

NHSN Vaccination Module

National Center for Emerging and Zoonotic Infectious Diseases
Division of Healthcare Quality Promotion



Target Audience

- ❑ **Population served: Healthcare Facility Inpatients**
- ❑ **Module is designed for those who will collect and analyze data for inpatient vaccination efforts**
- ❑ **This may include:**
 - NHSN Facility Administrator
 - Patient Safety Primary Contact
 - Infection Preventionist (IP)
 - Epidemiologist
 - Data entry staff
 - Professional nursing staff
 - Trained support staff

Learning Objectives

- ❑ Understand the impact of influenza vaccinations on patient safety**
- ❑ Discuss the recommendations of the Advisory Committee on Immunization Practices (ACIP) for influenza vaccinations**
- ❑ Review the structure of the Patient Safety Component Modules and describe the surveillance methodology used for data collection**
- ❑ Define the ways the module can assist facilities with the management of patient vaccination**

Background

- ❑ Influenza infections are associated with increased medical costs, hospitalizations, lost productivity, and thousands of deaths every year in the United States
- ❑ Annual influenza vaccination in all persons ≥ 6 months of age is the best way to reduce the risk for illness and possible death from influenza infections
- ❑ Groups at highest risk for influenza infections and complications are:
 - Persons ≥ 65 years of age
 - Children < 2 years of age
 - Persons of any age with underlying medical conditions placing them at increased risk for the complications of influenza

One opportunity to vaccinate are when these persons are hospitalized

Highlights of the ACIP Recommendations

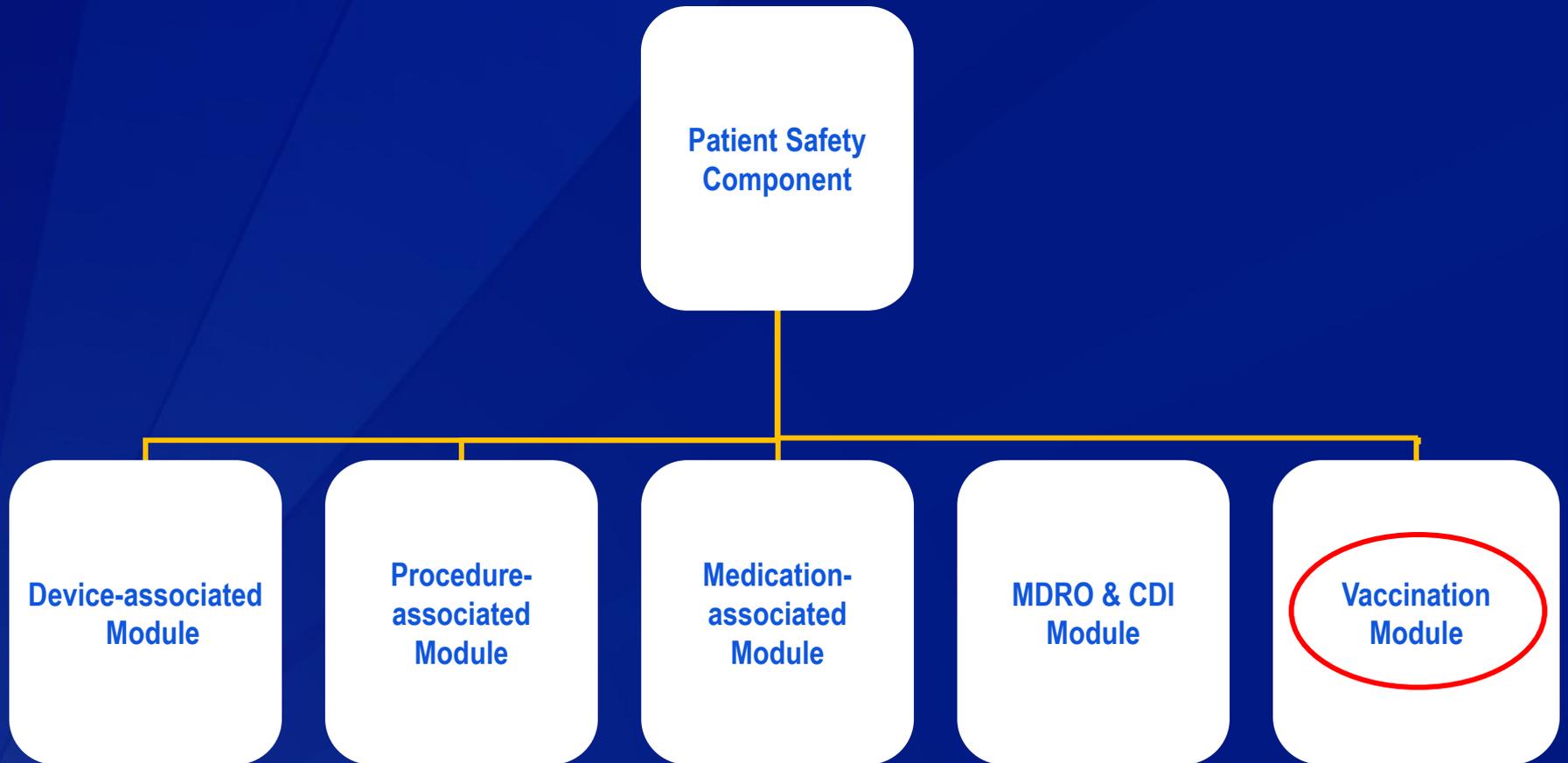
- ❑ Annual vaccination administered to all persons aged ≥ 6 months
- ❑ Two doses of vaccine are recommended for children aged 6 months to 8 years whose vaccination status is unknown or who have never received seasonal influenza vaccine
- ❑ The 2009 H1N1 vaccine is included in the 2010 trivalent vaccine

