# HHS Efforts to Reduce Healthcare-associated Infections

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#### **Overview of Presentation**

- Background on Development of Draft Plan
- Working Group Structure
- Progress of Working Groups
- Influenza Vaccination of Health-care Personnel Initiative

# Impact of Healthcare Associated Infections Nationally

- HAIs account for an:
  - estimated 1.7 million infections and
  - 99,000 associated deaths each year.,
- HAIs affect 5-10% of hospitalized patients annually
- HAIs add nearly \$20 billion to healthcare costs each year

### Estimated Annual Hospital Cost of HAI by Site of Infection

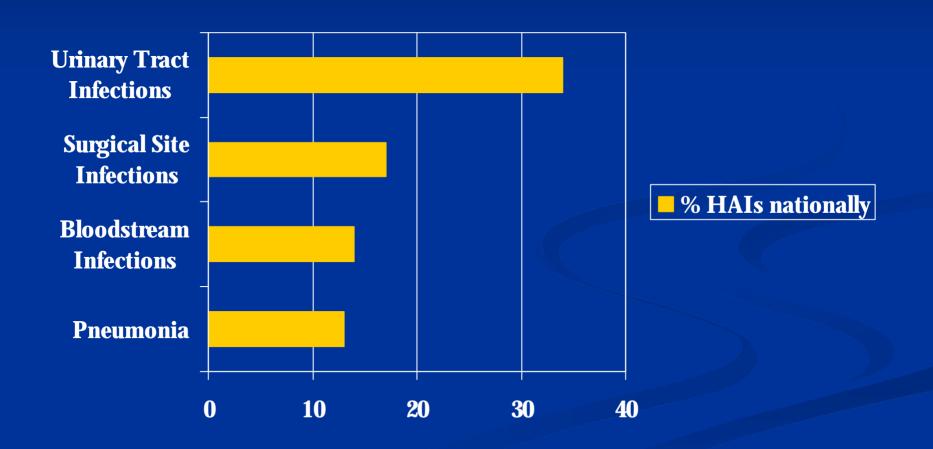
Major Site of Infection	Total infections	Hospital Cost per Infection (2002 \$)	Total annual hospital cost (in millions \$)	Deaths Per year
Surgical Site Infection	290,485	\$25,546	7,421	13,088
Central line associated- Bloodstream Infection	248,678	\$36,441	9,062	30,665
Ventilator-associated Pneumonia	250,205	\$9,969	2,494	35,967
Catheter associated-Urinary Tract Infection	561,667	\$1,006	565	8,205

Klevens RM, Edwards JR, Richards CL, Horan T, Gaynes R, Pollock D, Cardo D. Estimating healthcare-associated infections in U.S. hospitals, 2002. *Public Health Reviews* (in press)

Stone PW, Braccia D, Larson E. Systematic review of economic analysis of health care-associated infections. *Am J Infect Control* 2005;33:501-9.

Roberts RR, Scott RD, Cordell R, Solomon SL, Steele L, Kampe LM, Trick WE, Weinstein RA. The use of economic modeling to determine the hospital costs associated with nosocomial infections. *Clin Infect Dis* 2003;36:1424-32.

#### Leading Types of Healthcare Associated Infections



Source: *Estimating Healthcare Associated Infections and Deaths in U.S. Hospitals, 2002*Division of Healthcare Quality Promotion, National Center for Infectious Diseases, CDC

### GAO Report: HHS specific Recommendations

- Improve central coordination of HHS-supported HAI prevention and surveillance activities
- Identify priorities among CDC's recommended practices to:
  - Promote implementation of high priority practices
  - Consider inclusion into CMS's Conditions for Participation
- 3. Establish greater consistency and compatibility of data collected across HHS to:
  - Increase reliable national estimates

### HHS Steering Committee on HAI Reduction

- CHARGE: Develop a National Action Plan for Reducing HAIs. Plan will:
- Establish national goals for reducing HAIs
- Include short-term and long-term benchmarks
- Outline opportunities for collaboration with external stakeholders
- Coordinate and Leverage HHS resources to accelerate and maximize impact

