Injection Safety, Hand Hygiene, and Healthcare Worker Influenza Vaccination

Oregon Public Health Division
Healthcare-Associated Infections HAI Program

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HAI Program at OHA

- Surveillance and reporting
- Outbreak response
- Prevention

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Objectives

- Injection Safety
  - Syringe and medication vial safety
  - Drug diversion
  - Oregon-specific risks and resources
- Hand Hygiene
  - Review current recommendations
  - Promotional resources for safe surgery
- Healthcare worker influenza vaccination
  - Oregon ASC progress towards HP2020 benchmarks
  - Strategies for promotion: What works?

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INJECTION SAFETY

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Drug diversion can lead to infection

Hepatitis C concerns prompt response from McKay-Dee Hospital

4,800 patients have been notified about possible exposure to the virus

By Aldo Vazquez | avazquez@good4utah.com
Published 11/01 2015 05:46PM Updated 11/01 2015 06:05PM

- Hepatitis C virus (HCV) positive (genotype 2b) healthcare worker (HCW) fired November 2014 for diverting medication
- Former emergency room patient subsequently diagnosed with genotype 2b HCV infection
- HCV strain match, plus lack of other risk factors, led authorities to link cases
- Utah Department of Health notifies 4,800 patients of potential exposure, offering testing and counseling

http://www.good4utah.com/news/local-news/hepatitis-c-concerns-prompt-response-from-mckay-dee-hospital

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Syringe Reuse: Unthinkable? Think again

Infection Control Assessment of Ambulatory Surgical Centers

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Joseph F. Perz, DrPH, MA

OVER THE LAST SEVERAL DECADES, health care delivery in the United States has shifted toward the outpatient setting; ambulatory surgery in particular has been an area of immense growth. Ambulatory surgical centers (ASCs) are defined by the Centers for Medicare & Medicaid Services (CMS) as facilities that operate exclusively to provide surgical services to patients who do not require hospitalization or stays in a surgical facility longer than 24 hours.[1]

Context More than 5000 ambulatory surgical cent… participate in the Medicare program. Little is know… in ASCs. The Centers for Medicare & Medicaid S… control audit tool in a sample of ASC inspectio… ommended practices.

Objective To describe infection control … ctices in a s…

Design, Setting, and Participant …ll State Survey… participate. Seven states volunteere… were selected b… sion, number of ASCs each state … mitted to inspect, … tion. A stratified random sampl… ASCs was selected f… was based on the number … spections each state e… between June and Octobe… 08. Sixty-eight ASCs were… 16 in North Carolina, an… 0 in Oklahoma. Surveyors f… the audit tool, assess… ompliance with specific infectio… ments focused on 5… eas of infection control: hand hy… medication handl…, equipment reprocessing, environ… dling of blood … ose monitoring equipment.

Main Outc… e Measures Proportion of facilities with … trol categ…

Results Overall, 46 of 68 ASCs (67.6%; 95% confidence interval [CI], 55.9%-77.9%) had at least 1 lapse in infection control; 12 of 68 ASCs (17.6%; 95% CI, 9.9%-28.1%) had lapses identified in 3 or more of the 5 infectio… control categories. Com… mon lapses included using single-dose medication vials f… 64; 28.1%; 95% CI, 18.2%-40.0%), failing to adhere … regarding reprocessing of equipment (19/67; 28.4%; 95… lapses in handling of blood glucose monitoring equipmen… 33.4%-59.6%).

Conclusion Among a sample of US ASCs in 3 states, lap… common.

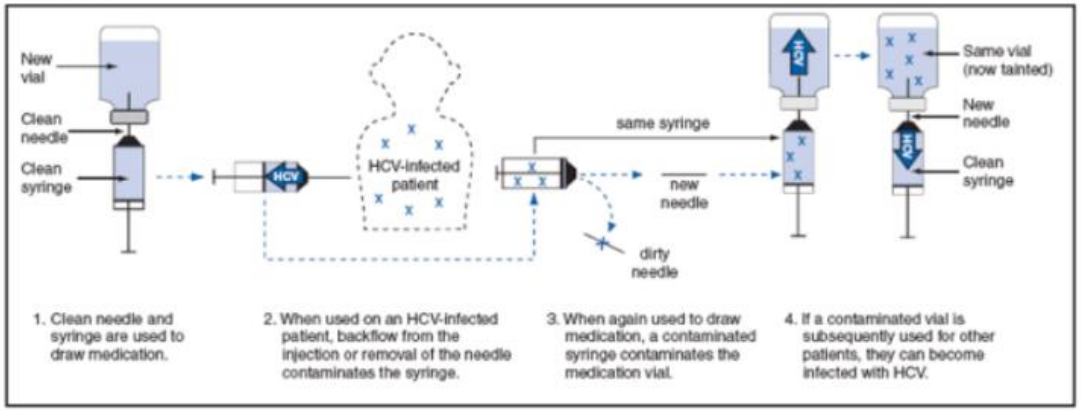
JAMA. 2010;303(22):2273-2279

Results Overall, 46 of 68 ASCs (67.6%; 95% confidence interval [CI], 55.9%-77.9%) had at least 1 lapse in infection control; 12 of 68 ASCs (17.6%; 95% CI, 9.9%-28.1%) had lapses identified in 3 or more of the 5 infection control categories. Common lapses included using single-dose medication vials for more than 1 patient (18/64; 28.1%; 95% CI, 18.2%-40.0%), failing to adhere to recommended practices regarding reprocessing of equipment (19/67; 28.4%; 95% CI, 18.6%-40.0%), and lapses in handling of blood glucose monitoring equipment (25/54; 46.3%; 95% CI, 33.4%-59.6%).

Conclusion Among a sample of US ASCs in 3 states, lapses in infection control were common.

JAMA. 2010;303(22):2273-2279 www.jama.com

FIGURE 2. Unsafe injection practices and circumstances that likely resulted in transmission of hepatitis C virus (HCV) at clinic A — Nevada, 2007



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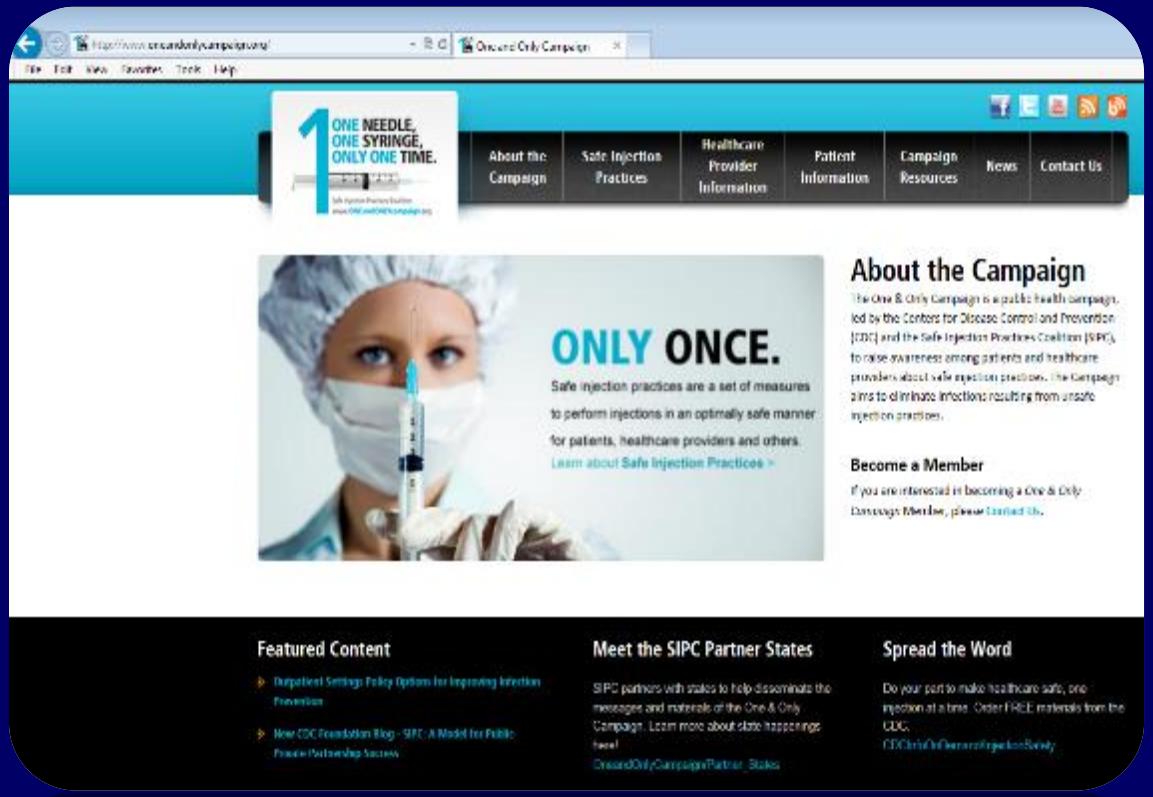
Unsafe Injections: A National Issue

- Over 50 US outbreaks (1998-2014) due to unsafe injections
- >700 patients infected
- >150,000 patients notified of potential exposure
- Syringe reuse
- Improper use of single-use/multi-dose vials
- Improper arterial blood gas measurement
- Drug diversion



http://www.oneandonlycampaign.org/

Why what we know is just the tip of the iceberg

- Underestimated infections
  - Infections (especially HCV) may go undetected for years
  - Difficult to identify infected patients and link them to HCWs diverting drugs
- Underreported drug diversion
  - Healthcare facilities are reticent to publicize these events, especially if risk to patients appears low
  - Misaligned incentives on the part of agencies who place HCWs
  - “Culture of silence” among HCWs who witness substance abuse among co-workers

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Difficult to Modify

Modifiable

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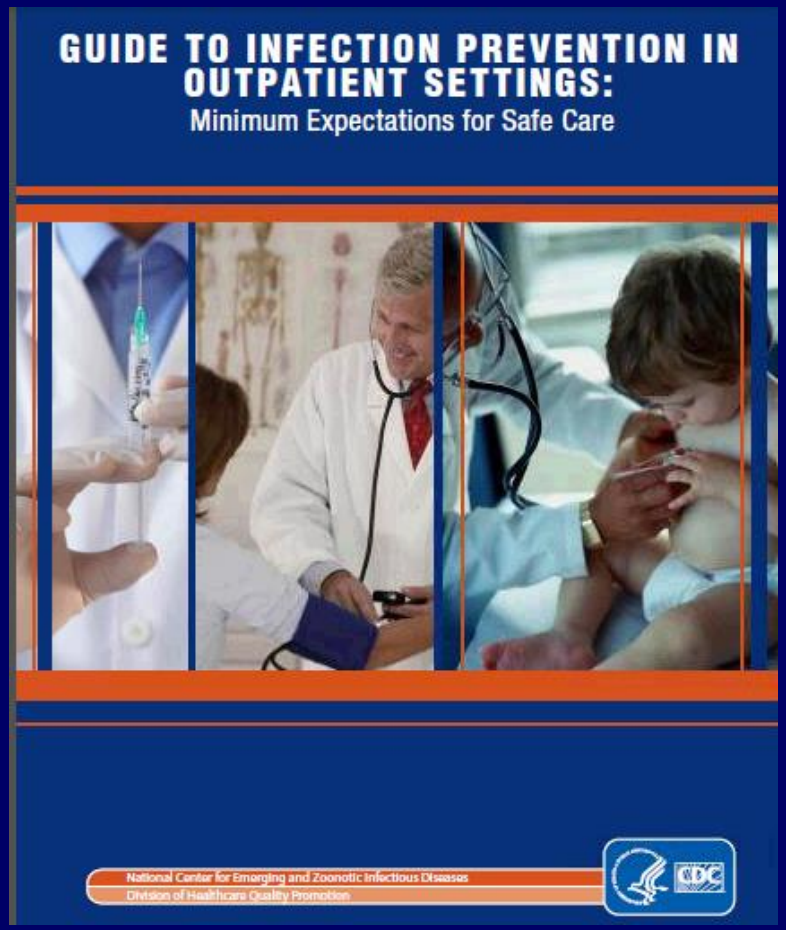
Core principles of injection safety



- Foundational principles that guide prevention efforts across settings
- Underpin the CDC's One and Only Campaign
- Incorporated into Infection Control Assessment and Response (ICAR) tools

http://www.cdc.gov/HAI/settings/outpatient/outpatient-care-guidelines.html

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Key elements of injection safety

1. Use aseptic technique when preparing medications

2. Cleanse the access diaphragms of medication vials with 70% alcohol before inserting a device into the vial

3. Never administer medications from the same syringe to multiple patients, even if the needle is changed or injection administered through intravenous tubing

4. Do not reuse a syringe to enter a medication vial or solution

http://www.cdc.gov/HAI/settings/outpatient/outpatient-care-guidelines.html

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Key elements of injection safety

5. Do not administer medications from single-use vials, ampoules, or bags or bottles of intravenous solution to more than one patient

6. Do not use fluid infusion or administration sets (e.g., intravenous tubing) for more than one patient

7. Dedicate multidose vials to a single patient whenever possible
   - If multidose vials will be used for more than one patient, they should be restricted to a centralized medication area
   - Should not enter the immediate patient treatment area

http://www.cdc.gov/HAI/settings/outpatient/outpatient-care-guidelines.html

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Key elements of injection safety

8. Dispose of used syringes and needles at the point of use in a sharps container that is closable, puncture-resistant, and

9. Adhere to federal and state requirements for protection of HCP from exposure to bloodborne pathogens.

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Occupational Safety and Health Administration

http://www.cdc.gov/HAI/settings/outpatient/outpatient-care-guidelines.html

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Know your vials

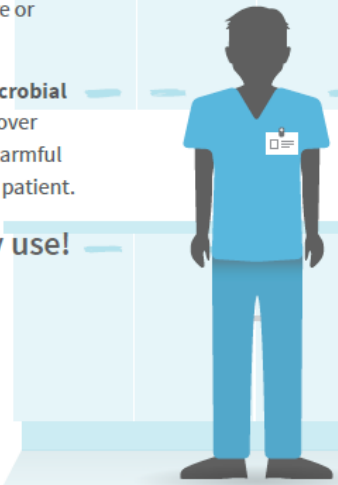
THE PROVIDER

DO YOU MULTI-DOSE?

