

Engaging Stakeholders in Expanding Occupational Health Surveillance of Healthcare Personnel:

A Collaboration Between NIOSH & DHQP

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Cincinnati, Ohio

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Goals of Presentation

- Describe NIOSH and our history of collaboration with DHQP
- Explain why occupational health surveillance in the healthcare field needs to be enhanced
- Describe steps for developing new modules for the NHSN HPS component*
- Explain how the data will be used

*From a content perspective

NIOSH and DHQP

Centers for Disease Control and Prevention (CDC)

Coordinating Center for Infectious Diseases

(Undergoing transition)

National Center for Preparedness, Detection & Control of Infectious Diseases

Division of Healthcare Quality Promotion (DHQP)

National Institute for Occupational Safety and Health (NIOSH)

Division of Surveillance, Hazard Evaluations, & Field Studies

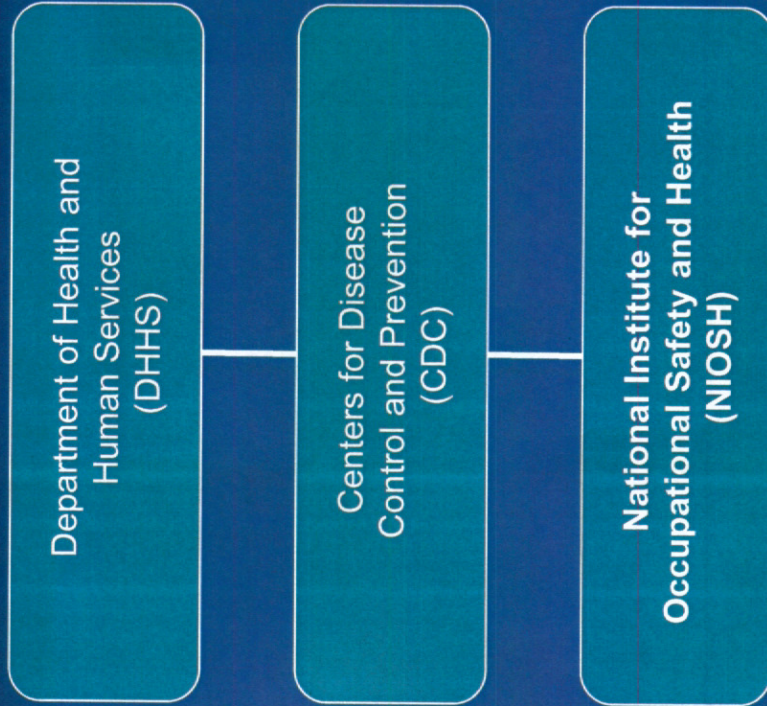
Division of Safety Research

Division of Respiratory Disease Studies

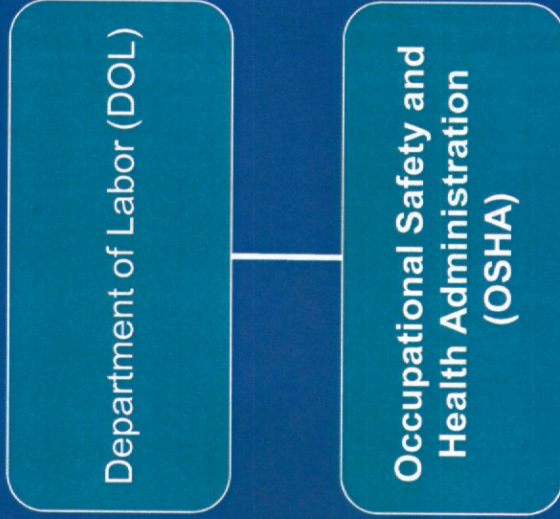
History of collaboration on National Surveillance System for Health Care Workers (NaSH)

