Summary
For the 2017-2018 influenza season, influenza vaccine coverage rates among the active clinical population (patients with 2 visits in the past 3 years), 6 months and older served by IHS, Tribal and Urban (I/T/U) facilities was 36%, consistent with coverage in the previous year. Coverage from the reporting system used by IHS to monitor influenza vaccine coverage is included in Figure 1 and 2 below.

Among health care personnel (HCP) in all I/T/U facilities, coverage was 84.1%, compared to 81.6% in the previous season [Figure 3]. In IHS-managed facilities, HCP coverage was 95.8% compared to 90.0% in the previous season [Figure 5]. Efforts to increase influenza vaccine coverage, particularly among patients and HCP in Tribal and Urban facilities, need to continue.

Background
During each influenza season, the Indian Health Service (IHS) monitors influenza vaccine coverage among its patients and HCP. For patients, data is collected using the IHS Influenza Awareness System (IIAS). Data on HCP are collected directly from each facility. Methodological details can be found in Appendix A.

Influenza Vaccine Coverage among Patients
For the 2017-2018 influenza season, more than 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 2016-2017 season. Figure 2 shows coverage by IHS Area based on the IIAS coverage data, which ranged from 23.6% (Alaska) to 57.8% (Tucson).

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Children (6mth - 17 yrs)</th>
<th>Adults (18yrs+)</th>
<th>All (6 months+)</th>
<th>65 yrs +</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2011</td>
<td>30%</td>
<td>35%</td>
<td>33%</td>
<td>25%</td>
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<tr>
<td>2011-2012</td>
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<td>2012-2013</td>
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<td>2013-2014</td>
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<td>2014-2015</td>
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<td>2015-2016</td>
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<td>2016-2017</td>
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<td>2017-2018</td>
<td>30%</td>
<td>35%</td>
<td>33%</td>
<td>25%</td>
</tr>
</tbody>
</table>

All (6 months+) N = 942,889. Based on Active Clinical Users
Healthcare Personnel

For the 2017-2018 influenza season coverage among HCP working in I/T/U facilities increased 2.5% compared to the 2016-17 season (from 81.6% to 84.1%). Coverage for HCP who did not receive a flu vaccine and HCP with an unknown vaccination status were similar compared to previous years (Figure 3). Coverage by IHS Area is included in Figure 4, and ranged from 72.3% (California) to 94.8% (OK).

While overall HCP coverage increased in I/T/U facilities, coverage among IHS-managed facilities was higher than coverage in Tribal facilities (Figure 5), and the Healthy people 2020 Goal of 90% coverage was achieved for the second year. Coverage in IHS-managed facilities increased by 5.8% compared to the previous year.
Figure 3: Influenza Vaccine Coverage among Healthcare Personnel

![Healthcare Personnel Seasonal Influenza Vaccine Coverage 2008 - 2018 All Facilities (I/T/U)](image)

Figure 4: HCP Influenza Vaccine Coverage by IHS Area

![HCP Influenza Vaccine Coverage by Area 2016–2017 & 2017-2018 All Facilities (I/T/U)](image)

HP 2020 Goal – 90%

N = 2016-2017; 37,939 HCP (149 facilities)

N = 2017-2018; 37,935 HCP (152 facilities)
Conclusion

Coverage estimates are similar and reflect a slight increase compared with the previous year. For the last 8 seasons just over one third of the active clinical 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.

HCP vaccination coverage among I/T/U facilities increased compared with previous years, and in IHS-managed facilities, the Healthy people 2020 Goal of 90% coverage was achieved for the second year, likely due in part to the IHS mandatory HCP influenza vaccination policy first instituted during the 2015-2016 influenza season. 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, the IHS’ unique electronic health record software, and are limited to active clinical patients, defined as patients who have had at least 2 visits in the last 3 years. For the 2017-2018 season, the IIAS captured data on 942,889 active clinical patients from 231 total exporting facilities. Exporting facilities defined by the IIAS include Alaska Village Clinics, Health Centers, Health Locations, Health Stations and Hospitals.

**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. To categorize HCP as vaccinated, influenza doses administered either at the facility or elsewhere were counted; data on refusals, religious exemptions and medical contraindications were also collected. For the 2017-2018 influenza season HCP data were collected from 152 facilities on 37,935 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.