



Tracking Influenza Vaccination Rates - Are We There Yet?

Analysis of Interior Health Authority Influenza Vaccine Campaign

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All healthcare workers (HCWs) in British Columbia (BC) are provided free influenza vaccine during the annual comprehensive and convenient influenza vaccine campaigns carried out by provincial health authorities.

Despite these efforts, provincial vaccine coverage remains between 43% - 46% in acute care and between 50% - 80% in long term care facilities - below the overall goal of 80% coverage for all HCWs.

Project Scope

The goal of this analysis was to identify categories of workers that have the highest and lowest rates of vaccination, so that best practices and strategies may be developed to target the identified 'hard to reach groups' and, therefore, increase vaccine coverage to meet the provincial goal of 80%.

Methods

- Four years (2004/05 to 2007/08) of influenza vaccine coverage data entered into the Workplace Health Indicator Tracking and Evaluation (WHITE™) database by the Interior Health Authority (IHA).
- The vaccination rate was calculated for each year (2004/05 to 2007/08) and was stratified by employee variables: occupation, subsector, gender, age, and health service area (HSA).
- The vaccine coverage rates are determined using a denominator that excludes staff on long term disability, leave of absence, maternity leave and others not working during influenza season (October - March).
- To determine the proportion of workers who regularly get vaccinated, a cohort of workers who were vaccinated in 2004/05, and who remained in the same occupation and same status (full time, part time), over the four years, was followed. The percentage of workers who remained at work and continued to get vaccinated was calculated.

IHA Background

- Interior Health (IHA) is one of the five geographically-based health authorities located within BC.
- IHA has four health service areas (HSA) in the interior of the province.
- 2009 population: 737,908 (16.4% of BC's population) spread over 215,346 sq. km.
- Health services include 16 community, four regional, and two tertiary referral hospitals, plus 10 community health centres and 10 primary health care centers.
- IHA has approximately 18,700 employees.

Influenza Vaccination Program

- Influenza Immunization of the IHA staff is under the direction of the Workplace Health & Safety Program (WH&S) with support from public health nursing.
- Staffing for the campaign ranges from one to three Infection Control practitioners, Occupational Health Nurses (OHNs), and Public Health Nurses, in each of the four HSAs.

- IHA uses a "Flu Champs" role in promoting influenza immunization to all HCW's. "Flu Champs" attend annual "Flu Schools" run by Public Health, Occupational Health and/or Infection Control.
- These "Flu Schools" are updated annually and offered throughout the HA.
- IHA offers several mass influenza vaccine clinics, run by OHNs/RNs, in their large facilities; and use roaming carts to reach staff in these acute care areas: emergency rooms, intensive care units, and operating rooms. The Flu Champs in smaller facilities offer vaccine clinics, one-on-one vaccination, or roaming carts.

IHA Process for Data Entry

- In order to have an accurate denominator to determine rates IHA WH&S staff work with payroll to exclude staff on long term disability, leave of absence, maternity leave and others not working during influenza season (October - March).
- During the influenza campaign, WH&S staff enter the employees' name, date, vaccine name, and lot number into Excel spreadsheets which are then uploaded into the WHITE™ Database regularly.
- Data entry into the excel spreadsheet is quick – usually 60 to 80 employee entries per hour.
- During the 2008-09, campaign reports indicating which employees had not yet received vaccine were downloaded from WHITE™ twice weekly, with managers accessing INSIGHT to review their area vaccination rates as needed.
- This quick procedure (one hour) is done twice weekly, to ensure managers have up-to-date information to address staffing during outbreak situations, especially on weekends or other minimal staffing times.

