

Occupational Hazards in the Health Care Industry

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MIOSHA

Consultation Education and Training Division

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Industrial Hygiene Rubrics

- Infectious Diseases
- Chemical Hazards
- Ergonomics
- Radiation
- Safety Hazards



“State Plan State”

Michigan is one of 27 and territories operating complete State plans.

States must set job safety and health standards that are "at least as effective as" comparable federal standards. (Most States adopt standards identical to federal ones.) States have the option to promulgate standards covering hazards not addressed by federal standards.

A State must conduct inspections to enforce its standards, cover public employees, and operate occupational safety and health training and education programs. In addition, most States provide free on-site consultation to help employers identify and correct workplace hazards. Such consultation may be provided either under the plan or through a special agreement under section 21(d) of the Act.



MIOSHA Organization

- Administration (517) 322-1814
- Appeals (517) 322-1297
- Consultation Education and Training (517) 322-1809
- Management & Technical Services (517) 322-1851
 - Management Information Systems Section
- Employee Discrimination Section (313) 456-3109

The two main enforcement Divisions are:

- Construction Safety & Health (517) 322-1856
- General Industry Safety & Health (517) 322-1831



MIOSHA website

Homepage

Standards

Policies & Procedures

Employee Complaint forms

Consultation Education & Training

CET Publications

CET Training Calendar

Recordkeeping

Laboratory & Equipment Services

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Asbestos

MVPP

MSHARP

CET Grants

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MIOSHA Training Institute (MTI)

MIOSHA Variances

DVD/Video Library Service

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eTOOLS

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- Hospital eTool**
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 - Central Supply
 - Clinical Services ▶
 - Dietary
 - Emergency
 - Engineering
 - Healthcare Wide Hazards ▶
 - Heliport
 - Housekeeping
 - ICU
 - Laboratories
 - Laundry
 - Pharmacy
 - Surgical Suite ▶
 - Expert Systems

Hospital eTool

Click on the area for more specific information.



The OSH Act of 1970 strives to "assure safe and healthful working conditions" for today's workers, and mandates that employers provide a safe work environment for employees. Hospitals and personal care facilities employ approximately 1.6 million

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Nursing Home eTool

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- ▶ Site Map
- ▶ User Guide
- ▶ References
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Occupational Hazards in Long Term Care

Nursing Home eTool

Today nursing homes and residential care facilities employ approximately 2.8 million workers at 21,000 work sites. Many nursing home tasks require considerable lifting and other strenuous physical labor. Historically the injury rate for workers in these facilities is double the injury rate for all full time workers in other occupations. This eToolSM is designed to assist employers and employees in identifying and controlling the hazards associated with nursing homes and residential care facilities.



This eTool addresses the following topics:

- Bloodborne Pathogens
- Pharmacy



Hazard Surveys in Healthcare

Inpatient

- General hospitals
- Specialty hospitals (include psychiatric, rehabilitation, cancer centers, orthopedic, cardiac, pediatric...)
- Long term care

Outpatient

- Emergency
- Surgical
- Physicians offices
- Therapy offices
- Clinical laboratories
- Radiology
- Optometrists
- Chiropractic



Typical Hospital Departments

- Central Supply
- Dialysis
- Dental
- Emergency Room
- Food Service
- Housekeeping
- Labor and Delivery
- Laboratories
- Laundry
- Maintenance and Engineering
- Nuclear Medicine
- Offices
- Oncology
- Operating Rooms
- Pathology
- Pharmacy
- Radiology