A SINGLE-DOSE VIAL (SDV) is approved for use on a **SINGLE** patient for a **SINGLE** procedure or injection.

SDVs typically lack an antimicrobial preservative. Do not save leftover medication from these vials. Harmful bacteria can grow and infect a patient.

DISCARD after every use!



A MULTIPLE-DOSE VIAL (MDV) is recognized by its FDA-approved label.

Although MDVs can be used for more than one patient when aseptic technique is followed, ***ideally even MDVs are used for only one patient.***

MDVs typically contain an antimicrobial preservative to help limit the growth of bacteria. Preservatives have no effect on bloodborne viruses (i.e. hepatitis B, hepatitis C, HIV).

Discard MDVs when the beyond-use date has been reached, when doses are drawn in a patient treatment area, or any time the sterility of the vial is in question!

SIZE DOES NOT MATTER!

SDVs and MDVs can come in any shape and size. ***Do not assume*** that a vial is an SDV or MDV based on size or volume of medication. ***ALWAYS check the label!***

FAQs Regarding Safe Practices for Medical Injections:
www.oneandonlycampaign.org/content/healthcare-professional-faqs

ONEANDONLYCAMPAIGN.ORG

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“Will the real multi-dose vial please stand up?”

Drezner et al. *Infect Control Hosp Epidemiol* 2014;35(2):187-189 [MSSA in Rheumatology Clinic]

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DRUG DIVERSION* SPREADS INFECTION FROM HEALTHCARE PROVIDERS TO PATIENTS

HEALTHCARE PROVIDER
with Hepatitis C or other bloodborne infection tampers with injectable drug

CONTAMINATED INJECTION EQUIPMENT AND SUPPLIES
present in the patient care environment

EXPOSURE OF PATIENT
results from use of contaminated drug or equipment for patient injection or infusion

*Drug diversion occurs when prescription medicines are obtained or used illegally by healthcare providers.

FOR MORE INFORMATION, VISIT CDC.GOV/INJECTIONSAFETY/DRUGDIVERSION

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Mechanisms of diversion

- False documentation (e.g., medication not administered to the patient or “wasted” and instead used by the HCW)

- Scavenging of wasted medication (e.g., removal of residual medication from trash or used syringes)

- Theft by tampering (e.g., removal of medication from a container or syringe and replaced with similarly appearing solution that may be administered to patients)

Risks to patients

- Patient safety is compromised whenever drug diversion by HCWs occur
- Harms can include
  - Failure to receive prescribed medication (including pain management)
  - Exposure to substandard care from an impaired HCW
  - Exposure to potentially life-threatening infections

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Berge KH et al. Mayo Clin Proc. 2012;87(7):
Schaefer MK, Perz JF. Mayo Clinic Proc.2014; 89 (6)

- Article discusses six outbreaks over the 10 year period beginning in 2004
- Implicated HCW: three technicians and three nurses
- Two outbreaks: tampering with opioids administered via patient-controlled pumps, associated with bacterial infections in 34 patients
- Four outbreaks: tampering with fentanyl syringes or vials
  - HCV infection was transmitted from infected HCW to 84 patients
  - Nearly 30,000 patients were potentially exposed and contacted regarding bloodborne pathogen testing

http://www.mayoclinicproceedings.org/article/S0025-6196(14)00342-5/fulltext

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MAYO CLINIC

ORIGINAL ARTICLE

Outbreaks of Infections Associated With Drug Diversion by US Health Care Personnel

Melissa K. Schaefer, MD, and Joseph F. Perz, DrPH

TABLE 2. Steps for Health Care Facilities to Address Patient Safety When Drug Diversion Is Identified

1. Prevent further risk to patients at the facility
   a. Remove the implicated health care professional from the clinical environment and revoke any previously authorized access to controlled substances (eg, suspend computerized access to automated medication dispensing machines) pending further investigation
   b. Evaluate security of controlled substances to address gaps in adherence to recommended and required practices
2. Prevent risk to patients at other health care facilities
   a. Engage law enforcement
      i. Local law enforcement
      ii. Drug Enforcement Administration (DEA)
         a. DEA registrants are required to notify the DEA of the theft or significant loss of any controlled substance within 1 business day of discovery of such loss or theft
      iii. Food and Drug Administration Office of Criminal Investigation, particularly if product tampering, including substitution, is suspected
   b. File report with applicable licensure agencies (eg, physician or nursing board, state board of pharmacy)
3. Assess retrospective risk to patients
   a. Attempt to ascertain the mechanism(s) of diversion used by the implicated health care professional
      i. Were injectable medications diverted?
      ii. Was any type of tampering with injectable medication performed? If yes, assess potential for patients to be exposed to the health care professional's blood (eg, through swapping with syringes previously used by the health care professional)
   b. If tampering with injectable medication is suspected, pursue blood-borne pathogen testing of the implicated health care professional
   c. Use information from steps 3 a-b to determine need for patient notification and testing. This should be performed in consultation with the local or state health department

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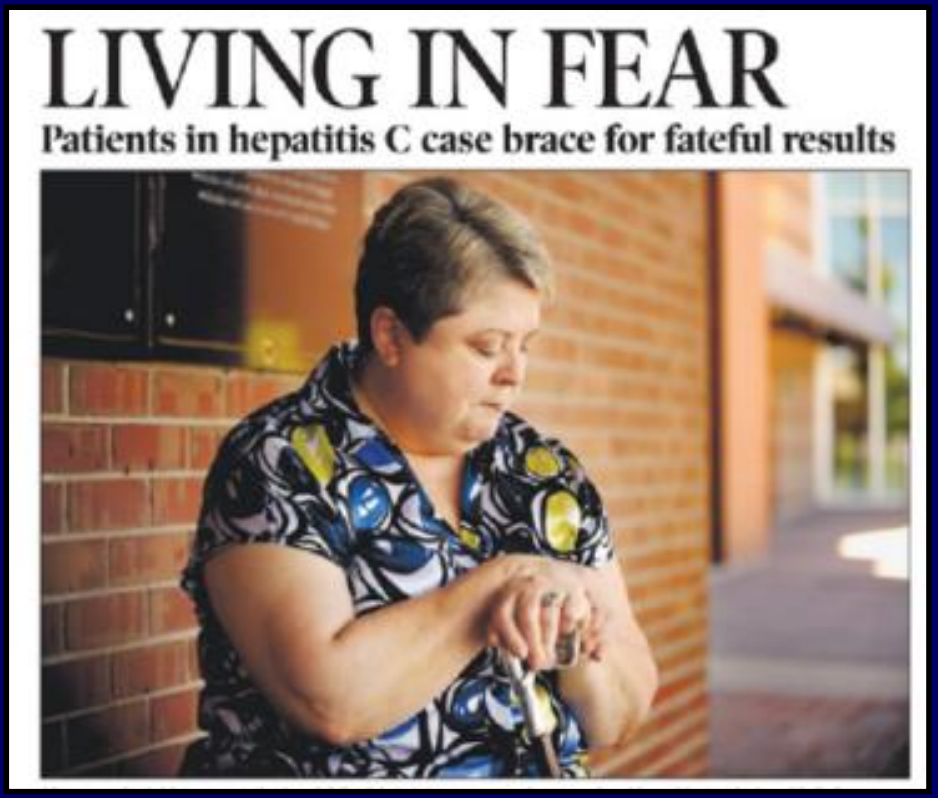
Hepatitis C outbreak, Colorado 2009



LIVING IN FEAR

Patients in hepatitis C case brace for fateful results

- Colorado Department of Public Health & Environment received reports of two acute HCV infections in patients who had undergone surgery at the same hospital
- HCV-infected surgical technician stole fentanyl syringes that had been pre-drawn by anesthesia staff and left unlocked in the operating room (OR)
- HCW refilled contaminated syringes with saline to swap with fentanyl syringes

At least 18 patients infected; over 8,000 patients notified

- Notification included an ambulatory surgery center (ASC) that employed the HCW after being fired from CO hospital, and NY hospital of previous employment
- HCW sentenced to 30-year prison term

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http://www.denverpost.com/news/ci_12790134

Multistate HCV outbreak, 2012

- 45 cases of HCV in New Hampshire, Kansas & Maryland associated with radiology technician
- HCW also diverted opiates in Michigan, Arizona, New York, and Pennsylvania
- Investigation reveals holes in licensure, certification, placement, hospital detection programs, and peer/supervisor reporting
- HCW sentenced to 39 years in prison

www.newsweek.com/2015/06/26/traveler-one-junkies-harrowing-journey-across-america-344125.html

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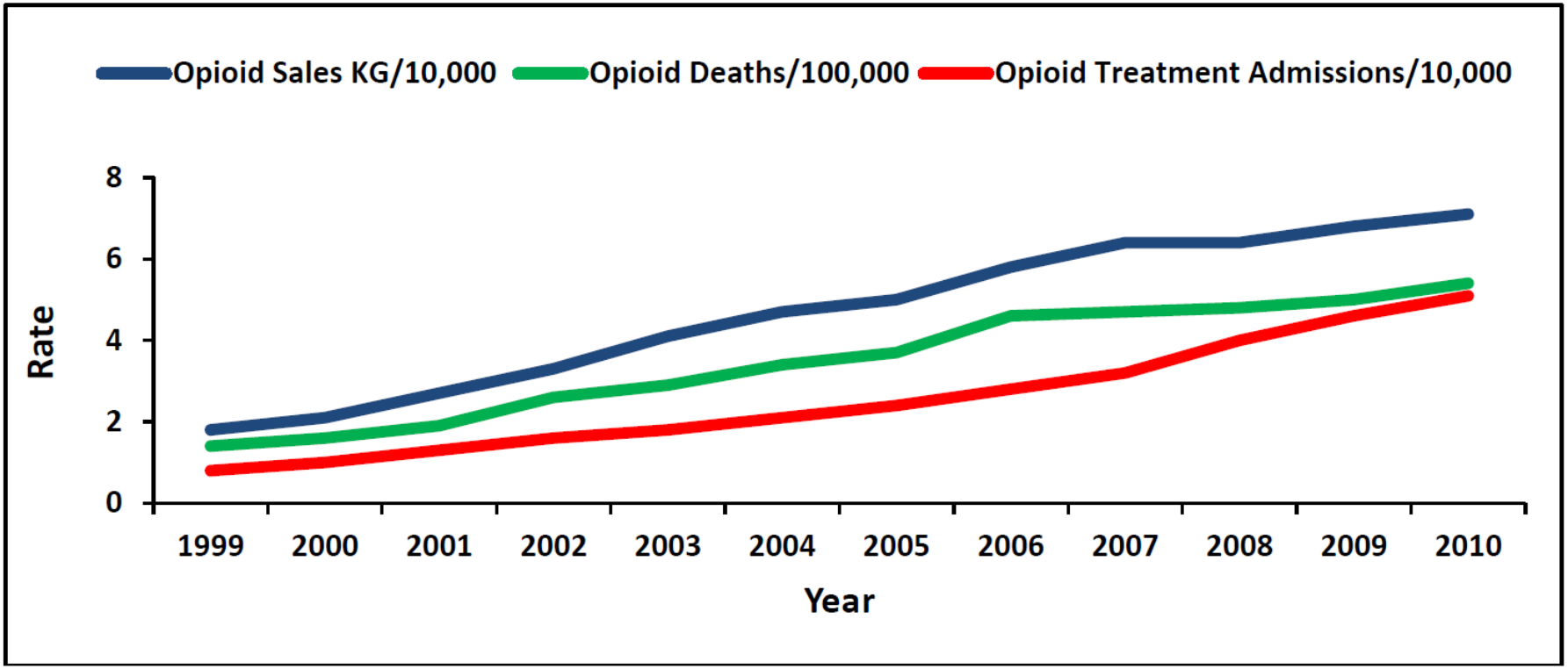
Context: Increasing presence of opioids

Figure 2. Rates of opioid overdose deaths, opioid sales, and opioid substance abuse treatment admissions, United States, 1999-2010



http://www.cdc.gov/drugoverdose/pdf/hhs_prescription_drug_abuse_report_09.2013.pdf

