



3. Healthcare Personnel Vaccination Module: Influenza Vaccination Summary

Introduction

The Advisory Committee on Immunization Practices (ACIP) recommends that all persons six months of age and older, including HCP and persons in training for healthcare professions, should be vaccinated annually against influenza.[1,2] Persons who are infected with influenza virus, including those who are pre-symptomatic, can transmit the virus to coworkers and patients, including those at higher risk for complications from influenza. Vaccination of working age adults, including HCP, has been associated with reduced risk of influenza illness, and reduced work absenteeism, antibiotic use, and medical visits. [3,4] In addition, HCP vaccination has been found to reduce deaths among nursing home patients [5,6] and elderly hospitalized patients.[6] Although annual vaccination is recommended for all HCP and is a high priority for reducing morbidity associated with influenza in healthcare settings, national survey data have demonstrated that vaccination coverage levels are only approximately 60% [7]. This is well below the Healthy People 2020 goal of 90% for HCP influenza vaccination [8].

Healthcare facilities should provide influenza vaccine to HCP using approaches that have demonstrated effectiveness in increasing vaccination coverage. Healthcare administrators should consider the level of vaccination coverage among HCP to be one measure of a patient safety quality program and consider obtaining signed declinations from personnel who decline influenza vaccination for reasons other than medical contraindications.[9-12] Influenza vaccination rates (including ward-, unit-, and specialty-specific coverage rates) among HCP within facilities should be regularly measured and reported to facility administrators and staff.[12]

Healthcare facilities should offer influenza vaccinations to all HCP, including night, weekend, and temporary staff. Efforts should be made to educate HCP regarding the benefits of vaccination and the potential health consequences of influenza illness for their patients, themselves, and their family members. Studies have demonstrated that organized campaigns can attain higher rates of vaccination among HCP with moderate effort and by using strategies that increase vaccine acceptance.[9,13,14] All HCP should be provided convenient access to influenza vaccine at the work site, free of charge. [9,14,15]

HCP Influenza Vaccination Measure

The HCP Influenza Vaccination Measure is designed to ensure that reported HCP influenza vaccination percentages are consistent over time within a single healthcare facility and comparable across facilities. The use of this measure to monitor influenza vaccination among HCP may also result in increased influenza vaccination uptake among HCP, because improvements in tracking and reporting HCP influenza vaccination status will allow healthcare institutions to better identify and target unvaccinated HCP. Increased influenza vaccination coverage among HCP is expected to result in reduced morbidity and mortality related to influenza virus infection among patients. The HCP Vaccination Module of the HPS Component will allow NHSN users to report HCP influenza vaccination percentages using this HCP Influenza Vaccination Measure.

Settings

All types of healthcare facilities including acute care hospitals, long term acute care hospitals, psychiatric hospitals, rehabilitation hospitals, outpatient dialysis centers, ambulatory surgery centers, and long term care facilities are invited to join NHSN and use the measure.



Requirements

Participating facilities are required to report data according to this protocol, using the NHSN definitions described herein, to ensure data are uniformly reported across participants. Within the HPS Component, monthly reporting plans must be created or updated to include HCP influenza vaccination summary reporting. Once the “Influenza Vaccination Summary” box is checked on one monthly reporting plan, then the system will auto-check that same box on every monthly reporting plan throughout the entire NHSN-defined influenza season (defined as the 12 months from July 1 – June 30).

CDC/NHSN encourages that HCP influenza vaccination summary counts be updated on a monthly basis and suggests that healthcare facilities update new counts within 30 days of the end of each month (e.g., all October data should be added by November 30) so they have the greatest impact on influenza vaccination activities. However, entering a single influenza vaccination summary report at the conclusion of the measure reporting period will meet the minimum data requirements for NHSN participation.