NIOSH vs. OSHA

Occupational Safety and Health Act of 1970

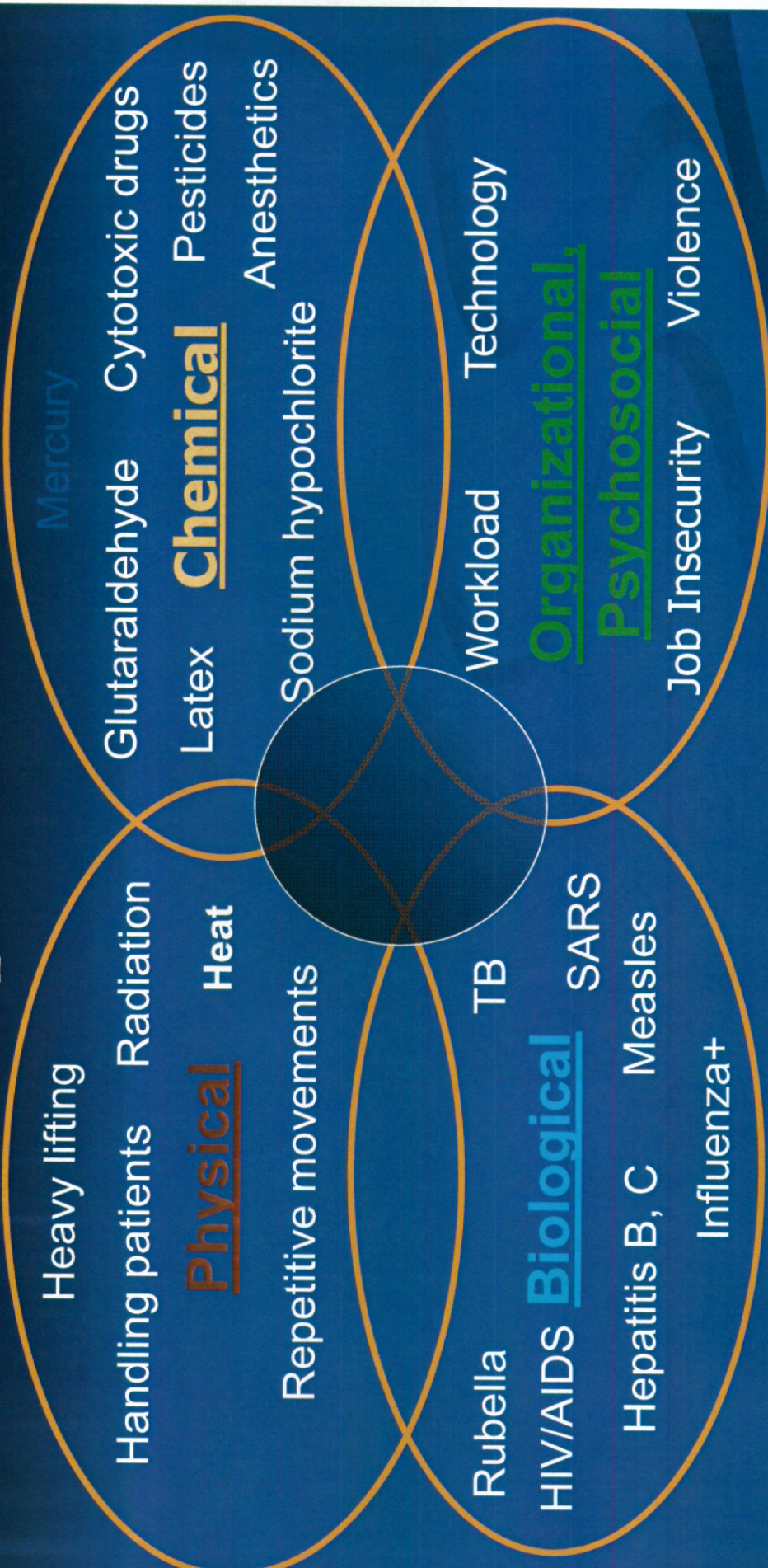


Established to help assure safe and healthful working conditions for working men and women by providing research, information, education, and training in the field of occupational safety and health



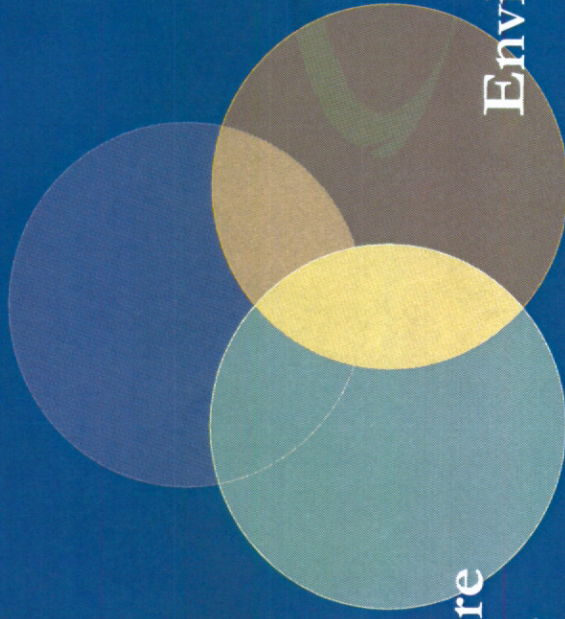
Responsible for developing and enforcing workplace safety and health regulations

