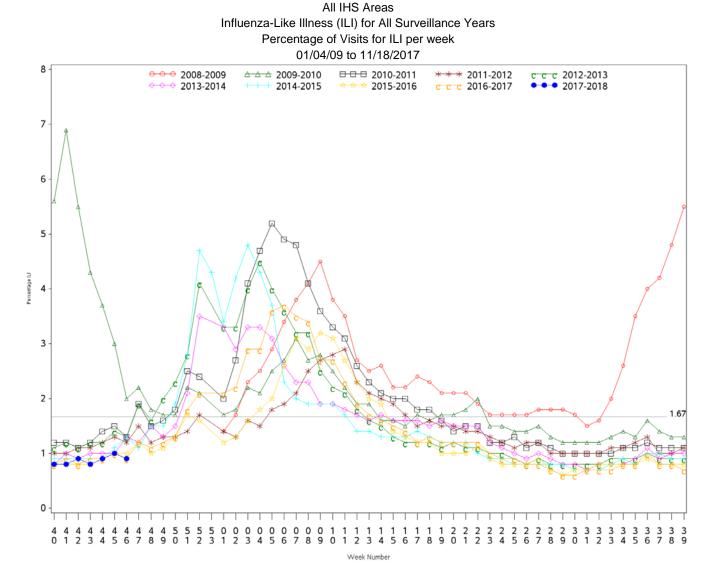


Indian Health Service Division of Epidemiology and Disease Prevention Influenza Surveillance Report IHS Influenza Awareness System (IIAS) (Week 46: 11/12/2017 – 11/18/2017)

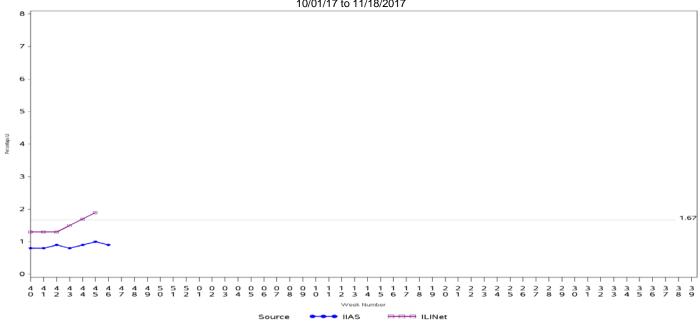
- Influenza-like-illness (ILI) activity in IHS is low and is at 0.9%, below the IHS baseline of 1.67%
 - Four IHS regions are reporting elevated ILI activity
- National ILI activity reported by CDC is also low, below the ILINet baseline
 - CDC's ILINet ILI activity is 1.9%, below the ILINet baseline (2.2%) but above the IHS baseline (1.67%).
- To date, IHS has administered over 229,000 doses of influenza vaccine.
- Overall, 24.2% of the IHS Active Clinical population received an influenza vaccine this season.



Percent ILI visits is number of ILI visits divided by total number of daily outpatient visits.

The horizontal line represents the 2017-2018 IIAS baseline. The baseline is the mean percentage of patient visits for ILI during non-influenza weeks for the previous three seasons plus two standard deviations.

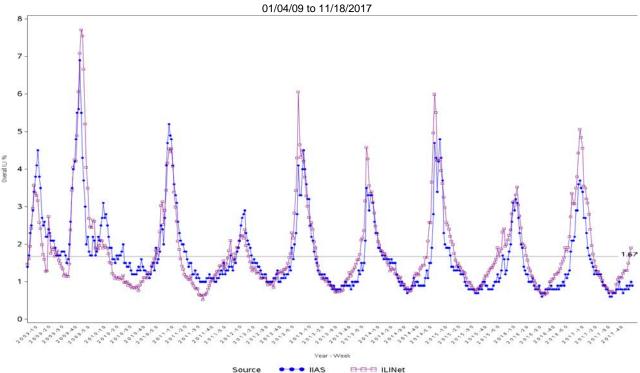
Percentage of Outpatient Visits for Influenza-Like Illness (ILI) Percent ILI for Flu Year 2017 - 2018 IIAS vs. ILINet 10/01/17 to 11/18/2017



Percent ILI visits is number of ILI visits divided by total number of daily outpatient visits. The horizontal line is the 2017-2018 IIAS baseline. The ILINet baseline value for 2017-2018 is 2.2.

