



# *WORKER SAFETY METRICS*

NIH Clinical Center

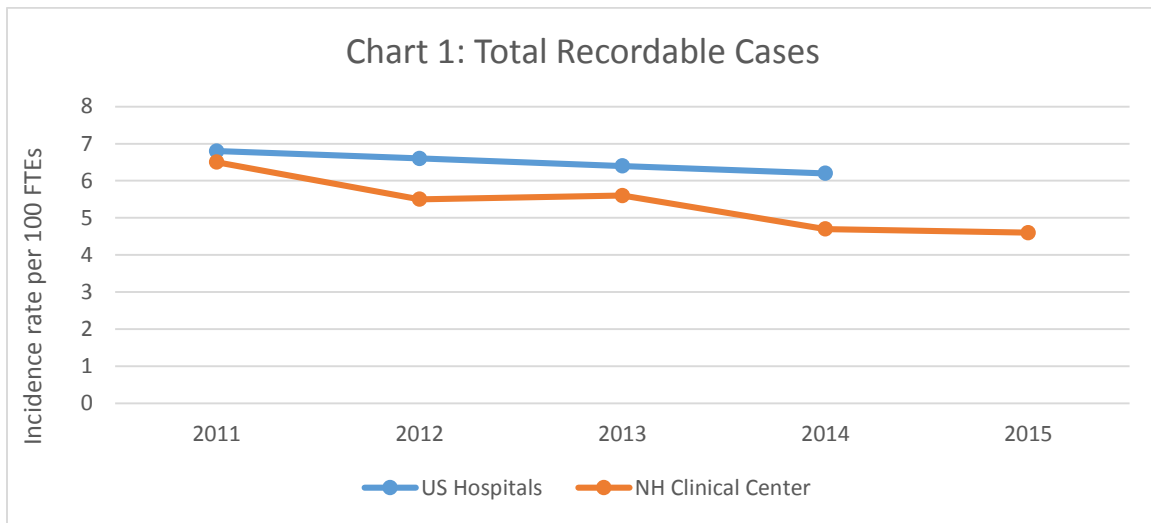
## REPORT TO THE HOSPITAL BOARD

August 2016

## OCCUPATIONAL INJURIES AND ILLNESSES AT THE NIH CC

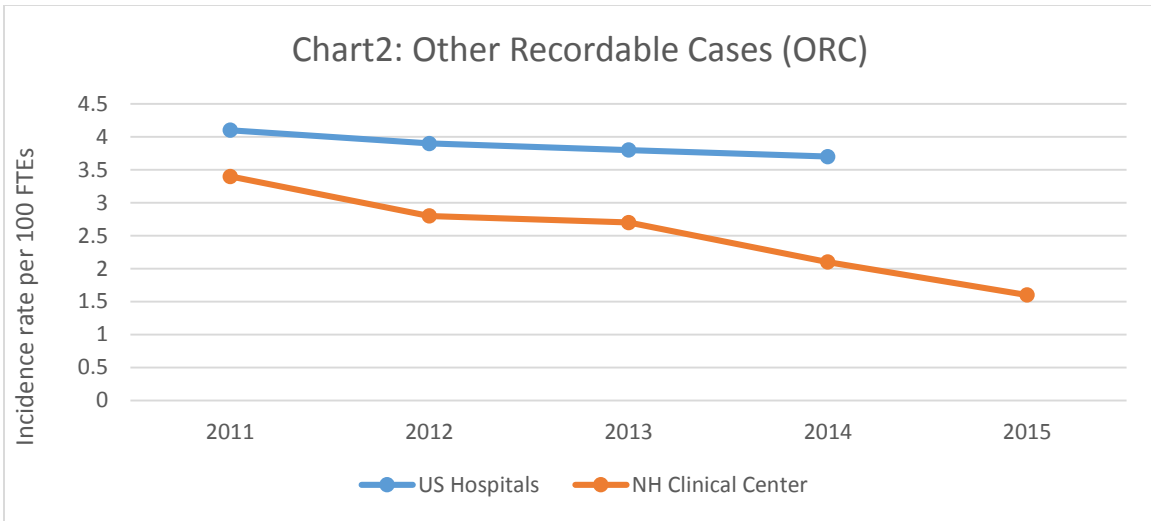
The number of recordable nonfatal occupational injuries and illnesses reported by NIH Clinical Center (NIH CC) employees declined by 31.4% from 2011 to 2015 (121 and 83 cases per year and incidence rates of 6.5 and 4.6 injuries per 100 full-time employees (FTE) per year, respectively). The Bureau of Labor Statistics (BLS) refers to these injuries as the Total Recordable Case (TRC) incidence. They provide the TRC and related figures for US businesses each year. The data for 2015 will be released in December. They do not include fatal occupational injuries or illnesses in TRC incidence rates. There have been no work-related fatalities at the NIH CC in recent decades. The BLS reported that the TRC incidence for US hospitals fell from 2011 to 2014 by 8.8% (the incidence for hospitals fell from 6.8 to 6.2 per 100 FTE/y).

