10,072
North West	6,625
Central West	4,860

* SOURCE: 2010 Census Summary File 1

Long-term Care ICAR Tool: Percent Adherence (%) by Domain



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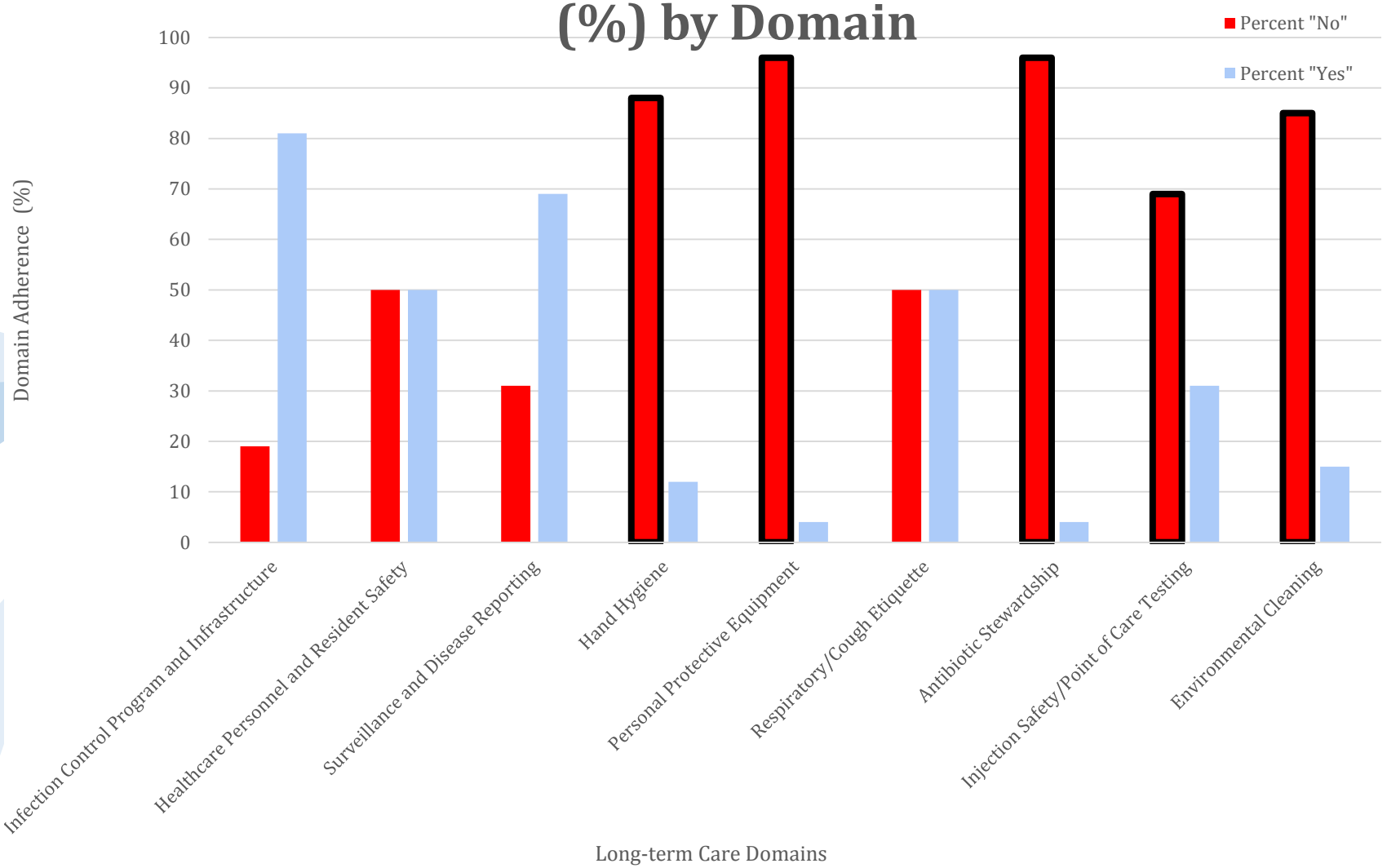
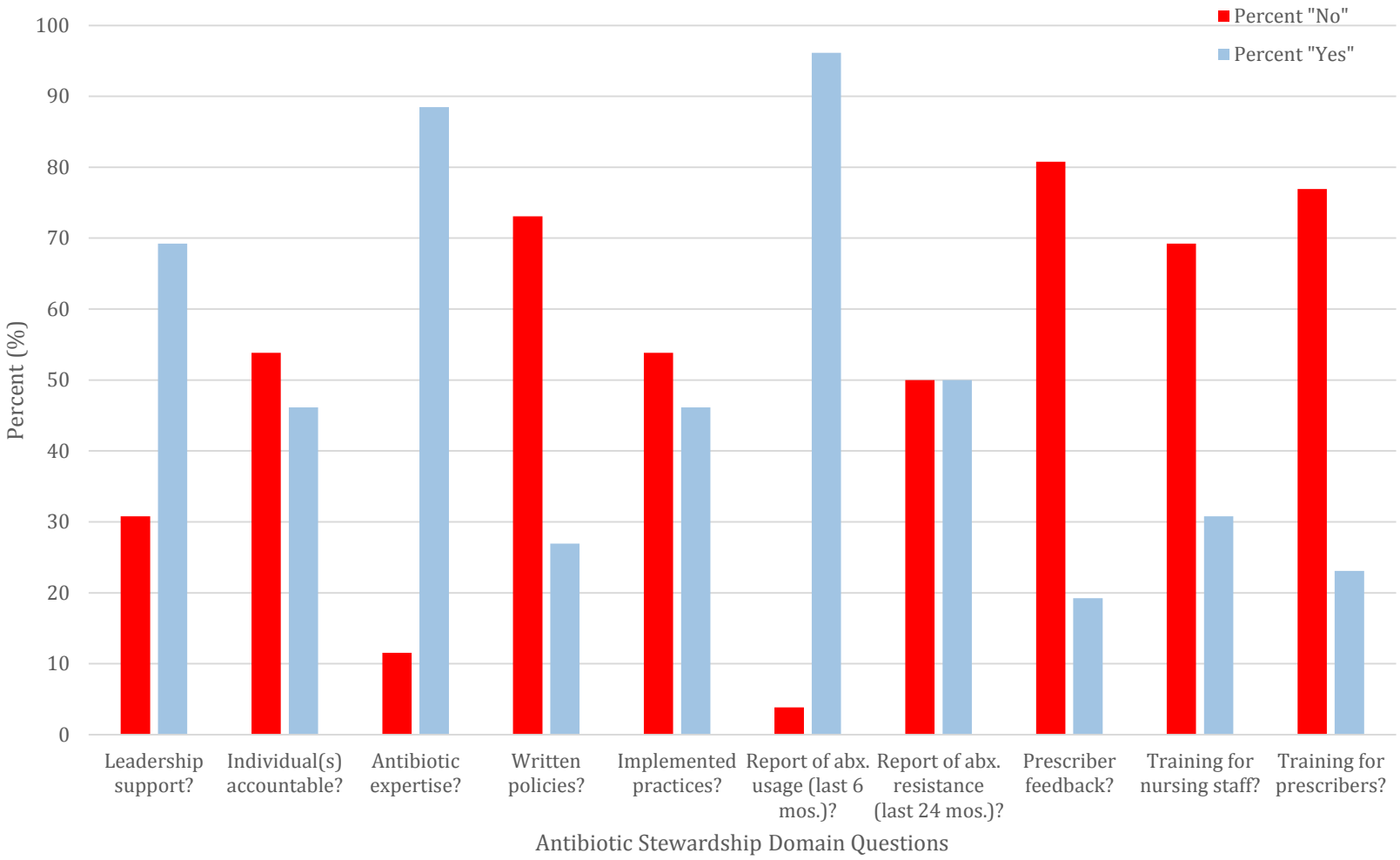
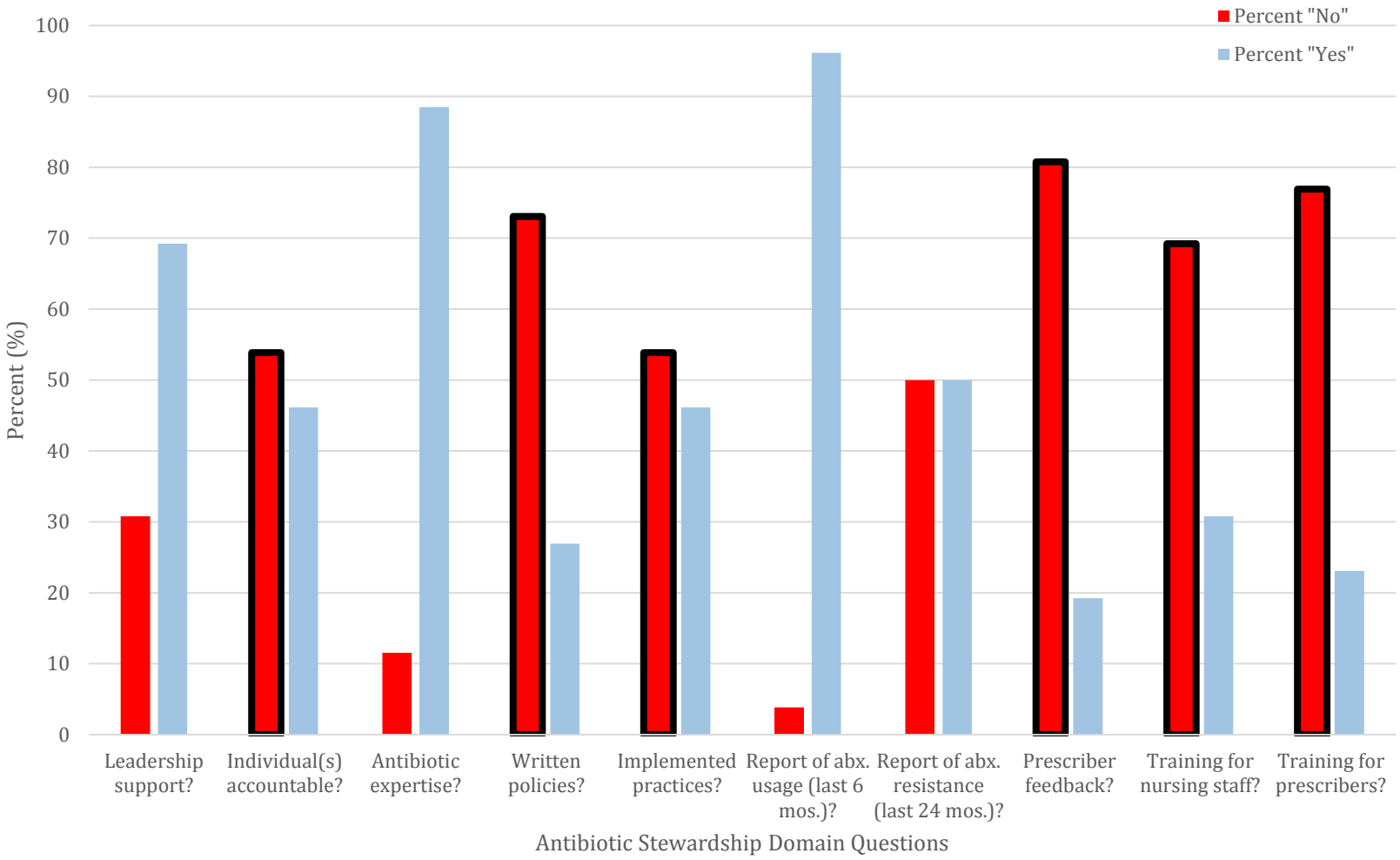