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Context: Substance abuse in HCW tracks with population at large

- 10-12% of physicians will develop substance use disorder during careers[1,2]
- 5 year British Medical Journal (BMJ) study found that physicians with substance use disorders are
  - 87% male
  - **36% abused opioids**
  - 50% abused alcohol
  - **14% history of IDU**
- Less data on non-physician HCW substance abuse, but diversion documented in these HCWs

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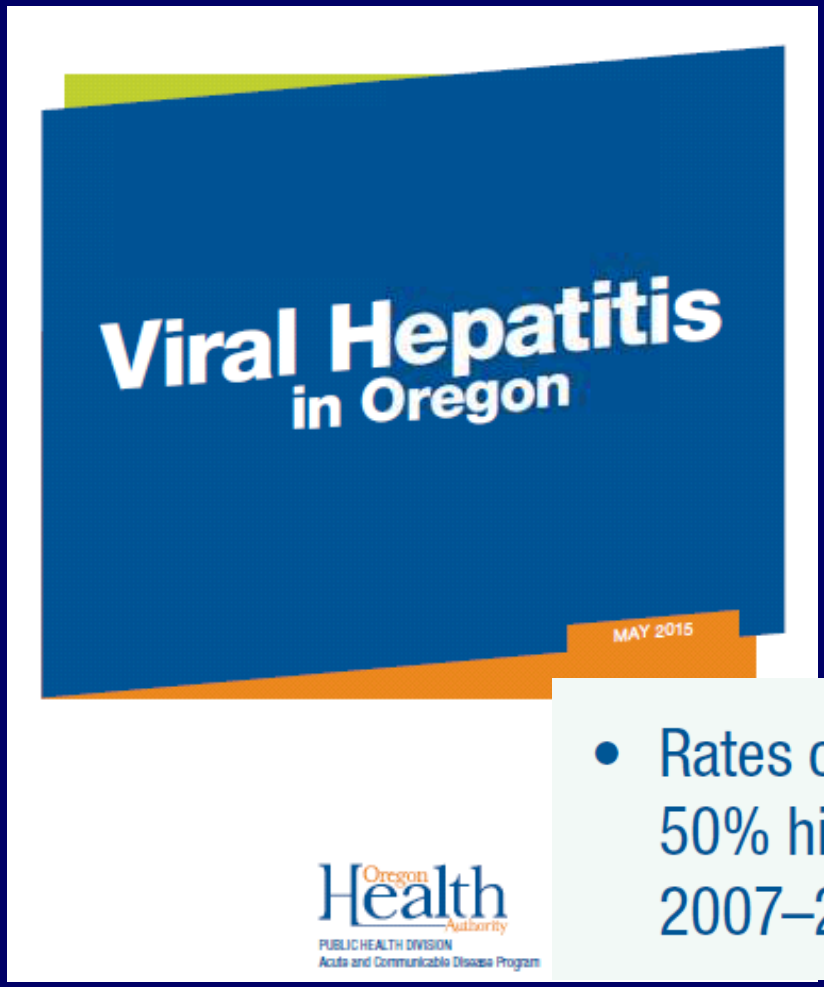
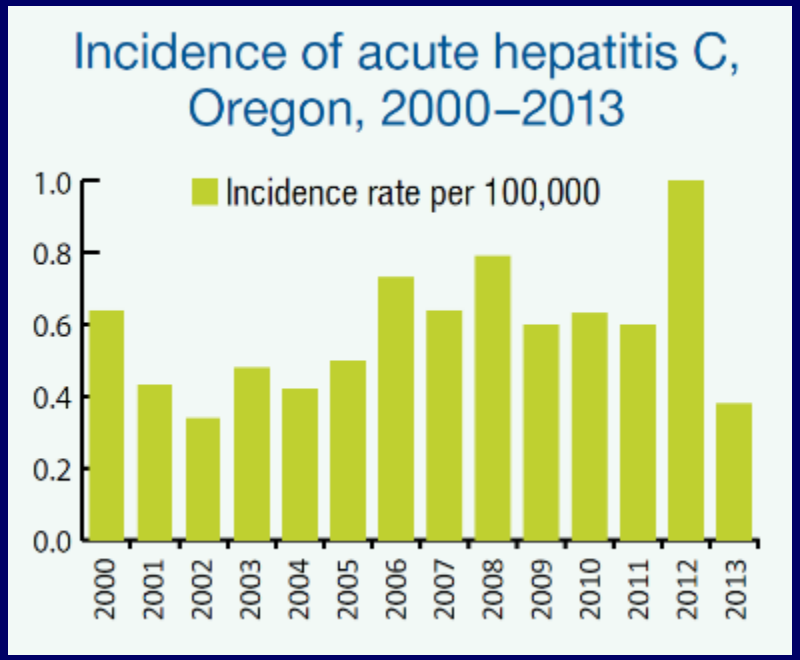
1. Hughes, JAMA, 1992
2. McLellan, BMJ, 2008

Prevalence of hepatitis in OR





- Rates of acute HCV cases in Oregon were 50% higher than the national rate during 2007–2011.

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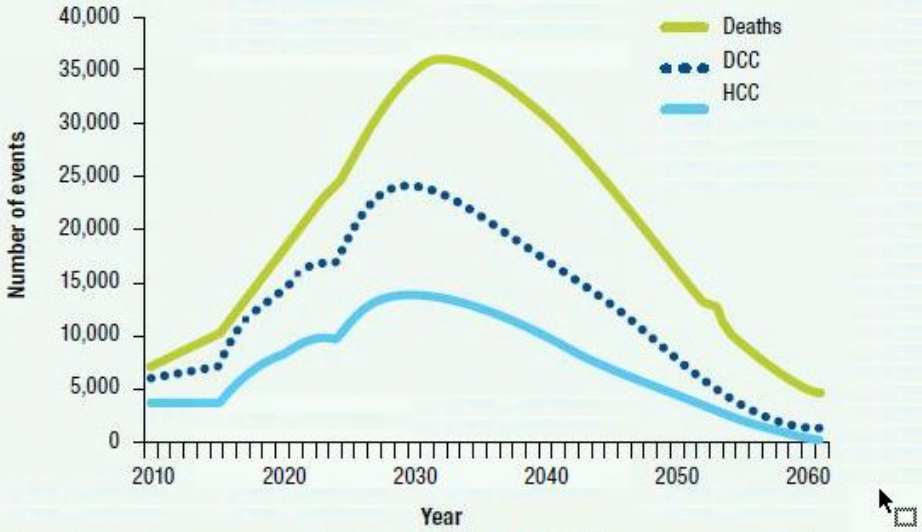
High prevalence = High risk & burden

Facts at a glance

- 81% of U.S. residents infected with HCV were born between 1945 and 1965.
- At least 50% of persons infected with HCV are unaware of their infection.

Figure A. Future burden of HCV-related morbidity and mortality in the United States



DCC is defined as decompensated cirrhosis and HCC as hepatocellular carcinoma.
Adapted from Ward JW.[17]

Ward JW. The hidden epidemic of hepatitis C virus infection in the United States: occult transmission and burden of disease. Topics in Antiviral Medicine 2013;21:15-9.

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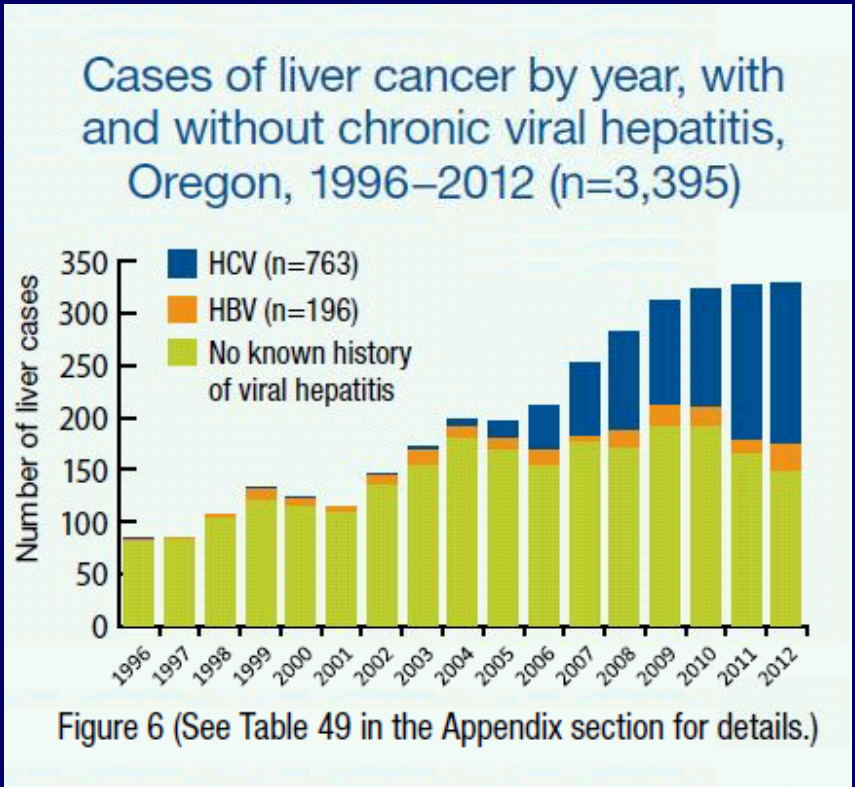
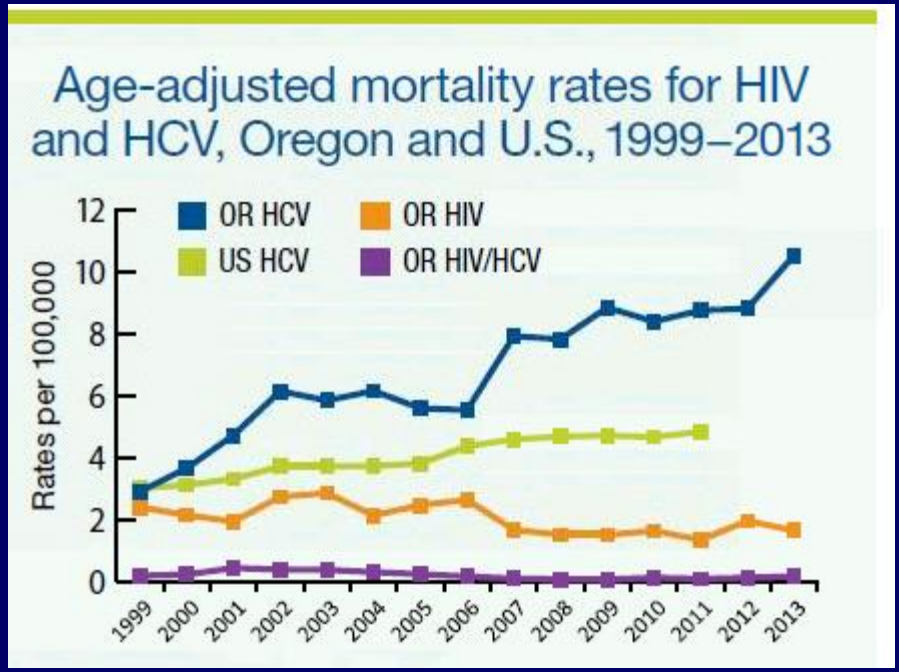
HCV morbidity & mortality in Oregon





- The mortality rate in Oregon from HCV was nearly twice the national average in 2011.

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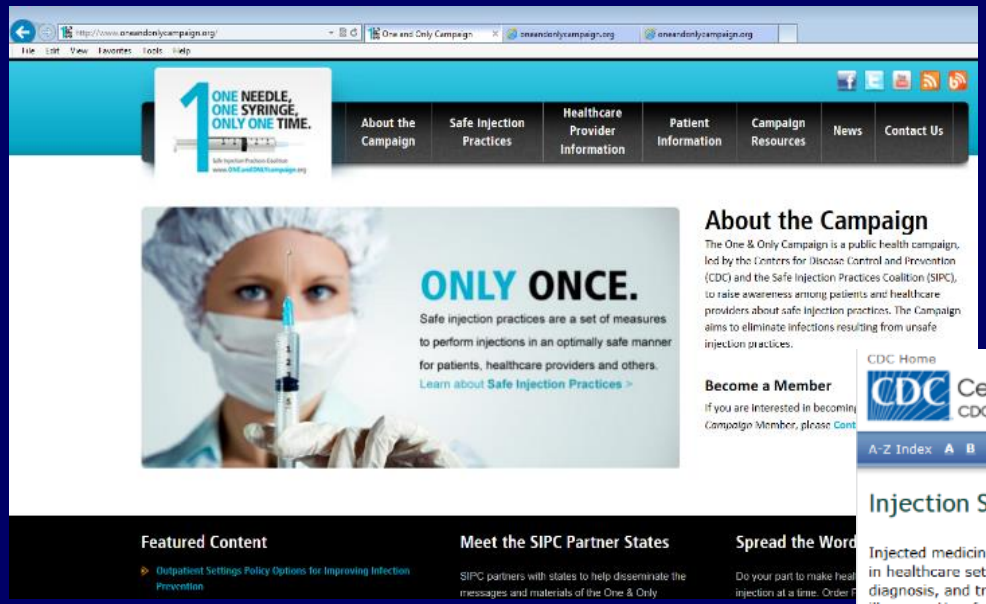
Ward JW. The hidden epidemic of hepatitis C virus infection in the United States: occult transmission and burden of disease. Topics in Antiviral Medicine 2013;21:15-9.