Health Care Workers and Occupational Risks



Surveillance in Healthcare Facilities

Patient Safety



Healthcare
Worker
Safety

Environmental
Safety

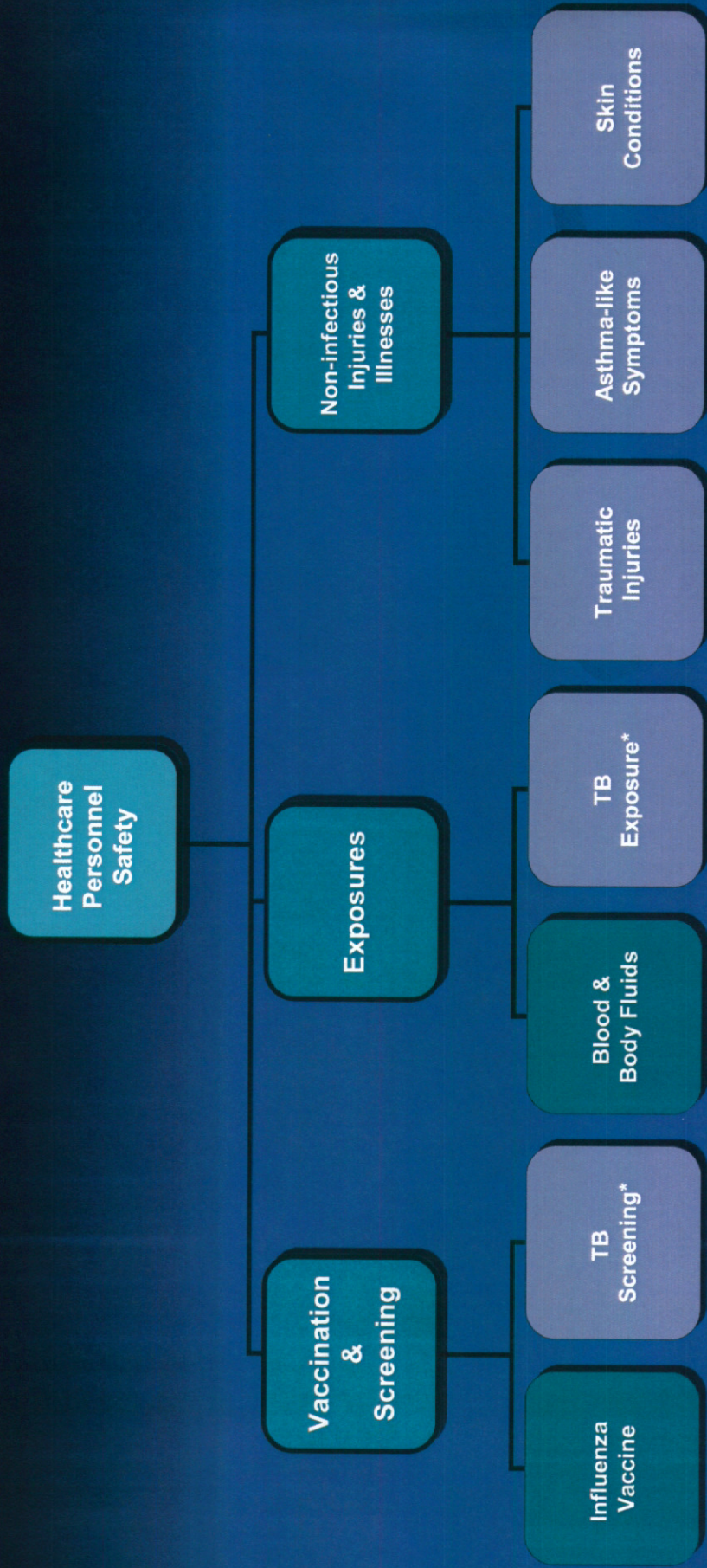
Project Background

- The National Occupational Research Agenda (NORA) is a partnership program to stimulate innovative research and improved workplace practices.
- NIOSH funds both intramural and extramural projects through the NORA framework.
- Project proposal submitted in 2007
- Funding received in May, 2009