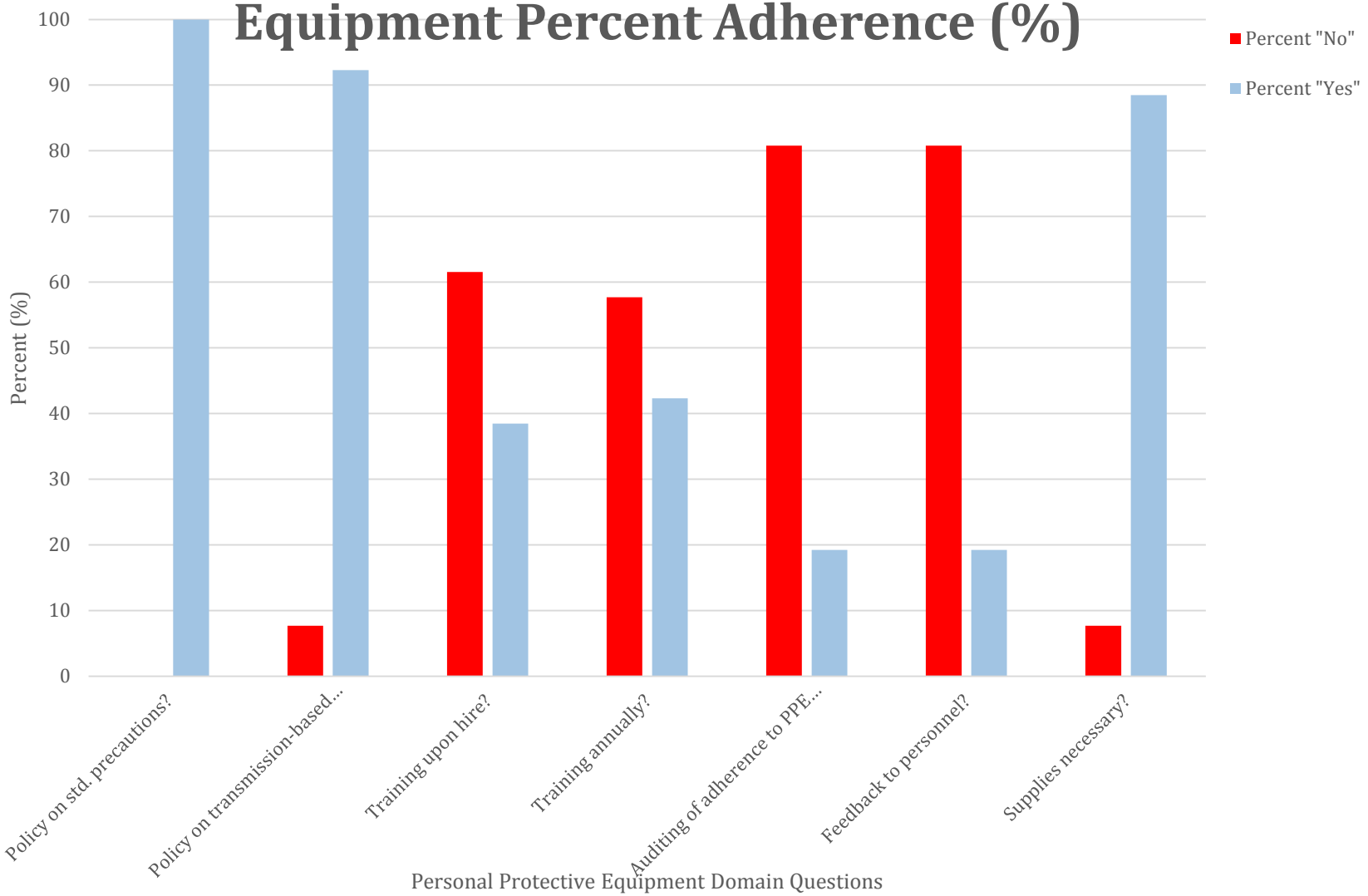
Long-term Care ICAR Tool: Antibiotic Stewardship Percent Adherence (%)