Online resources



http://www.oneandonlycampaign.org/

http://www.cdc.gov/injectionsafety/

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DEA page on drug diversion

http://www.deadiversion.usdoj.gov/pubs/brochures/drug_hc.htm

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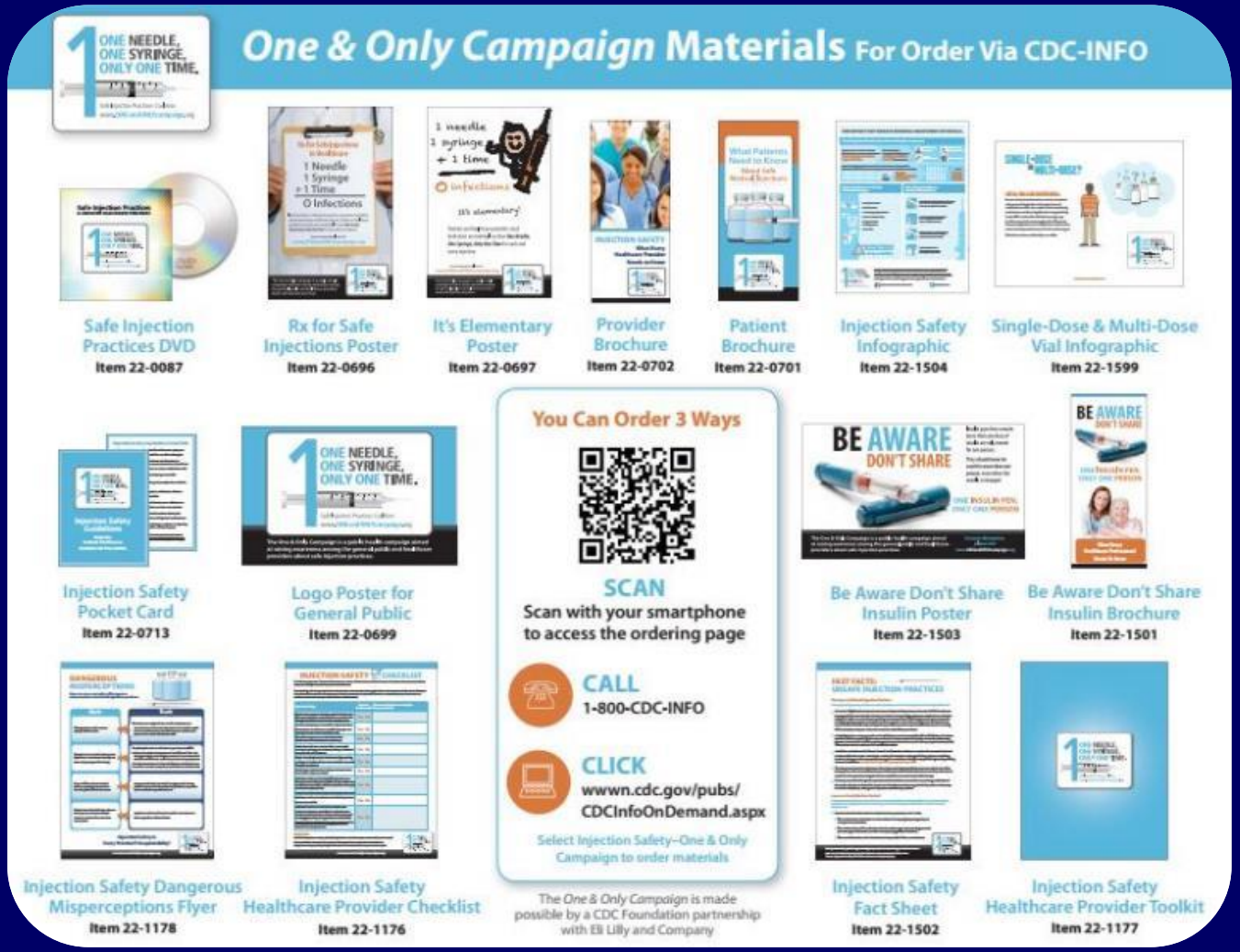
Print resources



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Training video resources

http://www.oneandonlycampaign.org/content/audio-video

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HAND HYGIENE

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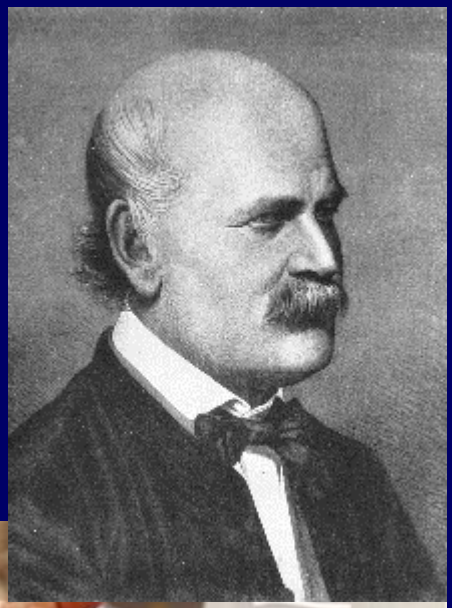
Hand hygiene: A no brainer?

- >150 years of evidence: hand hygiene (HH) prevents infections
- Alcohol-based handrubs (ABHR) increases HH, remains low (<40%)
- Reasons cited
  - Inconvenient HH products
  - Understaffing or busy
  - Skin irritation
  - Cultural issues



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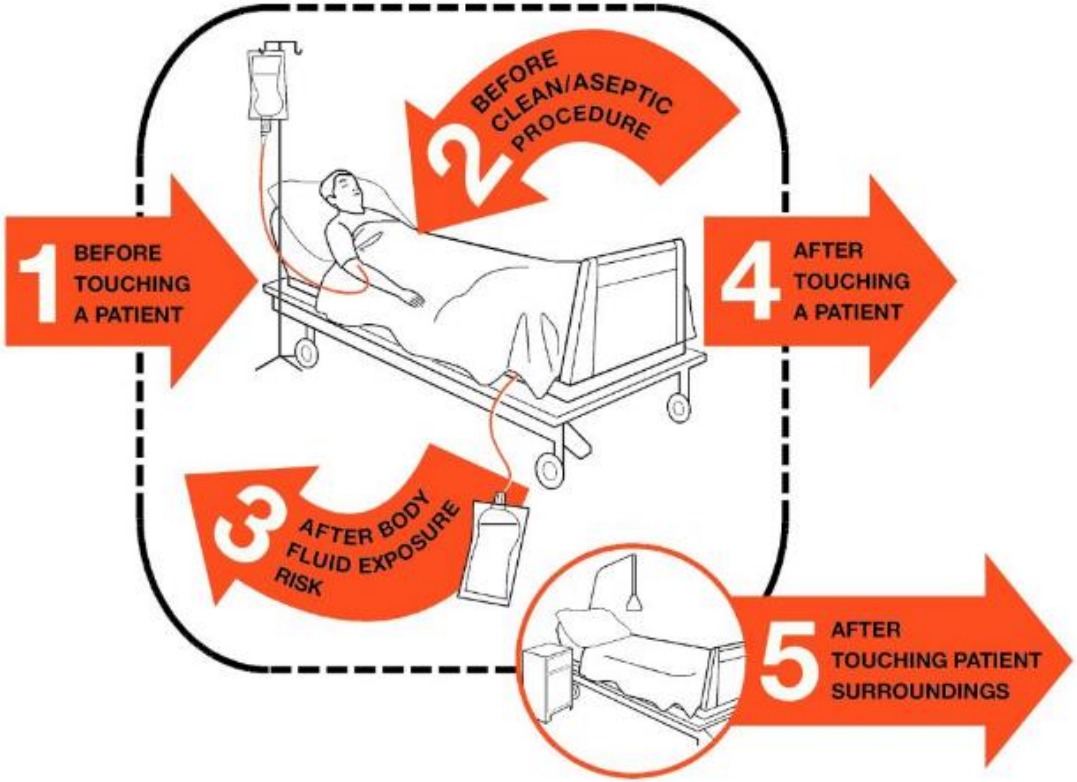
Your 5 Moments for Hand Hygiene



http://www.who.int/gpsc/tools/Five_moments/en/

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Guidelines

Guideline for Hand Hygiene in Health-Care Settings

Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force

2002

WHO Guidelines on Hand Hygiene in Health Care

First Global Patient Safety Challenge Clean Care is Safer Care

2009

SHEA/IDSA PRACTICE RECOMMENDATION

Strategies to Prevent Healthcare-Associated Infections through Hand Hygiene

2014

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Surgical hand antisepsis

- Goal: reduce risk of patient SSI by
  - Removing transient organisms from hands
  - Suppressing growth of resident microorganisms for duration of procedure
- Challenges
  - Minimizing skin irritation
  - Standardizing evidence-based practices
  - New and evolving products

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Hand preparation for surgery: SHEA Compendium, 2014

- ABHR formulated for surgical use
  - Rapid action + persistence
  - Superior reductions to traditional scrubs
  - Less damaging to skin
  - Equivalent to scrubs for SSI prevention
- Follow manufacturers instructions
  - Multiple applications required
  - Longer rub time than for routine HH

http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=9497956&fileId=S0195941700094819

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Hand preparation for surgery

TABLE 3. Recommended Practices for Hand Hygiene in the Perioperative Setting[198]

Preoperative hand preparation steps	Traditional surgical scrub	Surgical alcohol-based hand rub
Remove all jewelry from hands and wrists, don surgical mask	X	X
Wash hands using either nonantimicrobial or antimicrobial soap to ensure that they are clean at the beginning of the day; repeat soap-and-water hand wash anytime hands are visibly soiled	X	X
Use a nail pick or brush with running water at the beginning of the day to remove debris from under the nails	X	X
Ensure that hands are dry after hand wash		X
Apply alcohol product to hands according to manufacturer's instructions: usually 2 or 3 applications of 2 mL each		X
Rub hands to dry completely before donning sterile surgical gloves; do not wipe off the product with sterile towels		X
After initial wash, wet hands and forearms under running water and apply antimicrobial agent to wet hands and forearms using a soft, nonabrasive sponge according to the manufacturer's directions; in general, the time required will be 3–5 minutes	X	
Visualize each finger, hand, and arm as having 4 sides; wash all 4 sides effectively, keeping the hand elevated; repeat the process for the opposite arm	X	
Rinse hands and arms under running water in one direction from fingertips to elbows	X	
Hold hands higher than elbows and away from surgical attire	X	X
In the operating room, dry hands and arms with a sterile towel	X	

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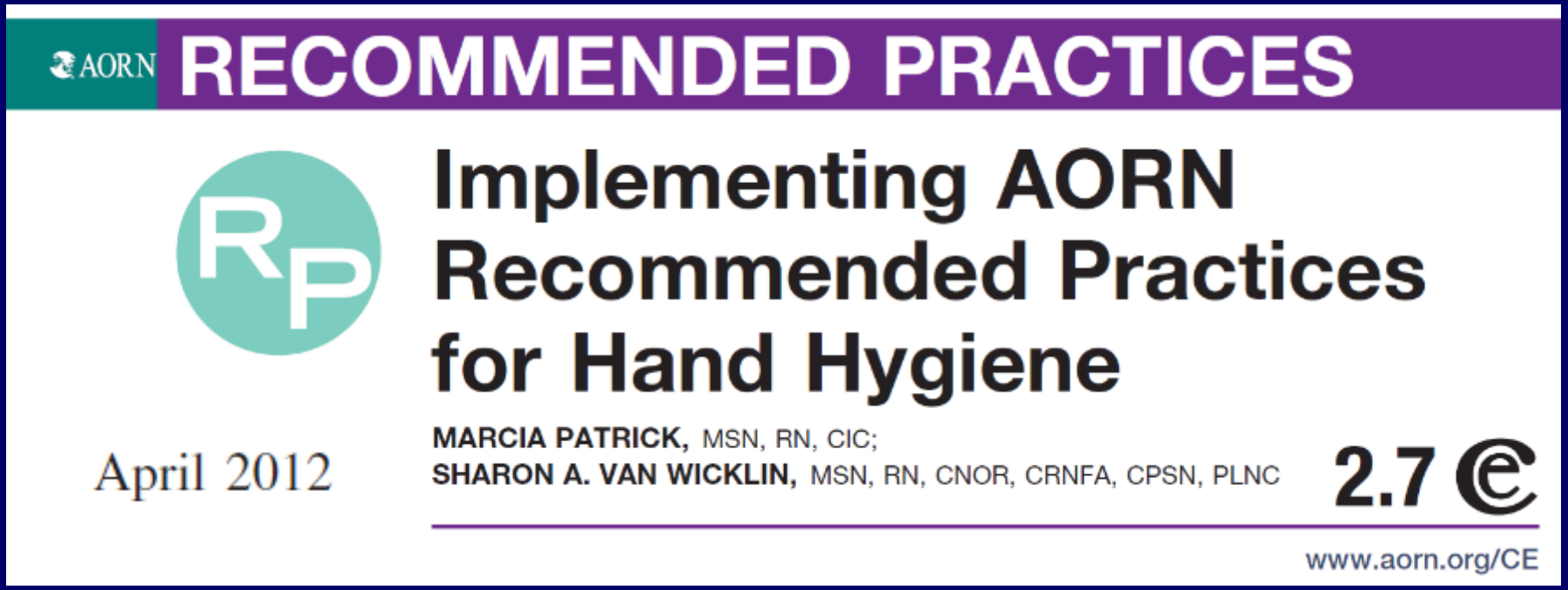
Blanchard JBR, Bjerke N, Boylard E, Graves P. Recommended practices for hand hygiene in the perioperative setting in perioperative standards and recommended practices, 2013 edition. AORN 2013:66-67.