Reporting Instructions

Forms, Description, and Purpose (See also: *Tables of Instructions for Completion of Healthcare Personnel Influenza Vaccination Summary Form* in Chapter 4)

All facilities using the HCP Vaccination Module for HCP influenza vaccination summary data reporting should complete the following forms:

- *Healthcare Personnel Safety Monthly Reporting Plan Form* (CDC 57.203) – This is used to collect data on which modules and which months (if any) the facility intends to participate in the NHSN HPS Component. Once the influenza vaccination summary is selected on the reporting plan, it is automatically updated with this information for the entire NHSN-defined influenza season (July 1 to June 30).
- *Healthcare Personnel Influenza Vaccination Summary Form* (CDC 57.214) – This is used to collect data on summary influenza vaccination counts among HCP working in a facility. The summary reporting replaces the individual-level influenza vaccination reporting that was previously a part of the HPS Component. HCP influenza vaccination summary reporting in NHSN consists of a single data entry screen per influenza season, so each time a user enters updated data for a particular influenza season, all previously entered data for that season will be overwritten and a new modified date will be auto-filled by the system. When entering summary data, all required fields that are indicated with an asterisk must be completed. Otherwise, the data cannot be saved. Users should enter “0” in a field if no HCP at the facility fall into that category.

The *Seasonal Survey on Influenza Vaccination Programs for Healthcare Personnel* (CDC 57.215) is encouraged to be completed by facilities, but is not required at this time. The survey collects data on types of personnel groups that are included in a facility’s annual influenza vaccination campaign, methods a facility is using to deliver influenza vaccine to its HCP, strategies a facility uses to promote/enhance HCP influenza vaccination, etc. Only one survey should be completed at the end of the influenza season.



Measure Specifications

Denominator

The denominator for this measure consists of HCP who are physically present in the healthcare facility for at least 1 working day between October 1 and March 31 (i.e., the measure reporting period) of the following year. Denominators are to be calculated separately for three required categories of HCP and can also be calculated for a fourth optional category:

- a. **Employees:** This includes all persons who receive a direct paycheck from the reporting facility (i.e., on the facility's payroll), regardless of clinical responsibility or patient contact.
- b. **Licensed independent practitioners (LIPs):** This includes physicians (MD, DO), advanced practice nurses, and physician assistants who are affiliated with the reporting facility, but are not directly employed by it (i.e., they do not receive a paycheck from the facility), regardless of clinical responsibility or patient contact. Post-residency fellows are also included in this category if they are not on the facility's payroll.
- c. **Adult students/trainees and volunteers:** This includes medical, nursing, or other health professional students, interns, medical residents, or volunteers aged 18 or older who are affiliated with the healthcare facility, but are not directly employed by it (i.e., they do not receive a paycheck from the facility), regardless of clinical responsibility or patient contact.
- d. **Other contract personnel (optional):** Facilities may also report on individuals who are contract personnel. However, reporting for this category is optional at this time. Contract personnel are defined as persons providing care, treatment, or services at the facility through a contract who do not fall into any of the above-mentioned denominator categories. (See Appendix A for a suggested list of contract personnel. This list may be updated as a revised version becomes available.)

Denominator Notes

1. The denominator includes HCP who have worked at the facility for at least 1 working day between October 1 and March 31 during the reporting period, regardless of clinical responsibility or patient contact. This includes HCP who joined after October 1 or left before March 31, or who were on extended leave during part of the reporting period. Working for any number of hours a day counts as one working day.
2. Both full-time and part-time personnel should be included. HCP should be counted as individuals rather than full-time equivalents. If a healthcare worker (HCW) works in two or more facilities, each facility should include the HCW in their denominator.
3. Licensed practitioners who receive a direct paycheck from the reporting facility, or who are owners of the reporting facility, should be counted as employees.
4. The denominator categories are mutually exclusive. The numerator data are to be reported separately for each of the denominator categories.



Numerator

The numerator for this measure consists of HCP in the denominator population, who during the time from when the vaccine became available (e.g., August or September) through March 31 of the following year:

- a. received an influenza vaccination administered at the healthcare facility; or
- b. reported in writing (paper or electronic) or provided documentation that influenza vaccination was received elsewhere; or
- c. were determined to have a medical contraindication/condition of severe allergic reaction to eggs or other component(s) of the vaccine, or history of Guillain-Barré Syndrome (GBS) within 6 weeks after a previous influenza vaccination; or
- d. were offered but declined influenza vaccination; or
- e. had an unknown vaccination status or did not otherwise meet any of the definitions of the above-mentioned numerator categories.