Baselines are computed as the mean percentage of ILI patient visits during non-influenza weeks for the previous three seasons, plus two standard deviations. Sources: ILINet - CDC Sentinel Surveillance System for Influenza-Like Illness, IIAS - IHS Influenza Awareness System

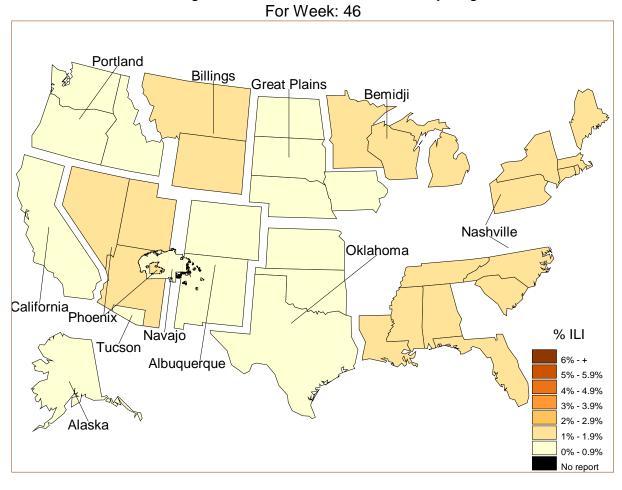
> Influenza-Like Illness (ILI) All Surveillance Years - Continuous Percentage of Visits for ILI per week IIAS vs. ILINet



Percent ILI visits is number of ILI visits divided by total number of daily outpatient visits.

The horizontal line is the 2017-2018 IIAS baseline. The ILINet baseline value for 2017-2018 is 2.2.

Baselines are computed as the mean percentage of ILI patient visits during non-influenza weeks for the previous three seasons, plus two standard deviations. Sources: ILINet - CDC Sentinel Surveillance System for Influenza-Like Illness, IIAS - IHS Influenza Awareness System



Percentage of Influenza-Like Illness Visits by Region

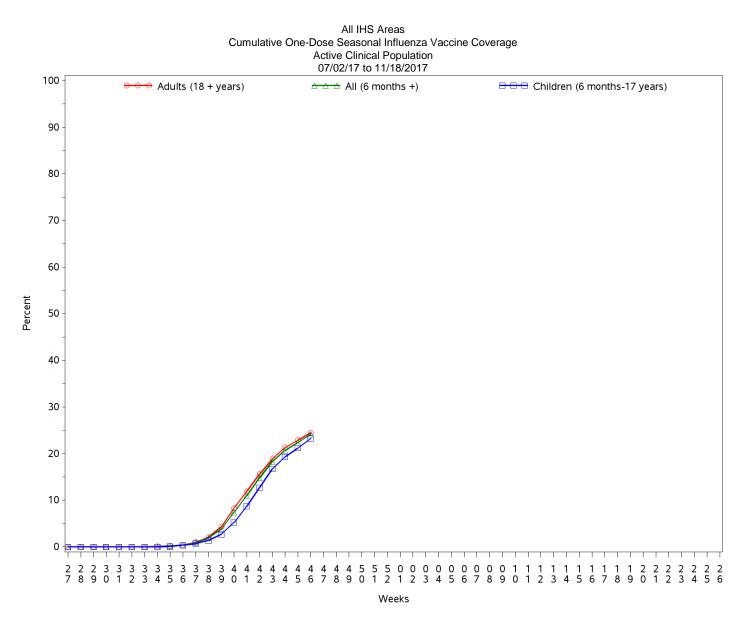
| | • • • | |
|------------------|--------------|---------------|
| % Visits for ILI | Compared to | Previous Week |

| IHS Areas | % in Week 45 | % in Week 46 |
|--------------|--------------|--------------|
| NATIONAL | 1.0 | 0.9 |
| ALASKA | 1.2 | 0.9 |
| ALBUQUERQUE | 0.8 | 0.8 |
| BEMIDJI | 0.3 | 1.3 |
| BILLINGS | 1.2 | 1.0 |
| CALIFORNIA | 0.5 | 0.5 |
| GREAT PLAINS | 0.8 | 0.9 |
| NASHVILLE | 2.1 | 1.8 |
| NAVAJO | 1.2 | 0.9 |
| OKLAHOMA | 0.6 | 0.7 |
| PHOENIX | 1.7 | 1.3 |
| PORTLAND | 0.4 | 0.3 |
| TUCSON | 0.8 | 0.5 |

Percentage of ILI visits is number of ILI visits divided by total number of daily visits.