Injury & Illness Incidence in Healthcare - 2007

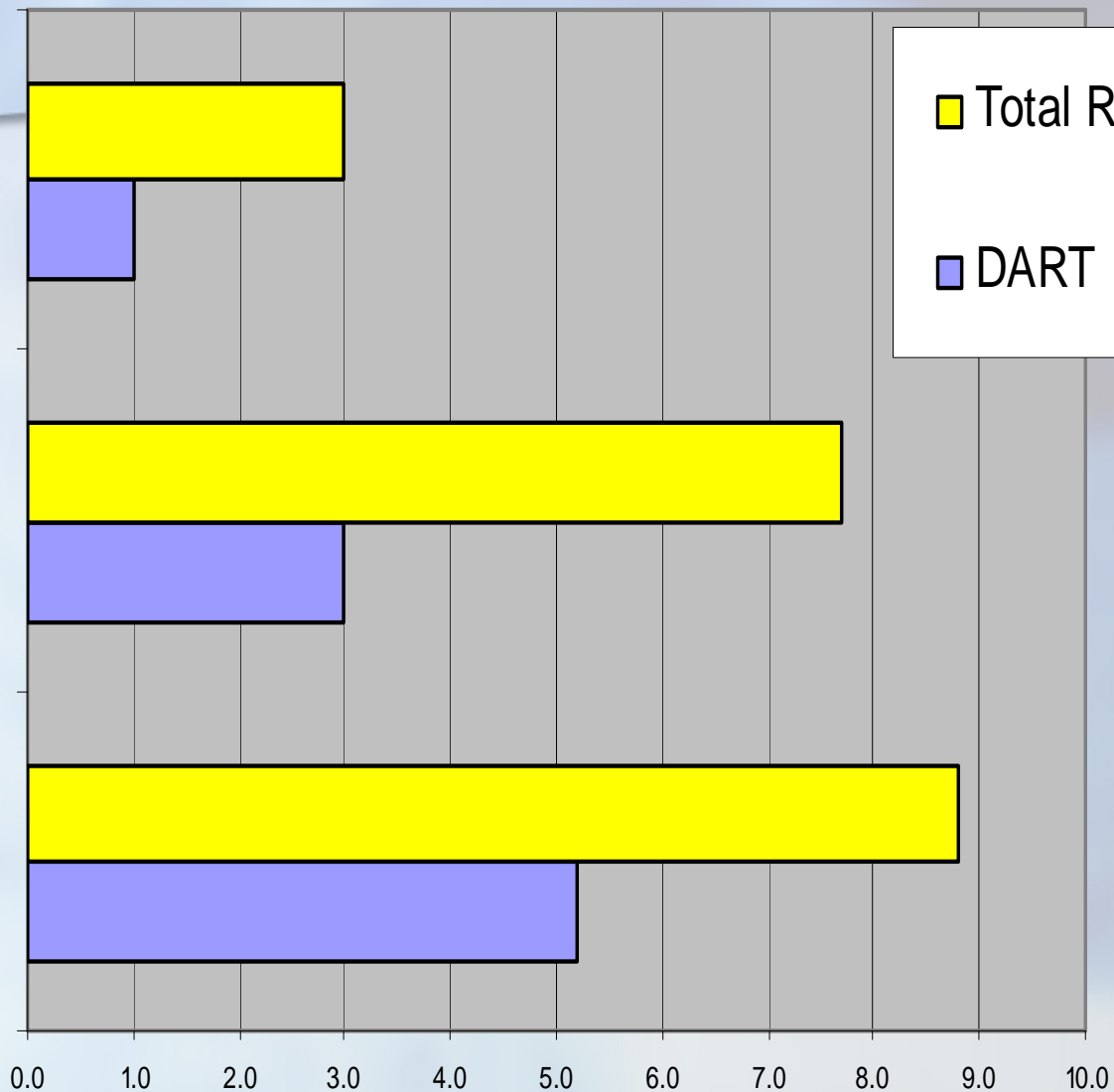
**Ambulatory Health
Care Services**

