

Healthcare Personnel Influenza Vaccination: NQF Measure and NHSN Collection

National Vaccine Advisory Committee Meeting
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National Center for Emerging and Zoonotic Infectious Diseases
Division of Healthcare Quality Promotion



Outline

- ❑ **Background**
- ❑ **Measure piloting and endorsement**
- ❑ **Measurement through the National Healthcare Safety Network (NHSN)**
- ❑ **Evaluation**

Background

- Multiple professional organizations recommend healthcare personnel (HCP) influenza vaccination as a national quality measure
- A 2006 study showed a substantial lack of uniformity in the way U.S. hospitals measure HCP vaccination rates
- Beginning in 2007, Joint Commission accreditation required hospitals and long-term care organizations to establish an annual influenza vaccination program that includes annual evaluation of vaccination rates
 - Joint Commission standard has expanded to include all accredited healthcare organizations

NQF measure process

- ❑ Centers for Disease Control and Prevention (CDC) proposed a standardized measure of influenza vaccination of HCP to the National Quality Forum (NQF) in 2008

- ❑ The measure was pilot-tested in healthcare facilities from October 2010 to March 2011
 - Quantitative surveys
 - Reliability testing
 - Case studies

NQF Measure Pilot Testing

- Conducted in collaboration with California, New Mexico, Pennsylvania, and New Jersey
- 318 healthcare institutions recruited
 - 92 acute care hospitals
 - 89 long-term care facilities
 - 51 dialysis clinics
 - 30 ambulatory surgery centers
 - 56 physician practices
- 234 completed pilot (74% response rate)

Findings from Pilot

- Most healthcare institutions can provide data on employees vaccinated at the institution
- Reporting vaccination data for non-employees is challenging for healthcare institutions
 - Divergent interpretation of protocol definitions within and among pilot jurisdictions
- Ability to report HCP vaccination data using the NQF measure varied by type of healthcare institution
- NQF endorsed the HCP Influenza Vaccination Measure (NQF Measure 0431) in May 2012