Numerator Notes

1. Persons who declined vaccination because of conditions other than those specified in category (c) above should be categorized as declined vaccination.*
2. Persons who declined vaccination and did not provide any other information should be categorized as declined vaccination.
3. Persons who did not receive vaccination because of religious or philosophical exemptions should be categorized as declined vaccination.
4. Persons who deferred vaccination all season should be categorized as declined vaccination.
5. The numerator data are mutually exclusive. The sum of the numerator categories should be equal to the denominator for each HCP group.

***Note:** For the purposes of this measure, a medical contraindication to vaccination with inactivated influenza vaccine (IIV) is defined as having a severe allergic reaction to eggs or other components of the influenza vaccine or a history of GBS within 6 weeks after a previous influenza vaccination. A healthcare facility may grant medical exemptions to HCP with other conditions besides those defined by the measure and may include these conditions in its list of acceptable medical contraindications to influenza vaccination. However, to ensure that data are comparable across different facilities reporting data using this measure, only those HCP with one of the two conditions stated above should be reported to NHSN as having a medical contraindication to influenza vaccination.

In addition to the two defined medical contraindications to vaccination with IIV mentioned above, the following conditions are accepted medical contraindications to live attenuated influenza vaccine (LAIV): pregnancy; known severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; congenital immunodeficiency; long-



term immunosuppressive therapy; patients with HIV infection who are severely immunocompromised); certain chronic medical conditions include asthma and chronic pulmonary, cardiovascular (except isolated hypertension), renal, hepatic, neurologic/neuromuscular, hematologic, or metabolic disorders. Individuals older than 49 years of age are also not eligible to receive LAIV. HCP who have a medical contraindication to LAIV other than a severe allergic reaction to a vaccine component or history of GBS within 6 weeks after a previous influenza vaccination should be offered IIV by their facility, if available. Medical contraindications for LAIV should not be considered contraindications as those individuals can be given IIV.

Data Sources

Data sources for the required data elements include management/personnel data, medical or occupational health records, and vaccination record documents. HCP can self-report in writing (paper or electronic) that the vaccination was received elsewhere or provide documentation of receipt of the influenza vaccine elsewhere. For the purposes of this reporting measure, verbal statements about receiving vaccination elsewhere are not acceptable. However, HCP can provide verbal or written documentation of medical contraindications and verbal or written declination of the influenza vaccine.

Methodology

The Influenza Vaccination Summary Module enables a healthcare facility to record information on influenza vaccination for HCP working in the healthcare facility for at least 1 working day between October 1 and March 31. Data are required to be entered for five numerator fields pertaining to vaccination status, and three denominator categories pertaining to HCP groups. A fourth denominator category for other contract personnel is optional at this time; therefore, each facility may decide whether they would like to report these particular data.

This module requires that data be provided to CDC as per reporting requirements. Data covering the entire denominator reporting period (October 1 through March 31) must be entered once into NHSN for each reporting year. The data can be entered on a monthly and/or quarterly basis, but only cumulative data should be entered. Any new data that are entered into NHSN will overwrite and replace the previously entered data. Thus, if a facility would like to keep track of its monthly numbers, it should maintain its own record of this, as it will not be able to review monthly reporting numbers in NHSN.

Data Analyses

Influenza vaccination status is calculated separately among each of the three required denominator groups of HCP: employees, LIPs, and adult students/trainees and volunteers. Influenza vaccination status can also be calculated for the fourth optional category of other contract personnel using the modify option within the analysis function. Separate measures are calculated by dividing the number of HCP in one numerator field (e.g., number of HCP who received an influenza vaccination at this healthcare facility since influenza vaccine became available this season) by the number of HCP in that denominator group, and multiplying by 100 to produce a vaccination percentage for that specific group. Percentages of vaccination received elsewhere, medical contraindications, declinations, and unknown vaccination status can also be calculated using the second, third, fourth, and fifth numerator fields, respectively. Calculations for employee vaccination percentages are shown below. Vaccination percentages for LIPs, adult students/trainees and volunteers, and other contract personnel are calculated in the same manner.