Hospitals

**Nursing and
Residential Care
Facilities**

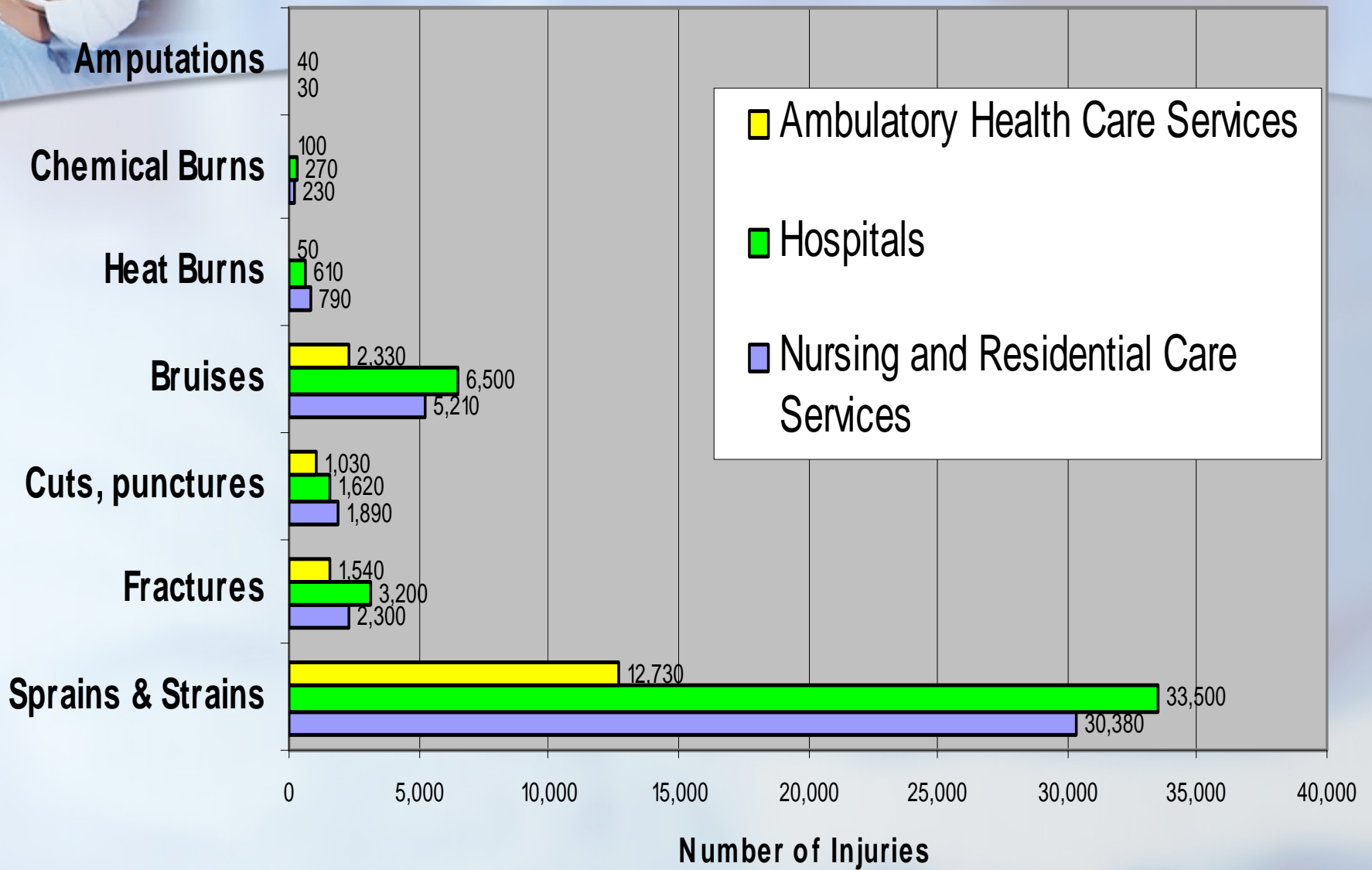