#### **Tier One Priorities**

#### **HAI Priority Areas**

- Catheter associated-Urinary Tract Infection
- Central Line Associated Blood Stream Infection
- Surgical Site Infections
- Ventilator Associated Pneumonia
- MRSA
- Clostridium difficile

#### **Implementation Focus**

Hospitals

\*\*Tier Two will address additional HAI areas and other types of healthcare facilities

## Steering Committee Working Group Structure

Reducing
HAIs
Steering Cmte

Prevention
And
Implementation
Lead: CDC

Research

Lead: AHRQ

Incentive And Oversight Lead: CMS Information
Systems
And
Technology
Co-leads: ONC
& CDC

Outreach and Messaging Lead: OPHS

# Prevention and Implementation Working Group Objectives

- Partner with the Healthcare Infection Control Practices Advisory Committee to prioritize existing recommended infection control clinical practices.
- Establish a "top 10" list for existing recommended guidelines.
- Identify opportunities to share best practices that result in successful HAI reductions and prevention.
- Enumerate strategies to translate prioritized guidelines into bedside care.

Working Group Lead:



# Research Working Group Objectives

- Identify gaps in existing knowledge base
- Prioritize research needs to fill knowledge gaps identified
- Develop and test interventions that utilize technology to promote HAI prevention
- Develop a coordinated research agenda to strengthen the science for infection control prevention

Working Group Lead:



# Incentive and Oversight Working Group Objectives

- Explore with CMS the inclusion of specific infection control practices in their Conditions for Participation
- Explore financial incentives to enhance hospital compliance with prioritized infection control practices
- Partner with the Joint Commission, CMS, and the American Osteopathic Organization to ensure that compliance with infection control practices is evaluated in the required certification process

Working Group Lead:



# Information Systems and Technology Working Group Objectives

- Establish definitional alignment and standardize measures for HAIs across agencies
- Provide guidance for developing a robust database that will measure HAIs and enable HHS to accurately benchmark progress toward HAI elimination.
- Mobilize health information systems to help reinforce appropriate patient safety practices
- Seek strategic opportunities to make varied HHS data systems interoperable

Working Group Leads: ONC and CDC

# Outreach and Messaging Working Group Objectives

- Develop national initiative focused on reducing HAIs
- Explore opportunities to link HAI rates to the Secretary's Value Driven Healthcare Initiative.
- Disseminate information on HAI prevention to consumer groups to raise awareness to the issue

Working Group Lead: OPHS

### Next Steps.....

- Please share your comments and ideas....send to <u>Julie.Moreno@hhs.gov</u> or <u>Rani.Jeeva@hhs.gov</u>
- Plan is undergoing Departmental Clearance
- After clearance, will be posted in the FR for public comment
- Plan to be Revised based on Comments Received
- Planned Release- Late January 2009

### Influenza Vaccination of Health-care Personnel:

### **An HHS Initiative to Improve a Serious Public Health Problem**

Only 45 percent of U.S. health-care personnel were vaccinated in 2007

### Impact of Influenza Vaccination of Health Care Personnel on patients

- Over 12 years in one hospital, vaccination coverage increased from 4% to 67%
  - Laboratory-confirmed influenza cases among HCP decreased from 42% to 9%
  - Nosocomial cases among hospitalized patients decreased 32% to 0 (p<0.0001)¹
- Three randomized controlled trials evaluated impact of HCP influenza vaccination on residents in nursing homes<sup>2,3,4</sup>
  - They estimated 5%- 40% decrease in overall mortality among residents in the setting of high employee vaccination levels, regardless of patient vaccination levels.