Long-term Care ICAR Tool: Antibiotic Stewardship Percent Adherence (%)



Long-term Care ICAR Tool: Personal Protective Equipment Percent Adherence (%)



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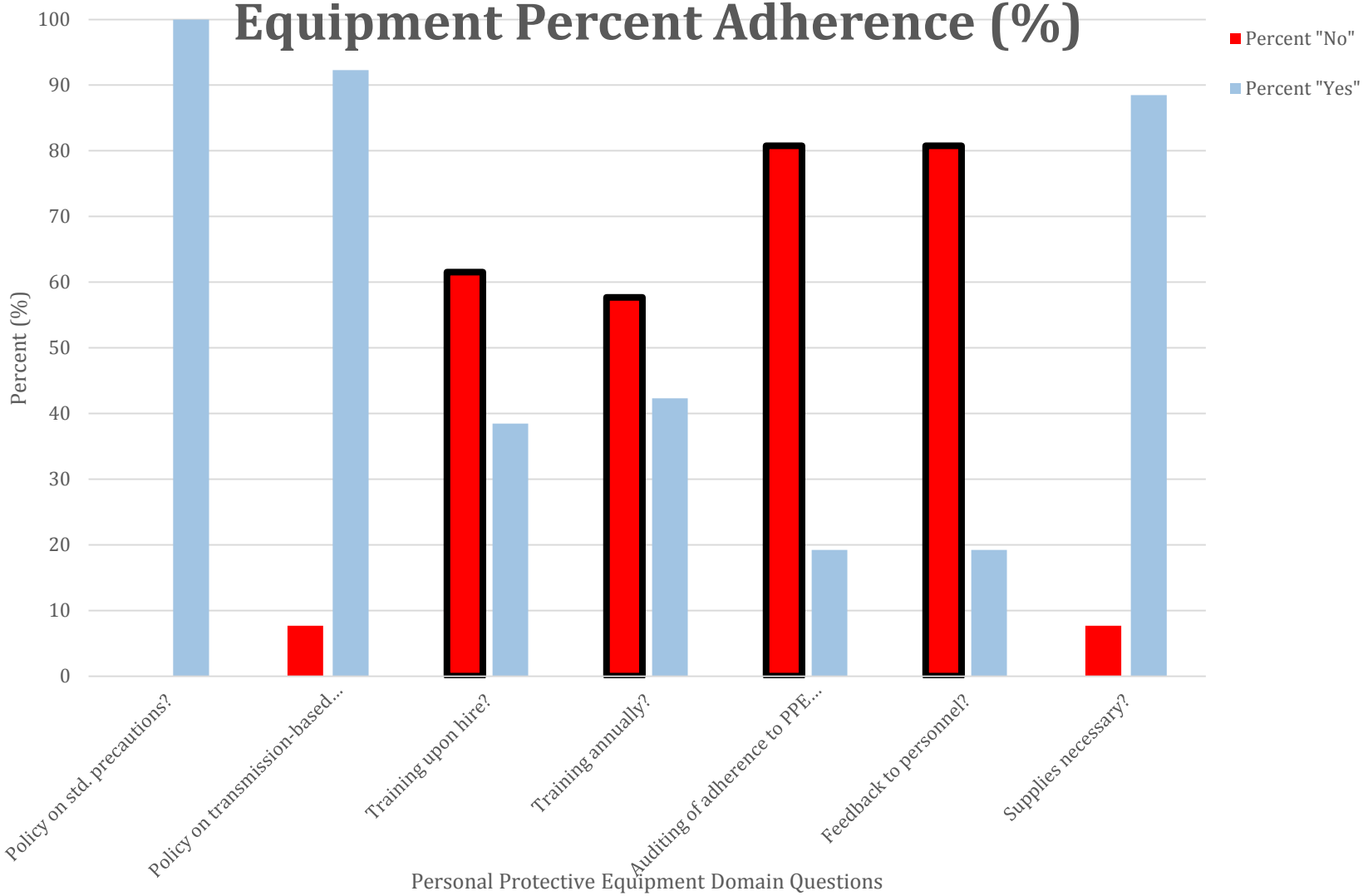
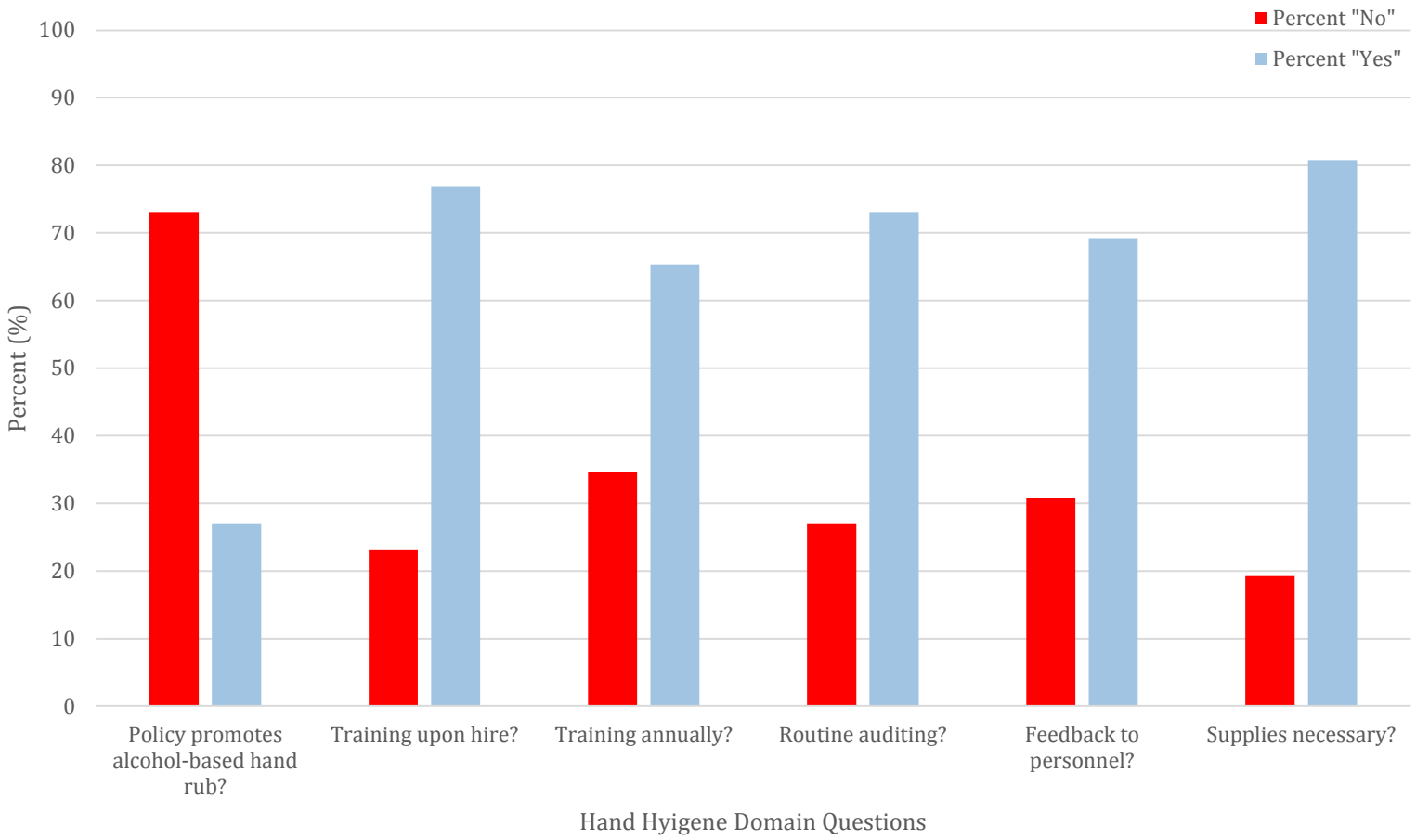
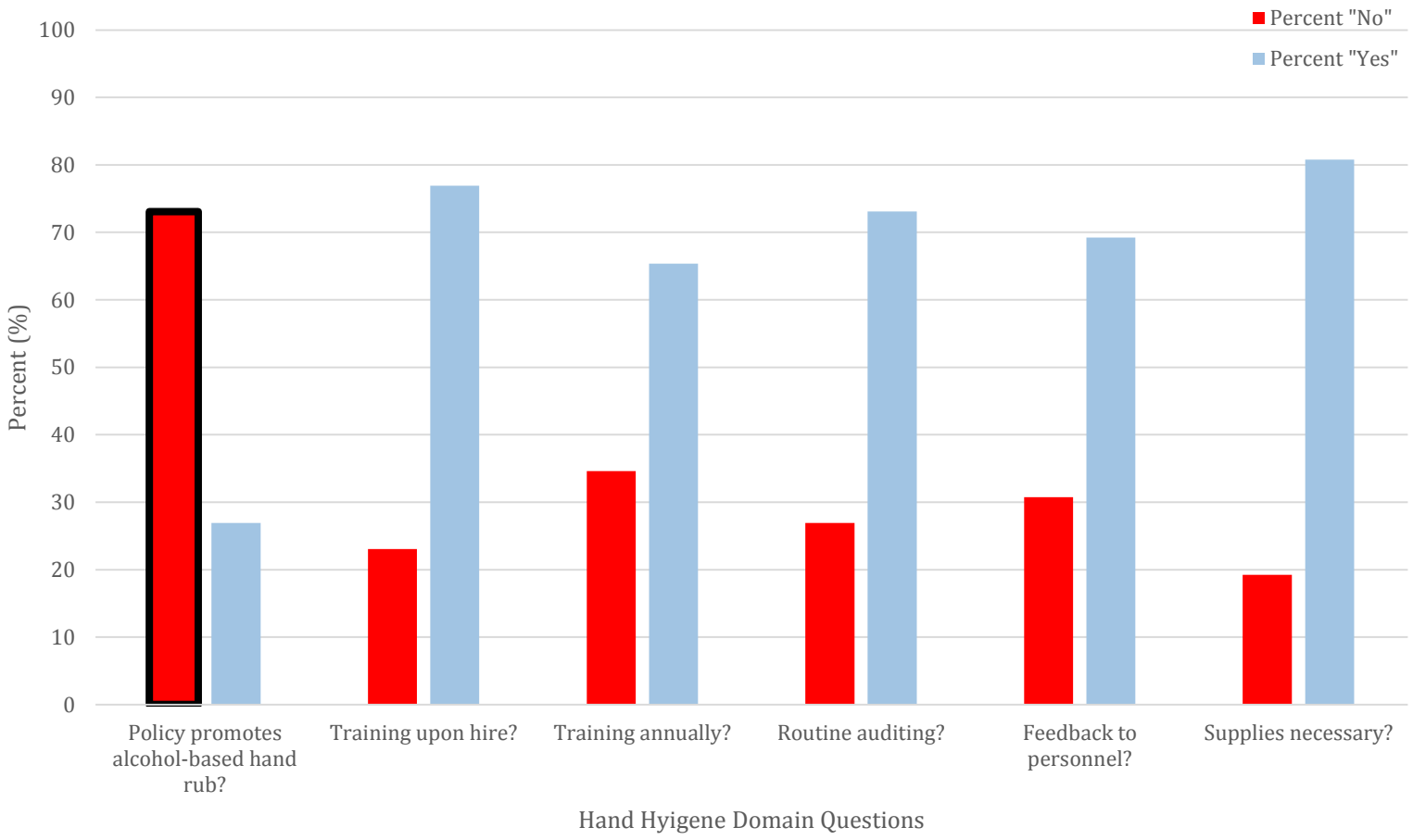


