

Pilot-Testing a Standardized Measure for Reporting Healthcare Personnel Influenza Vaccination, 2010-2011

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Presentation Outline

- Background
- Pilot Objectives
- Methods
- Results
- Discussion
- Next Steps

Background

- Several 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 requires hospitals and long-term care organizations to
 - Establish an annual influenza vaccination program that includes annual evaluation of vaccination rates

Background (2)

- National Quality Forum
 - Recently issued a time-limited endorsement to a CDC-sponsored standardized measure ('NQF measure') for reporting HCP influenza vaccination rates
 - Measure designed to ensure reported HCP influenza vaccination rate is comprehensive within a single institution and comparable across institutions

Pilot Objectives

- Determine the feasibility of implementing the NQF measure in a variety of healthcare institutions
- Identify barriers to and facilitators of implementation

Methods: Overview

- Collaboration with 4 states/localities
- 323 healthcare institutions recruited
 - 92 acute care hospitals
 - 89 long-term care facilities
 - 51 dialysis clinics
 - 30 ambulatory surgery centers
 - 56 physician practices
 - 5 other outpatient facilities
- Primary data collection via web-based surveys

Methods: Data Collection

- Characteristics of institution and its influenza vaccination program
- Data collection processes
- Perceived barriers to reporting HCP vaccination data using NQF measure
 - Developed from key informant interview data
- Aggregate vaccination data (numerator) and number of HCP working at institution (denominator): cumulative reports

Data Reporting Timeline

2010-2011 VACCINATION DATA (~03/31/2011)



Methods: Denominator

- All paid and unpaid HCP, working full- or part-time for at least one day between October 1, 2010 and March 31, 2011
- Reported in 3 mutually exclusive groups:
 - Employees
 - Credentialed non-employees
 - Other non-employees

Methods: Numerator

- Four mutually exclusive categories:
 - HCP who received influenza vaccination offered by institution
 - HCP who received influenza vaccination elsewhere
 - HCP determined to have a medical contraindication to influenza vaccination
 - HCP who declined influenza vaccination for non-medical reasons

Data Collection Tool

Denominator Information			
Total number of persons who . . .	Employees	Non-employees, Credentialed	Non-employees, Other
Worked at this healthcare institution at least one day between October 1, 2010 and March 31, 2011	<input type="text"/>	<input type="text"/>	<input type="text"/>

Numerator Information			
Total number of persons who . . .	Employees	Non-employees, Credentialed	Non-employees, Other
Received an influenza vaccine at this healthcare institution since August 2010	<input type="text"/>	<input type="text"/>	<input type="text"/>
Received an influenza vaccine elsewhere	<input type="text"/>	<input type="text"/>	<input type="text"/>
Have a medical contraindication for the influenza vaccine	<input type="text"/>	<input type="text"/>	<input type="text"/>
Declined to receive the influenza vaccine for non-medical reasons	<input type="text"/>	<input type="text"/>	<input type="text"/>

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

Results: Institution Characteristics

	Hospitals	Dialysis	LTCFs
Ownership			
Private for-profit	18.8%	59.1%	47.8%
Private not-for-profit	55.0%	38.6%	33.3%
Public	26.3%	2.3%	18.8%
Location			
Urban	57.5%	50.0%	50.7%
Suburban	21.3%	27.3%	27.5%
Rural	21.3%	22.7%	21.7%
Yrs. offering HCP vaccine			
1-4 years	5.0%	18.2%	13.0%
5 or more years	95.0%	81.8%	87.0%

Results: Institution Characteristics (2)

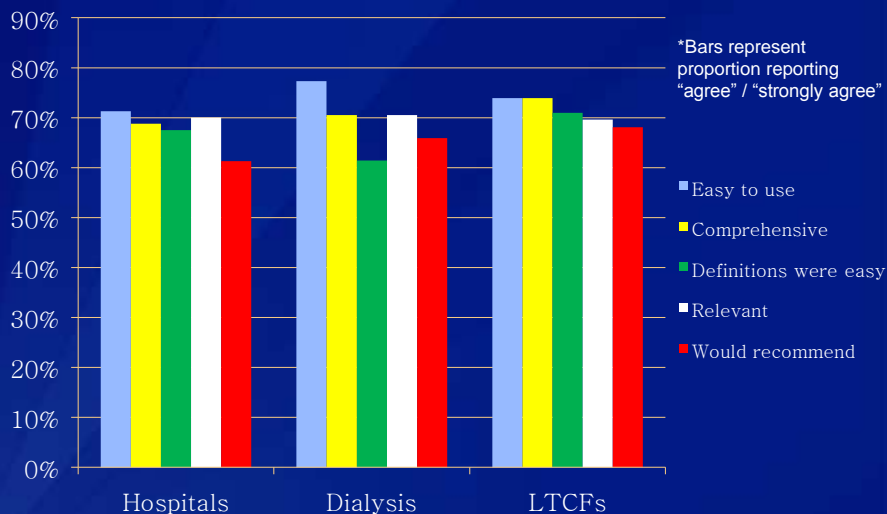
	Hospitals	Dialysis	LTCFs
Yrs. measuring HCP rate			
No experience measuring	0.0%	22.7%	30.4%
One year	3.8%	15.9%	13.0%
2-4 years	45.0%	13.6%	14.5%
5 or more years	51.3%	47.7%	42.0%
HCP vaccination policy*			
Recommended	24.1%	55.8%	26.5%
Declination required	74.7%	41.9%	70.6%
No policy	1.3%	2.3%	2.9%