Common Work-Related Illnesses & Injuries Among Healthcare Personnel

- Infectious Diseases
 - Bloodborne pathogens- already developed
 - Influenza- already developed
 - Tuberculosis- 3.2 cases/100,000 workers
- Traumatic Injuries- rates higher than private industry average
 - Overexertion/lifting- 29.4 missed work cases/10,000 workers
 - Slips, trips, and falls- 39.9 missed work cases/10,000 workers
 - Physical assaults- 8.4 cases/10,000 workers
- Work-Related Asthma- health services=2nd most common industry associated with WRA
- Dermatitis- 10.2 cases/10,000 hospital workers

Proposed NHSN HPS Expansion



-Patient handling
-Slips, trips, & falls
-Workplace violence

□ Currently available modules

□ Proposed modules

*In collaboration with the CDC Division of TB Elimination

Benefits of Using NHSN for HCP Surveillance

- Web-based system
 - Electronically integrates multiple ongoing data collection activities
- Near real-time feedback
 - Facilitates more accurate and timely prevention strategies
- Based on end-users' needs
- Meets necessary confidentiality and security requirements
- Promotes interaction between healthcare facilities and CDC/NIOSH
- Benchmarking and standardization

Steps for Implementing New HCP Modules in NHSN*

- Determine data elements to collect, with input from frontline workers and other stakeholders
 - E-mails and phone calls
 - Site visits
 - AOHP Conference
 - **Stakeholder meeting in Cincinnati, OH/Hebron, KY**
- Develop paper (hard copy) data collection forms
- Pilot test paper forms with ~25 facilities
- Translate paper forms into electronic format

*From a content perspective

Steps for Implementing New HCP Modules in NHSN* (cont.)

- Test electronic forms with ~20 facilities
- Finalize electronic forms
- Recruit facilities to use new modules
- Train facilities to use new modules
- Start collecting data
- Share data and best practices

*From a content perspective

Step 1: Determine data elements to collect

- What happened?
- Demographics: Who, where, when
- How did it happen?
 - Mechanism, circumstances, procedure
- Safety & prevention tools
 - What tools were/were not in place?
 - How could the event have been prevented?

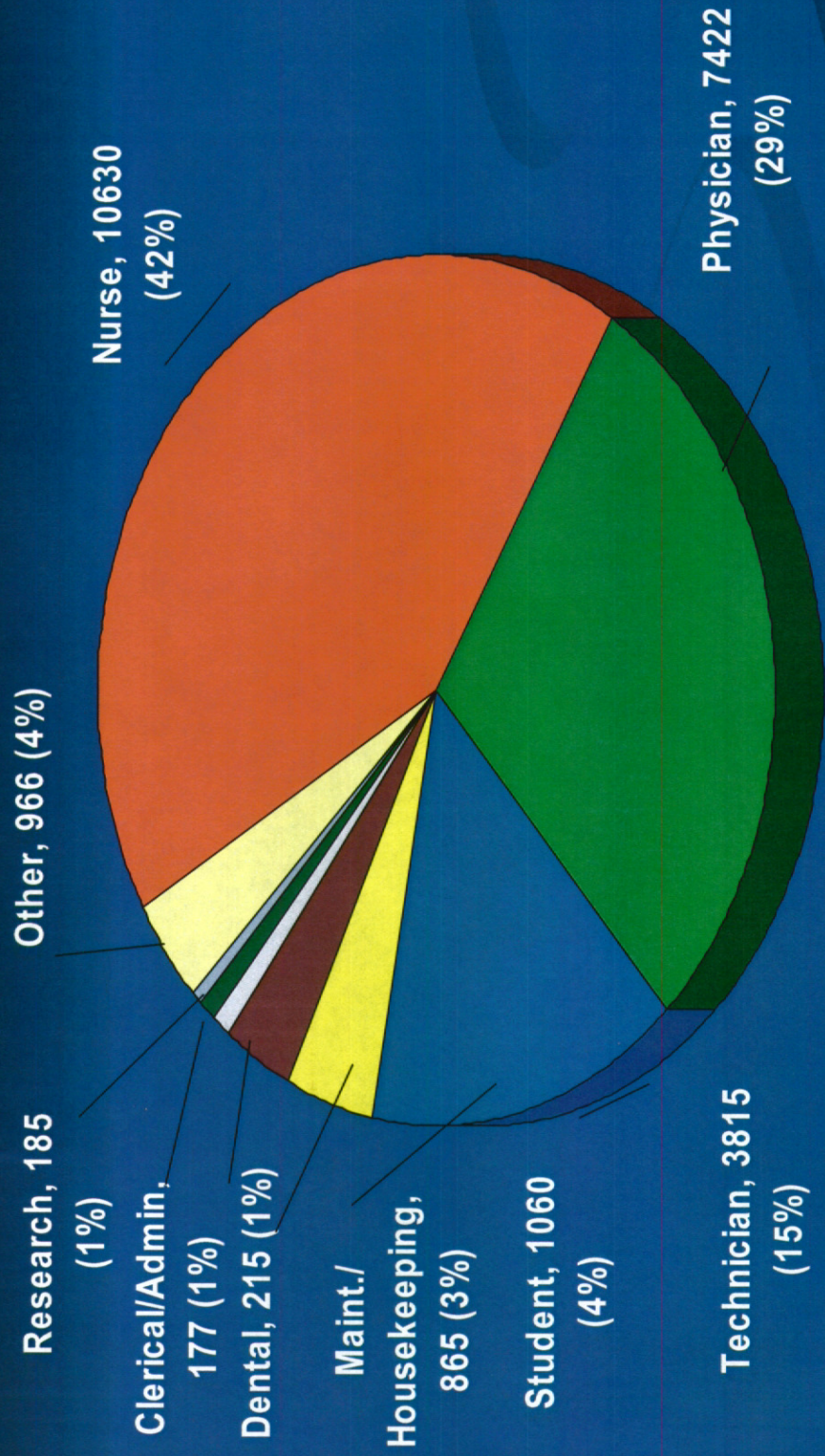
Examples of data elements for specific modules

