Oregon Healthcare Acquired Infections (HAI) Reporting Program

Office for Oregon Health Policy & Research

Oregon Health Authority

February 2010

Importance of HAI reporting

- Healthcare acquired infections (HAIs) are infections that patients contract while receiving treatment.
- Centers for Disease Control and Prevention (CDC) estimates that HAIs annually account for:
  - Two million infections
  - 99,000 deaths
  - $4.5 billion in excess costs.
- Estimated that 5-15% of all hospitalized patients experience an HAI.

Oregon HAI Reporting Program

- Authorized in 2007 with the passage of HB 2524
  - Program administered by OHPR
- Authority for reporting in hospitals, nursing facilities, ambulatory surgery centers, outpatient dialysis centers, and free-standing birthing centers
- Statutory goals for the program
  - Provide useful and credible infection measures specific to each health care facility and to consumers
  - Promote quality improvement in health care facilities

Stakeholder Input for the HAI Program

- HAI Advisory Committee
  - Statutorily created to advise OHPR
  - Consists of hospital administrators, providers, public health, infection control professionals, consumers, purchasers and others
  - Co-Chairs:
    - Jim Dameron, Administrator, Oregon Patient Safety Commission
    - Woody English, MD, Providence St. Vincent Medical Center
- Partnership and collaboration
  - OAHHS
  - Infection control practitioners (Oregon APIC)
  - Oregon Public Health Department staff
  - CDC
- Public input

First step of implementation: Hospitals

- Established hospital requirements July 2008
- Requirement effective for patients treated beginning January 1, 2009
- Clinical outcome measures
  - Central line associated bloodstream infections
  - Coronary artery bypass surgery infections
  - Knee replacement procedure infections
- Nationally endorsed process measures
  - Surgical Care Improvement Project (SCIP) Measurements

Second Step: Inclusion of Other Facilities

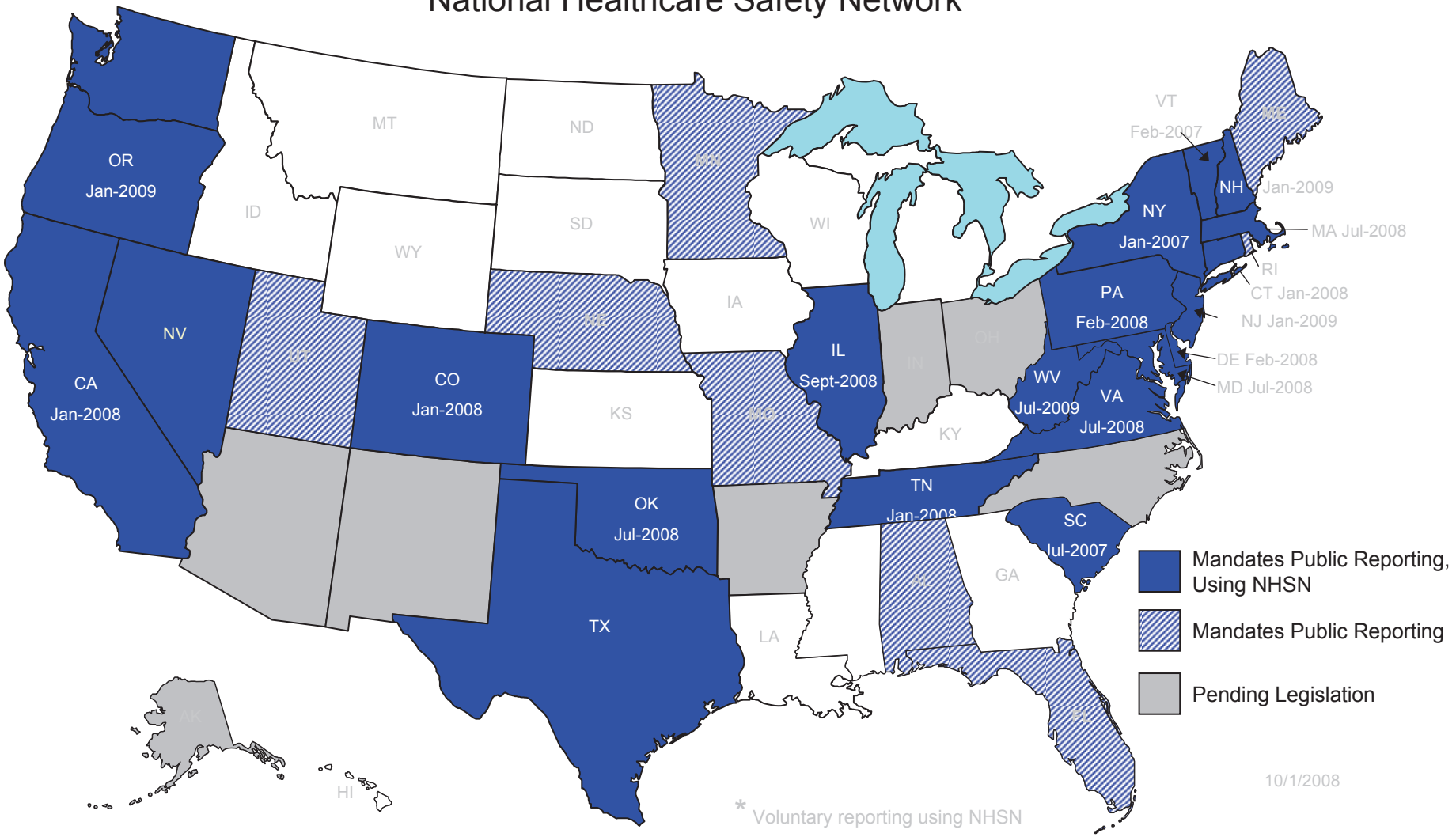
- Established additional requirements July 2009
- Expanded requirements effective January 1, 2010
- Hospitals
  - Outcome measure for neonatal intensive care units (NICU)
  - Staff influenza vaccination rates
- Nursing Facilities
  - Urinary tract infections
  - Annual survey on staff influenza vaccination rates
- Ambulatory Surgery Centers
  - Survey of evidence-based practices of patient safety

How is the program collecting outcomes for hospitals?