Chart 1. Comparison of the NIH CC's experience with recordable nonfatal occupational injuries and illnesses to US hospitals (North American Industry Classification System, code 622) as reported by BLS.



The drop in the NIH CC's TRC incidence was caused by a significant drop in the number of injuries that required more than first aid but did not require significant accommodations or lost time. These injuries are referred to as Other Recordable Cases (ORC). Chart 2 shows that the ORC incidence at the NIH CC started lower than the national average (3.4 versus 4.1 per 100 FTE/y) and fell further by 2014 (2.1 versus 3.7 per 100 FTE/y). This downward trend of ORC and TRC incidence rates continued at the NIH CC in 2015.

Chart 2. Comparison of the NIH CC's ORC incidence to that of US Hospitals.



More serious recordable injuries result in cases with Days Away From Work (DAFW) and cases of Days Job Transfer or Restriction (DJTR) only. Charts 3 and 4 compare the NIH CC's incidence of DAFW and DJTR to the figures for US hospitals.

Chart 3. Comparison of the NIH CC's DAFW incidence to that of US Hospitals.

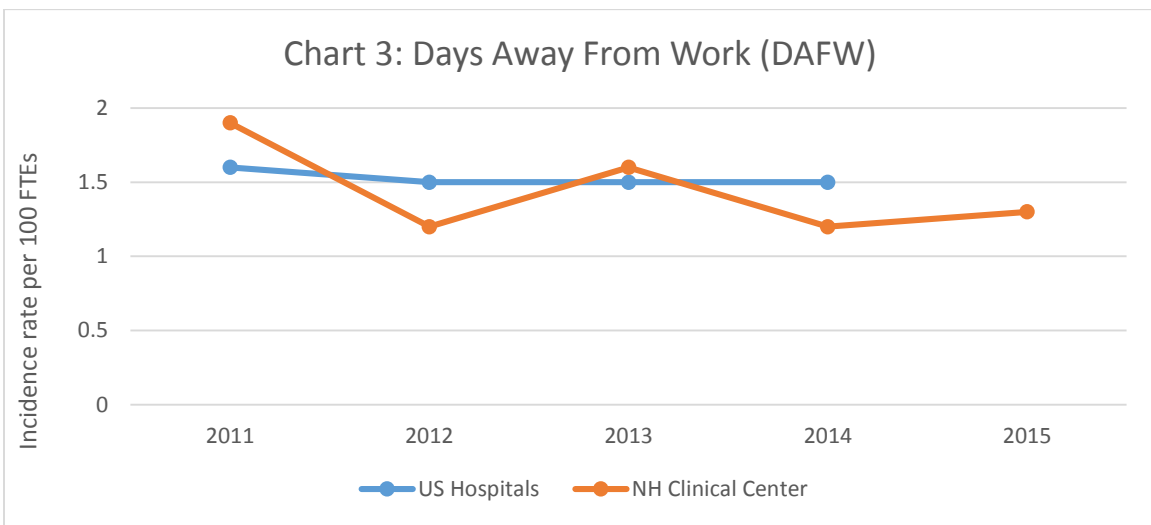
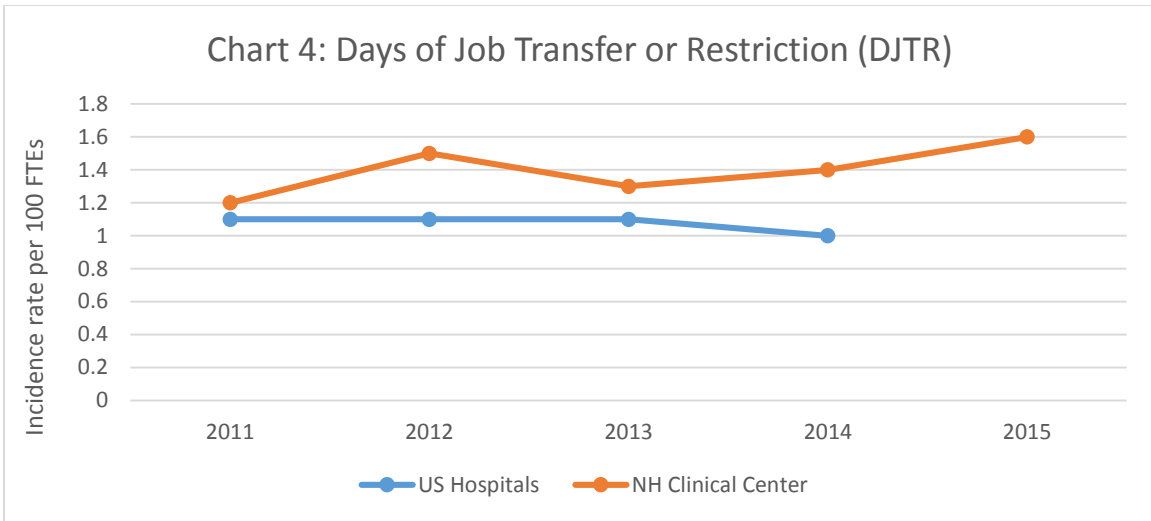


Chart 4. Comparison of the NIH CC's DJTR incidence to that of US Hospitals.



The BLS refers to DAFW and DJTR cases collectively as cases with Days Away from Work, Job Transfer, or Restriction (DART cases). Chart 5 shows that the NIH CC's incidence of DART cases has been slightly higher than the national average. Nationally, the incidence of DART cases in hospitals averaged 2.6 cases per 100 FTE/y. The NIH CC's DART incidence was 2.8 cases with a range of 3.1 to 2.6.

Chart 5. Comparison of the NIH CC's DART incidence to that of US Hospitals.