Long-term Care ICAR Tool: Hand Hygiene Percent Adherence (%)



Long-term Care ICAR Tool: Hand Hygiene Percent Adherence (%)



What happens after assessments?

- Maintain relationship
  - Updates & notifications
  - Glo-Germ ™ tracking form
- **Written Summary & Phone Call**
  - Document findings
  - Includes links to focused resources

ICAR Education in **Long-term Care**

Jessica Felix, BSN, RN, CIC
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Communicable Disease Service
New Jersey Department of Health

Competency Based Training

- CDC definitions
  - Healthcare Personnel (HCP) Infection Prevention (IP) Competency
  - HCP IP Competency-Based Training
  - Competency Assessment
  - Audit
  - Feedback

https://www.cdc.gov/hai/prevent/infection-control-assessment-tools.html

Glo-germ™ Trainings

- 787 staff trained
  - Emergency Medical Technicians
  - Nutritionist
  - Dietary
  - Environmental Services
  - Nursing
  - Therapy
  - Students
  - Clerical
- Environmental cleaning
- Hand hygiene

Glo Germ™: How To

Glo Germ Handwashing Training

Handwashing Training

1. Shake the bottle of Glo Germ well and place a small amount, about the size of a nickel, into the palm of one hand and spread over both hands completely as if applying hand lotion. Be sure to cover hands completely, particularly under nails, around cuticles and between fingers.
2. Place hands under UV light to view "glowing germs" that exist before hand washing. Demonstration works best in a darkened room.
3. Perform the CDC-recommended hand wash using soap and water. The amount of effort required to remove the simulated germs is equal to that of removing most bacteria.
4. Again, place hands under UV light, paying special attention to thumbs, areas around nails and between fingers. The UV light reveals the remaining "germs" as proof of improper hand washing.

Glo Germ Environmental Cleaning Training

Surface Cleaning

1. Apply Glo Germ to various areas in the patient care environment.
2. Perform routine surface cleaning and disinfection.

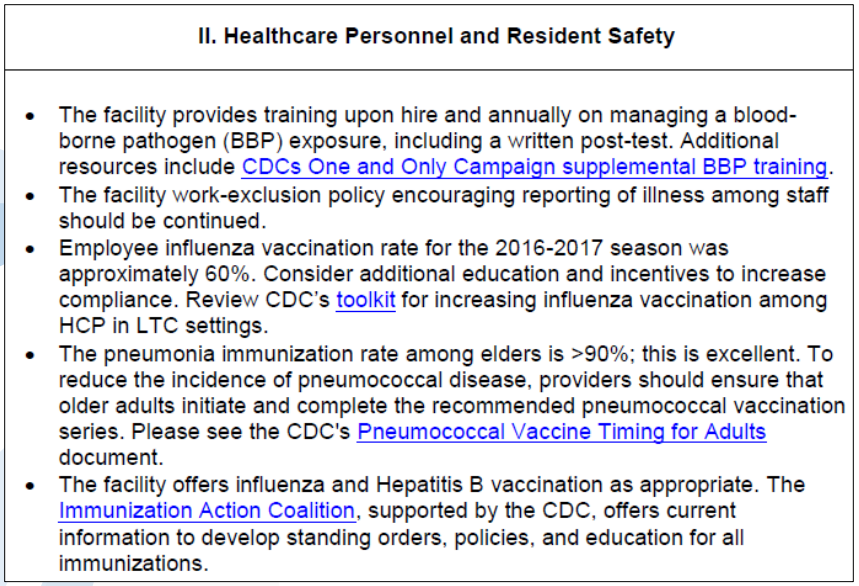
3. Pass the UV light over the surfaces; the remaining traces of Glo Germ will glow on the areas that weren't thoroughly or appropriately cleaned (e.g., oversight or transfer from one area to another). When checking restroom areas for cleanliness, UV light may be used for the detection of urine without using Glo Germ material.

Glo Germ: Using Glo Germ. (n.d.). Available at http://www.gloqerm.com/using.html

What is Glo-germ™ ?