<sup>1</sup>Salgado et al., Inf Cont Hosp Epi 2004;25:923-8

<sup>2</sup>Carman et al., Lancet 2000;355(9198): 93--7

<sup>3</sup>Potter, et al., J Infect Dis 1997;175:1—6

4Hayward, et al, BMJ 2006;333:1241-6

## HHS Initiative for Influenza Vaccination of Health Care Personnel: Components

#### Two components

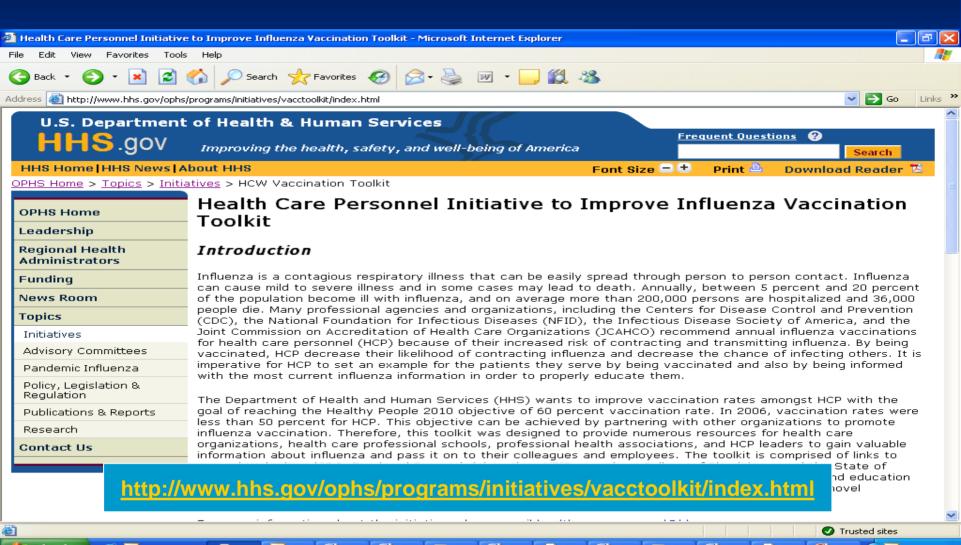
- Improving HHS health care employee influenza vaccination, with focus on
  - Federal Occupational Health
  - Indian Health Service
  - U.S. Public Health Service Commissioned Officers
  - NIH Clinical Center
  - CDC
- Promoting influenza vaccination to non-federal health care organizations and HCP

### HHS Initiative for Influenza Vaccination of Health Care Personnel: HHS Employees

#### Three focus areas

- Developing office and agency specific strategies to improve HCP vaccination levels
- Measuring employee vaccination rates
- Disseminating a toolkit containing
  - Standard presentation
  - Relevant articles
  - Posters
  - Fact sheets, questions and answers
  - Vaccine information statements
  - Links to other resources
  - Toolkit is available on HHS OPHS website

#### **HHS HCP Vaccination Toolkit**



#### Other HHS Activities

- CDC developed a measure on HCP influenza vaccination adopted by the National Quality Forum (limited to 12 months and evaluation thereafter)
- CDC's National Influenza Vaccination Week (Dec 8-14) will feature HCP vaccination on Dec 12 in a webcast
- FDA's Patient Safety News features HCP influenza vaccination in print and video:
  - http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/psn/transcript.cfm?show=81#4
- HRSA sent letter to all grantee Federally Qualified Health Centers encouraging HCP vaccination

### HHS Initiative for Influenza Vaccination of Health Care Personnel: Outreach

HHS will also promote Influenza Vaccination of Health Care Personnel (HCP) nationwide

Healthy People 2010 target: 60% of all HHS HCP will be vaccinated annually By 2010

HHS plans to partner with many other organizations to promote HCP influenza vaccination

#### **Selected Partners include:**

- American Academy of Family Physicians
- American Academy of Pediatrics
- American College of Obstetricians and Gynecologists
- American College of Physicians
- American Hospital Association
- American Medical Association
- American Nurses Association
- American Society of Health-System Pharmacists
- Association for Professionals in Infection Control and Epidemiology, Inc.
- National Black Nurses Association
- National Hispanic Nurses Association
- National Foundation for Infectious Diseases
- National Influenza Vaccine Summit
- National Medical Association
- National Hispanic Medical Association