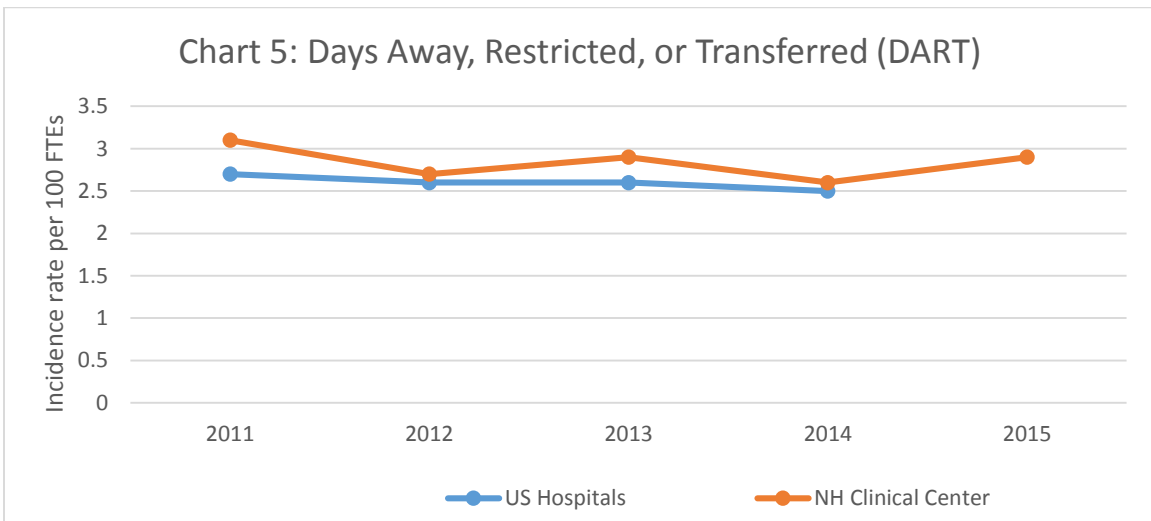
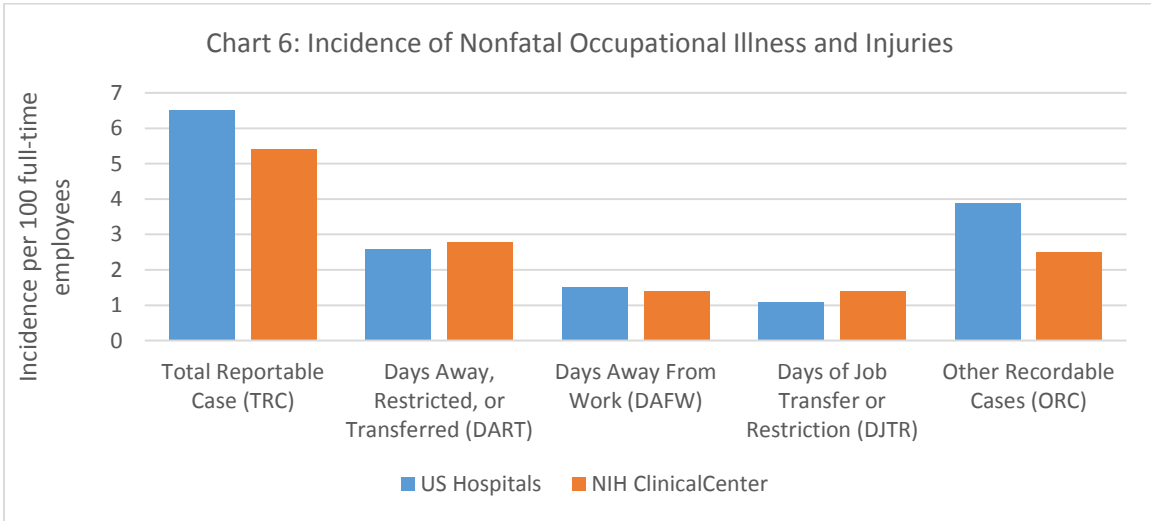


Chart 6 provides the average incidence figures for the NIH CC and hospitals across the country from 2011 to 2015, and from 2011 to 2014, respectively. The NIH CC has recorded an average of 5.4 TRC per 100 FTE/y over the past five years. The national average for hospitals was 6.4 per 100 FTE/y. The NIH CC averaged 2.8 DART cases per 100 FTE/y, while the average for US hospitals was 2.6 cases per 100 FTE/y. The NIH CC annual average DAFW occurrences were 1.4 cases per 100 FTE/y and that matched the national average. However, the NIH CC's incidence of fully accommodated DJTR cases was higher than the national average (1.4 versus 1.1 per 100 FTE/y). The most dramatic difference in the NIH CC's data has been its significantly lower average ORC incidence, 2.5 cases per 100 FTE/y versus the national

average of 3.9 cases per 100 FTE/y. The lower ORC incidence resulted in the lower TRC for the period from 2011 through 2015.



