Hitting the Health Care Trifecta: Give It Your Best Shot

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Coordinator for Public Health
Immunization Action Coalition
August 11, 2014
• **Vaccination**
• Motor-vehicle safety
• Safer workplaces
• Control of infectious diseases
• Decline in deaths from coronary heart disease and stroke
• Safer and healthier foods
• Healthier mothers and babies
• Family planning
• Fluoridation of drinking water
• Recognition of tobacco use as a health hazard
Measles in Nebraska for first time since 1990 (8/2)

Ohio measles outbreak largest in USA since 1996 (5/13)

Another Measles Case Confirmed, Now 26 Affected by NYC Outbreak (4/16)

California Measles Outbreak Highest Since It Was Declared Eradicated, And It's Only April (4/14)

Nearly 5,400 Whooping Cough Cases Reported in California (7/22)

Measles Outbreak In Ohio Leads Amish To Reconsider Vaccines (6/24)

Pertussis epidemic nears 7,000 in California (8/8)
Measles Cases and Outbreaks
January 1 to August 1, 2014*

593 Cases

18 Outbreaks
representing 89% of reported cases this year

U.S. Measles Cases by Year

*Provisional data reported to CDC’s National Center for Immunization and Respiratory Diseases
The current increase in measles cases is being driven by **unvaccinated people**, primarily U.S. residents, who got measles in other countries, brought the virus back to the United States and spread to others in communities where many people are not vaccinated.

*Dr. Anne Schuchat*

Assistant Surgeon General
Director, CDC NCIRD
YOU'RE GOING TO GET THE MEASLES!
Changes in Pertussis Reporting by State from 2013 to 2014* †

- **Decrease**
- **No change**
- **Increase**
Why?

- Increased awareness
- Improved diagnostic tests
- Better reporting
- More circulation of the bacteria
- Waning immunity
  - 5th dose within past yr – fully protected for 98/100
  - 5+ yrs – 7 out of 10 fully protected
    other 3 protected against serious disease
  - no vaccine? 8 times more likely to develop disease
Human papillomavirus, known as HPV, is the most common sexually transmitted infection in the United States and a principal cause of cervical cancer.

- About 79 million Americans, the majority of whom are in their late teens or early 20s, are infected with HPV.¹
- Most people who become infected don’t even know it. In many cases, those infected do not develop any symptoms and the body’s immune system clears HPV naturally in about 90 percent of cases.
- About 40 types of HPV can infect both men and women. Most HPV types cause no symptoms and go away on their own. But some types are associated with several kinds of cancers and can cause genital warts in both men and women.²

The Food and Drug Administration has approved, and the
Estimated vaccination coverage with selected vaccines and doses among adolescents aged 13-17 years, by survey year, 2006 – 2013.
Why?

Reasons given by parents

- Not sexually active
- Lack of knowledge
- Safety concerns/ side effects
- Not recommended by provider
- Not needed or necessary
26 million: number of girls under 13 years of age in the United States
168,400: number who will develop cervical cancer if none are vaccinated
54,100: number who will die from cervical cancer if none are vaccinated

For each year we stay at 30% coverage instead of achieving 80%...

4,400: number of future cervical cancer cases we will not prevent
1,400: number of cervical cancer deaths we will not prevent
You’re not opening the door to sex. You’re closing the door to cancer.

HPV vaccine is cancer prevention. Talk to your child’s doctor about vaccinating your 11–12 year old against HPV.

www.cdc.gov/vaccines/teens

If there were a vaccine against cancer, wouldn’t you get it for your kids?

HPV vaccine is cancer prevention. Talk to the doctor about vaccinating your 11–12 year old sons and daughters against HPV.

www.cdc.gov/vaccines/teens
controversy n, pl -sies
gument or debate.
cial adj causing controver-
contumely [kon-tume-
Lit scornful or insult
“The Cow Pock – or – the Wonderful Effects of the New Inoculation!”
J. Gillray, 1802
Today's Random Medical News

According to a report released today...

- Exercise
- Fatty foods
- Stress
- Red wine
- Coffee
- Computer terminals

Can cause:

- Hypothermia
- Heart disease
- Osteoarthritis
- Sexual dysfunction
- Depression
- Insomnia
- Glaucoma

In:

- Two-income families
- Minority smokers
- Rats
- 7 out of 10 women
Centers for the Spread of Mass Hysteria

PANDEMIC! QUARANTINE! VIRULENCE

US MEDIA INC.

Centers for Disease Control

Stay calm
Cause vs Coincidence
(temporal relationships)
WHAT STARTED THE RUMORS?

1998

Lancet published a paper by Dr. Andrew Wakefield, a dramatic study that found a connection between autism and vaccines

The Study Had Some Problems

- Not based on statistics
- No control group
- It relied on people's memories
- Made vague conclusions that weren't statistically valid
Following Dr. Wakefield’s study, here’s what other more rigorous studies found:

1999
- A study of 500 children
- No connection was found

2001
- A study of 10,000 children
- Still found no connection

2002
- A study from Denmark of 537,000 children
- Found no connection

2004
- Lancet released a statement refuting the original findings

2005
- A review of 31 studies covering more than 10,000,000 children
- Also found no connection

2012
- A review of 27 cohort studies, 17 case control studies, 6 self-controlled case series studies, 5 time series trials, 2 ecological studies, 1 case cross-over trial covering over 14,700,000 children

No link to autism was found in any case, in all of the studies.

