

Using Near Real-Time Data to Track Work-Related Needlestick Injuries

The New Jersey Department of Health (NJDOH), Occupational Health Surveillance (OHS) Unit, uses syndromic surveillance to track work-related injuries and illnesses.

The Challenge

Occupational needlestick injuries are still a common occurrence and can happen during use, disassembly, and disposal of the needle. Needlestick injuries can occur in any setting and injure anyone. This can include home health care providers, dental professionals, surgical professionals, sanitation workers, and any occupation with potential exposure to needles, blood, and body fluids.

In reviewing the chemical exposure data in the state syndromic surveillance system, numerous needlestick injuries were being identified and incorrectly classified as chemical exposures which prompted OHS staff to further investigate.



The Response

The OHS Unit has collaborated with the NJDOH Communicable Disease Service to incorporate occupational injury classifiers into the state-based syndromic surveillance system in which 79 of 80 facilities submit emergency department data in near real-time. A syndrome definition using inclusion keywords such as “needle,” “neddle,” and “iv stuck,” along with exclusion keywords such as “needles and pins” was created to search chief complaint fields for needlestick injuries. Work-related cases were confirmed using chief complaint, triage notes, and if discharge diagnosis code Y99.0 was used.

The Impact

Chief complaints and triage notes were reviewed for information on occupation, industry, what job activity was being done at time of needlestick, etc. In 2021, out of 1,966 needlestick ED visits, 814 were

confirmed to be work-related injuries. A majority of needlestick injuries occurred among nurses followed by students/residents. Needlesticks frequently occurred during the administration of anticoagulants, during blood draws, cleaning after a procedure, and disposal of needles after use. Outreach materials for facilities and health-care professionals were created and distributed through the New Jersey Local Information and Communication System (NJLINCS) state messaging system.

“Nurse administering heparin shot to patient and while engaging safety mechanism was accidentally poked.” - *Case triage notes*

For more information and to access these outreach materials please visit:
nj.gov/health/workplacehealthandsafety/occupational-health-surveillance/