**OCCUPATIONAL  
INJURY AND ILLNESS  
AMONG  
HEALTH CARE  
PERSONNEL**

**NIH CLINICAL CENTER**

**2015  
Summary**

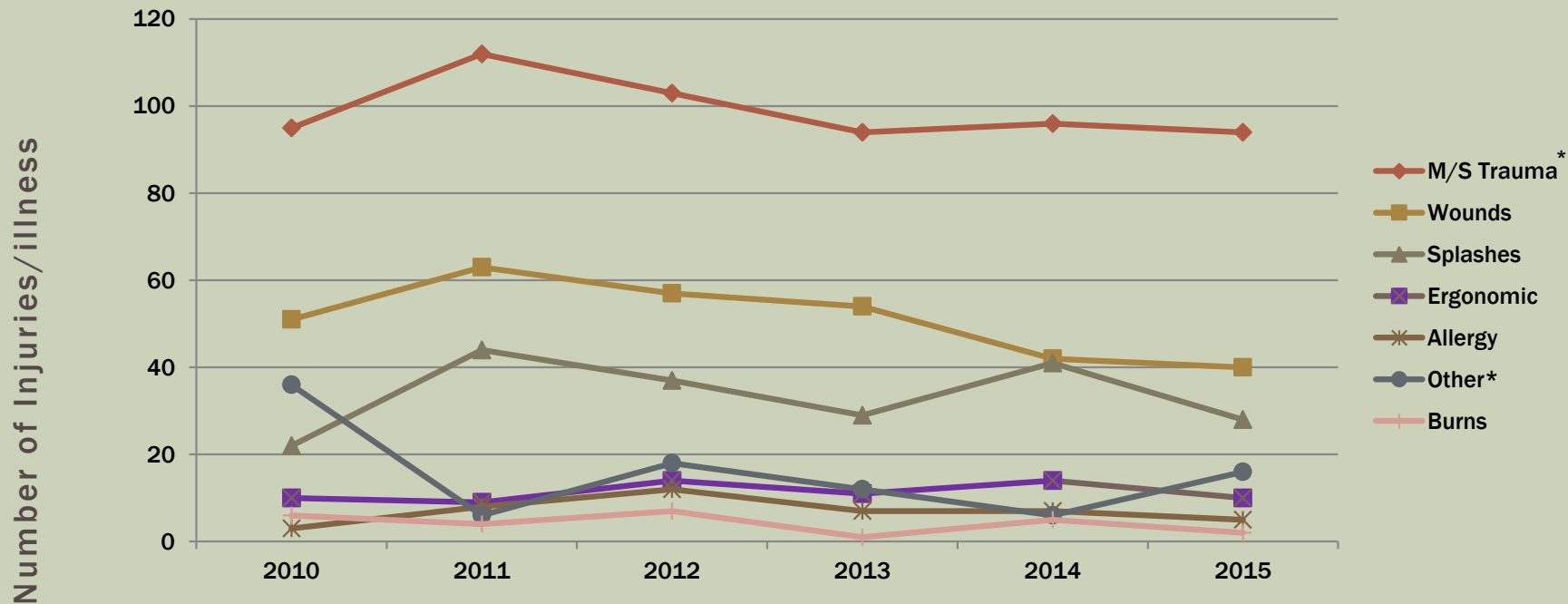
*NIH CC  
Environmental  
Safety Office*

# 2015 SUMMARY

**Approximately 2500 Clinical Center (CC) employees and contractors reported a total of 195 cases of an occupational injury or illness (OI). This includes recordable and non-recordable OIs and is slightly less than the total reported in prior years.**

**83 OSHA-recordable cases were reported by full-time CC employees (FTE), i.e., 5.4 total recordable cases per 100 FTE.**

# COMPARISON OF NUMBER OF VARIOUS TYPES OF OCCUPATIONAL INJURIES OR ILLNESSES REPORTED BY CC EMPLOYEES AND CONTRACTORS (2010 - 2015)