■ Total Recordable Cases

■ DART



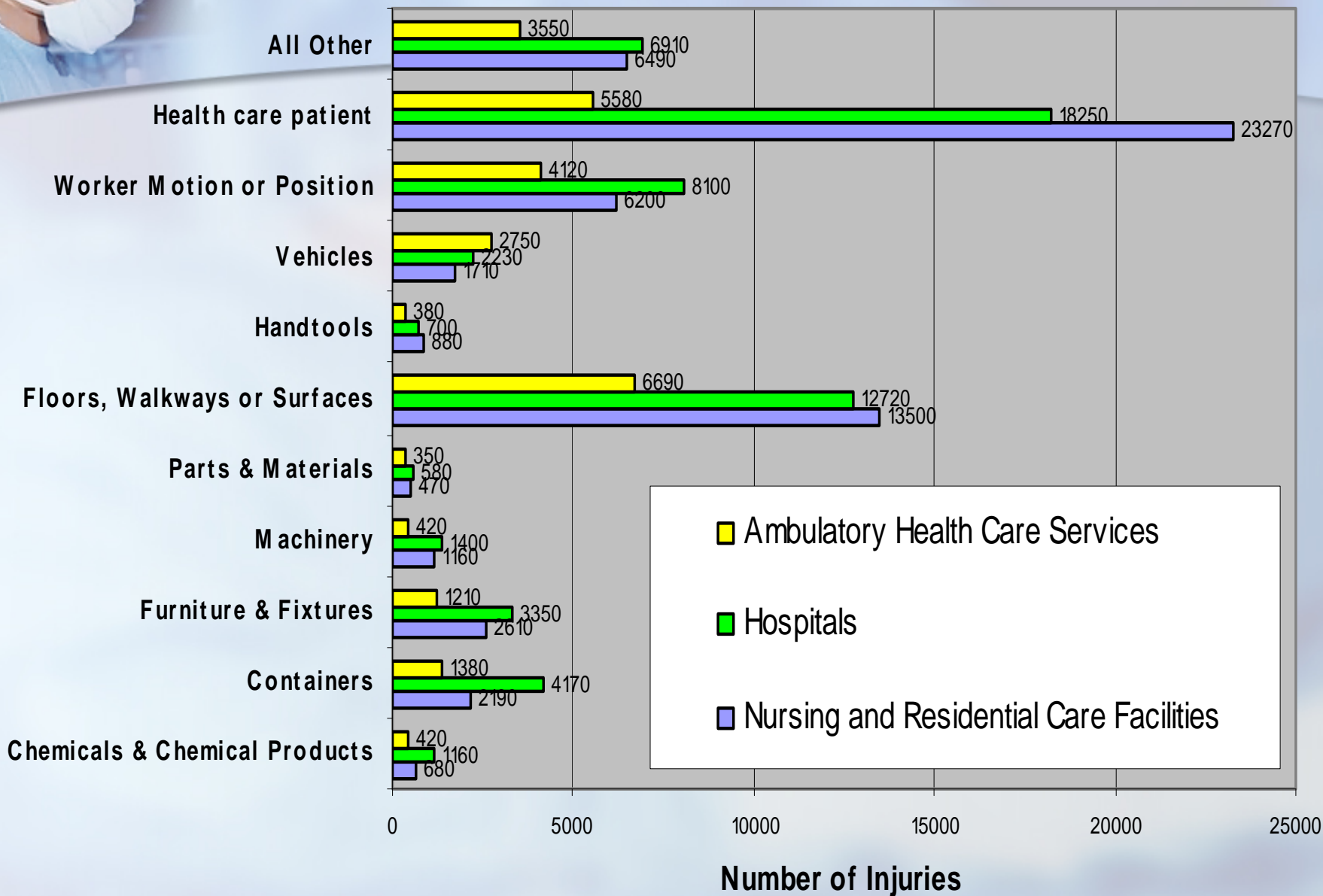
No. of Cases per 100 Full-time Employees