- National Healthcare Safety Network (NHSN) program administered by CDC is required reporting tool for outcome measures
- Advantages of NHSN
  - Standardized clinical definitions and methodology
  - Allows comparisons at the state and national level
  - Provides useful, actionable data to infection prevention specialists and frontline staff to meet local needs
  - No software/hardware costs; no maintenance fees
  - Provides for the possibility of risk adjustment of data
  - Recently adopted by the US HHS Action Plan to reduce HAIs

States Using NHSN Reporting

National Healthcare Safety Network



Implementation of NHSN

- Before Oregon required NHSN reporting, **less than 10** hospitals were using
- As of January 2010, **50** hospitals using NHSN
  - **7** hospitals received NHSN reporting waiver
- Partnerships with OAHHS and Oregon APIC critical to successful implementation of NHSN
- Some hospitals have raised concerns regarding the staff burden of using NHSN

NHSN appears to have added value for hospitals

- 24 Oregon hospitals using NHSN beyond what is required for Oregon HAI reporting program
  - 14 DRG Hospitals
  - 10 Rural Hospitals
- Examples of additional reporting include outcomes from:
  - Hip replacements
  - Colon surgeries
  - Abdominal and vaginal hysterectomies
  - Ventilator-associated pneumonia
  - Urinary tract infections

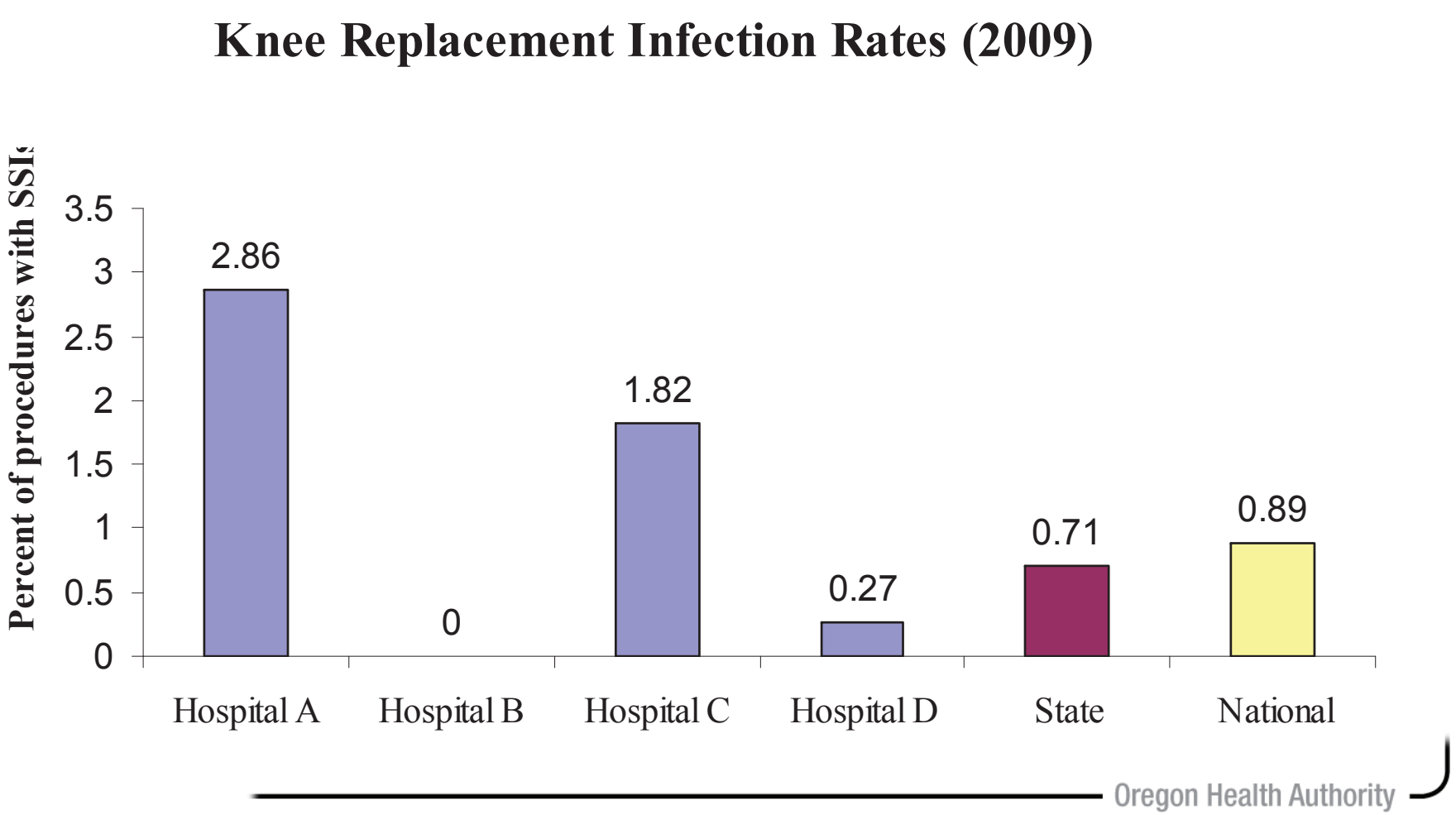
"I am a new infection control professional. NHSN has increased my knowledge of what I am supposed to be looking for and what I am supposed to be imparting to staff. I voluntarily started using the Central Line Insertion Practices (CLIP) measurement tool. This CLIP tool reinforced that the tool we had been using was based on evidence-based practice. NHSN has greatly reinforced and increased my knowledge of what I am supposed to be doing as an infection control professional."