Employee Vaccination Percentages

Employee Vaccination Percentage (at this healthcare facility)

$$\frac{\# \text{ Employees vaccinated onsite}}{\# \text{ Employees working in the required time period}} \times 100 = \text{Pct. of Employees Vaccinated Onsite}$$

Employee Vaccination Percentage (outside this healthcare facility)

$$\frac{\# \text{ Employees vaccinated elsewhere}}{\# \text{ Employees working in the required time period}} \times 100 = \text{Pct. of Employees Vaccinated Elsewhere}$$

Employee Medical Contraindication Percentage

$$\frac{\# \text{ Employees reporting contraindication}}{\# \text{ Employees working in the required time period}} \times 100 = \text{Pct. of Employees Reporting Contraindication}$$

Employee Declination Percentage

$$\frac{\# \text{ Employees declined vaccine}}{\# \text{ Employees working in the required time period}} \times 100 = \text{Pct. of Employees Reporting Declination}$$

Employee Unknown Vaccination Percentage

$$\frac{\# \text{ Employees with unknown vaccination}}{\# \text{ Employees working in the required time period}} \times 100 = \text{Pct. Employees with Unknown Status}$$

HCP Vaccination Percentages

In addition to calculating vaccination percentages for individual denominator groups, percentages can be calculated for all HCP (both employees and non-employees). Percentages can also be calculated for the optional category of contract personnel using the modify option within the analysis function. To determine vaccination for all HCP, the system will add the total number of HCP (employees, LIPs, and adult students/trainees and volunteers) in one numerator field (e.g., total number of HCP who received an influenza vaccination at this healthcare facility since influenza vaccine became available this season). The number is divided by the total number of HCP who were working at this healthcare facility for at least 1 working day between October 1 and March 31, and multiplied by 100 to produce a vaccination percentage for that group of HCP. Percentages of vaccination received elsewhere, medical contraindications, declinations, and unknown vaccination status can also be calculated using the second, third, fourth, and fifth numerator fields, respectively. Calculations for total HCP vaccination percentages are shown below. The second calculation in this section shows how a percentage is computed for other contract personnel. Vaccination percentages for other contract personnel are computed in the same manner as the other calculations in this section.

HCP Vaccination Percentage (at this healthcare facility) [excluding OCP]

$$\frac{\# \text{ Employees} + \# \text{ LIPs} + \# \text{ ASTV vaccinated onsite}}{\# \text{ Employees} + \# \text{ LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of HCP Vacc. Onsite (exc. OCP)}$$



HCP Vaccination Percentage (at this healthcare facility) [including OCP]

$$\frac{\# \text{ Employees} + \# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP vaccinated onsite}}{\# \text{ Employees} + \# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP working in the required time period}} \times 100 = \text{Pct. of HCP Vacc. Onsite (inc. OCP)}$$

HCP Vaccination Percentage (outside this healthcare facility) [excluding OCP]

$$\frac{\# \text{ Employees} + \# \text{ LIPs} + \# \text{ ASTV vaccinated elsewhere}}{\# \text{ Employees} + \# \text{ LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of HCP Vacc. Elsewhere (exc. OCP)}$$

HCP Medical Contraindication Percentage [excluding OCP]

$$\frac{\# \text{ Employees} + \# \text{ LIPs} + \# \text{ ASTV reporting contraindication}}{\# \text{ Employees} + \# \text{ LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of HCP Reporting Contra. (exc. OCP)}$$

HCP Declination Percentage [excluding OCP]

$$\frac{\# \text{ Employees} + \# \text{ LIPs} + \# \text{ ASTV declined vaccine}}{\# \text{ Employees} + \# \text{ LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of HCP Reporting Declination (exc. OCP)}$$