**Implementing aggregate reporting of HCP
influenza vaccination:
Use of the National Healthcare Safety
Network (NHSN)**

Implementation Steps

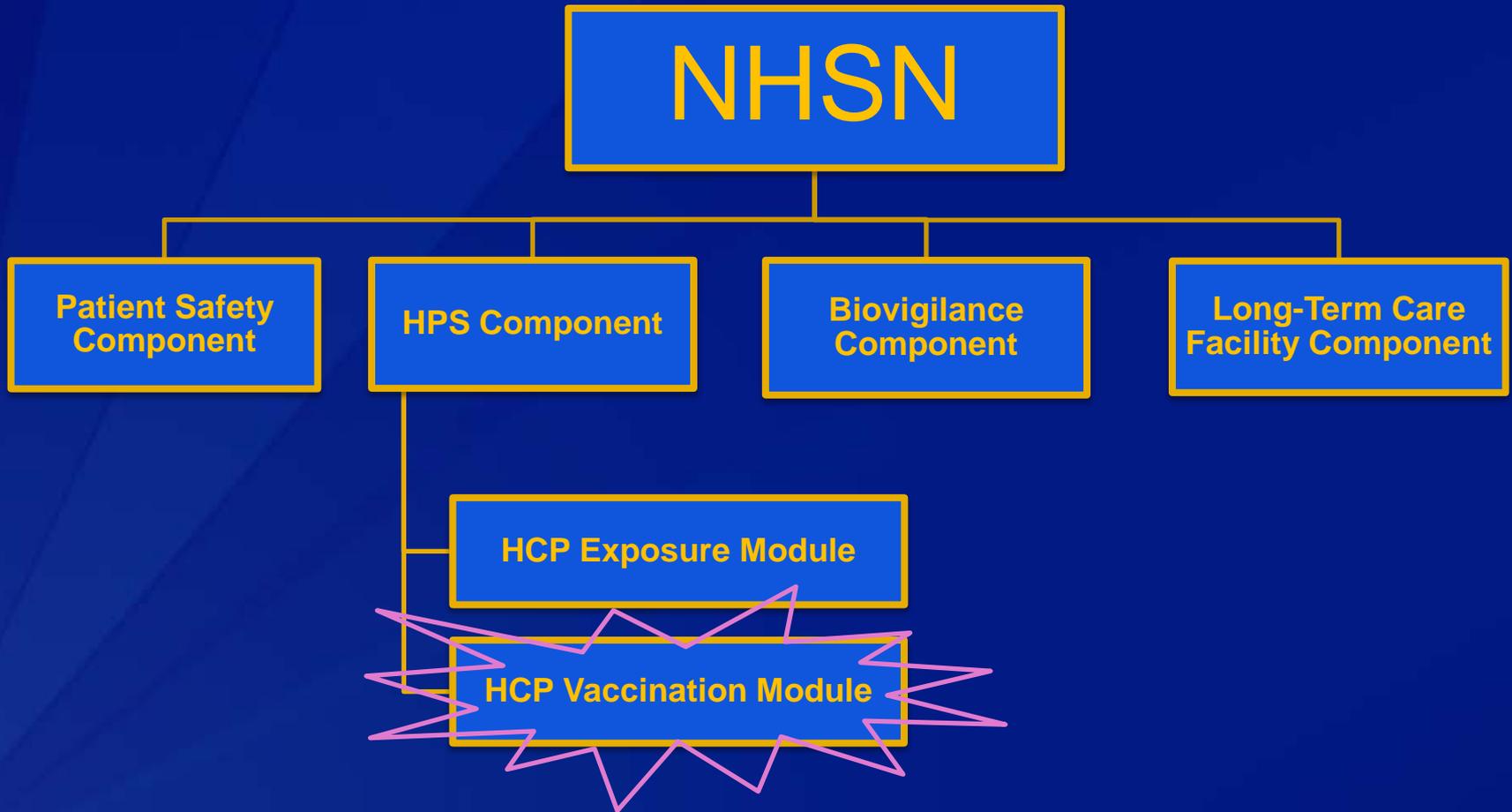
- ❑ The Centers for Medicare & Medicaid Services (CMS) added HCP influenza vaccination reporting using this measure to quality reporting programs
 - Acute care hospitals began reporting data on January 1, 2013 (for the 2012-13 influenza season)
 - Ambulatory surgical centers begin reporting data on October 1, 2014 (for the 2014-15 influenza season)

- ❑ CDC developed the HCP Vaccination Module in the National Healthcare Safety Network (NHSN) for data entry

National Healthcare Safety Network (NHSN)

- NHSN is a secure, Internet-based surveillance system managed by the CDC's Division of Healthcare Quality Promotion (DHQP) used to:
 - Collect data from a sample of healthcare facilities to permit valid estimations of the:
 - Magnitude of adverse events
 - Adherence to practices to prevent adverse events
 - Analyze and report collected data
 - Provide facilities with data, enabling inter-facility comparisons and local quality improvement activities

NHSN Structure



HCP Vaccination Module

- ❑ The HCP Vaccination Module allows NHSN users to report HCP influenza vaccination summary data
- ❑ The HCP Vaccination Module is designed to facilitate collection of HCP influenza vaccination coverage data
 - Consistent over time within a single healthcare facility
 - Comparable across facilities
- ❑ Improvements in tracking and reporting HCP vaccination status may allow for identification and targeting of unvaccinated HCP

NQF Measure #0431: Specifications

Denominator Categories

- ❑ Influenza vaccination coverage reporting required for 3 groups:
 - Employee HCP
 - Non-Employee HCP: Licensed independent practitioners (physicians, advance practice nurses, and physician assistants)
 - Non-Employee HCP: Adult students/trainees and volunteers
- ❑ HCP must be physically present in the facility for at least 30 working days between October 1 and March 31

National Healthcare Safety Network			
Healthcare Personnel Influenza Vaccination Summary			
Page 1 of 2 *required for saving			
Record the number of healthcare personnel (HCP) for each category below for the influenza season being tracked.			
*Facility ID#:			
*Vaccination type: Influenza	*Influenza subtype ^a : <input type="checkbox"/> Seasonal	*Influenza Season ^b :	Date Last Modified: __/__/__
	Employee HCP	Non-Employee HCP	
	*Employees (staff on facility payroll)	*Licensed independent practitioners: Physicians, advanced practice nurses, & physician assistants	*Adult students/trainees & volunteers
			Other Contract Personnel

Other Contract Personnel : Optional Reporting

Healthcare Personnel Influenza Vaccination Summary

Page 1 of 2

*required for saving

Record the number of healthcare personnel (HCP) for each category below for the influenza season being tracked.

