

Teaching old dogs new tricks: a program to improve staff immunisation rates

Background

Healthcare workers (HCWs) are at increased risk for acquiring vaccine-preventable diseases (VPDs) and immunisation is therefore recommended and endorsed nationally. In 2016 an audit of immunisation records was conducted at our tertiary facility to determine the 'immune status', vaccination compliance of HCW's and endorse the development of a Workforce Immunisation Program (WIP). The objective of the campaign was to identify clinical areas with low HCW immunisation compliance to target these groups for vaccination or serology to improve global immunisation record completion at our organisation and reduce the risk of VPD's to all HCW's, patients and consumers.

Key Performance Indicators (KPI's) developed, included an Internal Target of;

95% of staff with direct patient contact in high risk clinical areas
75% of staff with direct patient contact in low risk areas



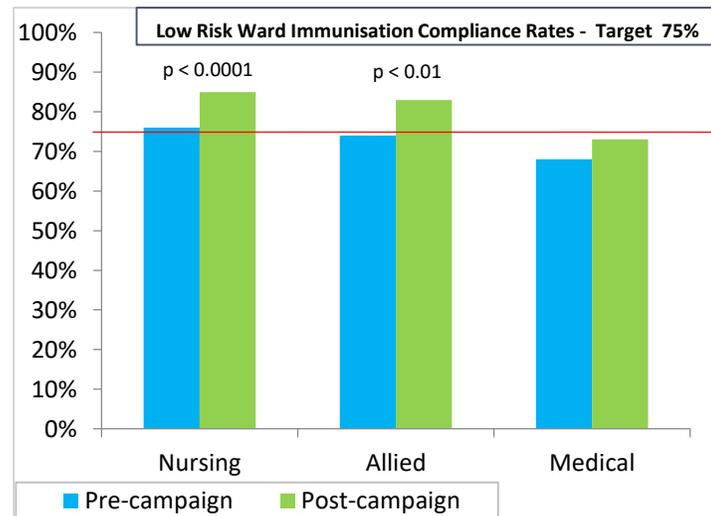
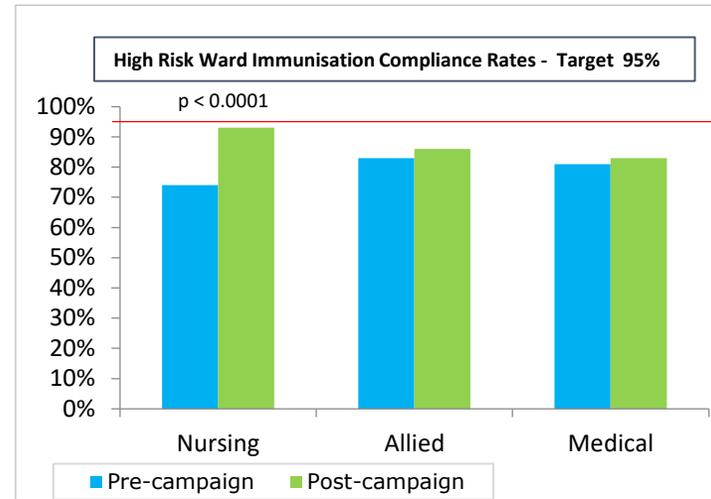
Varicella
Measles
Mumps
Rubella
Hepatitis B

NB: High risk clinical areas defined as areas with greater numbers of immunocompromised patients

Method

October 2016, a month long pilot of a WIP campaign was trialled on an acute high risk cardiac surgery ward. The campaign expanded following the success of the pilot measured by increased immunisation uptake and positive feedback, particularly regarding the convenience of a mobile immunisation service.

- In 2017, the WIP campaign was subsequently funded for two nurse immunisers to provide an organisation wide mobile immunisation service from January to July.
- HCW (with direct patient contact) immunisation records were individually assessed for immunity to Varicella, Measles, Mumps, Rubella and Hepatitis B, including serological evidence of immunity for Hepatitis B post primary vaccination.
- Immunisation records were accessed via an internal computer database with local ward / department reports supplied to area managers.
- Reports detailed HCW percentage compliance rates with individual staff immunisation status reported as 'complete' or 'incomplete'.
- Managers expectations were to drive the campaign to reach the internal KPI target.
- Rosters were accessed daily to target those HCW's with an 'incomplete' record.
- HCW's were approached in their area and encouraged to complete immunisation through vaccination or serology via the mobile WIP service.
- HCW's not encountered face-to-face during the campaign were emailed, mailed or phoned, requesting an immunisation appointment with the Staff Immunisation Clinic.
- Fisher's Exact Test was used to assess the immune status pre and post the WIP, with a p-value of <0.05 accepted to demonstrate statistical significance.



Results

- 1279 HCWs records were assessed in 16 high-risk clinical areas;
- 245 (21%) were identified as having an incomplete vaccination record.
 - Of these, 56% were followed up and immunised.
 - Nursing, represented the highest volume of staff, mean compliance increased from 74% pre-campaign to 93% post campaign (p < 0.0001), almost at KPI 95% target.
 - Allied Health, mean immunisation rates increased slightly from 83% pre-campaign to 86% post-campaign.
 - Medical compliance 81% pre-campaign also achieved slight increase to 83% post-campaign.

- 2565 HCWs records were assessed in 50 low-risk clinical areas;
- 658 (26%) identified as having an incomplete record.
 - Of these, 19% were followed up with immunisations.
 - Nursing compliance increasing from 76% to 85% (p < 0.0001)
 - Allied Health, mean immunisation rates increased from 74% pre-campaign to 85% post-campaign (p < 0.01), met KPI target.
 - Medical staff compliance 68% pre-campaign again only increased slightly to 73% post-campaign, not meeting KPI target. Limitations were encountered in accessing medical rosters and then capturing medical staff during the short duration of the campaign, thus explaining lower compliance achieved.

100% of HCW's not encountered during the WIP campaign with face-to-face contact (n=612) included: nursing (55%), medical (29%) and allied health staff (17%). These were contacted by phone, email or post with a request to make an appointment to complete their immunisation record with the on-site Staff Immunisation Service.

Conclusion

- Whilst KPI targets were not met in all areas of the campaign, significant increase in compliance through immunisation record completion was achieved during WIP, with greatest compliance achieved in Nursing, followed by Allied Health, then less evident in the Medical HCW category.
- Whilst 100% of clinical staff with incomplete records were contacted there is still a significant proportion of these staff that have incomplete vaccination records.
- A mobile immunisation program can increase uptake of HCW immunisations and identifies the global gaps in the number of existing staff at our organisation that are still considered at risk of VPD's through incomplete immunisation records.

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