Implementation guidance



Association for periOperative Registered Nurses

http://isgweb.aorn.org/ISGWeb/downloads/CEA12510-0001.pdf

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Nails: Nothing over 2mm (0.08in)

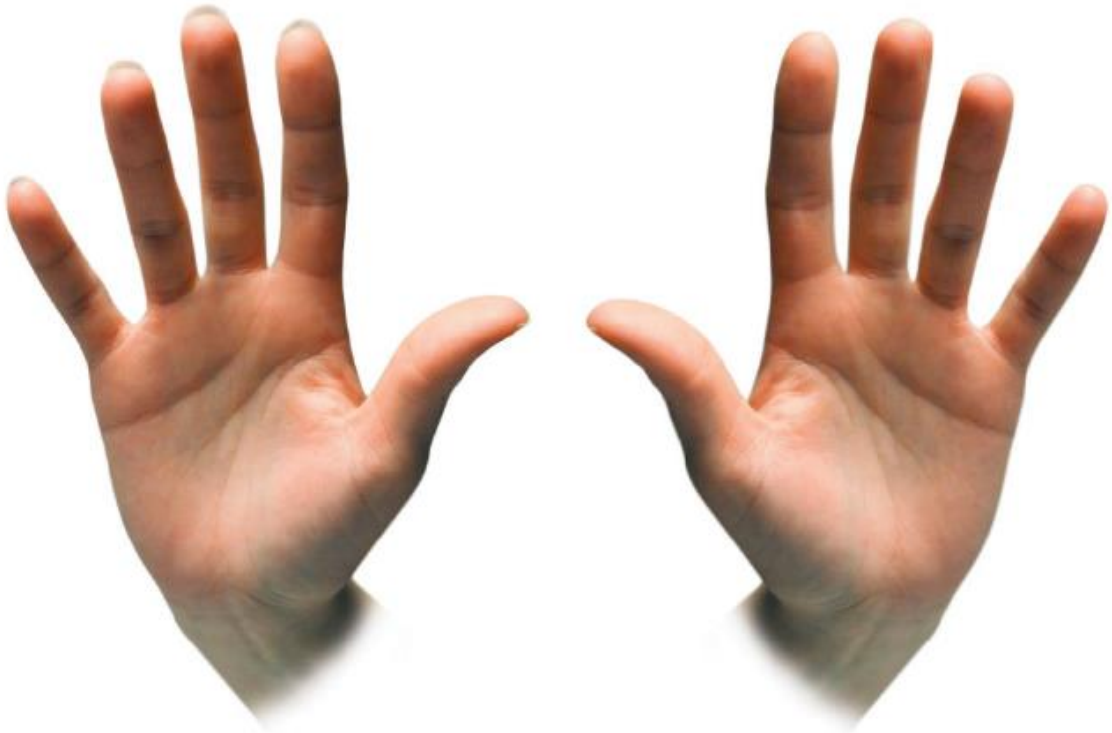

Figure 1. Nails should not extend beyond the tips of the fingers.

http://isgweb.aorn.org/ISGWeb/downloads/CEA12510-0001.pdf

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AORN Association of periOperative Registered Nurses

Guidelines & Clinical Resources | Education & Solutions | Center for Nursing Leadership

Can healthcare personnel wear gel or shellac nail polish in the perioperative setting?

Can artificial nails be worn by personnel in the operating room?

Does the first surgical hand scrub of the day have to be soap and water before using surgical hand rub products?

A standardized surgical hand scrub with a soap (antimicrobial agent), nonabrasive sponge, and water does not have to be the first surgical hand scrub of the day before an alcohol-based surgical hand rub product is used, unless it is recommended in the manufacturer's instructions for use. The surgical hand scrub reduces the transient and resident flora of the hands, which also may reduce health care-associated infections. A standardized surgical hand scrub using an alcohol-based hand rub product will decrease transient and resident flora on the hands. Hand washing does however need to be performed before the first surgical hand scrub of the day.

Resources:

Ogg, MJ. First surgical hand scrub of the day. [Clinical Issues]. AORN Journal. 2011;93(3):397-398.

Updated June 12, 2015

https://www.aorn.org/guidelines/clinical-resources/clinical-faqs/hand-antisepsis-hygiene

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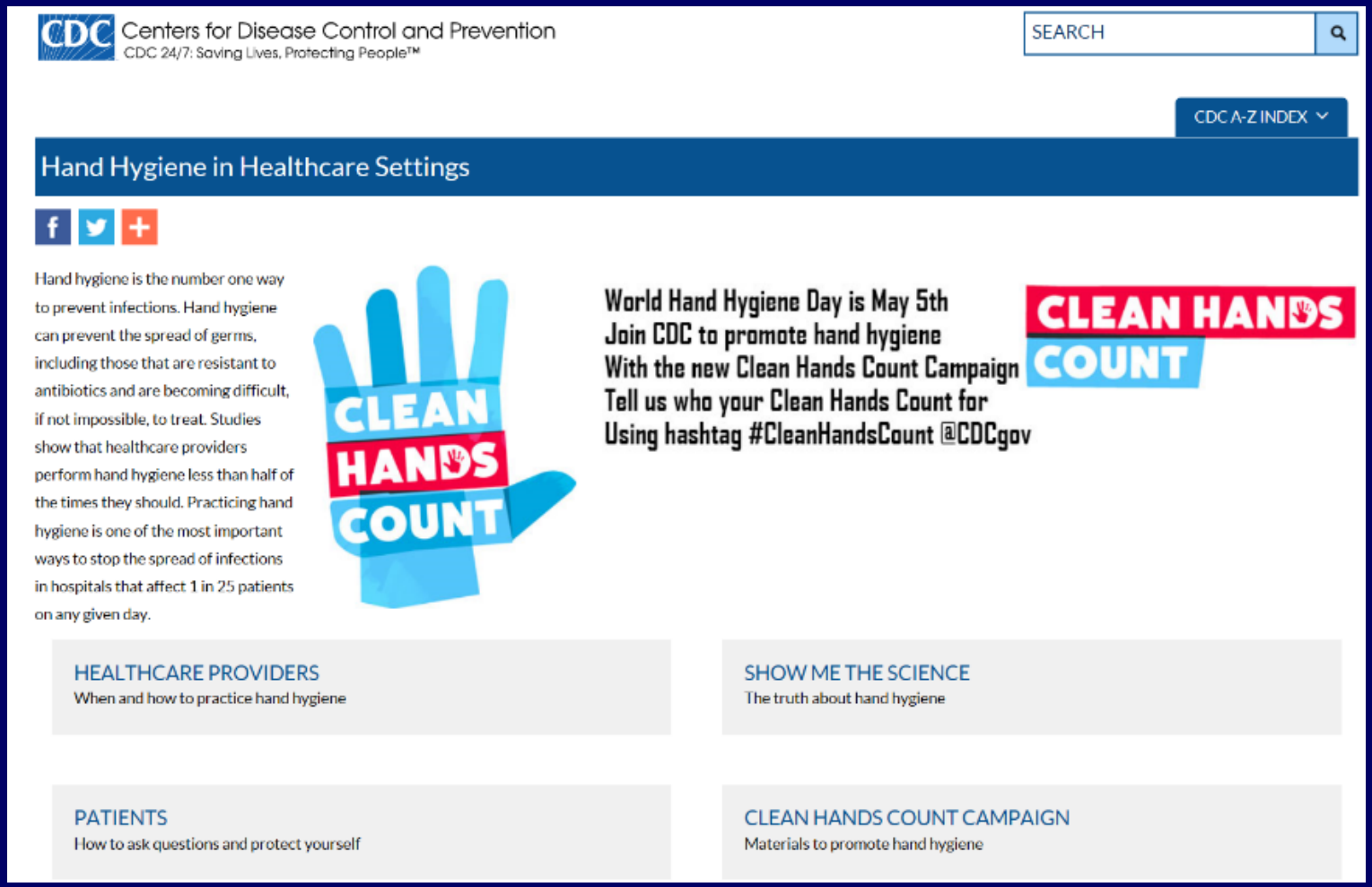
CDC hand hygiene website



http://www.cdc.gov/handhygiene/index.html

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WHO promotional resources

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WHO infographic: Part 1

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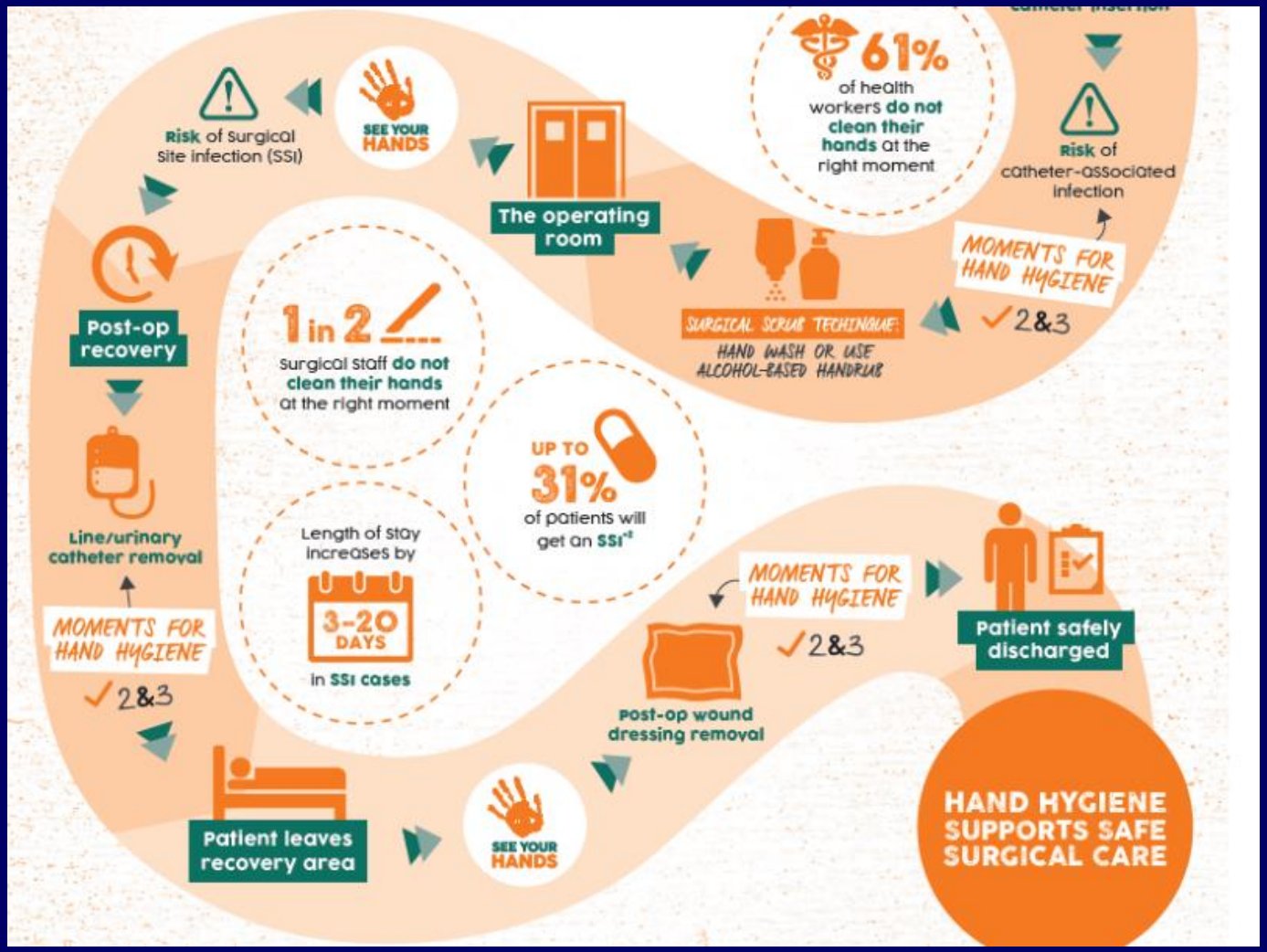
WHO infographic: Part 2