Injuries in Healthcare by Nature of Injury - 2007





Injuries in Healthcare by Source - 2007





Cause of Injury

Highest Injury Events Resulting in Days Away from Work in Health Care in 2007*

- Overexertion (includes lifting)
- Fall on same level
- Contact with objects

*same order for several years



Hazards found in typical nursing homes

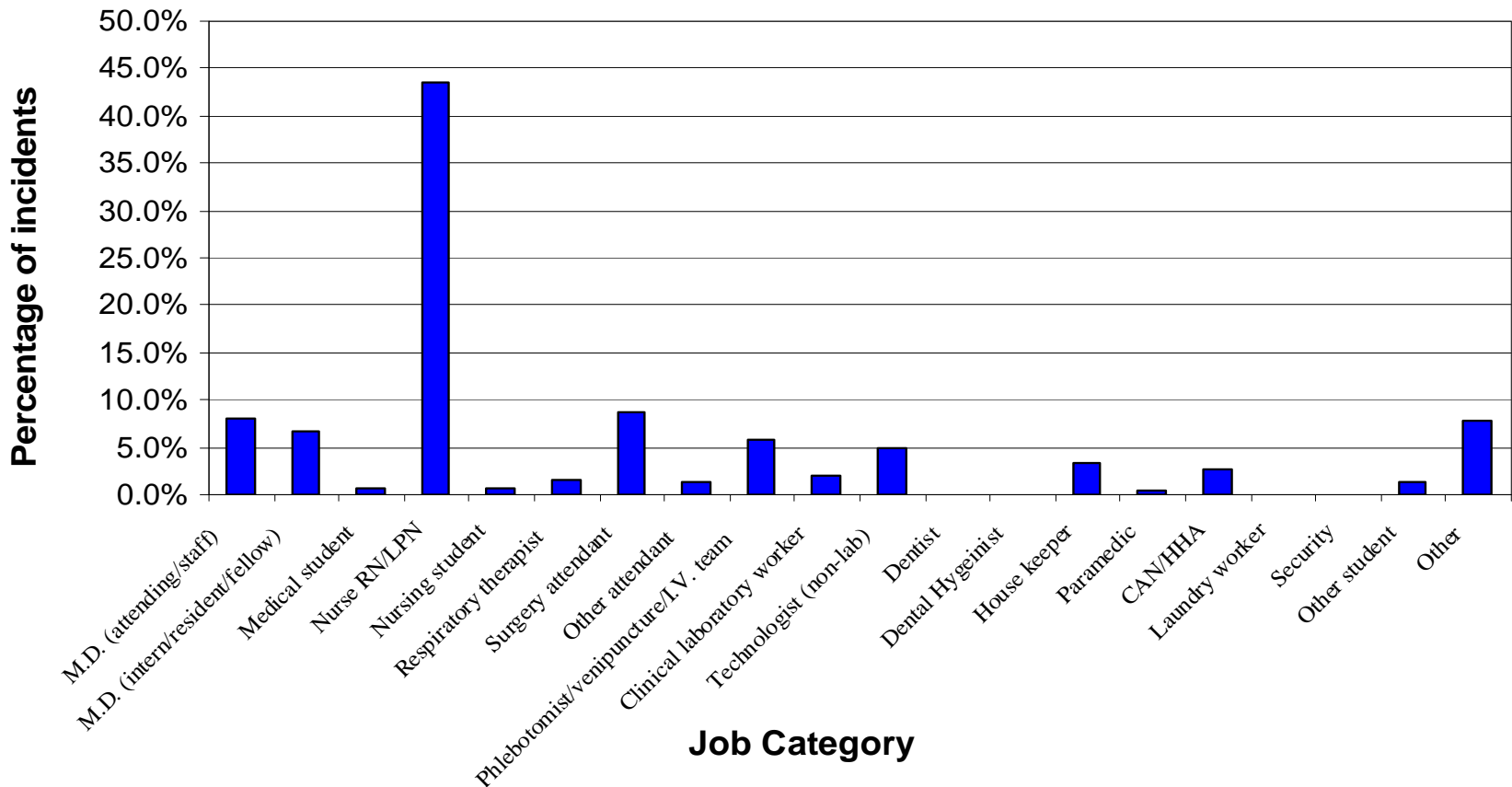
- Hazard Communication written programming
- Personal Protective Equipment training and hazard assessment
- ANSI-approved eyewash facilities
- Bloodborne Infectious Diseases
- Safe Resident Lifting implementation (NIOSH recommendation)