HCP Unknown Vaccination Percentage [excluding OCP]

$$\frac{\# \text{ Employees} + \# \text{ LIPs} + \# \text{ ASTV with unknown status}}{\# \text{ Employees} + \# \text{ LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of HCP with Unknown Status (exc. OCP)}$$

Non-Employee Vaccination Percentages

Vaccination percentages can be calculated for all non-employees (LIPs and adult students/trainees and volunteers). Percentages can also be calculated for the optional category of other contract personnel using the modify option within the analysis function. To determine vaccination for all non-employees, the system will add the total number of HCP (LIPs and adult students/trainees and volunteers) in one numerator field (e.g., number of HCP who received an influenza vaccination at this healthcare facility since influenza vaccine became available this season). The number is divided by the total number of HCP who were working at this healthcare facility for at least 1 working day between October 1 and March 31, and multiplied by 100 to produce a vaccination percentage for that group of non-employees. Percentages of vaccination received elsewhere, medical contraindications, declinations, and unknown vaccination status can also be calculated using the second, third, fourth, and fifth numerator fields, respectively. Calculations for non-employee vaccination percentages are shown below. The second calculation in this section shows how a percentage is computed for other contract personnel. Vaccination percentages for other contract personnel are computed in the same manner for the other calculations in this section.

Non-Employee Vaccination Percentage (at this healthcare facility) [excluding OCP]

$$\frac{\# \text{ LIPs} + \# \text{ ASTV vaccinated onsite}}{\text{LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of Non-Employees Vacc. Onsite (exc. OCP)}$$



Non-Employee Vaccination Percentage (at this healthcare facility) [including OCP]

$$\frac{\# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP vaccinated onsite}}{\# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP working in the required time period}} \times 100 = \text{Pct. of Non-Employees Vacc. Onsite (inc. OCP)}$$

Non-Employee Vaccination Percentage (outside this healthcare facility) [excluding OCP]

$$\frac{\# \text{ LIPs} + \# \text{ ASTV vaccinated elsewhere}}{\# \text{ LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of Non-Employees Vacc. Elsewhere (exc. OCP)}$$

Non-Employee Medical Contraindication Percentage [excluding OCP]

$$\frac{\# \text{ LIPs} + \# \text{ ASTV reporting contraindication}}{\# \text{ LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of Non-Employees Reporting Contra. (exc. OCP)}$$

Non-Employee Declination Percentage [excluding OCP]

$$\frac{\# \text{ LIPs} + \# \text{ ASTV declined vaccine}}{\# \text{ LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of Non-Employees Reporting Declination (exc. OCP)}$$

Non-Employee Unknown Vaccination Percentage [excluding OCP]

$$\frac{\# \text{ LIPs} + \# \text{ ASTV with unknown vaccination}}{\# \text{ LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of Non-Employees with Unknown Status (exc. OCP)}$$

Vaccination Compliance

To determine vaccination compliance, the system will add the total number of HCP who received an influenza vaccination at this healthcare facility to the total number of HCP who provided a written report or documentation of influenza vaccination outside this healthcare facility since influenza vaccine became available this season. The number is divided by the total number of HCP who were working at this healthcare facility for at least 1 working day between October 1 and March 31. This number is then multiplied by 100 to obtain a percentage. Percentages can also be calculated for the optional category of other contract personnel using the modify option within the analysis function. Calculations for employee vaccination compliance, HCP vaccination compliance, and non-employee vaccination compliance percentages are shown below. Vaccination compliance percentages for LIPs, adult students/trainees and volunteers, and other contract personnel are calculated in the same manner.

