

Keeping our staff safe – Reducing needle-stick injuries in healthcare workers

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Introduction

Hunter New England Local Health District (HNELHD) has a diverse and expansive geographical footprint in NSW. The organisation employs over 16,000 staff with the majority identified as clinical healthcare workers (HCWs) and are therefore potentially at risk of Needlestick Injuries (NSIs).

Following a 2016 review of NSIs and products used within HNELHD, a comprehensive strategy was developed to implement Safety Engineered Sharps Devices (SESDs) for subcutaneous and intramuscular injections.

HNELHD is the first NSW LHD with tertiary referral hospitals to introduce and mandate the use of SESD on such a large scale district-wide level.

Aim

Reduction of Needlestick Injuries through the mandated use of standardised SESDs across the entire District therefore reducing the HCW's risk of exposure to blood borne viruses.

This strategy aligns with:

- HNELHD Strategic Priority 6.9 – Develop and implement strategies to reduce workplace injuries (HNELHD, 2018)
- NSW Health Strategic Priority 4.4 – Improve Health, Safety and Wellbeing at Work, by promoting a culture of safety and by implementing a sustainable strategy (NSW Health, 2017).

Method

As a result of high rates of NSIs in HNELHD, a project was commenced, in 2016, to review and implement Safety Engineered Sharps Devices (SESDs) for all Subcutaneous and Intramuscular injections.

Review / Approval Phase (2016):

- formation of district working party
- safety devices audit.
- literature review
- analysis of available safety products
- product recommendation
- cost-benefit analysis (Table 1)

Implementation Phase (March 2018):

- Collaboration between relevant stakeholders
- Online staff training module to educate new or rotating staff
- Train-the-trainer approach to facilitate ongoing training
- Development of a Policy Compliance Procedure (PCP) to mandate compliance
- Development of product posters and fact sheets
- Rigorous exemption process for those areas with a clinical need to use non-safety needles
- Procurement system changes that prevented staff from ordering non-safety needles (excluding specialty needles)
- Face to face education, at each facility, by the three key external product partners with Clinical Nurse Educator and Project Manager

Evaluation Phase (over 12mth period):

