

BACKGROUND

Needlestick and sharps injuries are common in healthcare workers and continue to occur despite safety trainings and protocols. These injuries increase the risk of exposure to infectious diseases such as HIV, Hepatitis B and Hepatitis C.



OBJECTIVES

- To describe the needlestick and sharps injuries that occurred in health care students and employees from 2019 to 2021 at our academic institution.
- To identify if any activities or individuals were associated with a greater incidence of needlestick injuries.

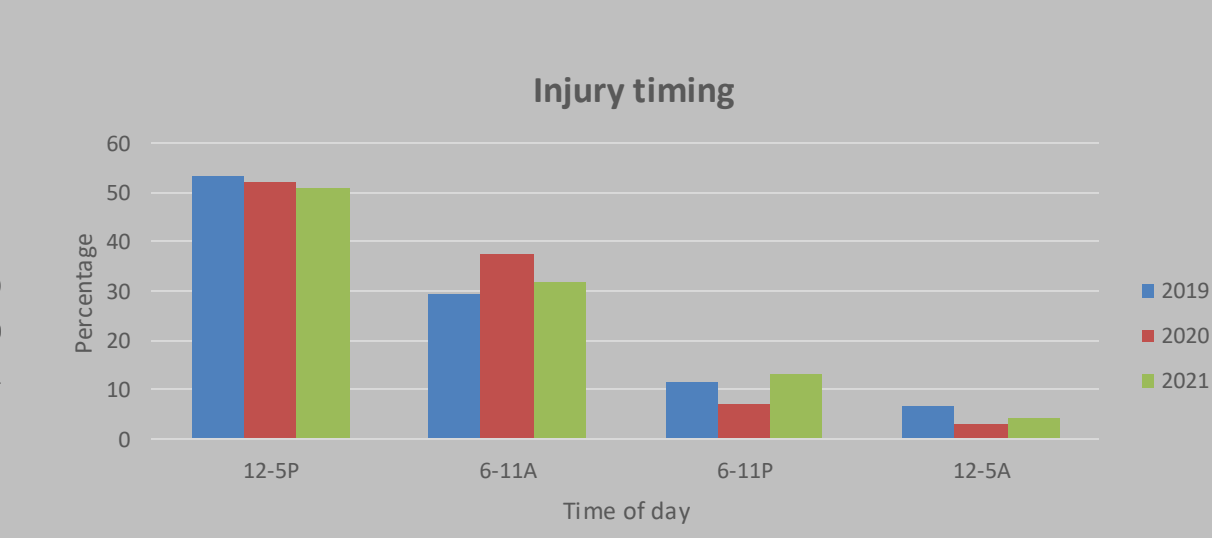
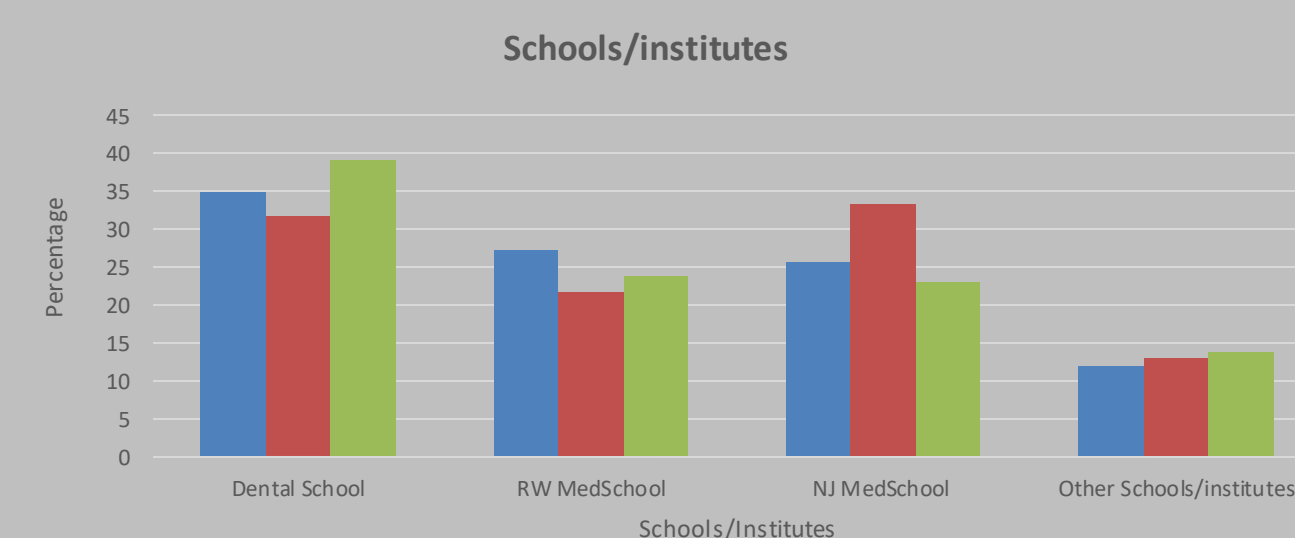
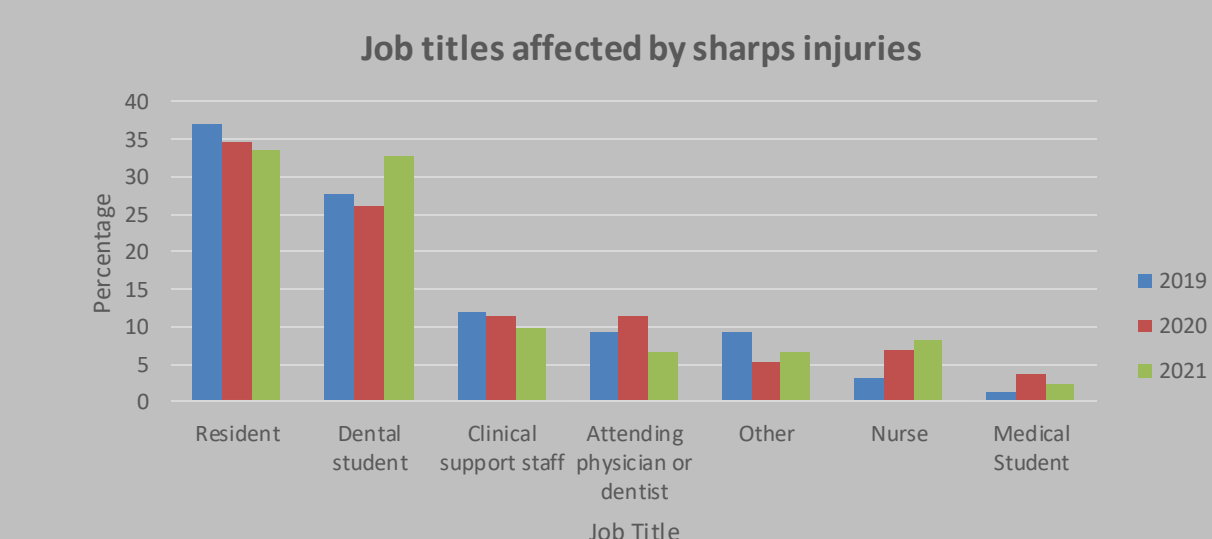
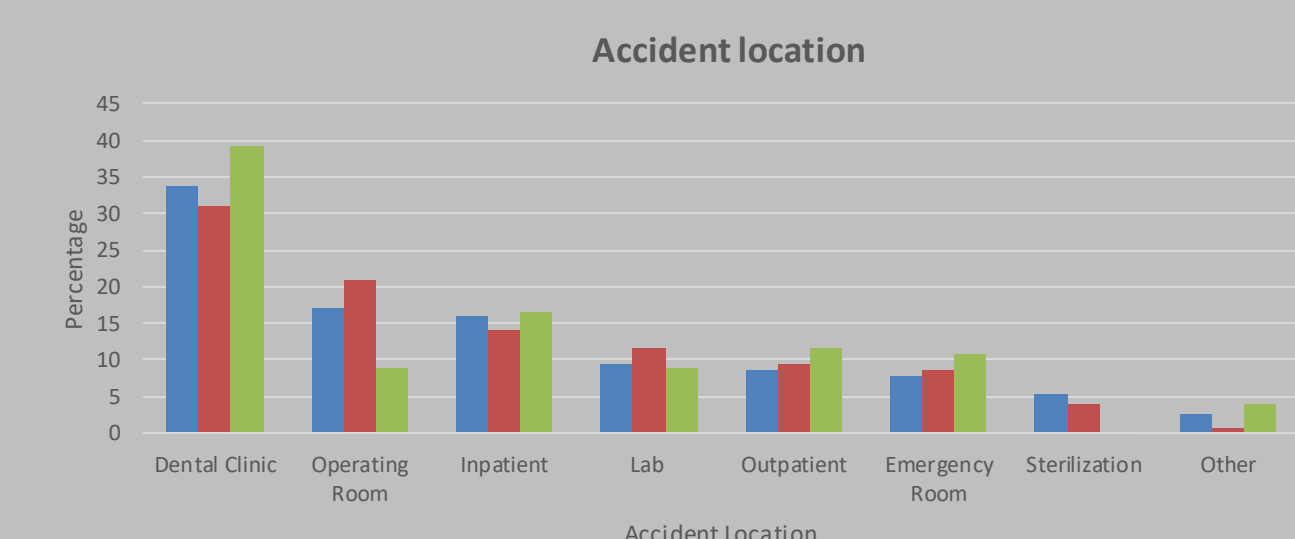
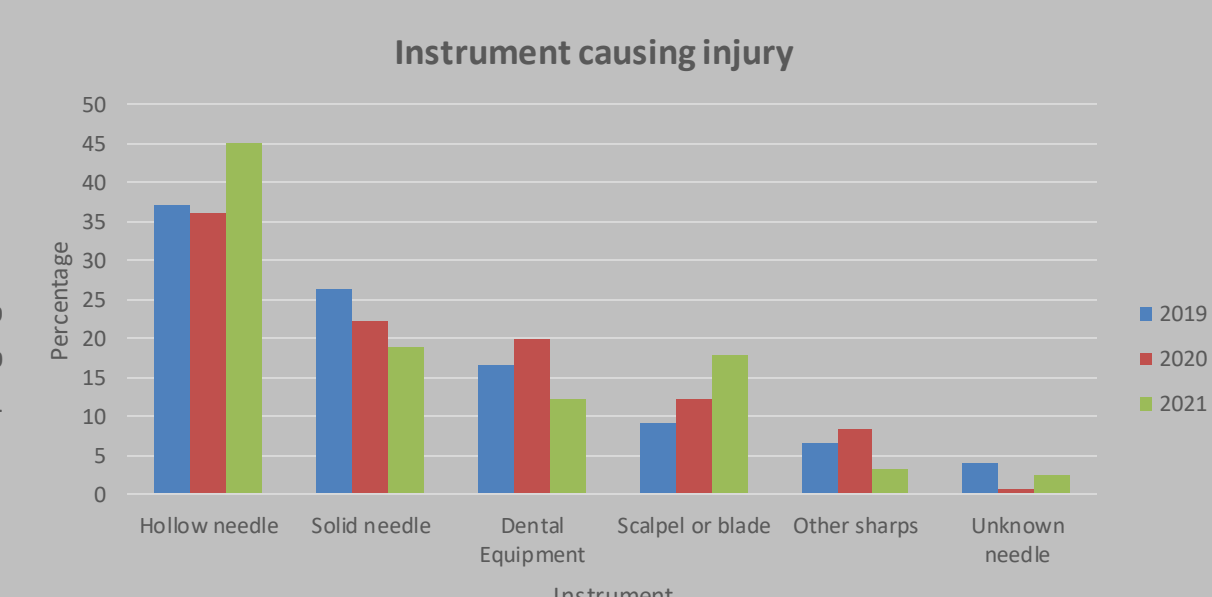
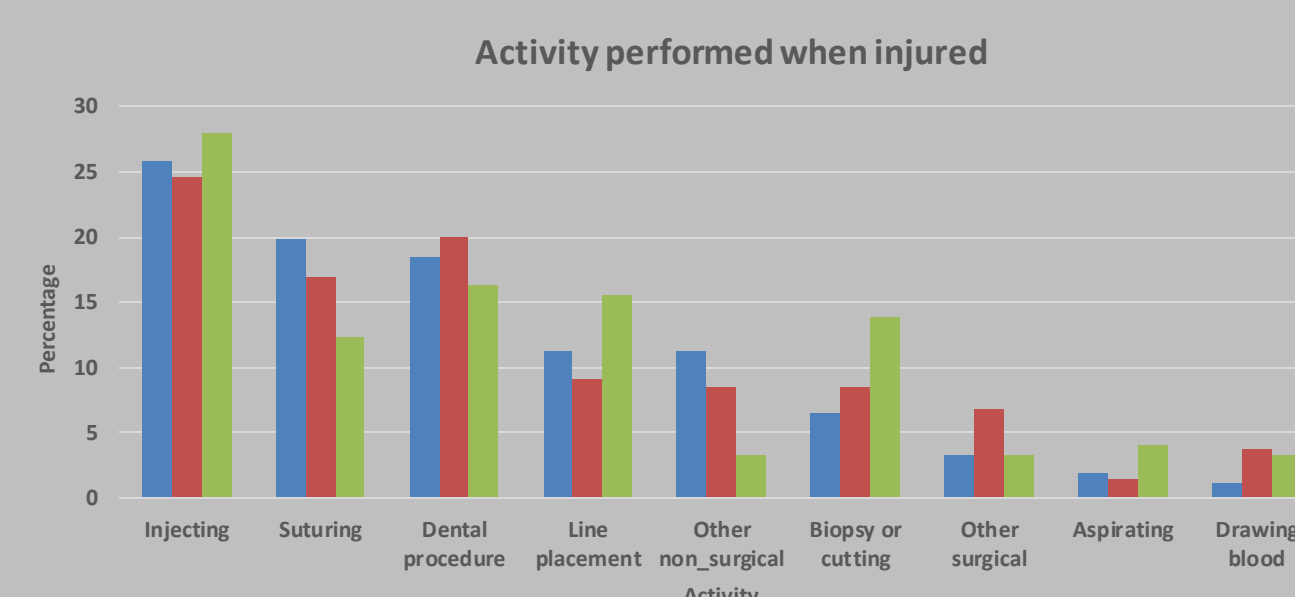