IHS Influenza Vaccination Surveillance

• As of 11/18/2017, sites reporting to the IIAS have administered 229,178 doses (1st and 2nd) of seasonal influenza vaccine to Active Clinical patients.



Influenza Vaccination Coverage by Age Group*

| Age Group | Active Clinical Population** | Seasonal Flu Vaccine (At Least 1 Dose)*** | % Seasonal Flu (At Least 1 Dose) | Seasonal Flu Vaccine (At Least 2 Doses) | % Seasonal Flu (At Least 2 Doses) | Total #Doses Administered**** |
|----------------------------------|------------------------------------|--|-------------------------------------|--|--------------------------------------|----------------------------------|
| 0 - 5 months | 4,295 | 25 | 0.6 | 0 | 0.0 | 25 |
| 6 - 23 months | 20,791 | 6,412 | 30.8 | 497 | 2.4 | 6,919 |
| 2 - 4 years | 51,502 | 9,628 | 18.7 | 72 | 0.1 | 9,713 |
| 5 - 17 years | 196,064 | 46,503 | 23.7 | 164 | 0.1 | 46,761 |
| 18 - 49 years | 401,345 | 73,134 | 18.2 | 331 | 0.1 | 73,660 |
| 50 - 64 years | 169,106 | 51,881 | 30.7 | 209 | 0.1 | 52,233 |
| 65 + years | 100,040 | 39,457 | 39.4 | 214 | 0.2 | 39,892 |
| Children (6 months- 17 years) | 268,357 | 62,543 | 23.3 | 733 | 0.3 | 63,393 |
| Adults (18 + years) | 670,491 | 164,472 | 24.5 | 754 | 0.1 | 165,785 |
| All (6 months +) | 938,848 | 227,015 | 24.2 | 1,487 | 0.2 | 229,178 |

Limited to sites that exported both doses administered and active clinical population data.

*** Active Clinical is defined as patients who have had at least 2 visits in the last 3 years.
*** Number of unique patients with at least 1 dose, doses deduplicated.
**** Total # Doses Administered = All doses administered to patients including doses not included in coverage calculation due to lack of Active Clinical Population data.