ACIP Recommendations (continued)

- ❑ For 2010 — 2011, there is an approved high dose vaccine for persons aged ≥ 65 years
- ❑ Vaccination efforts should begin as soon as the seasonal influenza vaccine is available and continue through the season (September — April)



Patient Safety Component Modules



Surveillance Methodology

There are two separate surveillance approaches within the Vaccination Module:

❑ **Retrospective: Summary Method**

- Requires review of medical records
- Uses optional Influenza Vaccination Standing Orders form

❑ **Prospective: Patient-Level Method**

- Tracks patient admissions to determine eligibility for vaccination
- Uses optional Influenza Vaccination Standing Orders form

Minimum Surveillance Requirements

- ❑ Complete module for at least one month during influenza season
- ❑ Either method may be used during the season: Summary Method or Patient–Level Method
- ❑ When vaccinations for more than one subtype are recommended during a season, use a *single* method during the month and report data separately for each vaccination subtype
- ❑ Maximal benefit obtained by completing module each month for each subtype during influenza season

NHSN Forms Used for Vaccination Module

- ❑ **Vaccination Monthly Monitoring Form — Summary Method (CDC Form 57.130)**
- ❑ **Vaccination Monthly Monitoring Form — Patient-Level Method (CDC Form 57.131)**
- ❑ **Patient Vaccination form (CDC 57.133)**
- ❑ **Influenza Vaccination Standing Orders (Optional) (CDC Form 57.134)**

Tables of Instructions for Forms

Monthly Reporting Plan

Add Monthly Reporting Plan

Mandatory fields marked with *

[Print PDF Form](#)

Facility ID*:

Month*:

Year*:

No NHSN Patient Safety Modules Followed this Month

Scroll down

Vaccination Module [HELP](#)

Summary Method:

Patient-level Method:

During a given month of influenza season, select surveillance method.

Summary Method

- ❑ Uses a single form: Vaccination Monthly Monitoring Form — Summary Method**
- ❑ Less data required to complete; summary counts only**
- ❑ Less information provided about patient population than Patient-Level Method**
- ❑ Influenza Vaccination Standing Orders form can be used; optional**

Summary Method

logged into DHQP - MEMORIAL HOSPITAL (ID 10018) as USER12345678
Facility DHQP MEMORIAL HOSPITAL (ID 10018) is following the PS component.