*No institution reported a mandatory influenza vaccination policy enforced by termination for its HCP.

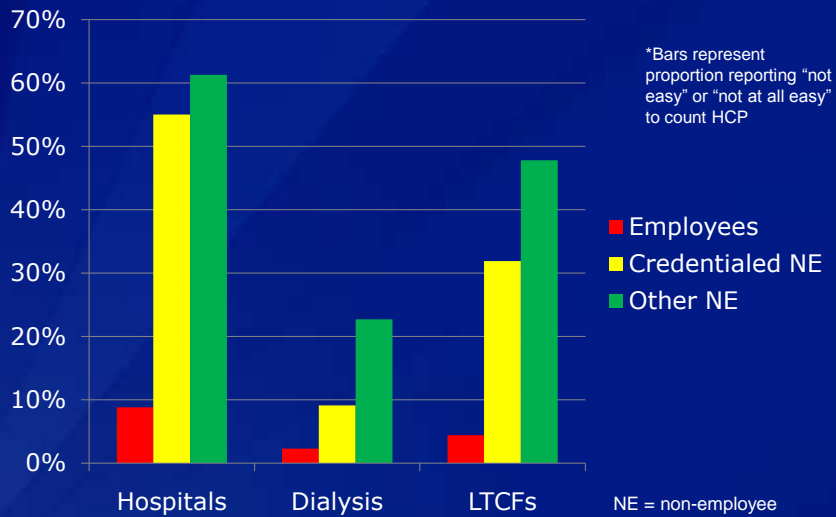
Results: Reporting Burden

	Hospitals	Dialysis	LTCFs
No. of people collecting reporting data			
1 (respondent or other)	58.8%	77.3%	81.2%
2-5 people	18.7%	9.1%	10.1%
6 or more people	22.5%	13.6%	8.7%
Median no. of hours spent (report for 10/1-12/31)			
	20.0	2.0	7.0
% unable to estimate hrs.	40.0%	31.8%	56.5%