Influenza Vaccine Doses Administered by Influenza Vaccine Type*

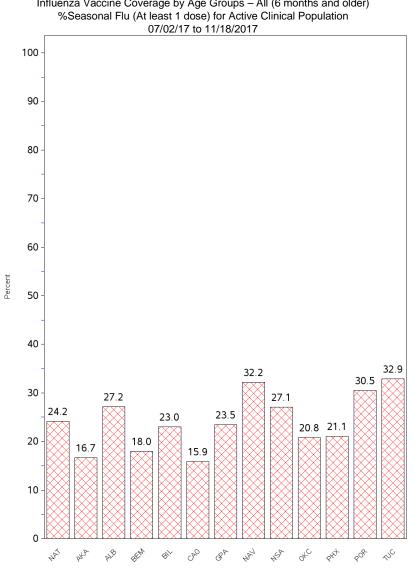
| Area | Inactive CVX Codes* | CVX 88 FLU- NOS** | CVX 135 FLU- HIGH | CVX 140 FLU- IIV3pf | CVX 141 FLU- IIV3 | CVX 149 FLU- LAIV 4 | CVX 150 FLU- IIV4pf | CVX 155 FLU- RIV3 | CVX 158 FLU- IIV4 | CVX 161 IIV4pf ped | CVX 166 FLU- DERM4 | CVX 168 FLU- IIV3ad | CVX 171 FLU- ccl4pf | CVX 185 FLU- RIV4 | CVX 186 FLU- ccl4 | Proc 99.52 Vac Inf | ICD-9 V04.81 Vac Inf | CPT Billing Codes + | Cumulative # of Doses Seasonal Flu |
|------|---------------------------|----------------------------|----------------------------|------------------------------|----------------------------|---------------------------------|------------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|----------------------------|----------------------------|-----------------------------|-------------------------------|------------------------------|---|
| AKA | 1 | 23 | 302 | 3 | 68 | 0 | 3,545 | 0 | 996 | 266 | 2 | 0 | 37 | 0 | 0 | 0 | 0 | 30 | 5,273 |
| ALB | 0 | 160 | 1,486 | 38 | 850 | 0 | 8,007 | 12 | 6,323 | 582 | 749 | 1 | 4 | 34 | 5 | 0 | 0 | 42 | 18,293 |
| BEM | 1 | 83 | 348 | 5 | 300 | 0 | 3,400 | 1 | 3,874 | 171 | 6 | 0 | 1 | 33 | 0 | 0 | 0 | 40 | 8,263 |
| BIL | 0 | 55 | 1,204 | 4 | 113 | 0 | 7,919 | 2 | 1,769 | 213 | 124 | 0 | 128 | 220 | 1 | 0 | 0 | 65 | 11,817 |
| CAO | 0 | 340 | 1,347 | 33 | 1,088 | 0 | 4,898 | 1 | 3,130 | 257 | 37 | 0 | 535 | 0 | 0 | 0 | 0 | 153 | 11,819 |
| GPA | 1 | 220 | 1,288 | 2 | 913 | 1 | 13,119 | 5 | 7,577 | 1,162 | 3 | 3 | 101 | 19 | 3 | 0 | 0 | 82 | 24,499 |
| NSA | 1 | 100 | 309 | 18 | 318 | 0 | 3,665 | 3 | 4,559 | 171 | 344 | 1 | 77 | 12 | 1 | 0 | 0 | 142 | 9,721 |
| NAV | 5 | 198 | 1,594 | 10 | 1,301 | 0 | 18,242 | 7 | 33,731 | 1,148 | 440 | 1 | 10 | 36 | 11 | 0 | 0 | 114 | 56,848 |
| OKC | 6 | 1,417 | 2,590 | 4 | 1,822 | 2 | 8,389 | 7 | 17,532 | 1,413 | 377 | 0 | 994 | 12 | 32 | 0 | 0 | 50 | 34,647 |
| PHX | 0 | 612 | 1,489 | 2 | 370 | 0 | 14,117 | 10 | 9,379 | 374 | 3 | 2 | 10 | 4 | 0 | 0 | 0 | 92 | 26,464 |
| POR | 3 | 236 | 1,271 | 255 | 385 | 0 | 5,866 | 20 | 6,609 | 395 | 773 | 57 | 741 | 174 | 2 | 0 | 0 | 132 | 16,919 |
| TUC | 0 | 26 | 22 | 14 | 0 | 0 | 4,810 | 0 | 69 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 4,986 |
| | 18 | 3,470 | 13,250 | 388 | 7,528 | 3 | 95,977 | 68 | 95,548 | 6,172 | 2,858 | 65 | 2,638 | 544 | 55 | 0 | 0 | 967 | 229,549 |

* Inactive CVX Codes 15 (FLU-TIVhx), 16 (FLU-WHOLE), 123 (FLU-H5N1), and 151 (FLU-NasNOS) should not be used to document flu vaccines given this flu season. Doses are NOT deduplicated.

** CVX Code 88 (FLU-NOS) should only be used to document flu vaccines given elsewhere when flu vaccine type is unknown.

+ CPT Flu codes include: 90654-90662, 90672-90673, 90685-90686, 90724, G0008, G8108.

^ ICD9 codes V04.8 and V06.6 are not displayed on this report and are not used in any of the influenza vaccine coverage calculations.



All IHS Areas Influenza Vaccine Coverage by Age Groups – All (6 months and older) %Seasonal Flu (At least 1 dose) for Active Clinical Population

This report includes data from the following number of Resource and Patient Management • System (RPMS) databases:

| IHS Area | # of RPMS Databases Reporting* | # of Facilities Reporting** |
|--------------|-----------------------------------|--------------------------------|
| NATIONAL | 154 | 303 |
| ALASKA | 5 | 53 |
| ALBUQUERQUE | 12 | 20 |
| BEMIDJI | 6 | 13 |
| BILLINGS | 11 | 21 |
| CALIFORNIA | 20 | 36 |
| GREAT PLAINS | 17 | 35 |
| NASHVILLE | 20 | 24 |
| NAVAJO | 8 | 23 |
| OKLAHOMA | 19 | 26 |
| PHOENIX | 14 | 23 |
| PORTLAND | 21 | 25 |
| TUCSON | 1 | 4 |

* Exporting databases may include data from multiple facilities. ** Includes only facility categories: Hospital, Health Center, Health Station, Health Location, and Alaska Village Clinic.