- Fluorescent marker
- Simulates germs
- Luminesce under black light

Summary Reports



II. Healthcare Personnel and Resident Safety

- The facility provides training upon hire and annually on managing a blood-borne pathogen (BBP) exposure, including a written post-test. Additional resources include CDCs One and Only Campaign supplemental BBP training.
- The facility work-exclusion policy encouraging reporting of illness among staff should be continued.
- Employee influenza vaccination rate for the 2016-2017 season was approximately 60%. Consider additional education and incentives to increase compliance. Review CDC's toolkit for increasing influenza vaccination among HCP in LTC settings.
- The pneumonia immunization rate among elders is >90%; this is excellent. To reduce the incidence of pneumococcal disease, providers should ensure that older adults initiate and complete the recommended pneumococcal vaccination series. Please see the CDC's Pneumococcal Vaccine Timing for Adults document.
- The facility offers influenza and Hepatitis B vaccination as appropriate. The Immunization Action Coalition, supported by the CDC, offers current information to develop standing orders, policies, and education for all immunizations.

- Covers 9 domains
  - IC Program and Infrastructure
  - HCP and Resident Safety
  - Surveillance and Disease Reporting
  - Hand Hygiene
  - PPE
  - Respiratory/Cough Etiquette
  - Antibiotic Stewardship
  - Injection Safety and POC Testing
  - Environmental Cleaning

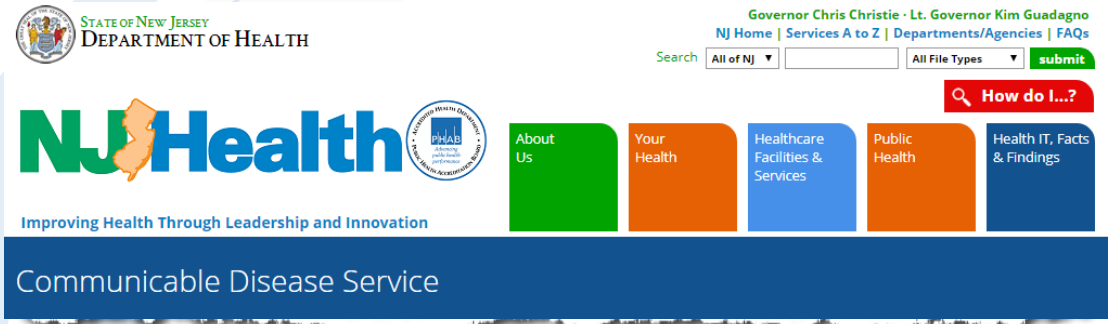
HAI Conference

- Initiatives against AR/ Antibiotic stewardship
- Investigations of HAI/IC breaches
- ICAR
- Emerging diseases and PUI
- PPE: Tips and lessons learned

Sustainable Education

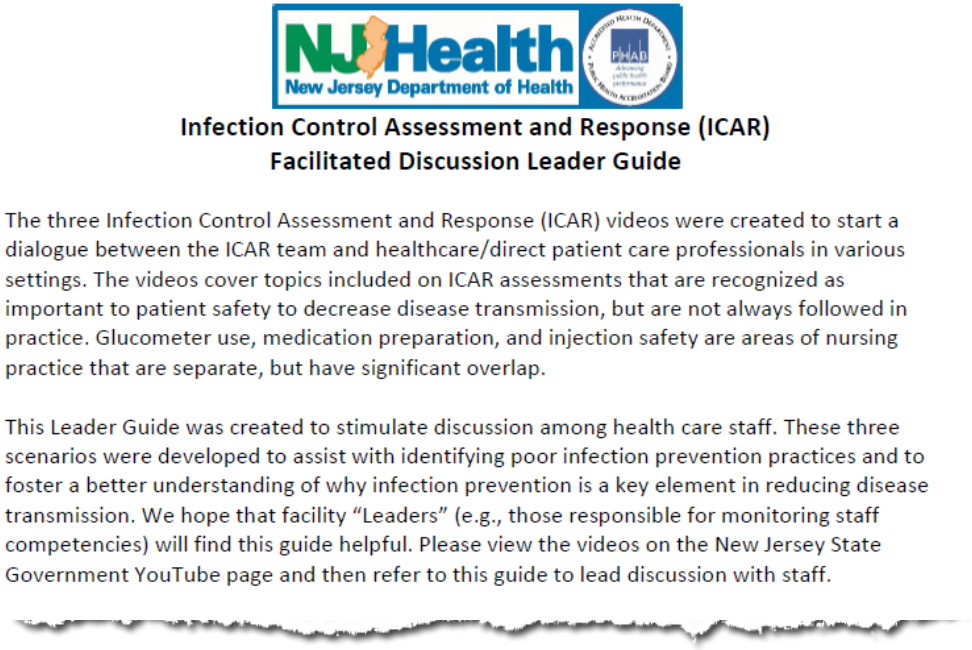
New Jersey Government

- Webinars
- Readily available
- Online access
- “Short and sweet”
- Shareable



ICAR Video Leader Guide

- Stimulate discussion
- Self-evaluation
- Engaging
- Q&A
- Additional resources



Infection Control Assessment and Response (ICAR)
Facilitated Discussion Leader Guide

The three Infection Control Assessment and Response (ICAR) videos were created to start a dialogue between the ICAR team and healthcare/direct patient care professionals in various settings. The videos cover topics included on ICAR assessments that are recognized as important to patient safety to decrease disease transmission, but are not always followed in practice. Glucometer use, medication preparation, and injection safety are areas of nursing practice that are separate, but have significant overlap.