- Musculoskeletal disorders due to patient handling
 - Use of lift teams, lift devices; reasons for non-use
- Slips, trips, and falls
 - Floor contamination, familiarity with pathways
- Physical assaults
 - Perpetrator (e.g., patient, patient family member, co-worker)
- Work-Related Asthma
 - Exposure to specific chemicals
- Dermatitis
 - Frequency of handwashing, glove use
- TB screening and exposure
 - History of positive TST, BCG

Tiers of Data

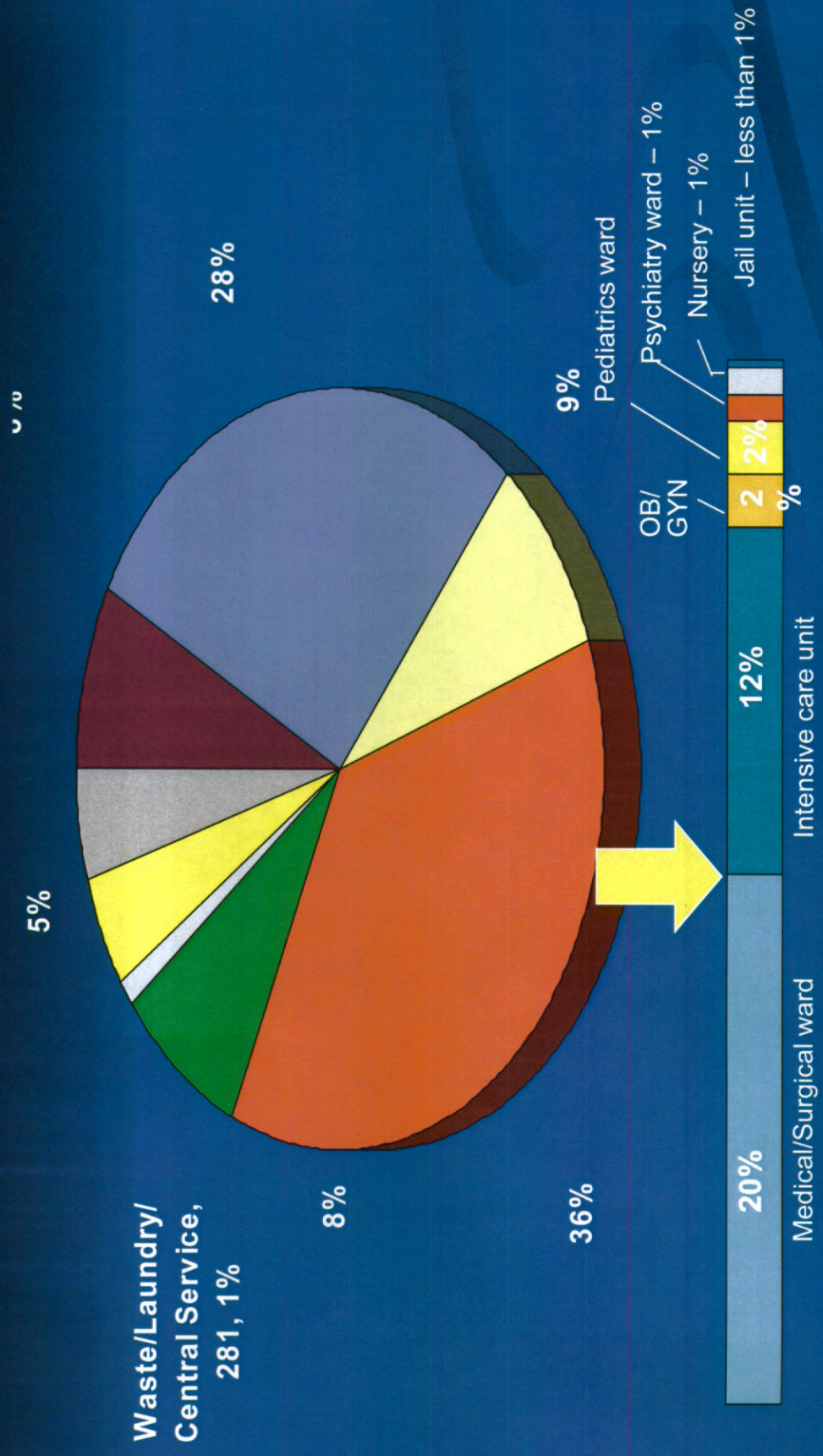
- Data to be shared with NIOSH
 - Required fields
 - Standard, agreed-upon criteria
 - Use to set benchmarks, monitor trends
 - Confidential; only aggregate data published
- Data to be used internally
 - Focus on prevention
 - Use to evaluate programs, policy changes
 - Meet day-to-day needs
 - Generate reports for management, OSHA, Joint Commission
 - Improve decision-making in occupational safety & health