Infection Control Professional
Type A Rural Hospital in Oregon

Next Steps

- **First public report published Spring 2010**

Preliminary NHSN outcomes show opportunities



Next Steps

- First public report published Spring 2010
- **Expand reporting requirements for hospitals through NHSN**
  - Make smart choices in selecting measurements

Expansion of hospital outcome reporting

- Proposal under discussion with Advisory Committee:
  - Expand infection reporting through NHSN
  - Determine best method for reporting multi-drug resistant organisms (i.e. MRSA, C-Diff)
  - Develop “structure” process measurements of prevention best practices
- Proposal principles for expansion
  - Prioritize through
    - Inclusions of as many Oregon hospitals as possible
    - Procedures or conditions where national data suggests higher infection rates
  - Phasing expansion
  - Enough measures to have “hospital” infection rate and not just procedure or condition based
  - Valuable for hospitals for their efforts

Next Steps

- First public report published Spring 2010
- Expand reporting requirements for hospitals through NHSN
  - Make smart choices in selecting measurements
- **Strengthen technical assistance**
  - Strengthen NHSN user support.
  - Continued collaboration with OAHHS, Oregon APIC and others
- **Continue to investigate expansion into other facilities**
- **Adopt expansion of program by Summer 2010**

Questions

Office for Oregon Health Policy & Research

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Oregon HAI Program website
http://www.oregon.gov/OHPPR/Healthcare_Acquired_infections.shtml

Blueprint Table 2: Draft Proposed Priority for SSI Procedures/Devices

NHSN SSI procedure	Infection Rate Pooled Mean (RC 0-3)	Hospital Volume, 2007	Expected Infections (Rate * Volume)	Hospitals (≥20 procedures)	Product Index
DRAFT TIER 1: to start reporting January 2011					
Laminectomy (LAM)	.72-2.30	9608	69	22	1518
Hip Prosthesis (HPRO)	.67-2.40	6023	40	36	1440
Spinal fusion (FUSN)	.70-4.15	5310	37	20	740
Open reduction of fracture (FX)	1.11-3.36	4560	51	33	1683
Cardiac surgery (CARD)	1.10-1.84	2129	23	12	276
Peripheral vascular bypass surgery (PVBY)	2.93-6.98	942	28	12	336
Ventricular shunt (VSHN)	4.04-5.93	900	36	9	324
Abdominal Hysterectomy (HYST)	1.10-4.05	4293	47	34	1598
DRAFT TIER 2: to start reporting June 2011					
Exploratory laparoscopic abdominal surgery (XLAP)	1.67-2.82	6883	115	39	4485
Gallbladder surgery (CHOL)	0.23-1.72	4751	11	39	429
Appendix surgery (APPY)	1.15-3.47	4364	50	39	1950
Colon surgery (COLO)	3.99-9.47	4250	170	36	6120
Small bowel surgery (SB)	3.44-6.75	2653	91	24	2184
Herniorrhaphy (HER)	0.74-5.25	2572	19	29	551
Gastric surgery (GAST)	1.72-4.23	2024	35	14	490
Craniotomy (CRAN)	2.15-4.66	1944	42	10	420
Bile duct, liver or renal dialysis surgery (BILI)	8.07-13.65	979	79	11	869
Rectal Surgery (REC)	3.47-26.67	606	21	10	210
DRAFT TIER 3: Measurements to Discuss					
Cesarean Section (CSEC)	1.46-3.82	14,045	205	45	9225
Vaginal hysterectomy (VHYS)	.73-1.16	3062	22	31	682
Pacemaker (PACE)	0.44	2862	13	21	273
Carotid Endartectomy (CEA)	0.33	1436	5	18	90
Breast surgery (BRST)	.95-6.36	1216	120	13	156
Abdominal aortic aneurysm repair (AAA)	2.12-6.46	261	6	5	30
Arteriovenostomy for renal dialysis (AVSD)	1.27	183	2	2	4

Blueprint Table 2: Draft Proposed Priority for SSI Procedures and Devices

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DRAFT TIER 2: to start reporting June 2011					
Expansion of CLABSI reporting—to all ICUs; hospital-wide, etc.					

HAI structural/process measures: Possible additions:
For discussion at 3-10-10 HAIAC meeting

1. Possible new SCIP measures:

- **SCIP INF 4**: Cardiac surgery patients with controlled 6 a.m. postoperative serum glucose.
- **SCIP INF 7**: Colorectal surgery patients with immediate postoperative normothermia.
- **SCIP Infection 9**, peri-operative urinary catheter removal on post operative day 1 or 2
- **SCIP Infection 10**, peri-operative temperature management

2. Process measures aimed at specific infection types

CLABSI –

- Use of 'insertion bundle' in non-emergent situations? [self assessment? As part of annual survey?]
- Counts of CLABSIs outside of ICU (counts, not rates)

SSI

- Does your hospital measure pre-operative glucose for at-risk surgical patients?
- Does it monitor perioperative glucose for all surgical patients?

MRSA/MDRO

- ?
- ?

3. Process measures that gauge commitment to Antimicrobial stewardship

- Hospital have an antibiotic stewardship committee? When did it meet last? [self assessment?]

4. Dedication to reducing infections – organizational level

- Has your hospital set infection reduction targets? What infections are you targeting? What are the reduction goals?
- Is your hospital part of a collaborative or other *extra*-hospital effort to reduce HAIs? Which?
- What is your hospital's hand washing compliance rate? How do you measure it? When was it last measured?

5. Other Secondary Measures? Possible use of AHRQ Patient Safety Indicators?

PSI 7: Selected Infections Due to Medical Care, Provider Level

Definition	Cases of ICD-9-CM codes 9993 or 99662 per 1,000 discharges.
Numerator	Discharges with ICD-9-CM code of 9993 or 99662 in any secondary diagnosis field among cases meeting the inclusion and exclusion rules for the denominator.
Denominator	All medical and surgical discharges 18 years and older **or** MDC 14 (pregnancy, childbirth, and puerperium), defined by specific DRGs. Exclude cases: • with ICD-9-CM code of 9993 or 99662 in the principal diagnosis field or secondary diagnosis present on admission, if known • with length of stay less than 2 days • with any diagnosis code for immunocompromised state or cancer • with Cancer DRG
Type of Indicator	Provider level
Empirical Performance	Bias: Some bias demonstrated
Risk Adjustment	Age, sex, DRG, comorbidity categories

Summary for PSI 7
This indicator is intended to flag cases of infection due to medical care, primarily those related to intravenous (IV) lines and catheters. This indicator is defined both on a provider level (by including cases based on secondary diagnosis associated with the same hospitalization) and on an area level (by including all cases of such infection). Patients with potential immunocompromised states (e.g., AIDS, cancer, transplant) are excluded, as they may be more susceptible to such infection.
PSI Guide 36 This indicator includes children and neonates. It should be noted that high-risk neonates are at particularly high risk for catheter-related infections.