Add Patient Safety Summary Data

Summary Data Type:

- Device Associated - Intensive Care Unit / Other Locations
- Device Associated - Neonatal Intensive Care Unit
- Device Associated - Specialty Care Area
- Device Associated - Outpatient Dialysis - Census Form
- MDRO and CDI Prevention Process and Outcome Measures Monthly Monitoring
- Vaccination Monthly Monitoring Form - Summary Method**
- Vaccination Monthly Monitoring Form - Patient-Level Method

Add Vaccination Monthly Monitoring Form - Summary Method from the Summary Data section of the Navigation Bar.

Summary Method Monitoring Form

Vaccination Monthly Monitoring Form - Summary Method

Mandatory fields marked with *

[Print PDF Form](#)

Facility ID*: 10018 (DHQP MEMORIAL HOSPITAL)
Influenza subtype*: SEASONAL - Seasonal
Month*: SEASONAL - Seasonal
Year*:

Choose vaccination subtype.

Patient categories	Number of patients in each category
1. Total # of patient admissions	** <input type="text"/>
2. Total # of patients aged 6 months and older meeting criteria for influenza vaccination	** <input type="text"/>
3. Total # of patients previously vaccinated during current influenza season	<input type="text"/>
4. Total patients not previously vaccinated during current influenza season (Box 2 - Box 3)	** <input type="text"/>
5. Patients meeting criteria offered vaccination but declining for reasons other than medical contraindication	** <input type="text"/>
6. Patients meeting criteria offered vaccination but having medical contraindication	** <input type="text"/>
7. Patients meeting criteria receiving vaccination during admission	** <input type="text"/>
8. Total patients offered vaccination (Box 5 + Box 6 + Box 7)	** <input type="text"/>

If more than one flu vaccine subtype is recommended for a season, use one form per subtype for the month.

Summary Method Monitoring Form

Fill out all mandatory fields of the Summary Method.

*=mandatory

Patient categories	Number of patients in each category
1. Total # of patient admissions	** 30
2. Total # of patients aged 6 months and older meeting criteria for influenza vaccination	** 20
3. Total # of patients previously vaccinated during current influenza season	5
4. Total patients not previously vaccinated during current influenza season (Box 2 - Box 3)	** 15
5. Patients meeting criteria offered vaccination but declining for reasons other than medical contraindication	** 5
6. Patients meeting criteria offered vaccination but having medical contraindication	** 5
7. Patients meeting criteria receiving vaccination during admission	** 5
8. Total patients offered vaccination (Box 5 + Box 6 + Box 7)	** 15

This count is optional, however, if not reported the assumption will be that no inpatients were previously vaccinated.

Patient-Level Method

- ❑ **Two forms are required:**
 - Patient Vaccination form
 - Vaccination Monthly Monitoring Form — Patient-Level Method
 - Optional; Influenza Vaccination Standing Orders form
- ❑ **Patient-level data required**
- ❑ **Provides more information about patient population**

Patient Vaccination Form

- Reporting Plan
- Patient
- Event
 - Add
 - Find
 - Incomplete
- Procedure
- Summary Data
- Import/Export
- Analysis
- Surveys
- Users
- Facility
- Group
- Log Out

Facility: DHQP MEMORIAL HOSPITAL (ID 10018) is following the PS component.

Add Event

Required patient demographic fields (marked with *):

*Patient ID

*Gender

*Date of birth

Mandatory fields marked with *
Fields required for record completion marked with **
Fields required when in Plan marked with >

Patient Information [HELP](#)

Facility ID*:

Patient ID*:

Social Security #:

Last Name:

Middle Name:

Gender*:

Ethnicity:

Race: American Indian/Alaska Native Asian
 Black or African American Native Hawaiian/Other Pacific Islander
 White

Event #:

Secondary ID:

First Name:

Date of Birth*:

Event Information [HELP](#)

Event Type*:

Influenza subtype*:

Date Admitted to Facility*:

Vaccine Offered*:

Add Patient Vaccination Form from the Event section of the Navigation Bar.