Occupational Groups Exposed to Blood/Body Fluids (n=25,335*)



* Occupational information not recorded in 20 records

Work Locations Where Blood/Body Fluid Exposures Occurred (n=25,291*)



*Work location not indicated in 64 records.

Preventability of Hollow-Bore Needle Injuries

(n=11,060)

Not preventable, 2127 (19%)

Undetermined, 2115 (19%)

Preventable, 6818 (62%)

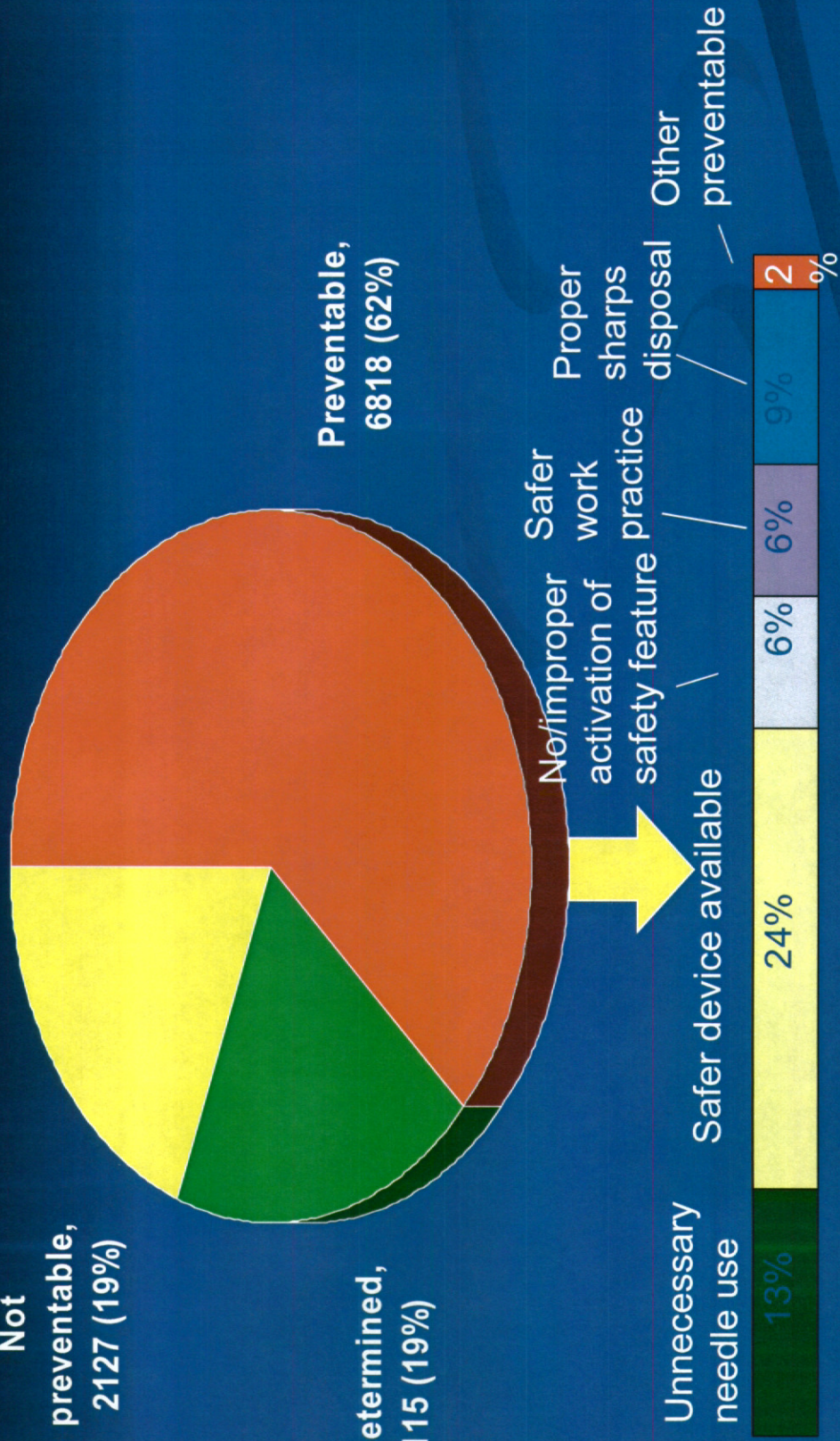
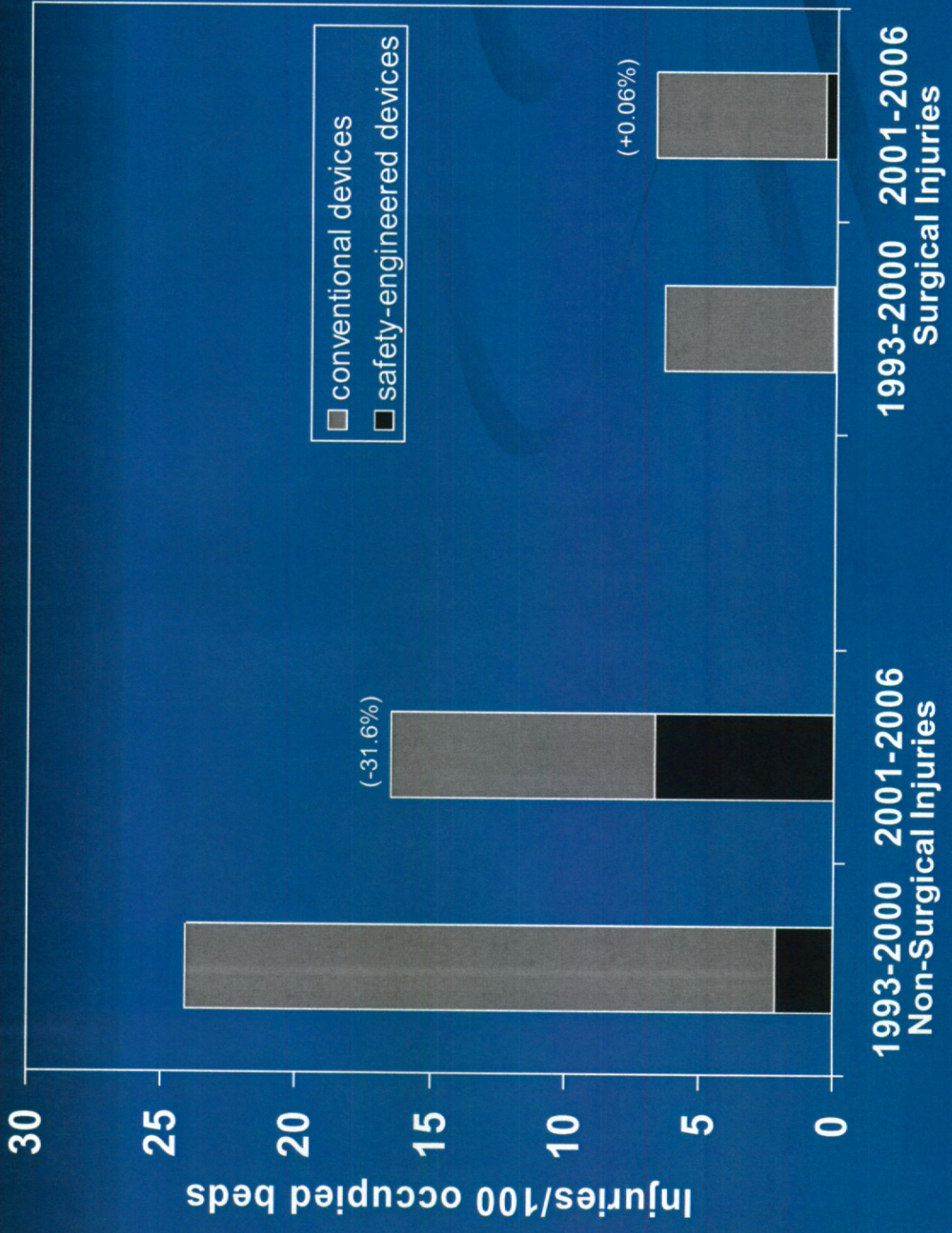