PSI 13: Postoperative Sepsis

Definition	Cases of sepsis per 1,000 elective surgery patients with an operating room procedure and a length of stay of 4 days or more.
Numerator	Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code for sepsis in any secondary diagnosis field.
Denominator	All elective* surgical discharges age 18 and older defined by specific DRGs and an ICD-9-CM code for an operating room procedure. *Elective - Admission type # is recorded as elective (Admission Type = 3) Exclude cases: • with preexisting (principal diagnosis or secondary diagnosis present on admission, if known) sepsis or infection • with any code for immunocompromised state or cancer • MDC 14 (pregnancy, childbirth, and puerperium) • with a length of stay of less than 4 days.
Type of Indicator	Provider level

Empirical Performance	Bias: Substantial bias; should be risk-adjusted
Risk Adjustment	Age, sex, DRG, comorbidity categories

Summary for PSI 13

This indicator is intended to flag cases of nosocomial postoperative sepsis. This indicator limits the code for sepsis to secondary diagnosis codes to eliminate sepsis that was present on admission. This indicator also excludes patients who have a principal diagnosis of infection, patients with a length of stay of less than 4 days, and patients with potential immunocompromised states (e.g., AIDS, cancer, transplant).

Hospital Acquired Infections in Oregon
Data Reporting Period: January 1 through December 31, 2009

Healthcare Acquired Infections Advisory Committee
April 2010

Proposed Outline for Report

Glossary of Terms

Summary
- A summary of the report and data summary tables

Background
- To include the background of the project and future plans

Methods
- Discussion of the methods used to collect, review, and present data. Will also discuss parallel validation program to be conducted by public health.

Consumers Guide
- This section will discuss the concept of quality in a healthcare setting, the role of consumers in using healthcare services, and provide a list of resources to support the consumer in selecting and evaluating healthcare services.

Statewide Results
- This section will include a comparison of SCIP and CLABSI data by size of hospital and a comparison of SCIP measures.

Discussion
- This section will include a statement about the results and the limitations of the data; that this report represents the first year of data collection and it is expected that some of the infection data for December 2009 is incomplete.

Conclusion

References

Appendix A: Data Summary Sheet per Hospital (samples attached)

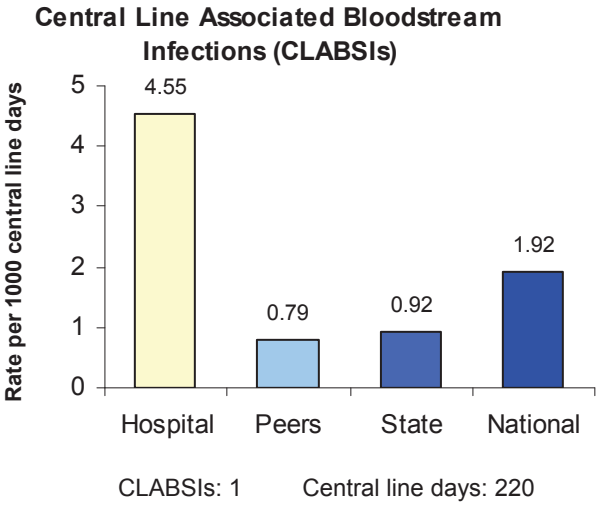
Example of Small Hospital

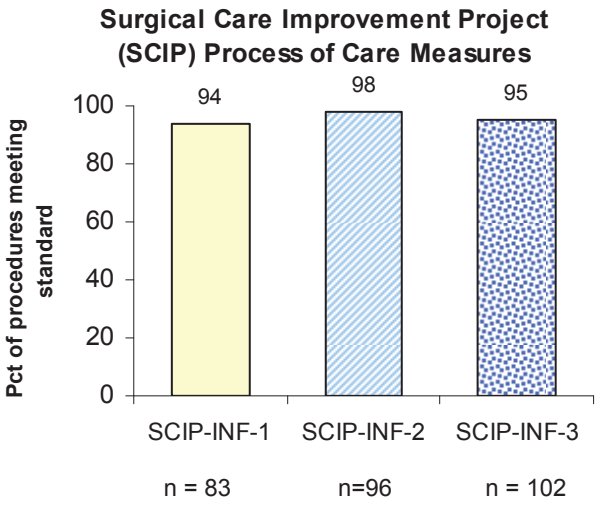
Location: Small Town
Ownership: Not for Profit
Medical school affiliation: None

ICU beds: 5
Specialty Care Beds: 0
Total staffed beds: 24

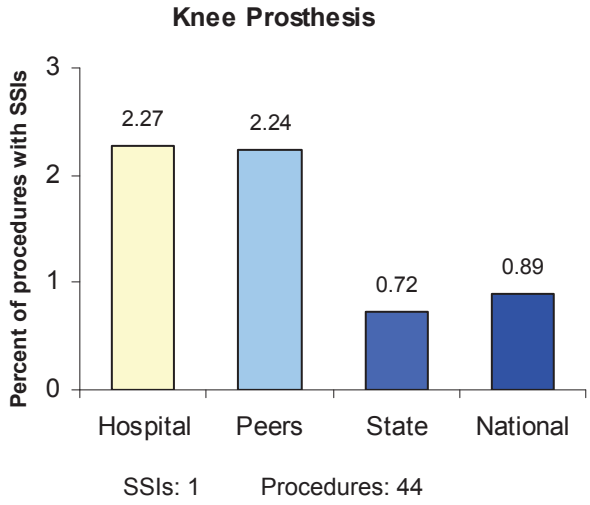
Total admissions: 1,567
Total patient days: 4,589
Infection control professional FTE: 0.4