Results: Perceptions of Measure

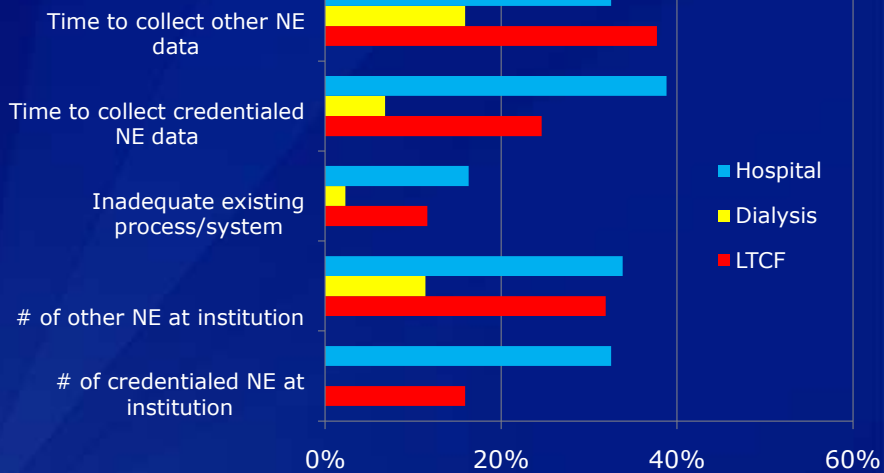


Results: Difficulty Counting HCP



Results: Barriers to Reporting

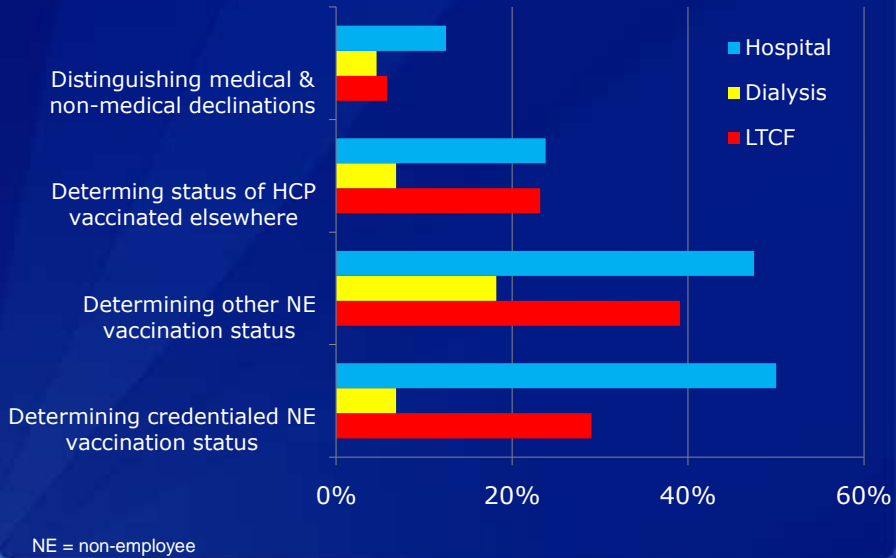
*Bars represent proportion reporting "major barrier"



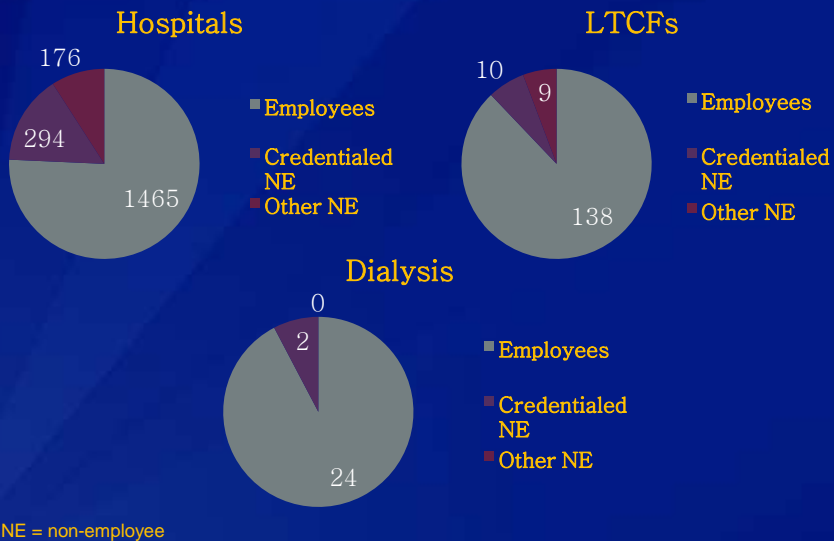
NE = non-employee

Results: Barriers to Reporting (2)

*Bars represent proportion reporting "major barrier"



Results: Denominator



Results: Difficulty Reporting Denominator

	Hospitals	Dialysis	LTCFs
% unable to report employees	1.3%	0.0%	0.0%
% unable to report credentialed non-employees	16.3%	2.3%	2.3%
% unable to report other non-employees	13.8%	6.8%	11.6%

Results: Difficulty Reporting Numerator

	Hospitals	Dialysis	LTCFs
% unable to report HCP vaccinated at institution*	1.3%- 15.0%	0.0%- 18.2%	1.5%- 20.3%
% unable to report HCP vaccinated elsewhere*	17.5%- 42.5%	2.3%- 22.7%	8.7%- 39.1%
% unable to report contraindicated HCP*	21.3%- 46.3%	2.3%- 22.7%	15.9%- 40.6%
% unable to report non-medical declinations*	18.8%- 42.5%	2.3%- 22.7%	10.1%- 39.1%

* Proportions are likely to change as participating institutions are still collecting data

Discussion

- 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 between pilot jurisdictions
- Ability to report HCP vaccination data using the NQF measure varies by type of healthcare institution

Next Steps

- Final data collection survey fielded April 2011
- Validation phase
 - Use multiple methods to verify validity and reliability of vaccination data
- Present to NQF for possible full endorsement
 - Measure will be modified based on results of pilot
- Develop NHSN module for aggregate reporting based on approved measure

Potential Impact

- Availability of a standardized, feasibility-tested measure for HCP vaccination
 - Voluntary reporting initiatives
 - Institutional/state reporting requirements
- Some measures fully endorsed by NQF have been adopted for use in national healthcare quality reporting requirements
 - E.g. Centers for Medicare & Medicaid Services' Hospital Inpatient Quality Reporting Program

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