This Leader Guide was created to stimulate discussion among health care staff. These three scenarios were developed to assist with identifying poor infection prevention practices and to foster a better understanding of why infection prevention is a key element in reducing disease transmission. We hope that facility "Leaders" (e.g., those responsible for monitoring staff competencies) will find this guide helpful. Please view the videos on the New Jersey State Government YouTube page and then refer to this guide to lead discussion with staff.

http://www.nj.gov/health/cd/topics/hai.shtml

ICAR Video #1: Glucometer

- Safe Glucometer Use
  - Demonstrates poor practice vs. best practice
  - Highlights risks associated with poor practice
  - Hand hygiene technique
  - Cleaning and disinfection of glucometer

ICAR Video #2: Med Prep

- Medication Preparation Areas
  - Is it clean?
  - Who is responsible for cleaning and when?
  - Cleaning vs. disinfection
  - Additional items in the area

ICAR Video #3: Injection Safety

- Injection Safety
  - Disinfecting septum of medication vials
  - One needle, one syringe, one time
  - Single-dose vial vs. Multiple-dose vials


INFECTION CONTROL ASSESSMENT
RESPONSE (ICAR)
SAFE GLUCOMETER USE
A NJDOH ICAR VIDEO #1

What was wrong?

- Lack of hand hygiene
- No cleaning and disinfection of glucometer/equipment
- Setting equipment/glucometer down in the immediate patient/resident area (e.g., bed, table, tray) without a barrier.
- Entering with gloved hands

Glucometer Cleaning and Disinfection

- Glucometer should be cleaned and disinfected after using it
- If unsure, clean and disinfect prior to use
- Know facility policy

Glucometer Cleaning and Disinfection Cont'd

- Ensure the appropriate product is being used
  - Manufacturer's provide validated disinfection products
  - "Other EPA registered wipes may be used for disinfecting"
    - https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants
- OSHA's Bloodborne Pathogen Standard
  - "OSHA's current stance is that EPA-registered disinfectants for HIV and HBV meet the requirement in the standard and are "appropriate" disinfectants to clean contaminated surfaces, provided such surfaces have not become contaminated with agent(s) or volumes of or concentrations of agent(s) for which higher level disinfection is recommended." https://www.osha.gov/html/faq-bbp.html

Glucometer Cleaning and Disinfection Cont'd

- Appropriate dwell time
- Ensure the surface remains wet for specified contact time to achieve disinfection

Hepatitis A Virus	30 seconds
Hepatitis B Virus	30 seconds
Hepatitis C Virus	30 seconds
Herpes Simplex Virus Type 2	30 seconds
Human Coronavirus	30 seconds
Human Immunodeficiency Virus Type 1	30 seconds

https://www.epa.gov/sites/production/files/201612/documents/list_d_hepatitisbhiv_08152016.pdf

Webinar: Antibiotic Stewardship in Long-Term Care

- ICAR data
- CMS CoP
- Antibiotic resistance and stewardship programs
- Three facilities discuss:
  - Instituting program
  - How to's

FUTURE PLANS: SUSTAINABLE EDUCATION

Self Assessment

- Ease of use
- Definitions
- Clarification
- All inclusive summary report

Infection Prevention and Control Assessment Tool for Long-term Care Facilities

This tool is intended to assist in the assessment of infection control programs and practices in nursing homes and other long-term care facilities. If feasible, direct observations of infection control practices are encouraged. To facilitate the assessment, health departments are encouraged to share this tool with facilities in advance of their visit.

Overview

Section 1: Facility Demographics

Section 2: Infection Control Program and Infrastructure

Section 3: Direct Observation of Facility Practices (optional)

Section 4: Infection Control Guidelines and Other Resources

VIII. Injection Safety and Point of Care Testing

- The facility demonstrates all elements of a competency based injection safety and point of care testing program. Refer to the following resources when considering enhancement strategies:
  - NJDOH's ICAR Facilitated Discussion Leader Guide and the three following injection safety videos:
    - Safe Glucometer Use – ICAR Video 1
    - Medication Preparation Areas – ICAR Video 2
    - Injection Safety – ICAR Video 3
  - CDC's One and Only Campaign
  - American Association of Nurse Anesthetists Safe Injection Guidelines for Needle and Syringe Use
  - APIC's Position Paper: Safe Injection, Infusion and Medication Vial Practices in Healthcare (2016)
- Consider NJDOH Safe Injection Ambassador training for members of the staff.
- The Infection Preventionist should be consulted to provide assistance in assessing potential risk to additional patients when drug tampering is suspected/confirmed, particularly with injectable medications.

Guidance and Recommended Resources for Infection Prevention Partners

- Background
- Introduction to IP
- Networking
- Information technology
- Data and surveillance
- Infectious/communicable diseases
- HAI prevention
- Policies & procedures
- Resources

Webinar Series

- Setting specific
- Bridging the gap
- ICAR findings
- Survey tags
- Gap mitigation

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THANK YOU!