Web Link for Hospital Comments





Surgical Site Infections by Procedure



Example of Mid-Sized Hospital

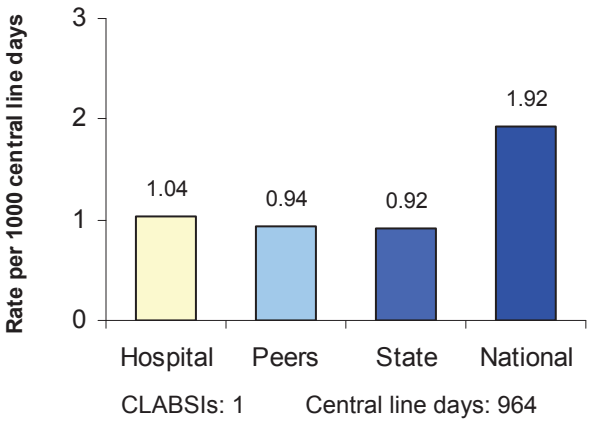
Location: Mid-Sized Town
Ownership: Not for Profit
Medical school affiliation: Limited

ICU beds: 16
Specialty Care Beds: 0
Total staffed beds: 148

Total admissions: 8,311
Total patient days: 32,413
Infection control professional FTE: 1

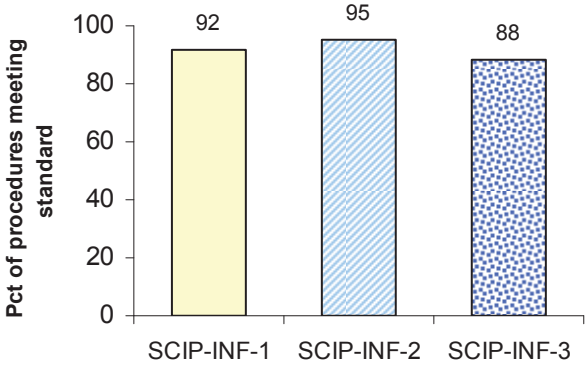
Web Link for Hospital Comments

Central Line Associated Bloodstream Infections (CLABSIs)



CLABSIs: 1 Central line days: 964

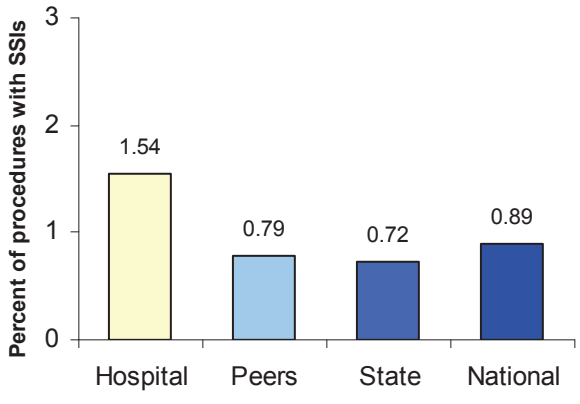
Surgical Care Improvement Project (SCIP) Process of Care Measures



n = 425 n=419 n = 450

Surgical Site Infections by Procedure

Knee Prosthesis



SSIs: 4 Procedures: 259

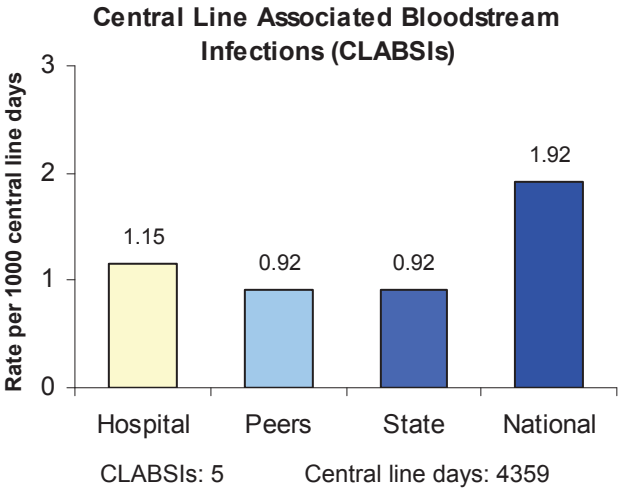
Example of Large Hospital

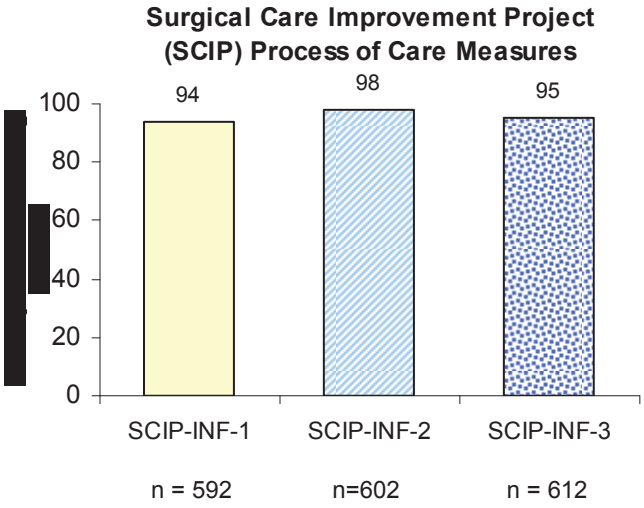
Location: Big Town
Ownership: Not for Profit
Medical school affiliation: Limited

ICU beds: 35
Specialty Care Beds: 35
Total staffed beds: 526

Total admissions: 23,514
Total patient days: 115,256
Infection control professional FTE: 2