Patient Vaccination Form

❑ *If vaccine not offered:*

Patient Information [?HELP](#)

Facility ID*: DHQP MEMORIAL HOSPITAL (ID 10018) ▼

Patient ID*: 17735

Event #:

Social Security #:

Secondary ID:

Last Name:

First Name:

Middle Name:

Gender*: F - Female ▼

Date of Birth*: 

Ethnicity: ▼

Race: American Indian/Alaska Native Asian
 Black or African American Native Hawaiian/Other Pacific Islander
 White

Event Information [?HELP](#)

Event Type*: FLUVAX - Influenza Vaccination ▼

Influenza subtype*: SEASONAL - Seasonal ▼

Date Admitted to Facility*: 03/11/2011 

Vaccine Offered*: N - No ▼

If vaccination offered=No, form is complete. Click save.



Patient Vaccination Form

❑ *If vaccine offered and declined:*

Event Information [HELP](#)

Event Type*: FLUVAX - Influenza Vaccination

Influenza subtype*: SEASONAL - Seasonal

Date Admitted to Facility*: 03/11/2011

Vaccine Offered*: Y - Yes Vaccine Declined*: Y - Yes

Reason(s) vaccine declined (Check either section A or B but not both)

<p>A. Medical contraindication(s) (check all that apply):</p> <ul style="list-style-type: none"><input type="checkbox"/> Allergy to vaccine components<input type="checkbox"/> History of Guillian-Barre syndrome within 6 weeks of previous influenza vaccination<input type="checkbox"/> Febrile illness (Temp > 101.5 in past 24 hours)<input type="checkbox"/> Other <input type="text"/>	<p>B. Personal reason(s) for declining (check all that apply):</p> <ul style="list-style-type: none"><input type="checkbox"/> Fear of needles/injections<input type="checkbox"/> Fear of side effects<input type="checkbox"/> Perceived ineffectiveness of vaccine<input type="checkbox"/> Religious or philosophical objections<input type="checkbox"/> Concern for transmitting vaccine virus to contacts<input type="checkbox"/> Other <input type="text"/>
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If vaccine offered=Yes, and vaccine declined=Yes, check reason(s) vaccine declined.

Check all that apply in either section A or section B, but **not** both. If reasons exist in both categories, then medical contraindications (section A) takes priority and should be completed.

Patient Vaccination Form

□ *If vaccine offered and administered:*

Event Information [HELP](#)

Event Type*: FLUVAX - Influenza Vaccination

Influenza subtype*: SEASONAL - Seasonal

Date Admitted
to Facility*: 03/11/2011

Vaccine Offered*: Y - Yes Vaccine Declined*: N - No

Type of influenza vaccine administered [HELP](#)

Vaccine administered*: Y - Yes Date Vaccine Administered:

Product*:

Type of influenza
vaccine*:

Manufacturer:

Lot number*:

Route of
administration*:

Vaccine information statement (VIS) provided to patient:

- Live Attenuated Influenza VIS
 Inactivated Influenza VIS
 None or unknown

Edition date:

Vaccinator ID:

Title:

Last Name:

First Name:

If vaccine offered=Yes, and
vaccine administered=Yes,
complete vaccine product
information.

Patient Vaccination Form

Event Information [HELP](#)

Event Type*: FLUVAX - Influenza Vaccination

Influenza subtype*: SEASONAL - Seasonal

Date Admitted to Facility*: 03/11/2011

Vaccine Offered*: Y - Yes Vaccine Declined*: N - No

Type of influenza vaccine administered [HELP](#)

Vaccine administered*: Y - Yes Date Vaccine Administered:

Product*:

Type of influenza vaccine*:

Manufacturer:

Lot number*:

Route of administration*:

Vaccine information statement (VIS) provided to patient:

Live Attenuated Influenza VIS

Inactivated Influenza VIS

None or unknown

Edition date:

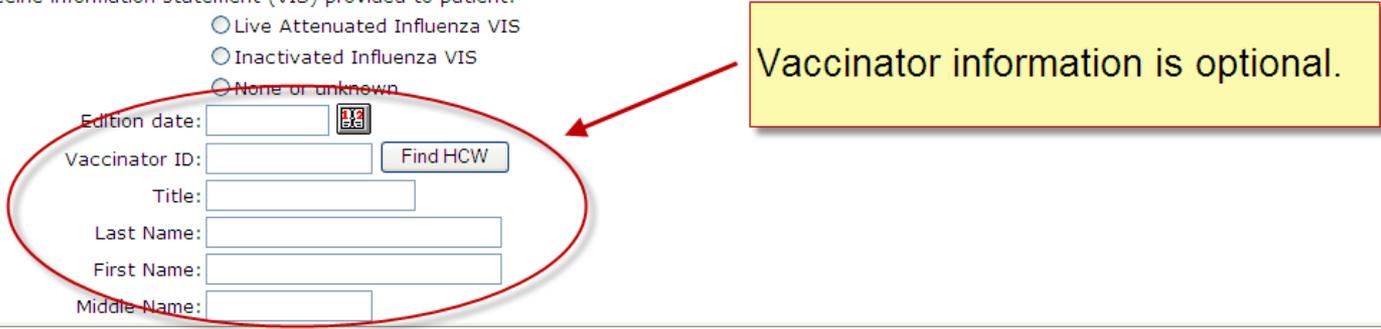
Vaccinator ID:

Title:

Last Name:

First Name:

Middle Name:



Vaccinator information is optional.

Vaccination Monthly Monitoring Form— Patient-Level Method

Facility DRQP MEMORIAL HOSPITAL (ID 10018) is following the PS component.

Add Patient Safety Summary Data

Summary Data Type:

- Device Associated - Intensive Care Unit / Other Locations
- Device Associated - Neonatal Intensive Care Unit
- Device Associated - Specialty Care Area
- Device Associated - Outpatient Dialysis - Census Form
- MDRO and CDI Prevention Process and Outcome Measures Monthly Monitoring
- Vaccination Monthly Monitoring Form - Summary Method
- Vaccination Monthly Monitoring Form - Patient-Level Method**

Add Vaccination Monthly Monitoring Form - Patient-Level Method from the Summary Data section on the Navigation Bar.

The screenshot displays a web application interface. On the left is a vertical navigation bar with the following menu items: Reporting Plan, Patient, Event, Procedure, Summary Data, Import/Export, Analysis, Surveys, Users, Facility, Group, and Log Out. The 'Summary Data' section is expanded, showing sub-options: Add, Find, and Incomplete. A red arrow points from the 'Add' sub-option to a dropdown menu in the main content area. The dropdown menu is titled 'Add Patient Safety Summary Data' and lists various 'Summary Data Type' options. The option 'Vaccination Monthly Monitoring Form - Patient-Level Method' is highlighted in blue. A yellow callout box with a red border contains the text: 'Add Vaccination Monthly Monitoring Form - Patient-Level Method from the Summary Data section on the Navigation Bar.' A red arrow points from this callout box to the selected option in the dropdown menu.

Vaccination Monthly Monitoring Form — Patient-Level Method

- Event
- Procedure
- Summary Data
 - Add
 - Find
 - Incomplete
- Import/Export
- Analysis
- Surveys
- Users
- Facility
- Group
- Log Out

Mandatory fields marked with *

Facility ID*: 10018 (DHQP MEMORIAL HOSPITAL)

Influenza subtype*: SEASONAL - Seasonal

Month*:

Year*:

Fill out all mandatory fields of the Patient-Level form.

*=mandatory

[Print PDF Form](#)

Patient categories	Number of patients in each category
1. Total # of patient admissions	* <input type="text" value="30"/>
2. Total # of patients aged 6 months and older meeting criteria for influenza vaccination	* <input type="text" value="20"/>
3. Total # of patients previously vaccinated during current influenza season	<input type="text" value="5"/>
4. Total patients not previously vaccinated during current influenza season (Box 2 - Box 3)	* <input type="text" value="15"/>

Save

Back

This count is optional, however, if not reported the assumption will be that no inpatients were previously vaccinated.

Important Notes about the Patient-Level Surveillance Method

NHSN patients who meet criteria, but have previously been vaccinated during the current influenza season do ***not*** require the Patient Vaccination form, ***but*** should be totaled and entered on the Vaccination Monthly Monitoring Form — Patient Level Method (Box 3).

Important Notes about the Patient-Level Surveillance Method

Patients requiring a second vaccine should ***not*** be included in the count of those previously vaccinated on the Vaccination Monthly Monitoring — Patient-Level Method form, ***however***, a Patient Vaccination form needs to be completed for each of the two doses given.