Results

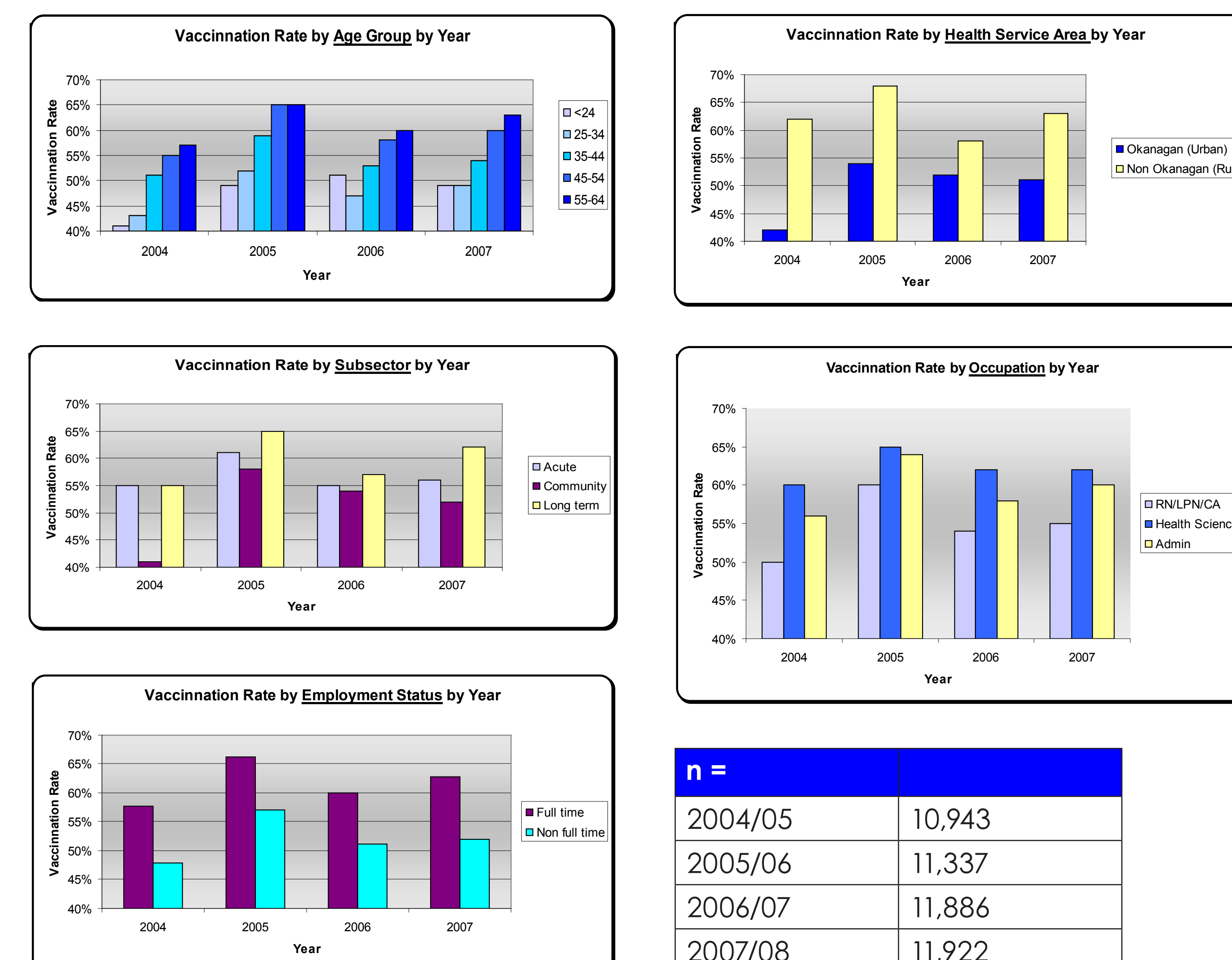
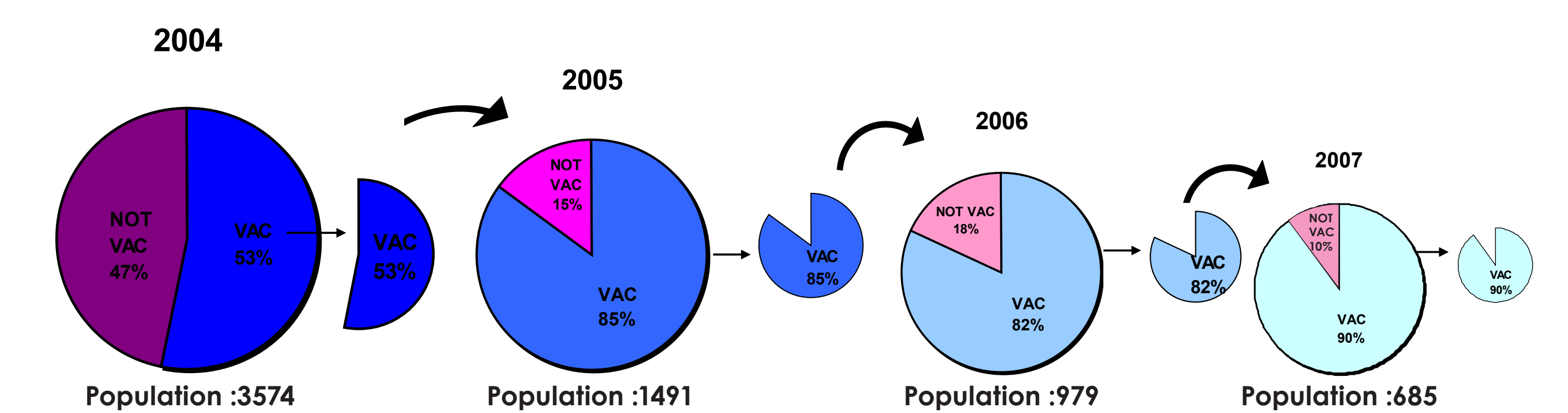


Figure 1: Vaccination rate of full time RNs who remain in the same occupation and status each year



IHA WH&S staff have developed an efficient process, with an accurate denominator, for entering their complete annual influenza vaccine coverage data into the WHITE™ database. We were able to use this information to identify core groups of high vaccine receivers.

The results of this four-year longitudinal review showed that regular vaccine receivers are:

- Older workers (>45 years of age)
- Long term care workers
- Non direct care staff (Health Sciences, Admin)
- Full time workers
- Workers outside of urban centers.

The strongest predictor for current vaccination across all groups was having received influenza vaccine the previous year.

Implications

- Future campaign strategies can use these results to better direct resources to those less likely to receive a vaccine. Educational programs and extra carts/vaccine clinics can be directed to new hires, part time and casual workers, RN's, LPN's and Care Aides.
- The analysis showed that previous vaccination is the strongest predictor for continued vaccination. This information is useful for training programs and schools to encourage influenza vaccination for students, so that when they join the health care workforce they will already be vaccine receivers.