Web Link for Hospital Comments





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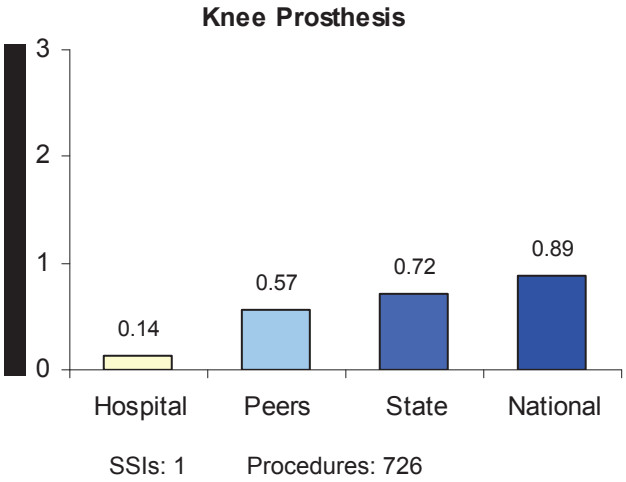

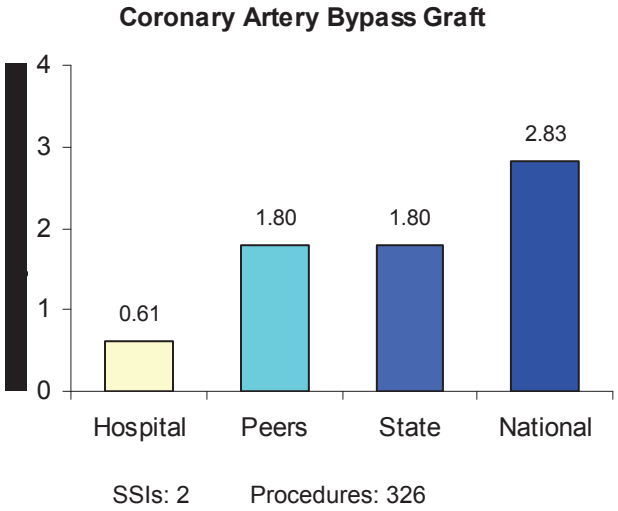

Protocol for Validation of Mandatory Reporting of Central Line-Associated Bloodstream Infections

INTRODUCTION

Objective

The objectives of the Oregon Public Health Division Acute and Communicable Disease Prevention Program (ACDP) in validating the mandatory reporting of central line associated bloodstream infection (CLABSI) data are to:

1. Determine the reliability and consistency of surveillance definitions,
2. Evaluate current surveillance methods used to detect infections,
3. Assess completeness of reporting to the Centers for Disease Control (CDC) National Healthcare Safety Network (NHSN), and
4. Based on the findings of this exercise, provide guidance to hospitals on surveillance definitions, reporting methods, and use of NHSN back.

Background

Healthcare-associated infections (HAI) are a significant cause of morbidity and mortality. They are among the top ten leading causes of death in the US, accounting for an estimated 1.7 million infections and 99,000 deaths in hospitals alone in 2002[i]. The annual cost to hospitals for these HAI was recently estimated at $33 billion.[ii] HAI are not limited to acute care hospitals, but have also been reported in same day surgical centers, dialysis facilities, outpatient ambulatory clinics, and in long-term care facilities, such as nursing homes and rehabilitation facilities.[iii] Hospital stays for methicillin-resistant *Staphylococcus aureus* (MRSA) have more than tripled since 2000 and increased nearly ten-fold between 1995 and 2005.[iv] The CDC's Emerging Infections Program (EIP) invasive MRSA surveillance system estimated that 94,360 invasive MRSA infections occurred in 2005, resulting in 18,650 deaths.[v]

In 2007, the Oregon state legislature passed House Bill 2524 with the intent of creating a mandatory HAI reporting program. The Oregon HAI Reporting Program initially published rules on July 1, 2008, and the National Healthcare Safety Network (NHSN) was chosen as the reporting system to be used for inpatient HAI outcome measures.[vi] Quarterly inpatient reporting to NHSN began January 1, 2009 and includes central line-associated bloodstream infections (CLABSI) in ICUs and three surgical site infections (SSI): coronary artery bypass graft surgery with both chest and graft incisions (CBGB); coronary artery bypass graft surgery with chest incision only (CBGC); and knee prosthesis procedures (KPROs). These infection types were selected based on their public health importance and measurability.

Need for Validation

A method to validate data must be considered in any mandatory reporting system to ensure that HAIs are being accurately and completely reported. In 2008, the New York State Health (NYS) Department reported on their CLABSI data validation process[vii] Their findings indicated that the hospitals reported inconsistent infection data because they interpreted the HAI case definitions differently. Of the 168 CLABSI cases identified by the NYS HAI validation study, 43 (25.6%) had not been reported by the hospitals to NHSN. Of the 921 non-CLABSI cases identified by the NYS HAI validation study, 44 (4.8%) had been reported by the hospitals to NHSN as a CLABSI case.

More recently, the Connecticut Department of Public Health conducted a validation project of all CLABSI reported from ICU patients of thirty acute care hospitals in the fourth quarter of 2008. Of the 49 CLABSI cases identified by the Connecticut DPH validation study, 26 (53.1%) had not been reported by the hospitals to NHSN. Of the 427 non-CLABSI cases identified by Connecticut DPH, 4 (9.3%) had been reported by the hospitals to NHSN as CLABSI cases.

METHODS

Facility selection

In February-April 2010, ACDP staff will pilot test validation methods at a sample of acute care facilities. A report on this pilot will include analysis of the data collected and will also focus on the time and other resources required, the appropriateness of our sampling strategy, any challenges encountered in accessing laboratory data, and issues presented by interactions with stakeholders. Based on the findings of this pilot, OPHD will modify its validation protocol in April-May 2010. Between June 2010 and September 2011, the validation will be implemented in all Oregon acute care facilities with ICUs.