Employee Vaccination Compliance Percentage

$$\frac{\# \text{ Employees vaccinated onsite} + \# \text{ Employees vaccinated elsewhere}}{\# \text{ Employees working in the required time period}} \times 100 = \text{Pct. of Employee Vacc. Compliance}$$

HCP Vaccination Compliance Percentage [excluding OCP]

$$\frac{(\# \text{ Emp.} + \# \text{ LIPs} + \# \text{ ASTV vacc. onsite}) + (\# \text{ Emp.} + \# \text{ LIPs} + \# \text{ ASTV vacc. elsewhere})}{\# \text{ Emp.} + \# \text{ LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of HCP Vacc. Comp. (exc. OCP)}$$



HCP Vaccination Compliance Percentage [including OCP]

$$\frac{(\# \text{ Emp.} + \# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP vacc. onsite}) + (\# \text{ Emp.} + \# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP vacc. elsewhere})}{\# \text{ Emp.} + \# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP working in the required time period}} \times 100 = \text{Pct. of HCP Vacc. Comp. (inc. OCP)}$$

Non-Employee Vaccination Compliance Percentage [excluding OCP]

$$\frac{(\# \text{ LIPs} + \# \text{ ASTV vacc. onsite}) + (\# \text{ LIPs} + \# \text{ ASTV vacc. elsewhere})}{\# \text{ LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of Non-Employee Vacc. Comp. (exc. OCP)}$$

Non-Employee Vaccination Compliance Percentage [including OCP]

$$\frac{(\# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP vacc. onsite}) + (\# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP vacc. elsewhere})}{\# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP working in the required time period}} \times 100 = \text{Pct. of Non-Employee Vacc. Comp. (inc. OCP)}$$

Vaccination Non-Compliance

To determine vaccination non-compliance, the system will add the total number of HCP who declined to receive the influenza vaccination to the total number of HCP with unknown vaccination status. The number is divided by the total number of HCP who were working at this healthcare facility for at least 1 working day between October 1 and March 31. This number is then multiplied by 100 to obtain a percentage. Percentages can also be calculated for the optional category of other contract personnel using the modify option within the analysis function. Calculation for employee vaccination non-compliance, HCP vaccination non-compliance, and non-employee vaccination non-compliance percentages are shown below. Vaccination non-compliance percentages for LIPs, adult students/trainees and volunteers, and other contract personnel are calculated in the same manner.

Employee Vaccination Non-Compliance Percentage

$$\frac{\# \text{ Employees declined vacc.} + \# \text{ Employees with unknown status}}{\# \text{ Employees working in the required time period}} \times 100 = \text{Pct. of Employee Vacc. Non-Compliance}$$

HCP Vaccination Non-Compliance Percentage [excluding OCP]

$$\frac{(\# \text{ Emp.} + \# \text{ LIPs} + \# \text{ ASTV declined vacc.}) + (\# \text{ Emp.} + \# \text{ LIPs} + \# \text{ ASTV with unknown status})}{\# \text{ Emp.} + \# \text{ LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of HCP Vacc. Non-Comp. (exc. OCP)}$$

HCP Vaccination Non-Compliance Percentage [including OCP]

$$\frac{(\# \text{ Emp.} + \# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP dec. vacc.}) + (\# \text{ Emp.} + \# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP with unknown status})}{\# \text{ Emp.} + \# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP working in the required time period}} \times 100 = \text{Pct. of HCP Vacc. Non-Comp. (inc. OCP)}$$

Non-Employee Vaccination Non-Compliance Percentage [excluding OCP]

$$\frac{(\# \text{ LIPs} + \# \text{ ASTV declined vacc.}) + (\# \text{ LIPs} + \# \text{ ASTV with unknown status})}{\# \text{ LIPs} + \# \text{ ASTV working in the required time period}} \times 100 = \text{Pct. of Non-Employee Vacc. Non-Comp. (exc. OCP)}$$

Non-Employee Vaccination Non-Compliance Percentage [including OCP]

$$\frac{(\# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP declined vacc.}) + (\# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP with unknown status})}{\# \text{ LIPs} + \# \text{ ASTV} + \# \text{ OCP working in the required time period}} \times 100 = \text{Pct. of Non-Emp. Vacc. Non-Comp. (inc. OCP)}$$



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