According to EPI Net report

2001 Percutaneous Injury Rates, nurses are most at risk (43.6%) of sustaining sharps injuries.

Uniform Needlestick and Sharp-Object Injury Report U.S. EPI Net Network, 2001, 58 Healthcare facilities.





How does exposure occur?

- Most common: needlesticks
- Cuts from other contaminated sharps (scalpels, broken glass, etc.)
- Contact of mucous membranes (for example, the eye, nose, mouth) or broken (cut or abraded) skin with contaminated blood



Engineering & Work Practice Controls 1910.1030(d)(2)(i)

29 CFR 1910.1030(d)(2)(i)

These are the **PRIMARY**
methods used to control the
transmission of HBV and HIV



Please Keep in Mind:

MIOSHA does not recommend, endorse, or approve of any medical device.

Engineering Controls



Engineering Controls

Retractable
Needle in a
Vaccutainer
Holder
(before
activation)



Engineering Controls

Retractable
Needle in a
Vaccutainer
Holder
(Activated)

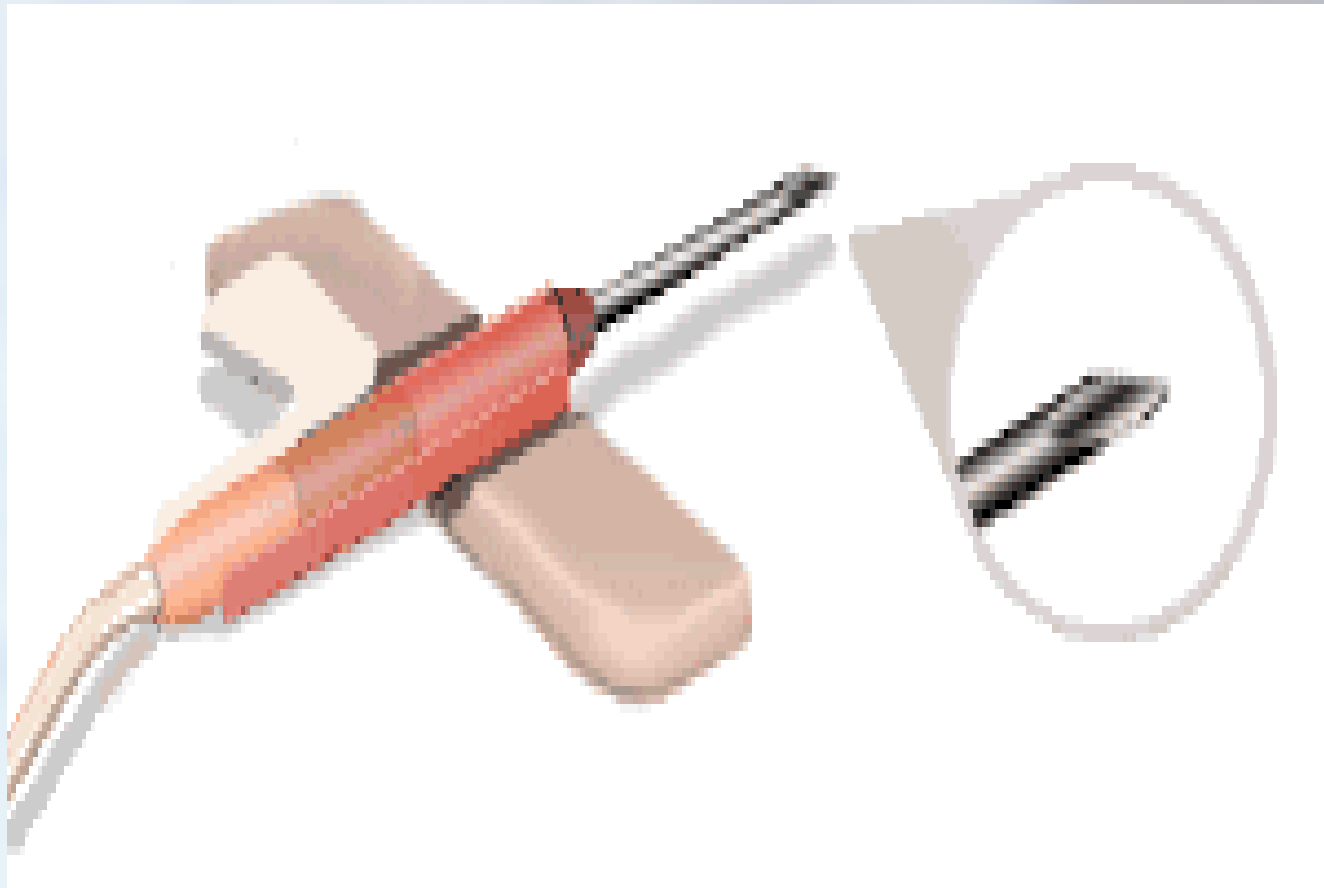


Engineering Controls

Shielded
Needles
For Pre-Filled
Cartridges
(good for
dental
procedures)

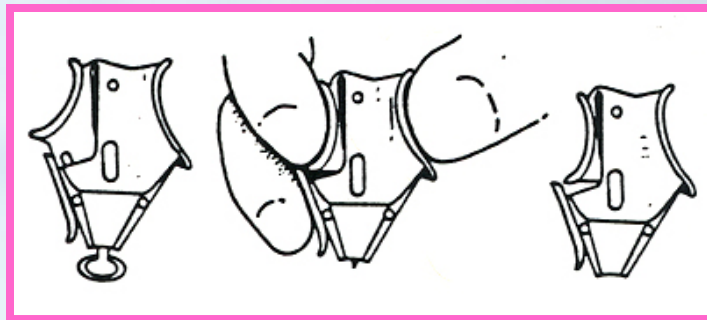
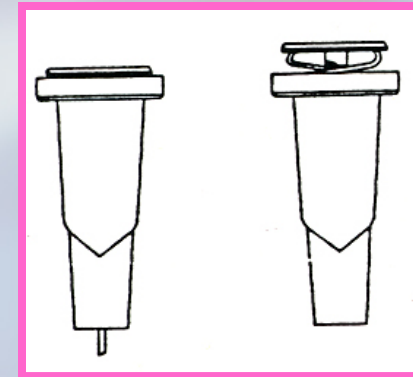
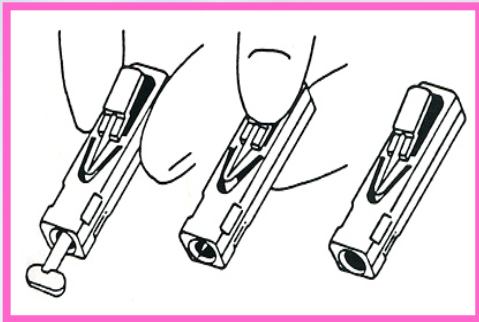