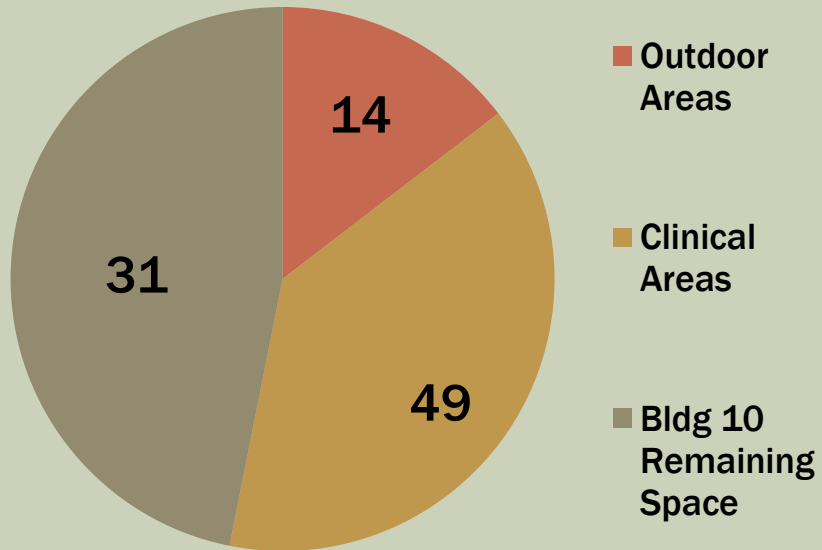


\* Includes inhalation, infectious exposures, and mental health concerns

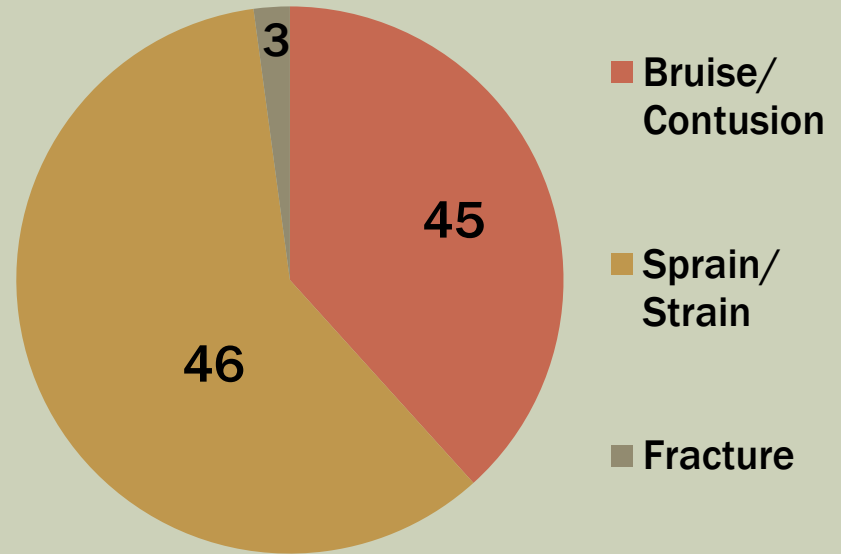


# MUSCULOSKELETAL TRAUMA (N=94)

## Location at Time of Event



## Injury Type

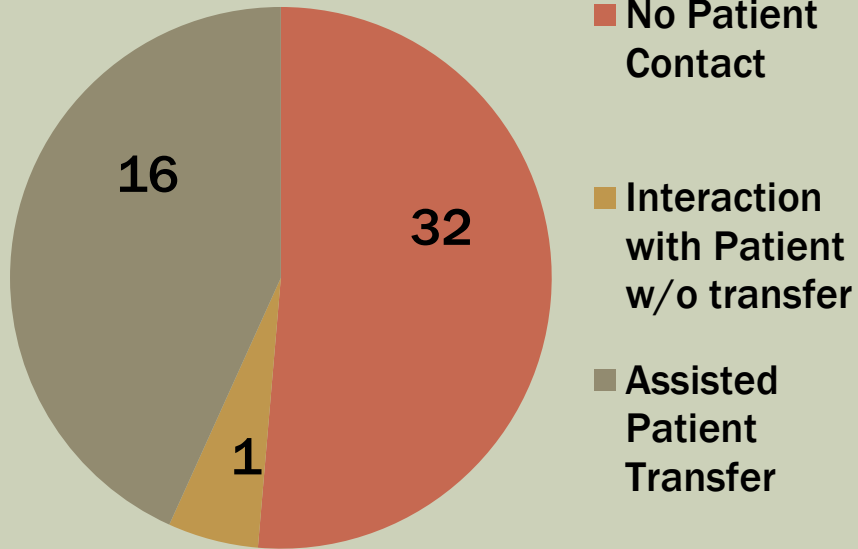


# MUSCULOSKELETAL (M/S) TRAUMA (N-94)

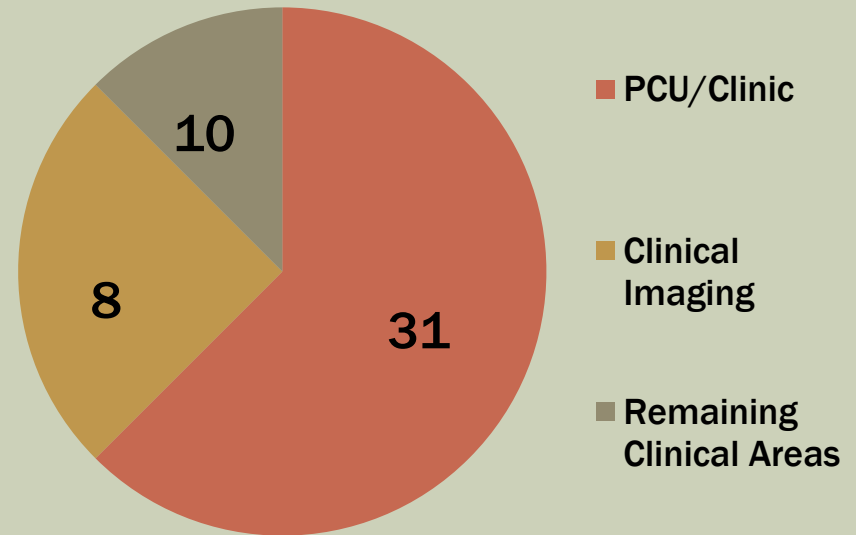
- The NIH Occupational Medical Service (OMS) classified six events as severe injuries. Three occurred on the grounds of the NIH and the remaining three occurred in a clinical area with no patient/staff interaction, i.e., fell or tripped.
- Approximately 50% (46) of all M/S injuries were classified as moderate risk.
- The majority of events did not identify a trip hazard, e.g., wet floor or item on the floor.

# MUSCULOSKELETAL TRAUMA EVENTS IN CLINICAL AREAS (N=49)

Activity at time of event



Location in different clinical areas



# Adverse Exposures to Human Blood and Body Fluids (HBBF)

# ADVERSE EXPOSURES TO HUMAN BLOOD AND BODY FLUID (N=33)

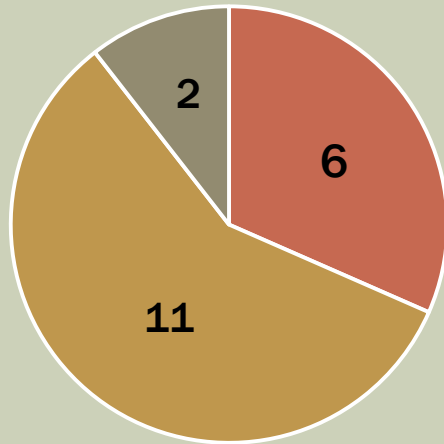
- Health care personnel (HCP) from the CC and Institutes reported 33 adverse exposures to HBBF compared to 57 events in 2014.
- All events are reviewed for a work practices, use of personal protective equipment, defective devices, type of procedure, patient reaction, etc. to identify factors that may prevent a reoccurrence.
- OMS performs a clinical evaluation and risk assessment of each FTE or contractor reporting an OI, and provides postexposure medical care such as pharmacological prophylaxis and testing.

# WOUNDS WITH HUMAN BLOOD AND BODY FLUIDS

- HCP reported 19 wounds in 2015. This represents four consecutive years with fewer elevated-risk exposures.
- Registered nurses reported six wounds compared with 11 wounds reported by physicians. Technologists reported two wounds.
- OMS assessed the majority of wounds (13) as mild risk with the remainder (6) classified as moderate risk, i.e., no severe risk injuries.