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HEALTHCARE WORKER INFLUENZA VACCINATION

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Mandatory Reporting: Oregon

- House Bill 2524 (2007)
  - Created Oregon HAI Program
  - Activities stipulated in OR Administrative Rules (OARs)
  - HAI Advisory Committee created in 2008
- National Healthcare Safety Network (NHSN) selected for reporting
- Reporting program expansion
  - New infections and processes
  - Adding settings

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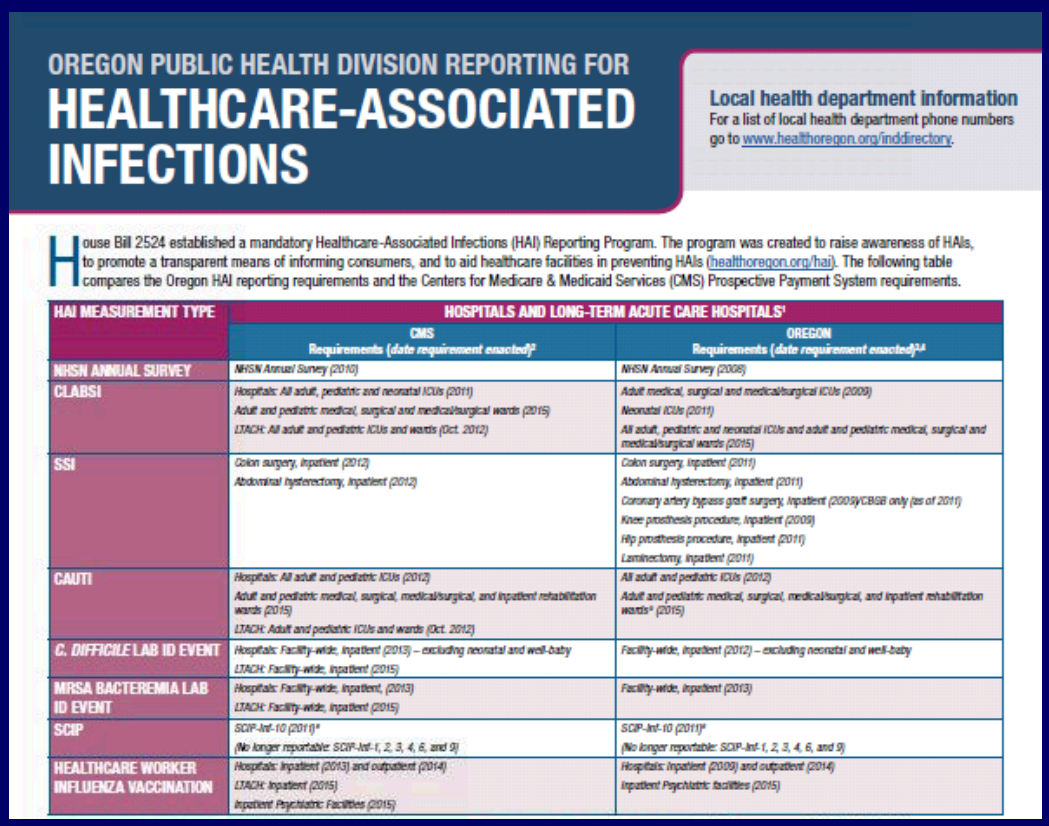
HAI reporting poster (updated 2016)



OREGON PUBLIC HEALTH DIVISION REPORTING FOR HEALTHCARE-ASSOCIATED INFECTIONS

Local health department information
For a list of local health department phone numbers go to www.healthoregon.org/inddirectory.

House Bill 2524 established a mandatory Healthcare-Associated Infections (HAI) Reporting Program. The program was created to raise awareness of HAIs, to promote a transparent means of informing consumers, and to aid healthcare facilities in preventing HAIs (healthoregon.org/hai). The following table compares the Oregon HAI reporting requirements and the Centers for Medicare & Medicaid Services (CMS) Prospective Payment System requirements.

HAI MEASUREMENT TYPE	HOSPITALS AND LONG-TERM ACUTE CARE HOSPITALS[1]	
	CMS Requirements (*date requirement enacted*)[2]	OREGON Requirements (*date requirement enacted*)[3,4]
NHSN ANNUAL SURVEY	*NHSN Annual Survey (2010)*	*NHSN Annual Survey (2008)*
CLABSI	*Hospitals: All adult, pediatric and neonatal ICUs (2011)* *Adult and pediatric medical, surgical and medical/surgical wards (2015)* *LTACH: All adult and pediatric ICUs and wards (Oct. 2012)*	*Adult medical, surgical and medical/surgical ICUs (2009)* *Neonatal ICUs (2011)* *All adult, pediatric and neonatal ICUs and adult and pediatric medical, surgical and medical/surgical wards (2015)*
SSI	*Colon surgery, inpatient (2012)* *Abdominal hysterectomy, inpatient (2012)*	*Colon surgery, inpatient (2011)* *Abdominal hysterectomy, inpatient (2011)* *Coronary artery bypass graft surgery, inpatient (2009)/CBGB only (as of 2011)* *Knee prosthesis procedure, inpatient (2009)* *Hip prosthesis procedure, inpatient (2011)* *Laminectomy, inpatient (2011)*
CAUTI	*Hospitals: All adult and pediatric ICUs (2012)* *Adult and pediatric medical, surgical, medical/surgical, and inpatient rehabilitation wards (2015)* *LTACH: Adult and pediatric ICUs and wards (Oct. 2012)*	*All adult and pediatric ICUs (2012)* *Adult and pediatric medical, surgical, medical/surgical, and inpatient rehabilitation wards[5] (2015)*
C. DIFFICILE LAB ID EVENT	*Hospitals: Facility-wide, inpatient (2013) – excluding neonatal and well-baby* *LTACH: Facility-wide, inpatient (2015)*	*Facility-wide, inpatient (2012) – excluding neonatal and well-baby*
MRSA BACTEREMIA LAB ID EVENT	*Hospitals: Facility-wide, inpatient, (2013)* *LTACH: Facility-wide, inpatient (2015)*	*Facility-wide, inpatient (2013)*
SCIP	*SCIP-Inf-10 (2011)[6]* *(No longer reportable: SCIP-Inf-1, 2, 3, 4, 6, and 9)*	*SCIP-Inf-10 (2011)[6]* *(No longer reportable: SCIP-Inf-1, 2, 3, 4, 6, and 9)*
HEALTHCARE WORKER INFLUENZA VACCINATION	*Hospitals: Inpatient (2013) and outpatient (2014)* *LTACH: Inpatient (2015)* *Inpatient Psychiatric Facilities (2015)*	*Hospitals: Inpatient (2009) and outpatient (2014)* *Inpatient Psychiatric facilities (2015)*

Acute Care

HEALTHCARE WORKER INFLUENZA VACCINATION	*Hospitals: Inpatient (2013) and outpatient (2014)* *LTACH: Inpatient (2015)* *Inpatient Psychiatric Facilities (2015)*	*Hospitals: Inpatient (2009) and outpatient (2014)* *Inpatient Psychiatric facilities (2015)*

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http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/ReportingCommunicableDisease/Documents/ReportingPosters/poster-hai.pdf

HAI reporting poster (updated 2016)

HAI MEASUREMENT TYPE	LONG-TERM CARE FACILITIES		AMBULATORY SURGERY CENTERS		DIALYSIS FACILITIES	
	CMS REQUIREMENTS[2]	OREGON REQUIREMENTS[3]	CMS REQUIREMENTS[2]	OREGON REQUIREMENTS[3]	CMS REQUIREMENTS[2]	OREGON REQUIREMENTS[3]
ANNUAL SURVEY	*N/A*	*Evidence-based elements of patient safety performance annual survey (2015)*	*N/A*	*Evidence-based elements of patient safety performance annual survey (2009)*	*N/A*	*N/A*
HEALTHCARE WORKER INFLUENZA VACCINATION	*N/A*	*Healthcare Worker Influenza Vaccination Survey (2010)*	*Healthcare Worker Influenza Vaccination Survey (Oct. 2014)*	*Healthcare Worker Influenza Vaccination Survey (2011)*	*Healthcare Worker Influenza Vaccination Survey (Oct. 2015)*	*Healthcare Worker Influenza Vaccination Survey (Oct. 2015)*
DIALYSIS EVENT	*N/A*	*N/A*	*N/A*	*N/A*	*Dialysis event (2012)*	*Dialysis event (2013)*
OTHER	*All minimum data set (MDS) elements required by the Skilled Nursing Facility Prospective Payment System*	*All minimum data set (MDS) elements including urinary tract infection in the last 30 days (2012)*	*N/A*	*N/A*	*N/A*	*N/A*

HAI – Healthcare-associated infection **NHSN** – National Healthcare Safety Network **CLABSI** – Central line-associated bloodstream infection **SSI** – Surgical site infection
CAUTI – Catheter-associated urinary tract infection **MRSA** – Methicillin-resistant *Staphylococcus aureus* **SCIP** – Surgical Care Improvement Project

ADDITIONAL MANDATORY REPORTING

Communication of Multidrug-resistant Organisms during Patient Transfer:

When a referring healthcare facility transfers or discharges a patient who is infected or colonized with a multidrug-resistant organism (MDRO) or pathogen requiring Transmission-based Precautions, transfer documentation must include written notification of the infection or colonization to the receiving facility.[7]

Mandatory outbreak reporting: Healthcare facilities and providers are required to report outbreaks of HAIs including MDROs of public health significance and common source outbreaks.[8]

Multidrug-resistant organism (MDRO): an organism that causes human disease that has acquired antibiotic resistance, as listed and defined in the *Centers for Disease Control and Prevention's Antibiotic Resistance Threats in the United States, 2013*. MDROs include but are not limited to:

a) Methicillin-resistant *Staphylococcus aureus* (MRSA)
b) Vancomycin-resistant *Enterococcus* (VRE)
c) Carbapenem-resistant *Enterobacteriaceae* (CRE)
d) Multidrug-resistant *Acinetobacter baumannii*
e) Multidrug-resistant *Pseudomonas aeruginosa*
f) Drug-resistant *Streptococcus pneumoniae*
g) Other Gram-negative bacteria producing extended-spectrum beta-lactamases (ESBL),
h) Toxin-producing *Clostridium difficile*

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http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/ReportingCommunicableDisease/Documents/ReportingPosters/poster-hai.pdf

OAR: 333-018-0127

333-018-0127

Annual Influenza Summary

Each hospital, ASC, Dialysis facility, LTCF, and IRF must submit an annual survey to the Authority, no later than May 31, on a form prescribed by the Authority, regarding influenza vaccination of staff. Facilities must report at least the following information:

(1) Number of staff with a documented influenza vaccination during the previous influenza season;

(2) Number of staff with a documented medical contraindication to influenza vaccination during the previous influenza season;

(3) Number of staff with a documented refusal of influenza vaccination during the previous influenza season; and

(4) Facility assessment of influenza vaccine coverage of facility staff during the previous influenza season and plans to improve vaccine coverage of facility staff during the upcoming influenza season.

Stat. Auth.: ORS 442.420 & OL 2007, Ch. 838 ¦ 1-6 and 12
Stats. Implemented: ORS 442.405 & OL 2007, Ch. 838 ¦ 1-6 and 12
Hist.: PH 17-2014, f. & cert. ef. 6-9-14; PH 8-2015, f. & cert. ef. 3-24-15

http://arcweb.sos.state.or.us/pages/rules/oars_300/oar_333/333_018.html

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Healthy People goals

- Office of Disease Prevention and Health Promotion establishes indicators
- Healthcare worker (HCW) influenza vaccination is among the targets
  - 75% by 2015
  - 90% by 2020
- Oregon Report
  - Benchmark (Yes/No)
  - Progress towards goal

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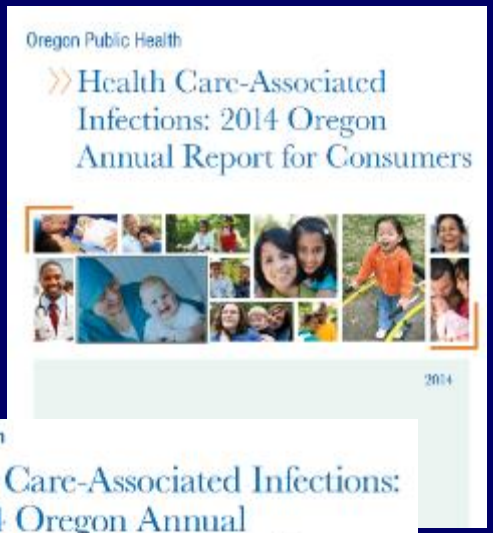
2014 annual reports

- Two reports
  - Consumer report: basics
  - Provider report: more stats
- Emphasis on benchmarks
  - HHS HAI Reduction Targets
  - Healthy People Goals
- Executive summary
- Combined HAI and HCW influenza vaccination reports



https://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/HAI/Pages/Reports-and-Data.aspx

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Facility-specific HCW influenza vaccination: Provider report