Bluntable Butterflies

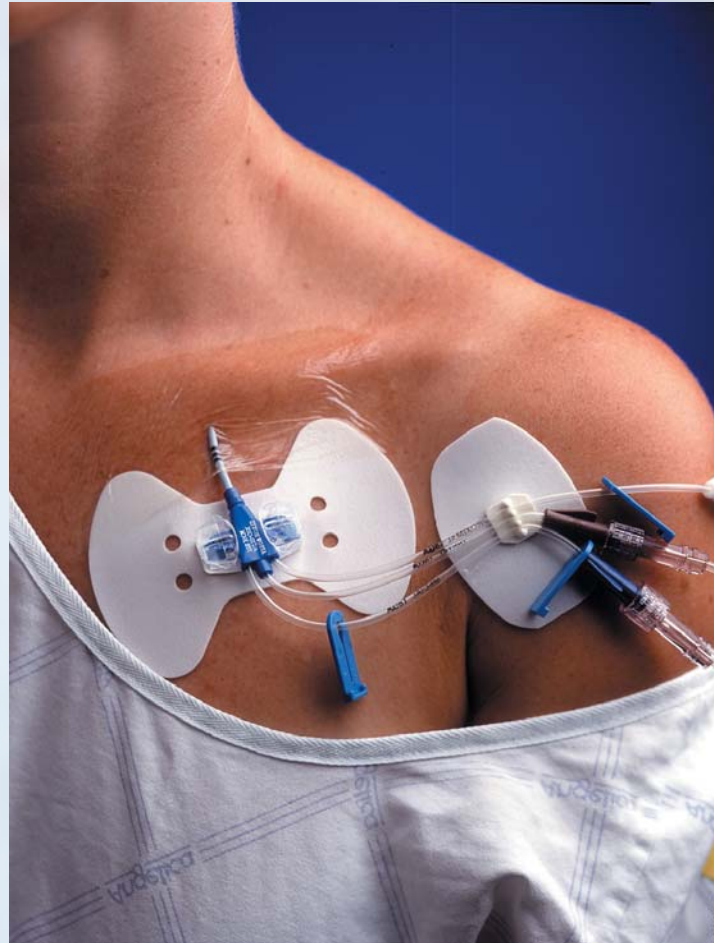




Safety Lancets



Eliminate Suturing Catheters In Place



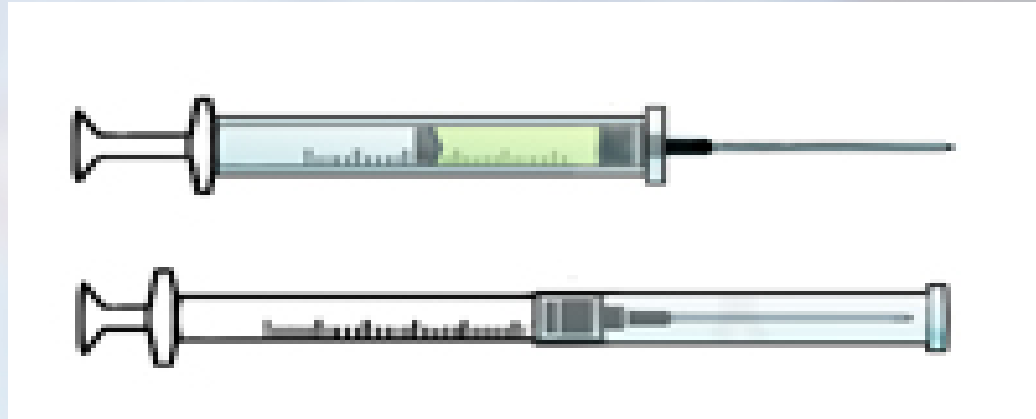


Safer Medical Devices

- *Needless Systems*: a device that does not use needles for the collection or withdrawal of body fluids, or for the administration of medication or fluids
- *Sharps with Engineered Sharps Injury Protections (SESIPs)*: a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a **built-in** safety feature or mechanism that effectively reduces the risk of an exposure incident



Sheathing Needles



Some needlestick injuries would not occur if the (two-handed) safety mechanism had been activated immediately after the syringes were used. Investigate the feasibility of switching to a safe needle device that does not require two-handed activation.

Passive Safety



Passive Safety is “automatic” safety

- spring loaded safety syringe
- single-handed blade remover

Active Safety requires user to “manually” do something

- sheath style safety syringe
- safety scalpel

One-handed action is always better than two-handed

CDC studies show active safety devices might not be used enough to protect the staff using them



Sharps Containers are Good For:

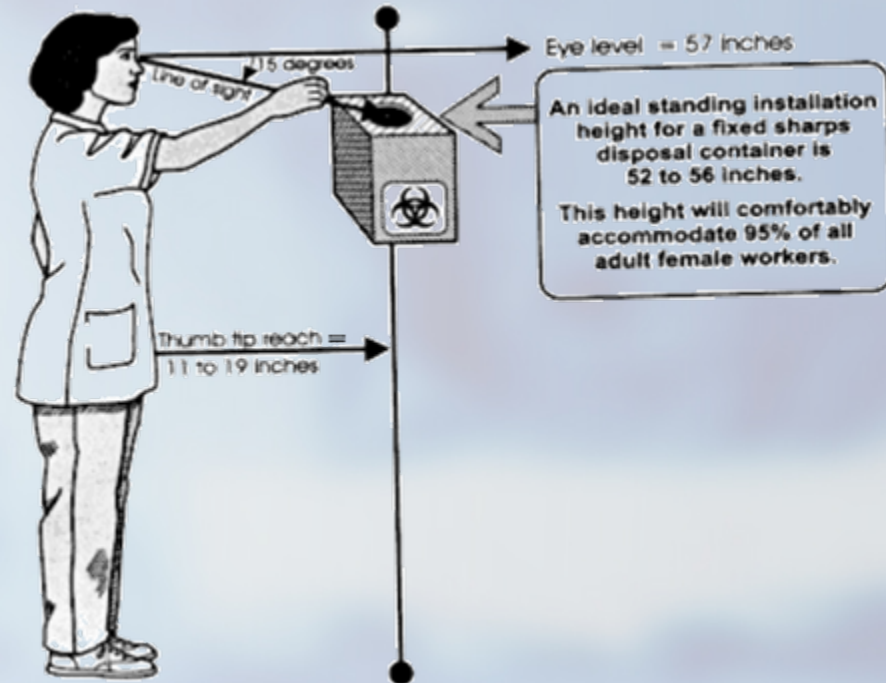
- Small Applicator Tips
- Sutures
- Needles
- Burs
- Carpules
- Scalpels
- Endodontic Files
- Broken Glass





Sharps Container Installation

- Within Straight Arm's Reach from Point of Use
- Just below Eye Line
 - 56" – 52" for Standing Station
 - 42" – 38" for Sitting Station