# WOUNDS ASSOCIATED WITH HBBF REPORTED BY HEALTH CARE PERSONNEL (HCP) N=19

## Job Titles



■ RN ■ MD ■ TECH

Includes all HBBF wounds in the hospital regardless of IC affiliation.

Two injuries involved recapping a needle during medical procedure.

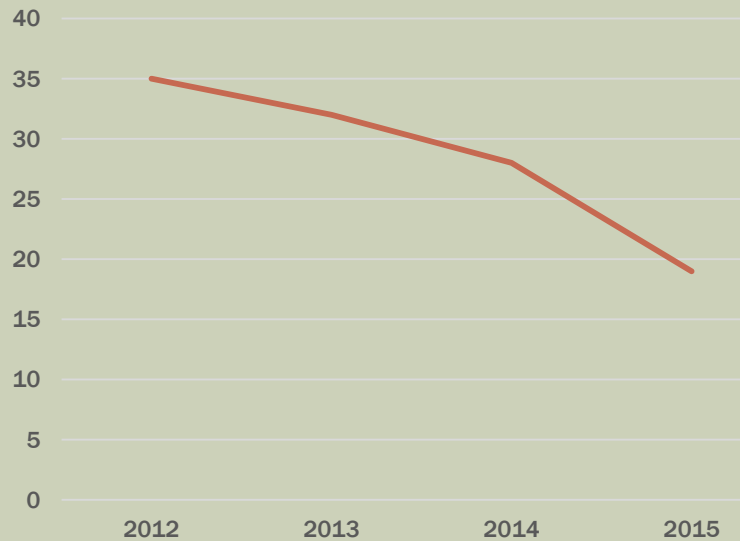
# FACTORS ASSOCIATED WITH HBBF WOUNDS IN 2012-2015



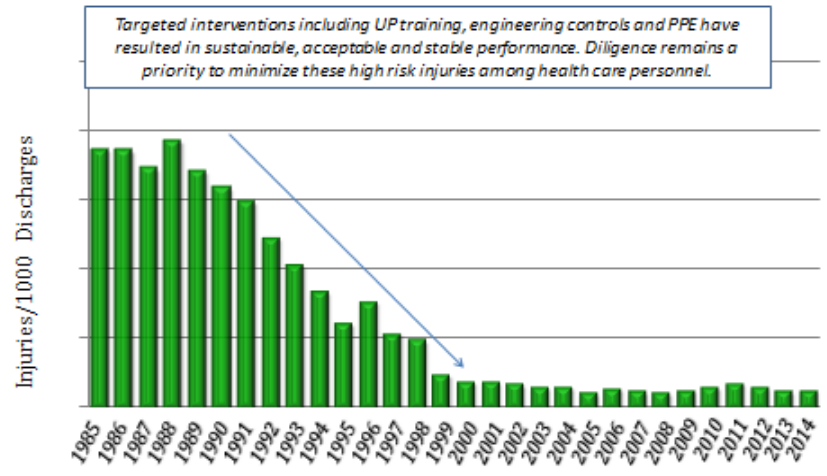


# REPORTED HBBF WOUND INJURIES IN HOSPITAL AREAS

### Reports from 2012-2015



### Parenteral Injuries/1000 Discharges 1985 - 2014, NIH Clinical Center



# SPLASH OR SPLATTER WITH HUMAN BLOOD AND BODY FLUID (N=14)

- HCP reported 14 events where they had direct contact between their skin and/or mucous membranes and patient's HBBF.
- This is a 50% reduction in the number of exposures compared to events reported in 2014 (n=29).
- OMS assessed two events as moderate risk. The remainder were mild, e.g., contact with intact skin.

# SUMMARY

- Estimated incidence rate = 5.4 total recordable cases per 100 FTE in 2015 among CC employees (n=83).
- Overall the number of events were low and of mild severity.
- NIH CC Environmental Safety Office, hospital departments, and NIH CC Hospital Epidemiology Service monitor incidents for trends and assess practices for opportunities for improvement.
- Environmental Safety Office and OMS continue to work together to assess events, address concerns, and reduce risks for HCP.