Facility name	# HCW eligible for influenza vaccine*	Rate of influenza vaccination for eligible HCW†	Rate of vaccine declination by eligible HCW	Rate of unknown vaccination status for eligible HCW	Change in vaccination rate since last season	Met HP2015 target (75%)	Met HP2020 target (90%)	Additional HCW needed to vaccinate to reach HP2020§
Klamath Surgery Center	38	50%	11%	39%	-16%	✗	✗	15
Lane Surgery Center	32	75%	13%	13%	-14%	✓	✗	5
Laser & Surgical Eye Center, LLC	42	45%	52%	2%	+11%	✗	✗	19
Lovejoy Surgicenter	27	30%	30%	41%	-18%	✗	✗	16
McKenzie Surgery Center	102	73%	19%	9%	-13%	✗	✗	18
Meridian Center for Surgical Excellence	20	100%	0%	0%	+8%	✓	✓	
Middle Fork Surgery Center	20	65%	15%	20%	-16%	✗	✗	5
Mt. Scott Surgery Center	108	52%	2%	46%	+89%	✗	✗	41
North Bend Medical Center	59	85%	12%	3%	+17%	✓	✗	3
Northbank Surgical Center	153	55%	10%	35%	+14%	✗	✗	54
Northwest Ambulatory Surgery Center	95	74%	6%	20%	-16%	✗	✗	16
Northwest Center for Plastic Surgery, LLC	21	76%	10%	14%	-20%	✓	✗	3
Northwest Gastroenterology Clinic	44	86%	0%	14%	-6%	✓	✗	2
Northwest Spine and Laser Surgery Center	37	84%	16%	0%	+285%	✓	✗	2
Ontario Surgery Center	21	67%	14%	19%	+4%	✗	✗	5
Oregon Ear, Nose, and Throat Surgery Center,	40	45%	10%	45%	-39%	✗	✗	18
Oregon Endoscopy Center, LLC	40	93%	8%	0%	+8%	✓	✓	
Oregon Eye Surgery Center, Inc.	49	61%	35%	4%	-5%	✗	✗	14
Oregon Outpatient Surgery Center	101	73%	21%	6%	+1%	✗	✗	17
Oregon Surgicenter	35	86%	14%	0%	+6%	✓	✗	2
Pacific Cataract & Laser Institute	10	90%	10%	0%	+96%	✓	✓	
Pacific Cataract and Laser Institute	12	75%	25%	0%	-18%	✓	✗	2
Pacific Digestive Endoscopy Center	8	38%	63%	0%	-20%	✗	✗	4
Pacific Surgery Center	24	75%	25%	0%	0%	✓	✗	4
Pearl SurgiCenter	30	80%	20%	0%	+83%	✓	✗	3
Petroff Center	17	41%	41%	18%	-31%	✗	✗	8

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Facility-specific HCW influenza vaccination: Consumer report

What can patients and families do to not get influenza?

- Ask for influenza vaccination from your health care provider for you and your family every October.
- Clean your hands often, especially after blowing your nose or coughing.
- Cover your face when you sneeze and cough, then clean your hands.
- Avoid going to work or school when sick.
- Ask your health care provider if they got the influenza vaccination this year.

Table 14. Health care worker (HCW) influenza vaccination rates for the 2014–2015 influenza season: hospitals (n=62)

Facility name	# HCW eligible for influenza vaccine*	Rate of influenza vaccination for eligible HCW†	Met HP2015 target (75%)
Adventist Medical Center	2,480	84%	✔
Asante Rogue Regional Medical Center	3,801	69%	✘
Asante Three Rivers Medical Center	1,343	78%	✔
Ashland Community Hospital	516	58%	✘
Bay Area Hospital	1,219	78%	✔
Blue Mountain Hospital	224	53%	✘
Cedar Hills Hospital	349	58%	✘

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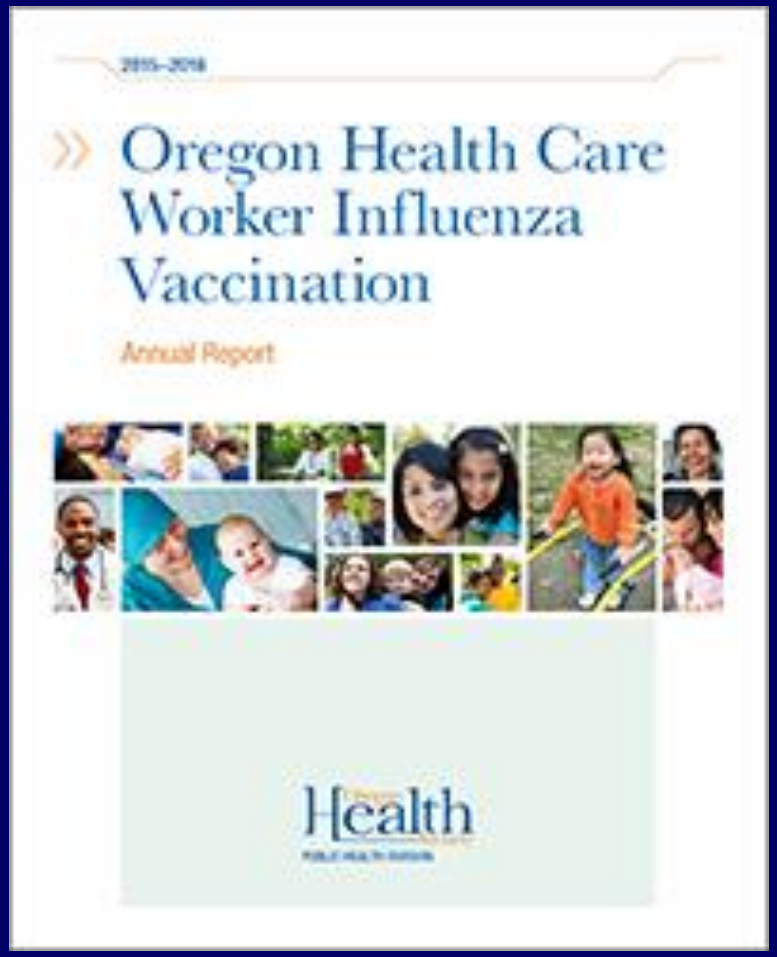
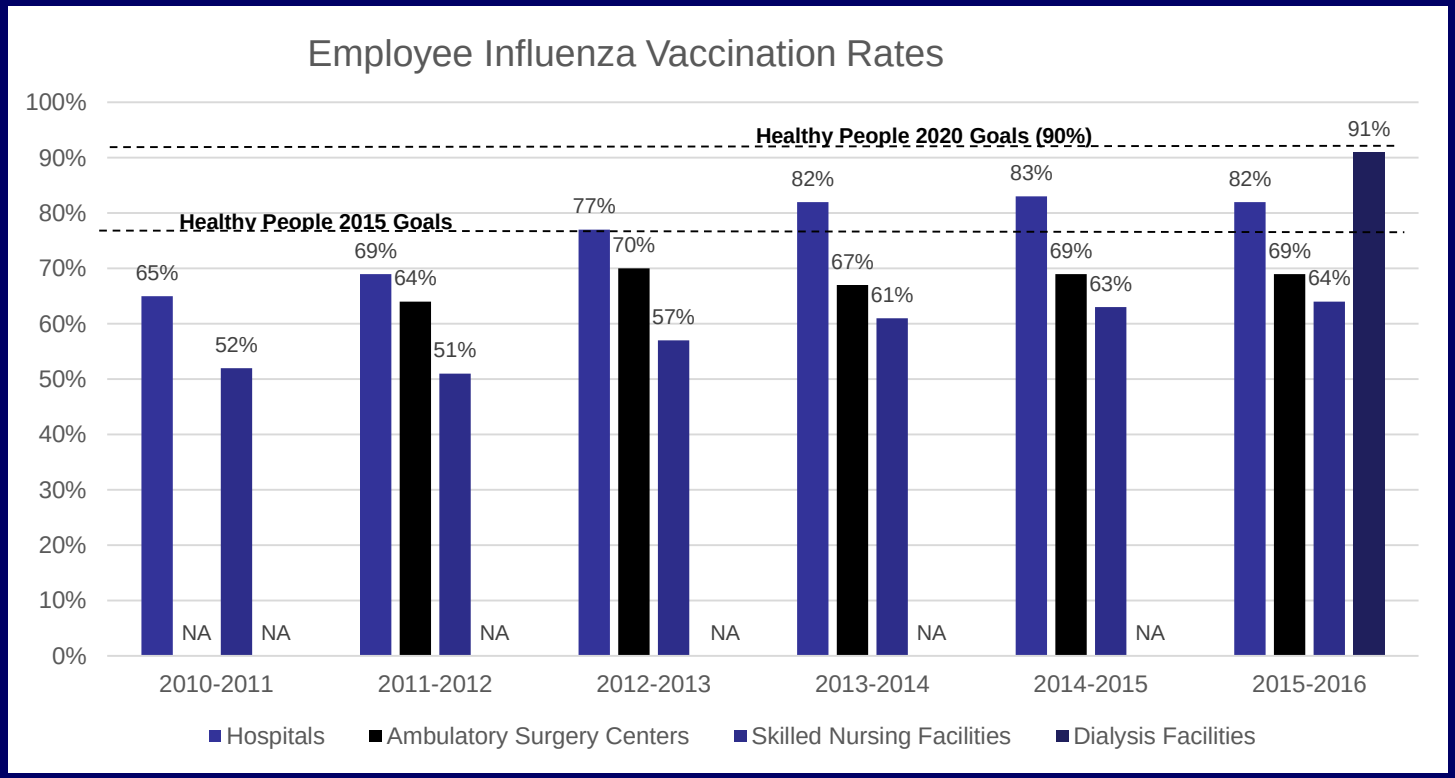
HCW influenza vaccination



https://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/HAI/Pages/Reports-and-Data.aspx

HCW influenza vaccination

Figure 1. Healthcare personnel influenza vaccination rates for 2011-2012, 2012-2013, 2013-2014, 2014-2015 and 2015-2016 influenza seasons stratified by healthcare facility



Vaccine promotion strategies

Oregon 2016 HAI Hospital Survey

Healthcare Personnel Influenza Vaccination Promotion Strategies

* **59. Which of the following strategies did you use to deliver and promote healthcare personnel influenza vaccination at your facility?** ***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
- [ ] Incentives
- [ ] Reminders by mail, email, pager, or text
- [ ] Coordination of vaccination with other annual programs (e.g., tuberculin skin testing)
- [ ] Campaign including posters, flyers, buttons, fact sheets
- [ ] Required mask use during influenza season among personnel declining influenza vaccination
- [ ] Required declination form
- [ ] Other (please specify)

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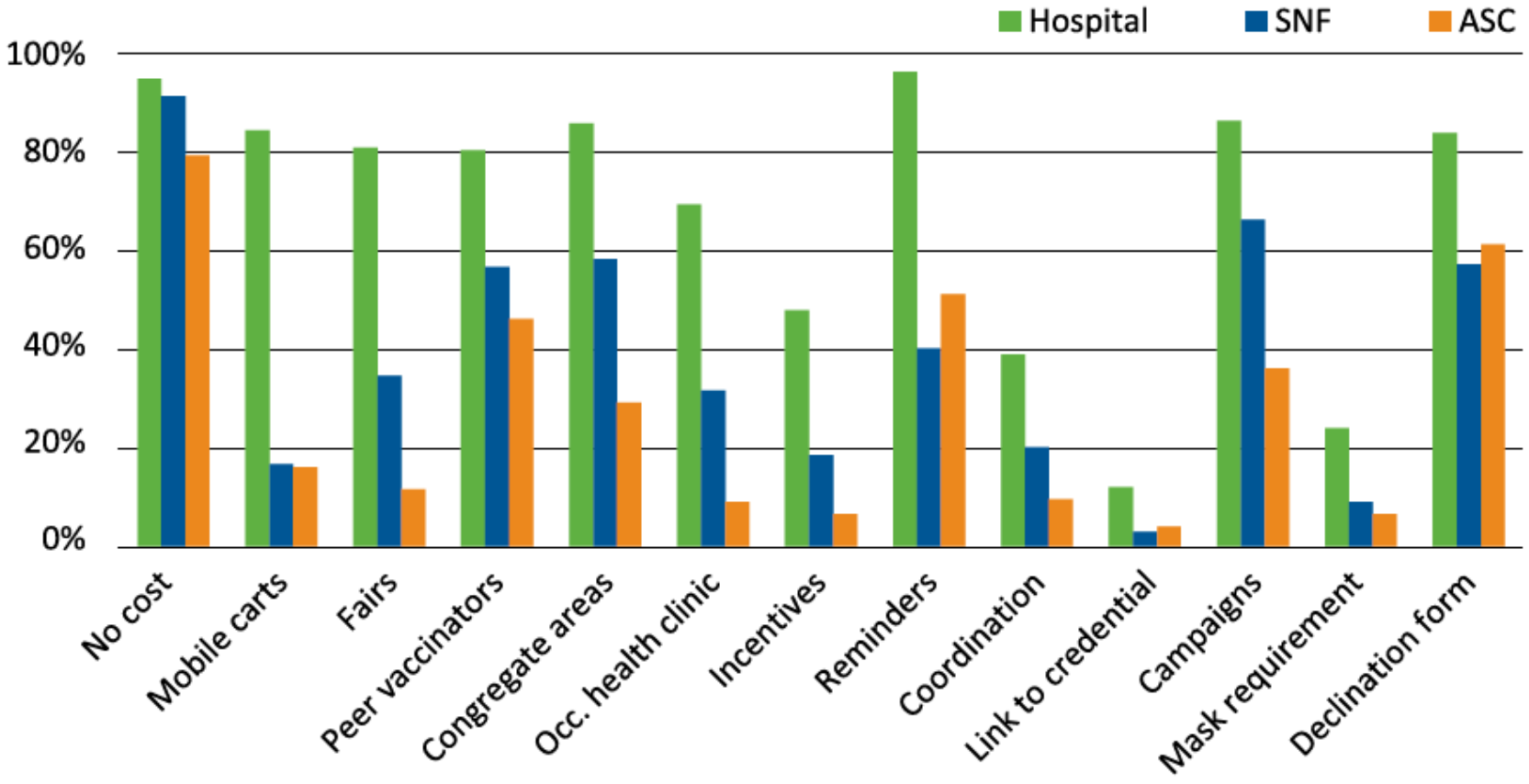
Vaccine promotion strategies