Engineering Controls



Sharps Container
with Foot
Activation



Engineering Controls

Reusable
Sharps
Containers





Latex Best Practice Recommendations

An employer should ensure that all disposable non-sterile gloves be latex-free, unless alternatives are technically infeasible. In the event non-sterile latex gloves are deemed the only technically feasible option, then all of the following apply:

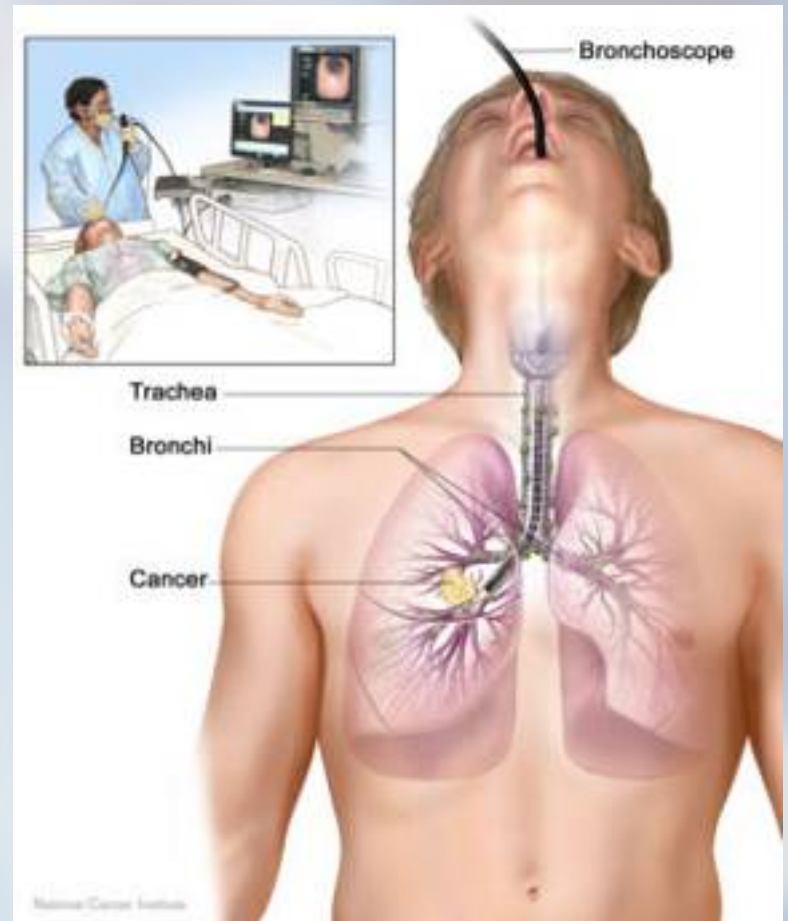
- **The employer should document the need for the selection**
- **The non-sterile latex gloves should be powder-free and low-allergen/low-protein content as identified by the manufacturer.**
- **There should be signage posted stating that latex gloves are being used.**
- **An employer should ensure that all disposable sterile gloves should be latex-free or latex powder-free and low-allergen/low-protein content as identified by the manufacturer.**
- **An employer should ensure that the immediate work area of an employee sensitive to latex be free of latex gloves with signage posted stating that latex gloves should not be used.**

Aerosol-Generating Procedures

The aerosol-generating procedures include:

- Bronchoscopy
- Sputum induction
- Endotracheal intubations and extubation
- Open suctioning of airways
- Cardiopulmonary resuscitation
- Autopsies

H1N1 CDC Guidelines (Oct. 14, 2009)





OSHA and the H1N1 Vaccine

OSHA posted a letter of interpretation in February 2010. Although OSHA does not require employees to take either seasonal or H1N1 influenza A virus vaccines, an employer may do so:

“OSHA does expect facilities providing healthcare services to perform a risk assessment of their workplace and encourages healthcare employers to offer both the seasonal and H1N1 vaccines,” the letter said. “It is important to note that employees need to be properly informed of the benefits of the vaccinations. However, although OSHA does not specifically require employees to take the vaccines, an employer may do so.”



Influenza Vaccine

- ACIP recommends all US healthcare personnel be vaccinated against influenza
- During the last two flu seasons about 63% of HCP got vaccinated
- 13% reported that their employer required them to get vaccinated
- Only 58% of HCP not required by their employer to get vaccinated did so
- 66% of HCP that did not get the vaccination reported that they thought it was safe



Other Resources

Safe Resident Lifting Program and using mechanical equipment can be found at:

<http://www.cdc.gov/niosh/topics/healthcare/>. Search for NIOSH Publication Number 2006 – 117 *Safe Lifting and Movement of Nursing Home Residents*.

www.healthsystem.virginia.edu/internet/epinet

Federal OSHA eTools

MIOSHA Consultation Education and Training Division