MATERIALS AND METHODS

- Design:** Rutgers maintains a database of all reported blood-borne exposures including sharps-related incidents. We abstracted de-identified data of all sharps-related injuries from 2019-2021. This project received Institutional Review Board Approval.
- Participants:** Health care students and employees who sustained needlestick injuries. We excluded splashes, bites, scratches and contact with blood or bodily fluids that did not involve a sharp instrument or device.
- Analysis:** We analyzed the job categories, activities, instruments, settings and departments associated with injuries.

RESULTS

- Of the initial 712 records reviewed, 401 records were eligible for inclusion in our analysis.
- Most injuries reported were sustained by residents, followed by dental students.
- Among students, dental students reported the greatest number of injuries (91%, 87%, and 93% in 2019, 2020, and 2021, respectively).
- Most injuries occurred while performing dental procedures, suturing and discarding; suggesting the need to implement more safety precautions during those activities.
- 151 injuries occurred in 2019, 128 in 2020, and 122 in 2021.



LIMITATIONS

Injuries may be underreported. The CDC estimates that 50% or more of sharps injuries are not reported. Katsevman and colleagues studied reporting of injuries and found that nursing students, medical students, and residents failed to report 83%, 43%, and 33% of injuries. Reasons for underreporting among health care workers include fear of reporting, time constraints and low perceived risk of bloodborne viral pathogen transmission.

CONCLUSION

Sharps injuries occur in our healthcare environment, even with safety engineered devices widely available. Further exploration of high-incident areas may identify training opportunities and opportunities for use of safety engineered devices where they may not currently be used.



REFERENCES

Katsevman GA, Sedney CL, Braca JA, Hatchet L. Interdisciplinary differences in needlestick injuries among healthcare professionals in training: Improving situational awareness to prevent high-risk injuries. *Work* 2020;65: 635-645.

Stop Sticks Campaign. Sharps injuries. Centers for Disease Control and Prevention website. Published 2019. Accessed March 3, 2022.