Figure 1. Use of vaccine promotion strategies by facility type: averaged over 2012–13 and 2013–14 influenza seasons



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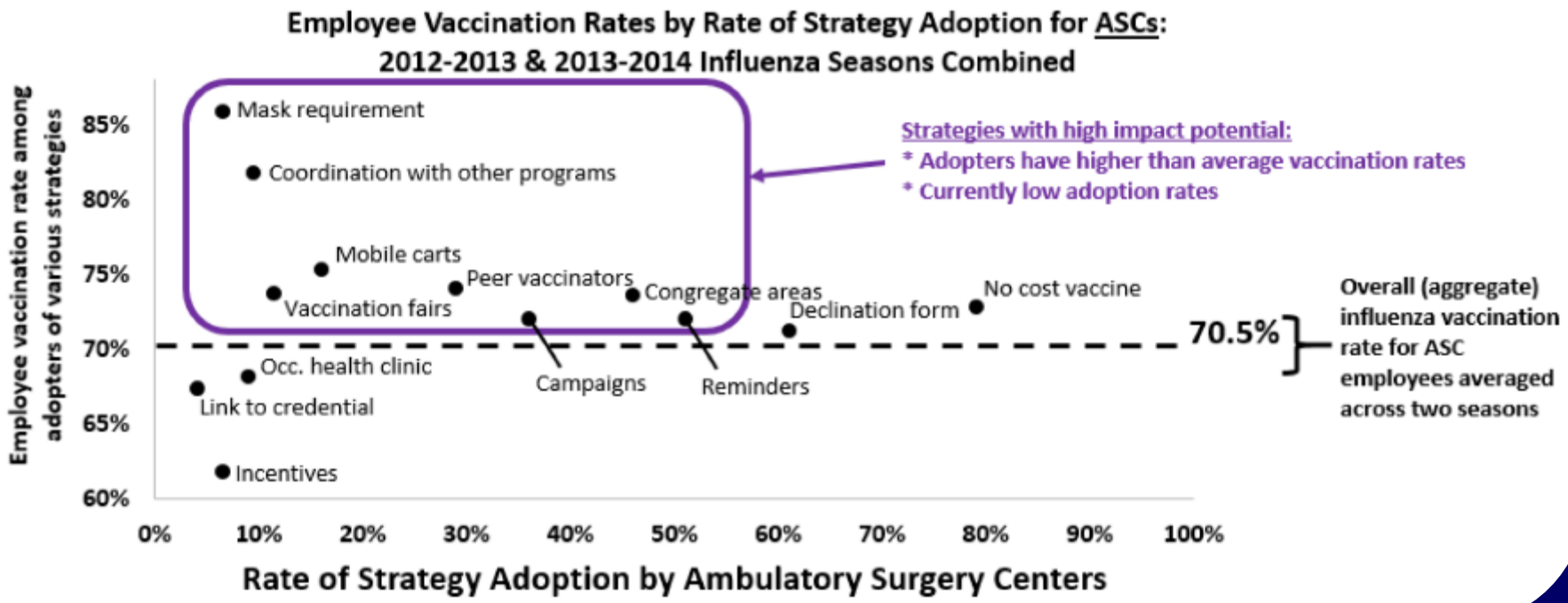
Vaccine promotion strategies with high impact potential: Focus on ASCs

AMBULATORY SURGICAL CENTERS



https://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/HAI/Documents/Reports/SummaryFluVax-Strategies2016.pdf

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Next steps towards HCW influenza vaccination

- Improve interactive map
- Examine rates by county/region
- Support promotion efforts
  - Collaborate with Immunization & Preparedness
  - Develop toolkit
  - Engage counties and HPP regions

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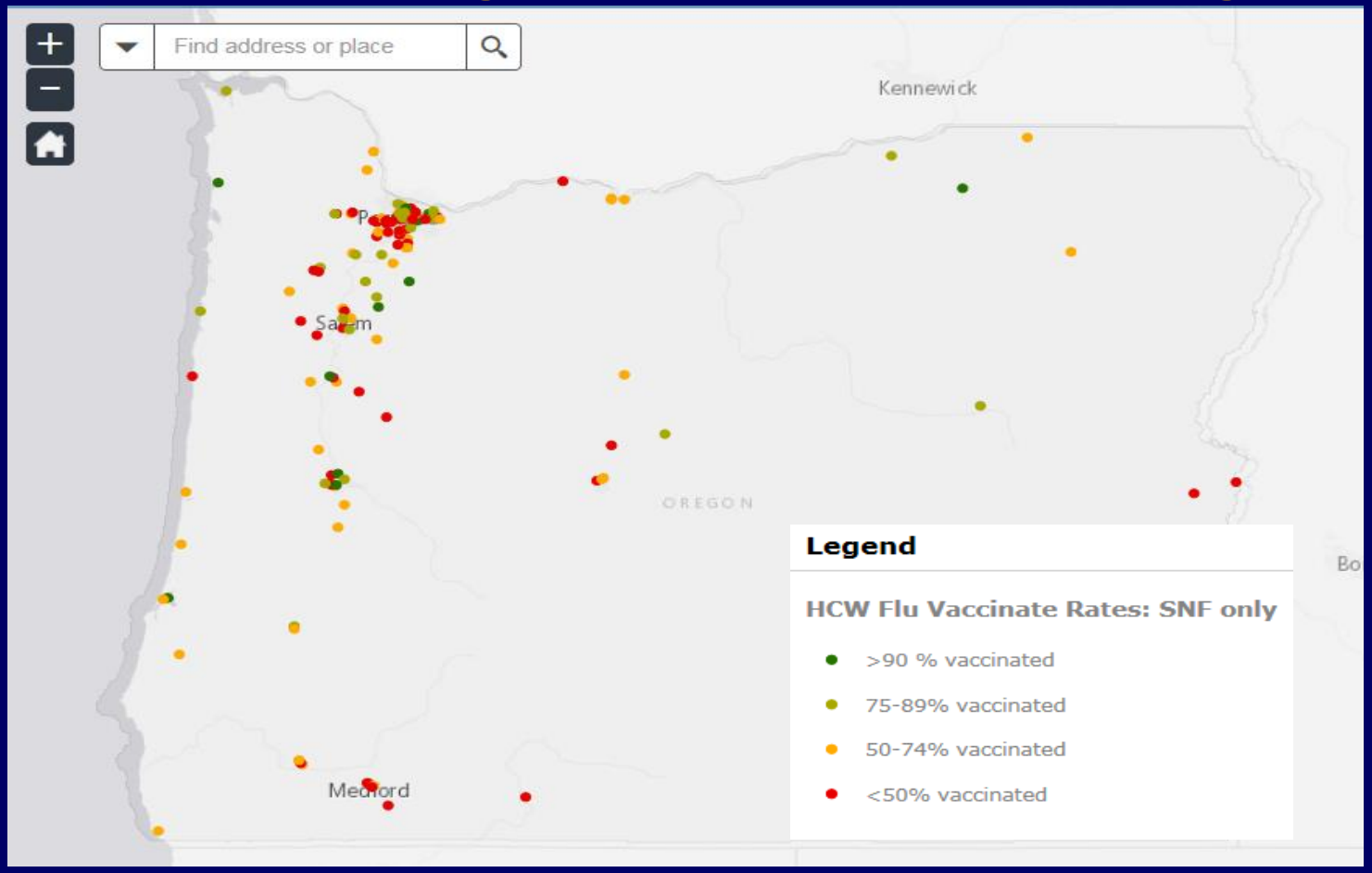
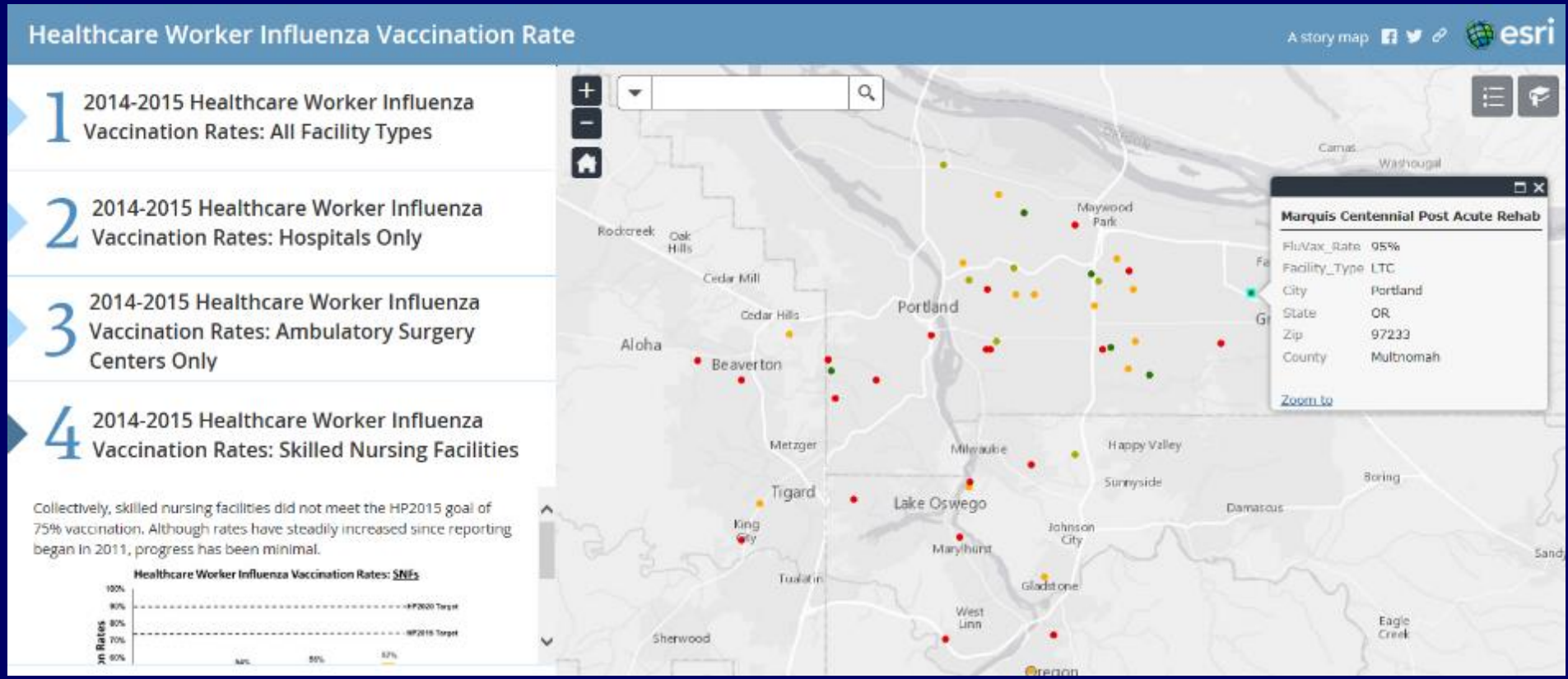
Updated interactive map for Oregon: Benchmarking Healthy People goals



Healthcare personnel influenza vaccination rates by facility



https://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/HAI/Pages/Reports-and-Data.aspx

Oregon resources for healthcare worker influenza vaccination

Healthcare Worker Influenza Vaccination

- 2014-2015 Health Care Worker Influenza Vaccination Report (pdf)
- Effective Strategies to Promote Staff Influenza Vaccination in Oregon Healthcare Facilities (pdf)
- Impact of Vaccine Promotion Strategies in Oregon Healthcare Facilities-ID Week 2015: Influenza Vaccination Poster (pdf)

Healthcare workers can acquire influenza from patients or transmit influenza to patients and other staff. Annual vaccination of health care workers can prevent influenza transmission.

This report presents healthcare worker influenza vaccination rates for 62 Oregon hospitals and 137 skilled nursing facilities, and 85 ambulatory surgery centers.

Previous reports are listed under Archived Reports.

https://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/HAI/Pages/Reports-and-Data.aspx

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Thank you for your collaboration to improve care for Oregonians!

Acute & Communicable Disease Prevention Team
HAI Program
(971) 673-1111 (24/7)
Ohd.acdp@state.or.us

Oregon Health Authority

Questions?
Follow up?

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