Selection of patients within hospitals

A list of eligible patients within each qualifying Intensive Care Unit will be determined by obtaining microbiology laboratory records of those ICU patients who had a culture positive for a bloodstream infection, up to 48 hours after ICU discharge, during the study period. The study period for the pilot project will be January 1 – December 31, 2009; depending on the findings of the pilot project and the expected number of cases, a shorter study period may be selected for larger hospitals.

A random sample from the list of eligible patients will be selected. Depending on the expected number of cases, the size of the hospital, and the reported number of cases, a minimum number of patient charts that yields a sample of sufficient size will be identified, and charts will be sampled accordingly.

Our expected sample size is based on the findings of Connecticut DPH's 2008 validation study, which identified 49 true positive CLABSI out of 476 bloodstream infections (CLABSI prevalence of 10.3% among blood culture- positive patients) and found that hospitals had reported 27 CLABSI (5.7% of blood culture-positive patients). To detect a difference of 20% (between reported positive and true positive CLABSI) at significance level 0.05 and 80% power, we anticipate a total minimum sample size of 59 medical records.

Data collection

Hospital laboratories will be asked to provide lists of patients admitted to the ICU during the study period who had a culture positive for a bloodstream infection up to 48 hours after ICU discharge. A letter will be sent to the Laboratory Director requesting the list of eligible patients and that the following information for each culture be included in the laboratory reports sent to OPHD ACDP:

- Hospital Name (for epidemiology)
- Hospital number: unit or medical record number (for hospital identification & de-duplication)

- Date of Birth (for hospital identification, epidemiology & de-duplication)
- Sex (for epidemiology)
- Collection date (for de-duplication)
- Patient Unit Location on collection date (for validation)
- Site/source of blood collection: ie. Central line, antecubital/peripheral, catheter tip, etc. (for inclusion/exclusion criteria)
- Date and time found positive (for validation)
- Species of isolate (s) (for validation)

Once the list of laboratory reports has been received by ACDP, the medical records department will receive a letter requesting that the medical records of eligible patients be made available. Some facilities have electronic medical records and a special password might be needed to access the patient's record. This issue will be resolved at the time the facility is notified of the data validation project. It is anticipated that the chart reviews will occur in February through April 2010.

A retrospective chart review methodology will be used. The chart abstractor(s) will be blinded as to whether a healthcare associated infection was present or not, and whether the case was reported to NHSN. Medical records and hospital admission data will be reviewed to determine if a central line-associated bloodstream infection occurred within the study timeframe, whether the infection was hospital associated and related to an admission in an eligible ICU, and which NHSN criteria were used to meet case definition. If it is determined that a central line was in place on the date of the positive blood culture, then the audit will continue, and NHSN data and supplemental information will be collected. All definitions used for determining the presence of an infection will follow the CDC NHSN Surveillance Protocol[viii].

Any questionable case that needs clarification regarding NHSN eligibility will be reviewed with CDC NHSN for final determination of meeting NHSN CLABSI case criteria. A standardized data collection form will be used to record findings and entered into an electronic database at OHPD ACDP.

Validation of denominator data

Collection of patient-days and central line-days for calculation of Blood Stream Infection (BSI) rates requires the daily counting of patients in the ICU and the ICU patients with $\geq$ 1 central line of any type. Two options will be employed to determine whether the denominator data are collected correctly. They include:

1. A visit to the ICU participating in the surveillance to review who, what time of day, and how lines are counted;
2. A review of the monthly report forms where staff collects daily counts of new patients and lines. During this review there may be qualitative evidence whether these data are collected daily or not. The absence of records for any length of time used to count line days (daily logs should be available for at least the current or past month) is suggestive of inappropriate surveillance practices.

Using a standardized questionnaire, HAI staff will interview the Infection Preventionist or the ICU staff member with reporting responsibilities.

Staff training
At the pilot sites, medical record review will be performed by ACDP staff, who have completed self-directed training in NHSN data entry, management, and analysis through webinar sessions (all required modules) and review of the Patient Safety Component manual (and one staff member, Margaret Cunningham, has also attended directed webinars and a conference training breakout session in NHSN data entry and analysis). Should funds become available to employ temporary project staff for the full validation project, they will undergo similar training.

Data management and security
All information and identifiers (both electronic and hard copy) will be kept confidential. During the on-site hospitals visits and chart reviews, validation data will be abstracted onto standardized reporting forms. Paper copies of abstracted data will be kept in locked briefcases and not left unattended in vehicles. In situations in which ACDP staff are unable to return to the Portland State Office Building on the same day as the data are collected, all hard copies will be sent via US mail to ACDP. Once returned to ACDP, all paperwork will be maintained in locked file cabinets in ACDP. The data that are gathered on these forms will be entered by ACDP staff into a secure electronic database, which is password-protected. Two years after the data validation project has ended, all confidential information will be destroyed.

Data analysis and reports
The data from the validation study will be electronically matched to the dataset containing the NHSN CLABSI cases reported by the respective hospital for the same time period. The variables that will be used to match the cases are medical record number, date of birth and gender. The NHSN CLABSI cases reported by the hospital surveillance system will be compared to the true CLABSI cases determined by the retrospective analysis. The dataset match will yield cases that fall into 4 categories:

1. Cases reported by hospital to NHSN and identified by ACDP staff as CLABSI cases ("true positives")
2. Cases not reported by hospital and ruled out as CLABSI cases by ACDP staff ("true negatives")
3. Cases reported by hospital to NHSN but ruled out as CLABSI cases by ACDP staff ("false positive")
4. Cases not reported by the hospital but identified as CLABSI cases by ACDP staff ("false negatives")

Use of project data
The purpose of the data validation project is to monitor the accuracy of data submitted by hospitals to NHSN, and assess the hospital's surveillance system and use of NHSN definitions. Any unreported case(s) will be analyzed individually to determine why the case(s) went undetected and what action is necessary to correct the problem. ACDP staff will review and follow-up with each hospital that have been identified as having reported data inaccuracies or data irregularities. Cases determined to have been reported but not meeting NHSN criteria will also be reviewed and discussed with hospital surveillance personnel to correct any misinterpretation of criteria. The reviews with hospital staff will serve to provide on-site education on the definitions, surveillance

mechanisms and use of NHSN. The final report on this validation study will present all facilities' data in aggregate form.