*Facility ID#:

*Vaccination type: Influenza	*Influenza subtype ^a : <input type="checkbox"/> Seasonal	*Influenza Season ^b :	Date Last Modified: _/_/___
		Employee HCP	Non-Employee HCP
		*Employees (staff on facility payroll)	*Licensed independent practitioners: Physicians, advanced practice nurses, & physician assistants
			*Adult students/trainees & volunteers
			Other Contract Personnel

Other Contract Personnel : Optional Reporting

- ❑ **Persons providing care, treatment, or services at the facility through a contract**
- ❑ **May include many types of personnel. Examples include:**
 - Dialysis technicians
 - Occupational therapists
 - Admitting staff
 - Pharmacists
 - Chaplains
 - Laundry staff
 - Nurses (through agency and travel employers)
 - Many others

Numerator Categories

- ❑ The numerator includes HCP who received an influenza vaccination during the time from when the vaccine became available (e.g., August or September) through March 31 of the following year

- ❑ Each facility reports:
 - ❑ Influenza vaccinations
 - Received at this healthcare facility or elsewhere
 - ❑ Medical contraindications
 - ❑ Declinations
 - ❑ Unknown status

Numerator Categories

	Employee HCP	Non-Er
	*Employees (staff on facility payroll)	*Licensed independent practitioners: Physicians, advanced practice nurses, & physician assistants
1. Number of HCP who worked at this healthcare facility for at least 30 days between October 1 & March 31		
2. Number of HCP who received an influenza vaccination at this healthcare facility since influenza vaccine became available this season		
3. Number of HCP who provided a written report or documentation of influenza vaccination outside this healthcare facility since influenza vaccine became available this season		
4. Number of HCP who have a medical contraindication to the influenza vaccine		
5. Number of HCP who declined to receive the influenza vaccine		
6. Number of HCP with unknown vaccination status (or criteria not met for questions 2-5 above)		

Numerator Categories

- ❑ HCP who received an influenza vaccination at this healthcare facility since influenza vaccine became available this season
- ❑ HCP who provided a written report or documentation of influenza vaccination outside this healthcare facility since influenza vaccine became available this season
 - Acceptable forms of documentation include:
 - A signed statement or form, or an electronic form or e-mail from a healthcare worker (HCW) indicating when and where he/she received the influenza vaccine
 - A note, receipt, vaccination card, etc. from the outside vaccinating entity stating that the HCW received the influenza vaccine at that location
 - Verbal statements are not acceptable

Numerator Categories (cont.)

- HCP who have a medical contraindication to the influenza vaccine
 - For this module, for injectable trivalent influenza vaccine (TIV), accepted contraindications include:
 - (1) severe allergic reaction (e.g., anaphylaxis) after a previous vaccine dose or to a vaccine component, including egg protein; or
 - (2) history of Guillain-Barré Syndrome within 6 weeks after a previous influenza vaccination.
 - HCP who have a medical contraindication to live attenuated influenza vaccine (LAIV) other than the medical contraindications listed above, should be offered TIV by their facility, if available
 - Documentation is not required for reporting a medical contraindication (verbal statements are acceptable)

Numerator Categories (cont.)

- **HCP who declined to receive the influenza vaccine**
 - Documentation is not required for reporting declinations (verbal statements are acceptable)

- **HCP with unknown vaccination status (or criteria not met for above-mentioned categories)**

Challenges

- ❑ Pilot-testing revealed difficulties in collecting data on contract personnel
 - CDC is interested in tracking influenza vaccination of contract personnel
 - CDC is working with the Joint Commission on this issue

- ❑ Assessing whether an individual HCW has worked for 30 days in a facility may be difficult

Implementation and Next Steps

- ❑ CDC has delivered live training webinars on the measure to over 2,000 participants
- ❑ Acute care hospitals must enter data into NHSN by May 15, 2013, for data to be shared with CMS for the 2012-13 influenza season
- ❑ CDC is planning to evaluate implementation of the measure for the 2012-13 influenza season
 - Qualitative data gathered through semi-structured phone interviews
 - Quantitative data gathered through a Web-based survey
- ❑ Measure specifications can be modified through the annual NQF measure maintenance process