Figure 1. Injury rates in surgical versus non-surgical hospital settings before and after the Needlestick Safety and Prevention Act of 2000

87 U.S. hospitals; surgical injuries=7,186, non-surgical injuries=24,138



Review of our Efforts to Date

Sara Luckhaupt, MD, MPH

NIOSH NHSN Project

Stakeholders Meeting

November 16, 2009

The logo for the Centers for Disease Control and Prevention (CDC), consisting of the letters "CDC" in a bold, white, sans-serif font, enclosed within a white rectangular border.The logo for the National Institute for Occupational Safety and Health (NIOSH), featuring the word "NIOSH" in a bold, white, sans-serif font, slanted to the right, and set against a black rectangular background.

Site Visits

- Visit to learn about NHSN
 - DHQP
- Visits to learn about other existing surveillance systems
 - Vanderbilt University Medical Center 5/27/09
 - Health Alliance (Cincinnati) 6/23/09
 - Cincinnati VA Hospital 7/14/09
 - Duke University Health System 7/22/09

Site Visits

- General lessons learned
 - Many different players involved (e.g., safety, employee health, infection control, workers' comp)
 - Many data needs besides tracking rates of specific injuries and illnesses
 - Both internally developed and commercial software programs being used
 - Importance of buy-in from upper management

Site Visits

Specific suggestions for our project

- Identify minimum fields necessary
- Allow importation of data from existing systems
- Create relational database (not flat file)
- Include open (custom) fields
- Design modules along existing protocols
- Create comparative reports for management
- Include help menus

Site Visits

Specific suggestions for our project (cont.)

- Allow multiple users to start records
- Allow edits by system manager
- Post data publicly to motivate use
(as for patient safety)
- Include all health system employees
(vs. just hospital workers)
- Promote standard definitions of outcomes
- Allow flexibility depending on facility's risk

Key Points from AOHP and Other Conversations with Stakeholders

- Concern about dual data entry; desire to interface with existing systems
- Interest in being able to track all work-related injuries and illnesses, not just the specific outcomes listed
- OSHA Log/risk management records separate from employee health records
- Concern about denominator data
- Concern about entering follow-up data
- Concern about amount of training required
- Concern about getting timely results

Moving Forward

- Primary task for this meeting:
 - Determine data elements to collect, with input from frontline workers and other stakeholders
- Keeping in mind:
 - Primary goal= prevention
 - Current data collection processes/systems in use
 - OSHA requirements, JC standards
 - Strengths and limitations of NHSN
 - Facility needs

NIOSH NHSN Team

- Ahmed Goma, MD, ScD, MSPH – Project Officer (agomaa@cdc.gov)
- Sara Luckhaupt, MD, MPH – Co-Project Officer (sluckhaupt@cdc.gov)
- Hope Tiesman, PhD – Lead for traumatic injury module (htiesman@cdc.gov)
- Jacek Mazurek, MD, PhD – Lead for asthma-like symptoms module (jmazurek1@cdc.gov)
- Marilyn Ridenour, MBA, MPH – Workplace violence SME (mridenour@cdc.gov)
- Jennifer Bell, PhD – Slips, trips, & falls SME (jbell@cdc.gov)
- Audrey Reichard, MPH, OTR – Traumatic injury SME (areichard@cdc.gov)

In collaboration with the Division of Healthcare Quality Promotion (DHQP) and the Division of Tuberculosis Elimination (DTBE)

The findings and conclusions in this report have not been formally disseminated by the National Institute for Occupational Safety and Health and should not be construed to represent any agency determination or policy.