Participants

ACDP Participants:
Ann Thomas, MD, MPH
Margaret Cunningham, MPH.
Zintars Beldavs, MS

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[i] Klevens RM, Edwards J, Richards C, Horan T, Gaynes R, Pollock D, Cardo D. Estimating healthcare-associated infections and deaths in U.S. hospitals, 2002. Public Health Reports 2007; 122:160-166.

[ii] Scott R, Douglas. The direct medical costs of healthcare-associated infections in US hospitals and the benefits of prevention. March 2009. http://www.cdc.gov/ncidod/dhqp/pdf/Scott_CostPaper.pdf

[iii] Thompson ND, Perz JF, Moorman AC, et al. Nonhopital healthcare-associated hepatitis B and C virus transmission: united States, 1998-2008. Ann Intern Med 2009;150:33-9.

[iv] Elixhauser A and Steiner C. Infections with methicillin-resistant Staphylococcus Aureus (MRSA) in U.S. hospitals, 1993–2005. AHRQ Healthcare Cost and Utilization Project Statistical Brief 2007; 35:1-10.

[v] Klevens RM, Morrison MA, Nadle J, et al. Invasive methicillin-resistant *Staphylococcus aureus* infections in the US. JAMA 2007;298:1763-1771.

[vi] 7 The text of HB 2524 can be accessed at: http://www.oregon.gov/OHPPR/docs/HCAIAC/Reporting/HB_2524.pdf

[vii] New York State Hospital-Acquired Infection Reporting System: Pilot Year-2007. Report June 30, 2008.

[viii] 13. The Centers for Disease Control, National Healthcare Safety Network (NHSN) Manual. http://www.cdc.gov/ncidod/dhqp/pdf/nhsn/NHSN_Manual_PatientSafetyProtocol_CURRENT.pdf

January 15, 2010

TO: Accrediting and Licensing Department, Long-Term Care Facilities

SUBJECT: Annual Survey on Influenza Vaccination of Staff for 2009-2010

Each long-term facility is requested to report influenza vaccination, documented contraindication, and informed declination rates for all staff for the 2009-2010 flu season and to submit this data to the Office of Health Policy and Research (OHPR) by April 30, 2010.

This document provides the survey forms for Reporting of Influenza Vaccination, Medical Contraindication and Declination Rates for Staff, 2009-2010, for compliance with Oregon Administrative Rule 409-023-0013(4).

The following information is provided to complete this form:

1. Staff is defined as healthcare personnel (HCP), which refers to all paid and unpaid persons working in health-care settings who have the potential for exposure to patients and/or infectious materials, including body substances, contaminated medical supplies and equipment, contaminated environmental surfaces, or contaminated air.

   HCP might include (but are limited to) physicians, nurses, nursing assistants, therapists, technicians, emergency medical service personnel, dental personnel, pharmacists, laboratory personnel, autopsy personnel, students and trainees, contractual staff not employed by health-care facility, and persons (e.g., clerical, dietary, house-keeping, laundry, security, maintenance, billing, and volunteers) not directly involved in patient care but potentially exposed to infectious agents that can be transmitted to and from HCP and patients.

2. The cutoff date for tabulation of the data Attachment A is the count of vaccinations, declinations, or documented medical contraindications between September 1, 2009 and March 31, 2010. The total count of staff is the count on March 31, 2010.

3. Attachments A is due to OHPR by April 30, 2010. Upon completion, please email to Jeanne.Negley@state.or.us or fax to "HAI Program" at (503) 373-5511.

If you have any questions about this survey, please contact Jeanne Negley, HAI Program Coordinator, at Jeanne.Negley@state.or.us or phone (503) 373-1793.

Sincerely,

Elyssa Tran, MPA
Health Systems Data and Research Manager
Oregon Health Policy and Research

cc: HAI Advisory Committee
Oregon Health Care Association

ATTACHMENT A

Influenza Vaccination/Declination Surveillance for Long-Term Care Facilities

Collection Start Date: September 1, 2009; End Date: March 31, 2010

Name of Facility: _____

Facility ID: _____

Name of Person Completing Form: _____
Please print legibly

Contact Information:
Email: _____ Phone: _____

Components	Number	
1. Total number of staff with a documented influenza vaccination[1] during the influenza season.	Seasonal	H1N1
2. Total number of staff (include part-time)[2]		
3. Total number of staff with a documented medical contraindication of influenza vaccination during the influenza season.	Seasonal	H1N1
4. Total number of staff with a documented refusal of influenza vaccination during the influenza season.	Seasonal	H1N1
5. Which of the following methods did you use during the influenza season to deliver vaccine to your healthcare workers? (check all that apply) ☐ Mobile carts ☐ Centralized mass vaccination fairs ☐ Peer vaccinators ☐ Provided vaccination in congregate areas (e.g., conferences/meetings or cafeteria) ☐ Provided vaccination at occupational health clinic ☐ Other, specify: _____		
6. Which of the following strategies did you use to promote/enhance healthcare worker influenza vaccination at your facility? (check all that apply) ☐ No formal promotional activities are planned ☐ Incentives ☐ Reminders by mail, email or pager ☐ Coordination of vaccination with other annual programs (e.g., tuberculin skin testing) ☐ Required receipt of vaccination for credentialing (if no contraindications) ☐ Campaign including posters, flyers, buttons, fact sheets ☐ Other, specify: _____		
Did you conduct any formal educational programs on influenza and influenza vaccination for your healthcare workers? ☐ Yes ☐ No		
Upon completion, please email this to HAI@state.or.us or Fax to "HAI Program" at (503) 373-1793		

For questions, please contact Jeanne Negley at jeanne.negley@state.or.us or phone (503) 373-1793.

[1] Includes influenza vaccines administered in settings other than reporting facility.
[2] The total staff count is the total count as of March 31, 2010.