Vaccination Module Influenza Vaccination Standing Orders Form

- ❑ Use is optional**
- ❑ May be used to collect information required to complete forms for Summary or Patient-Level Methods**
- ❑ Available on NHSN website for printing as is or customize to meet facility-specific needs**

Using Vaccination Module Data

- ❑ **Data are:**
 - Stratified by time: month or season
 - Stratified by influenza subtype: seasonal or non-seasonal

- ❑ **Both methods provide data for 10 different rates (refer to protocol)**

- ❑ **Patient-Level method provides additional data to describe characteristics of inpatients identified including:**
 - Age, gender, date of admission and vaccination, if administered
 - Type of vaccination administered to patient
 - Reasons for declination

Metrics for Summary Method

Table 2: Formulas for Metrics: Summary Method

All data come from Boxes 1-8 of the Vaccination Monthly Monitoring Form—Summary Method (CDC 57.130).

	Metric	Formula (x 100)
1	Prevalence rate for inpatients not previously vaccinated among all inpatient admissions	$\frac{\text{Box 4}}{\text{Box 1}}$
2	Adherence rate for offering influenza vaccination to inpatients among all those not previously vaccinated	$\frac{\text{Box 8}}{\text{Box 4}}$
3	Adherence rate for receiving influenza vaccination by inpatients among all those not previously vaccinated	$\frac{\text{Box 7}}{\text{Box 4}}$
4	Adherence rate for receiving influenza vaccination by inpatients among all medically eligible inpatients	$\frac{\text{Box 7}}{\text{Box 4} - \text{Box 6}}$ $\frac{\text{Box 7}}{\text{Box 4} - \text{Box 6}}$
5	Adherence rate for receiving influenza vaccination by inpatients among all medically eligible, willing inpatients	$\frac{\text{Box 7}}{\text{Box 4} - (\text{Box 6} + \text{Box 5})}$

All data come from the completed Vaccination Monthly Monitoring Form—Summary Method

Metrics for Patient-Level Method

Table 3: Formulas for Metrics: Patient - Level Method

Data come from two CDC forms:

- Boxes 1 - 4 of the *Vaccination Monthly Monitoring Form—Patient-Level Method* (CDC 57.131)
- *Patient Vaccination (PV) form* (CDC 57.133)

Metric	Formula (x 100)
1 Prevalence rate for inpatients not previously vaccinated among all inpatient admissions	$\frac{\text{Box 4}}{\text{Box 1}}$
2 Adherence rate for offering influenza vaccination to inpatients among all those not previously vaccinated	$\frac{\text{Total \# PV Forms "Vaccine offered" = "Yes"}}{\text{Box 4}}$
3 Adherence rate for receiving influenza vaccination by inpatients among all those not previously vaccinated	$\frac{\text{Total \# PV Forms "Vaccine administered" = "Yes"}}{\text{Box 4}}$
4 Adherence rate for receiving influenza vaccination by inpatients among all those not previously vaccinated	$\frac{\text{Total \# PV Forms "Vaccine administered" = "Yes"} - \text{Box 4} - \text{Total \# PV Forms "Vaccine declined" = "Yes"}}{\text{Box 4}}$

Data come from **both** the Patient Vaccination Form **and** the Vaccination Monthly Monitoring Form - Patient-Level Method

Summary of NHSN Vaccination Module

- ❑ Allows facilities to track rates of vaccine administration among inpatients**
- ❑ Vaccination Module forms are used to collect data using CDC definitions and protocols**
- ❑ Vaccination Module data may be used to:**
 - Improve the rate of influenza vaccine administration
 - Reduce the risk of complications in inpatients from influenza infection
 - Assist facilities in documentation efforts

Resources Available for NHSN Vaccination Module

The following NHSN resources are available to assist in the completion of the Vaccination Module:

- ❑ [Vaccination Protocol](#)
- ❑ [Forms for Vaccination Module](#)
- ❑ [Tables of Instructions](#)
 - Provides step-by-step instructions about how to complete the Vaccination Module forms

Contact Information



NHSN Help Desk: nhsn@cdc.gov
NHSN website: www.cdc.gov/nhsn