Influenza Vaccine Coverage
2016 – 2017 Influenza Season

Summary
For the 2016-2017 influenza season, influenza vaccine coverage among the active clinical population 6 months and older served by IHS, Tribal and Urban (I/T/U) facilities was 33%-34%, essentially the same as the previous year. Coverage from the two different reporting systems used by IHS to monitor influenza vaccine coverage is included in Figures 1 and 2 below.

Among health care personnel (HCP) in I/T/U facilities, coverage was 81.6%, compared to 73.9% in the previous season [Figure 4]. In IHS facilities, HCP coverage was 90% compared to 84.8% in the previous season [Figure 6]. Efforts to increase influenza vaccine coverage, particularly among patients and HCP in Tribal and Urban facilities, need to continue.

Background
Each year the Indian Health Service (IHS) monitors influenza vaccine coverage among its patients and healthcare personnel (HCP). For patients, data are collected using the IHS Influenza Awareness System (IIAS) as well as the RPMS Influenza vaccine coverage report. Data on HCP are collected from each facility. Methodological details can be found in Appendix A.

Influenza Vaccine Coverage Among Patients
For the 2016-2017 influenza season, approximately one third of the IHS patient population 6 months and older received a flu vaccine. Coverage in all age groups remained essentially the same as coverage reported in the 2015-2016 season. A breakdown of coverage as reported in the 2 different systems is included below in Figures 1 and 2. Figure 3 shows coverage by IHS Area based on the RPMS coverage data, which ranged from 17.2% (CAO) to 40.3% (NAV).

Figure 1: National Influenza Vaccine Coverage – IIAS Influenza Vaccine Coverage Report

*All N = 1,010,459. Based on Active Clinical Users
Figure 2: National Influenza Vaccine Coverage – RPMS Influenza Vaccine Coverage Report

![National IHS Influenza Vaccine Coverage RPMS](image)

*All (6 mnths +) Children (6mnth - 17 yrs) Adults (18yrs+) 65 yrs +

* 2016-2017 N = 685,982. Based on Active Clinical Users

Figure 3: Influenza Vaccine Coverage by IHS Area – RPMS Influenza Vaccine Coverage Report

![IHS Influenza Vaccine Coverage by IHS Area RPMS Reports All Ages](image)

N = 685,982. Based on Active Clinical Users
**Healthcare Personnel**

For the 2016-2017 influenza season coverage among HCP working in I/T/U facilities increased 7.7% compared to the 2015-16 season (from 73.9% to 81.6%). Medical contraindications and refusals were similar compared to previous years (Figure 4). Coverage by IHS Area is included in Figure 5, and ranged from 70.3% (Alaska) to 97.6% (TUC).

While overall HCP coverage increased in I/T/U facilities, coverage among IHS facilities was higher than coverage in Tribal facilities (Figure 6), and the Healthy people 2020 Goal of 90% coverage was achieved. Coverage in IHS increased by 5.2% compared to the previous year. This is likely the result of the full implementation of the IHS policy requiring all IHS HCP to be vaccinated against influenza. This policy was partially implemented in September 2015 for non-Union members, and expanded to include Union members for the 2016-17 season.

**Figure 4: Influenza Vaccine Coverage among Healthcare Personnel**

![Healthcare Personnel Seasonal Influenza Vaccine Coverage 2008 - 2017*](chart)

Data Source: National Immunization Reporting System. Data as of March 31, 2017

* N= 37,939
Figure 5: HCP Influenza Vaccine Coverage by IHS Area

[Graph showing HCP Influenza Vaccine Coverage by Area for 2015-2016 and 2016-2017 All Facilities (I/T/U). The graph includes data for different areas such as Alaska, Albuquerque, Bemidji, Billings, California, Great Plains, Nashville, Navajo, Oklahoma, Phoenix, Portland, Tucson, and National. The HP 2020 Goal is marked at 90%.]


Figure 6: HCP Influenza Coverage: IHS vs. Tribal Sites

[Graph showing HCP Influenza Vaccine Coverage for IHS and Tribal Sites from 2008-2009 to 2016-2017. The graph includes data for different years and shows the HP 2020 Goal at 90%.]


N = IHS 16,220 HCP (64 facilities)
Tribal 20,679 HCP (67 facilities)
Conclusion
While patient coverage estimates differ depending on the data source used, coverage estimates are similar and reflect little to no change compared with the previous year. Both the IIAS vaccine coverage report and the RPMS vaccine coverage report show a decrease in coverage since the 2014-2015 season. For the last 4 seasons just over one third of the active patients seen at an I/T/U facility received an influenza vaccine, indicating that more needs to be done to promote and support vaccination efforts in I/T/U settings. While regional variation in coverage levels may be attributed in part to different vaccination strategies employed in different Areas, differences in AI/AN population size and relative proximity to an I/T/U facility likely play a role. In addition, missing data in the RPMS system, particularly in those IHS Areas with large urban populations with other sources of care, likely contributes to an underestimate of true coverage.

HCP vaccination coverage among I/T/U facilities increased compared with previous years, and in IHS facilities, the Healthy people 2020 Goal of 90% coverage was achieved, due in part to the IHS mandatory HCP influenza vaccination policy. Tribal facilities interested in increasing HCP influenza vaccine coverage levels may wish to consider a mandatory influenza vaccination policy for their HCP.

Appendix A - METHODS

IHS Influenza Awareness System
For patients, national influenza vaccine coverage is monitored weekly throughout the influenza season using the IHS Influenza Awareness System (IIAS). Data are based on vaccine doses administered and recorded in the RPMS system, and are limited to active clinical patients, defined as patients who have had at least 2 visits in the last 3 years. For the 2016-2017 season, the IIAS captured data on 1.0 million active clinical patients from 301 total exporting facilities. Exporting facilities defined by the IIAS include Alaska Village Clinics, Health Centers, Health Locations, Health Stations and Hospitals.

RPMS Influenza Vaccine Coverage Report
Reports on patient influenza vaccine coverage generated using the RPMS influenza vaccine coverage report are collected from each facility on Dec. 31st and March 31st and compiled at the national and IHS Area levels. The RPMS influenza vaccine coverage report is based on vaccine doses administered and recorded in the RPMS system, and is limited to active clinical patients, defined as patients who have had at least 2 visits in the last 3 years. RPMS influenza vaccine coverage reports were collected from 151 facilities, representing 685,982 active clinical patients.

Health Care Personnel Influenza Vaccine Coverage Reports
IHS adopted the National Quality Forum (NQF) Healthcare Personnel influenza vaccination measure. Within this measure, Healthcare Personnel (HCP) are defined as any IHS, Tribal or
other employee who has been physically present in an IHS, Tribal or Urban Indian (I/T/U) healthcare facility for at least 1 working day between October 1 and March 31, regardless of their contact with patients. Because data for HCP are not usually captured in the RPMS patient database, tracking of influenza vaccine among HCP is done either manually or using other software products sites may have in place. For HCP, influenza doses administered either at the facility or elsewhere were counted as “vaccinated”; data on refusals and medical contraindications were also collected. In 2009, there were approximately 38,000 people employed in the I/T/U system, though not all of them worked in healthcare facilities. For the 2016-2017 influenza season HCP data were collected from 149 facilities on 37,939 HCP.

Limitations
While existing data are helpful in providing an overall picture of influenza vaccine coverage and can be useful for monitoring trends over time, there are limitations. Not all sites participate in reporting, and patient data are not de-duplicated between facilities which can lead to an underestimate of coverage.