## Evaluation of Health Care Worker Vaccination Rates in Utah Outpatient Clinics

KARLEN E. LUTHY, DNP, FNP

JANELLE L. B. MACINTOSH, PHD, RN

LACEY M. EDEN, MS, FNP

RENEA L. BECKSTRAND, PHD, RN, CCRN, CNE

### Vaccines

- Important public health achievement
- Cost-effective strategy for preventing diseases
- Reduces health care costs for communicable diseases
- Schedule recommended by the Centers for Disease Control and Prevention







## Vaccines and Populations

- Focus usually on childhood population
- Especially important for vulnerable populations
  - Children
  - ▶ Elderly
  - Immunocompromised
  - Patients
- Also important for health care workers











### Vaccines and Health Care Workers

- Necessity of HCW vaccinations
  - ► At risk for contracting and spreading communicable diseases
- Recommendations\*
  - One pertussis
  - One tetanus every 10 years
  - ► Two MMR
  - Two varicella
  - ► Three Hepatitis B
  - Seasonal influenza
  - One meningococcal
- Recommendations identical for US and Utah\*\*





## How are We Doing in America?

► Hepatitis B: 68%\*

Influenza: 80%\*

▶ No firm data on pertussis, MMR, or varicella

▶ Suboptimal\*



## How are We Doing in Utah?

- Hospital-based HCWs
  - ▶ Influenza: 82%\*
- Long-term care HCWs
  - ▶ Influenza: 53%\*
- Outpatient HCWs

Vaccine Type	Pediatrics	Family Practice	Oncology
Influenza	66% (n = 31)	57% (n = 52)	79.2% (n = 19)
Hepatitis B	63.8% (n = 30)	52.7% (n = 48)	62% (n = 15)
Tdap	59.6% (n = 28)	37.4% (n = $34$ )	41.7% (n = 10)
MMR	42.6% (n = 20)	25% (n = 23)	41.7% (n = 10)
Hepatitis A	42.6% (n = 20)	32% (n = 29)	25% (n = 6)
Varicella	34% (n = 16)	18% (n = 16)	21% (n = 5)



## But...

Vaccine Policy	Pediatrics	Family Practice	Oncology
Recommended but <b>no consequence</b>	50% (n = 23)	37% (n = 30)	39.1% (n = 9)
Recommended with termination as consequence	15.2% (n = 7)	23.5% (n = 19)	17.4% (n = 4)
Recommended with consequence other than termination	19.6% (n = 9)	18.5% (n = 15)	30.4% (n = 7)



# Barriers to Vaccinating Health Care Workers

- Common barriers\*
  - Lack of access to vaccine while working<sup>¶</sup>
  - Belief that vaccine is unnecessary\*\*
  - High staff turnover
  - Cost of vaccine
- Barriers in Utah outpatient clinics
  - ▶ Time/resources
  - Employee freedom





<sup>\*</sup>Centers for Disease Control and Prevention, 2014

<sup>\*\*</sup>FitzSimons, Hendrickx, Lernout, Badur, Vorsters, and Van Damme, 2014

<sup>&</sup>lt;sup>¶</sup> National Foundation for Infectious Diseases, 2008

# Positively Influencing HCW Vaccination Rates\*

- Employer should assume cost of vaccination
  - Economic benefits
- Address misconceptions
  - Vaccine effectiveness
  - Need for vaccination
  - Vaccine safety
- Send a CLEAR message from highest administrative authority\*\*
- Vaccine mandates



<sup>\*</sup>Marshall, Tetu-Mouradjian, & Fulton, 2010

<sup>\*\*</sup>Talbot, Dellit, Hebden, Sama, & Cuny, 2010

## A Quick Word About Vaccine Mandates

- Unpopular\*
- MOST are effective\*
  - Instituted by over 400 health care institutions nationwide\*\*
  - Increases vaccination by eightfold#
  - Virginia Mason Medical Center in Seattle, WA = 98% after mandate ¶
  - ► Children's Hospital of Philadelphia = 99.9%^





Babcock, Geneinhart, Jones, Dunagan, & Woeltje, 2010 ^Offit, 2010



<sup>\*\*</sup>Immunization Action Coalition, 2014b

#Centers for Disease Control and Prevention, 2010

### Ethical Considerations

- Public trust damaged when HCWs recommend vaccines for patients but avoid the vaccines themselves\*
- HCWs choose their profession, vaccination is consistent with professional obligations\*
- Being immune is part of being a "healer" in the profession\*
- Health care institutions have an obligation to reduce risk to patients\*
- When safety and liberty are in conflict, limiting personal liberties may be justifiable\*

#### Where Do We Go From Here?

- Every nurse responsible for patient safety
- Advocate for vaccine policies
  - Mandate?
- Make recommendations for facilities and follow through









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