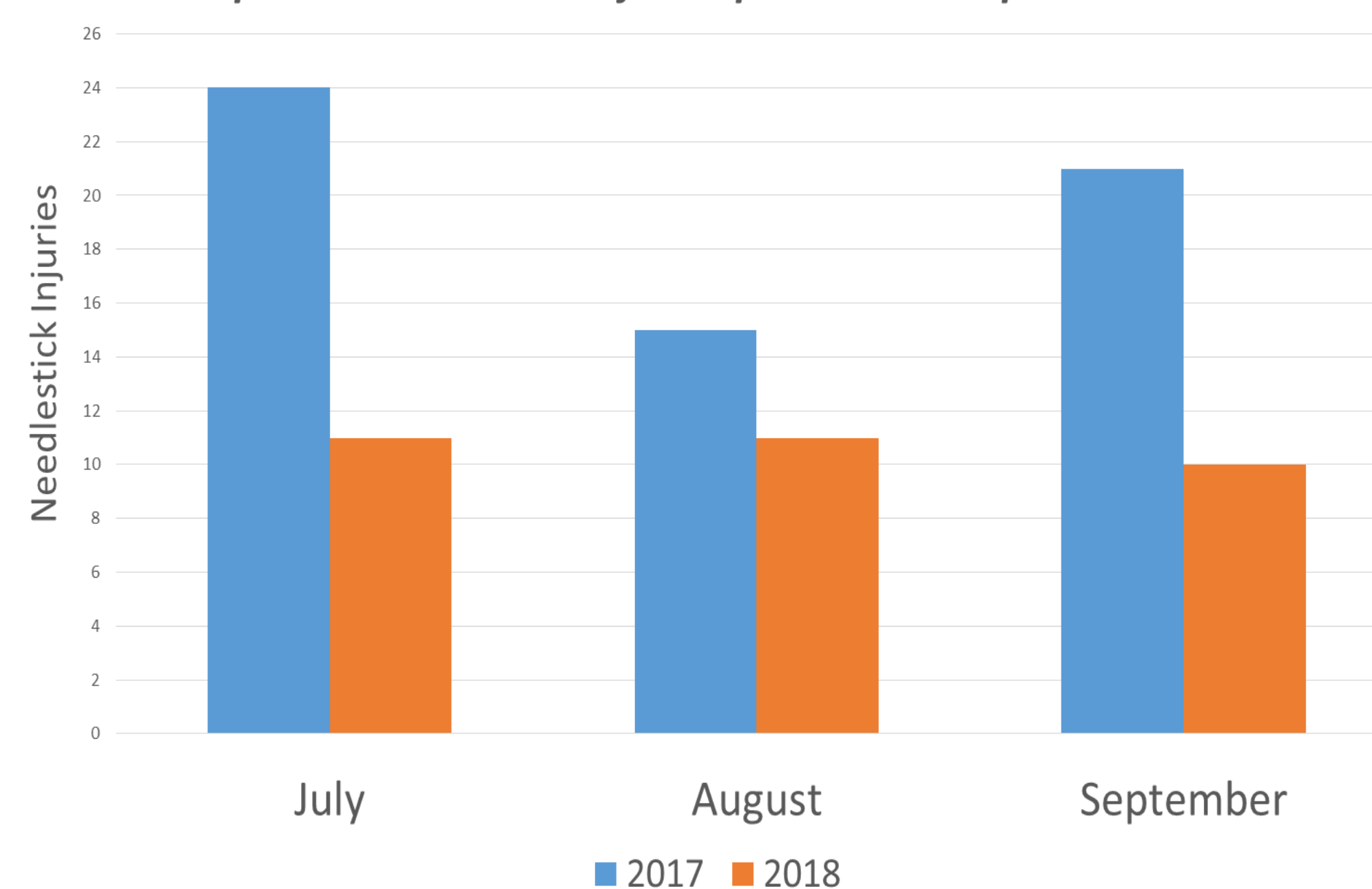
- regular stock ordering and usage reports
- needle-stick injury reports
- repeat SESD devices audit
- analysis of both transition and ongoing costs
- reports on exemptions
- online training statistics

Results

1900 relevant clinical HCWs received face to face education during the implementation phase.

Since completion of the implementation in June 2018, there has been a rapid reduction in exposure reports across Hunter New England Local Health District (HNELHD), with an overall reduction of 47% compared to the same period in 2017, with individual months having 52% – 54% reduction (Graph 1).

Graph 1 - Needlestick Injuries post SESDs Implementation



Challenges

Vendors, who usually work individually (as competitors), were able to collaboratively roll out the education program.

Not all wards were provided with education, some wards/managers/teams did not engage with the project.



Numerous changes to the education team during the project. CNE and Project Manager remained consistent, 13 different vendor company educators participated in the education.

Conclusion

The comprehensive approach to implementing SESDs has changed clinical practice and significantly reduced the risk of NSIs.



This strategy has contributed to the provision of a safer workplace, thus keeping our Healthcare Workers safe from blood borne viruses.



Table 1. Costs to Implement Safety Engineered Sharps Devices (SESDs) and Cost Avoidance (based on 2016 NSI figures of 228)

Item	Cost (AUD \$)
Cost to implement SESDs	\$271,155
Cost of All exposures (non-complicated)	\$136,081
Cost of complicated exposures	\$463,095
Total Cost Avoidance in Implementation year	\$328,021
Total annual cost avoidance per year	> \$599,000

References

Hunter New England Local Health District (HNELHD) (2018). *Strategic Plan: Towards 2018*.

NSW Health (2017). NSW Health Strategic Priorities FY 2017-18.

Acknowledgements

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- Project Manager – Melea Charles
- Clinical Nurse Educator – Jenny Greig
- Key Stakeholders –
 - Leanne Frazer (District IPS)
 - Patricia Robertson (District WHS)
- Participants of the District Sharps Safety Devices Working Party
- Product Representatives