The NHSN Website

The screenshot shows the NHSN website interface. On the left is a navigation menu with the following items: Join NHSN, About NHSN, Communication Updates, Enrollment Requirements, Patient Safety Component, Healthcare Personnel Safety Component, Exposure Module, and **Vaccination Module** (indicated by a right-pointing arrow). The main content area has a breadcrumb trail: NHSN > Healthcare Personnel Safety Component. Below this are social media sharing buttons for Recommend, Tweet, and Share. The main heading is "Vaccination Module". Underneath is a "Background" section with the text: "The Advisory Committee on Immunization Practices (ACIP) recommends that all healthcare personnel (HCP) and persons in training for healthcare professions should be vaccinated annually against influenza.[1] Persons who are infected with influenza virus,". To the right of the main text is a box titled "On This Page" containing a list of links: Background, Module Overview, and Influenza Vaccination with or without antiviral medication.

Visit: http://www.cdc.gov/nhsn/hps_Vacc.html for training materials:

- Protocol (with Table of Instructions)
- Forms
- Frequently asked questions (FAQs)
- Training slides

Thank you

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Extra slides

Assurance of Confidentiality

- **“The voluntarily provided information obtained in this surveillance system that would permit identification of any individual or institution is collected with a guarantee that it will be held in strict confidence, will be used only for the purposes stated, and will not otherwise be disclosed or released without the consent of the individual, or the institution in accordance with Section 304, 306, and 308(d) of the Public Health Service Act (42 USC 242b, 242k, and 242m(d)).”**

HPS Component

- ❑ **The HPS Component consists of two modules:**
 - **HCP Exposure Module**
 - Blood/Body Fluid Exposure Only
 - Blood/Body Fluid Exposure with Exposure Management
 - Influenza Exposure Management
 - **HCP Vaccination Module**
 - Influenza Vaccination Summary
- ❑ **The Influenza Vaccination Summary within the HCP Vaccination Module is designed to assist staff in healthcare facilities to monitor influenza vaccination percentages among HCP**

Notes on Reporting Requirements

- ❑ Facilities are only required to report data once at the conclusion of reporting period (October 1 to March 31)
- ❑ HCP who are physically present in the healthcare facility for at least 30 working days between October 1 and March 31 are included in the denominator
- ❑ HCP in the denominator population who received an influenza vaccination during the time from when the vaccine became available (e.g., August or September) through March 31 of the following year are included in the numerator

Notes on Reporting Requirements

- ❑ The denominator categories are mutually exclusive. The numerator data are to be reported separately for each of the denominator categories.
- ❑ The numerator data are mutually exclusive. The sum of the numerator categories should be equal to the denominator for each HCP group.

Purposes of NHSN (cont.)

- Enable healthcare facilities to report healthcare-associated infections (HAI) and prevention practice adherence data via NHSN to the U.S. Centers for Medicare and Medicaid Services (CMS) in fulfillment of CMS's quality measurement reporting requirements for those data

A comprehensive list of purposes can be found on the Website:

<http://www.cdc.gov/nhsn/>

Definitions: 3 categories of HCP

□ **Employees (staff on facility payroll)**

- All persons that receive a direct paycheck from the healthcare facility (i.e., on the facility's payroll), regardless of clinical responsibility or patient contact

□ **Licensed Independent Practitioners**

- Physicians (MD, DO); advanced practice nurses; and physician assistants only 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. Post-residency fellows are also included in this category.

Definitions: 3 categories of HCP (cont.)

- **Adult students/trainees and volunteers (aged 18 and over)**
 - Adult students/trainees and volunteers: medical, nursing, or other health professional students, interns, medical residents, or volunteers aged 18 or older that 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

Results

- Cumulative response rate: 81% (n=261)
 - 80 acute care hospitals
 - 20 ambulatory surgery centers
 - 44 dialysis clinics
 - 69 long-term care facilities (LTCFs)
 - 44 physician practices
- Focus on results at institutions with highest-risk patients: hospitals, long term care facilities, dialysis clinics