"They had conducted invasive investigations on the children without obtaining the necessary ethical clearances… picked and chose data that suited their case; they falsified facts."
VACCINE VILIFICATION SURVIVES

1/4 U.S. parents believe some vaccines cause autism in healthy children

1.8% of parents opt out of vaccines for religious or philosophical reasons

There have been 0 credible studies linking vaccines to autism

Recently an anti-vaccine religious community has seen measles outbreaks

Although declared eradicated in 2000...

France reported a massive measles outbreak with nearly 15,000 cases in 2011

The U.K. reported more than 2,000 measles cases in 2012

Before widespread vaccinations of babies

In 1980 2.6 million deaths from measles

In 2000 562,400 deaths 72% of babies vaccinated

In 2012 122,000 deaths 84% of babies vaccinated
In the United States, whooping cough shot up in 2012 to nearly **50,000 cases**

- **1960s**: 150,000 cases
- **1970s**: 5,000 cases
- **1980s**: 2,900 cases
- **2004**: 26,000 cases
- **2012**: 50,000 cases

20 deaths in the US

Vaccine refusals were largely to blame for a 2010 outbreak of whooping cough in California.

**Common Vaccine Myths**

- **Vaccines are ridden with toxic chemicals that can harm children**
  - Thimerosal, the chemical being referenced, does contain mercury. However, thimerosal has been removed from scheduled vaccines and only resides in the seasonal flu vaccine.

- **The decision to not vaccinate my child only affects my child**
  - Un-vaccinated children who contract a disease can infect infants yet to be inoculated, the small percentage of people whose vaccines did not take, and people with compromised immune systems.

- **Receiving too many vaccines at once can override a baby’s immune system**
  - Baby’s immune systems are strong enough to defend from the day to day viruses and bacteria with which they come in contact; they can also handle the vaccines. Remember, vaccines use deactivated viruses in their ingredients.

- **Drug companies just do it to make profits**
  - According to the WHO, estimated 2013 global revenues for all vaccines is around $24 billion, which only accounts for approximately 2 - 3% of the total pharmaceuticals market.
VACCINES WORK!

Positive effects of vaccines

- Helped eradicate Smallpox
- Save about 8 million lives every year
- Significantly reduce disease in the world
- New and underutilized vaccines could avert nearly 4 million deaths of children under the age 5 by 2015
chstvFILMS – students at Carlsbad High School
http://vimeo.com/ondemand/invisiblethreat
Falsehood flies and the truth comes limping after; so that when men come to be undeceived it is too late; the jest is over and the tale has had its effect.

Jonathan Swift  (1710)
Vaccine Coverage Rates for Kindergartners: Some States Tightening Vaccination Exemptions; Capitol Facts & Figures, Council of State Governments, January 2014
Immunization is the wall that keeps the diseases away from the community, and if the wall comes down, the diseases come back.

Dr. Melinda Wharton
CDC/ NCIRD
Difficult balancing act for state policy-makers

Responsibility to protect health of all constituents

Responding to concerns of some constituents about potential adverse events

Vaccine Safety: What Legislators Need to Know, Healthy States Brief, Council of State Governments
What can state officials do?

- Educate yourself (or know to whom you should refer)
- Support policies to improve immunization coverage
  - School & childcare facility requirements
  - Health care personnel requirements
  - Vaccine funding (including for adults)
- Stay informed
What’s Happening with Personal Belief Exemptions Across the Nation

Compulsory vaccination for children enrolled in childcare facilities and schools has been a major contributor to the success of the U.S. immunization program. The constitutionality of mandatory vaccination was upheld by the U.S. Supreme Court in 1905 (Jacobson v. Massachusetts, 197 U.S. 11). Although there is no national law requiring the vaccination of school children, all states and the District of Columbia have vaccination requirements for children. All but two states allow exemptions to state mandates for non-medical reasons, and there is time to take one’s child to the doctor before the beginning of the school year.

Each state makes a determination about whether it allows PBEs—20 states allow them—and if PBEs are allowed, each state defines the steps parents must take to exempt their child from vaccination. In some states, exemptions are easy to obtain; very few steps are required of the parent to exempt a child. In other states, exemptions require more effort by the parent.
State Information
State mandates on immunization and vaccine-preventable diseases

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<tr>
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<td>Varicella</td>
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<td>Polio</td>
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Coming soon!

Partnership of:

- Vaccine Facts and Policy.org
- The George Washington University
- AIM Association of Immunization Managers
- Immunization Action Coalition

A comprehensive database of U.S. immunization information
Demographics and Rates

Demographics
Vaccination coverage rates
Vaccine preventable disease rates

Fiscal Environment

Fiscal environment of immunization program
General funds
Medicaid
Prevention and Public Health Funds (PPHF)

Law and Policy

Law: Correctional facilities
Law: Healthcare personnel
Law: Immunization Information Systems
Law: Long term care facilities
Law: Medicaid
Law: Policy
Law: School entry requirements
Law: Standing orders
Policy: Mandates and requirements

Strategies and Initiatives

Adult immunization
Communication
Non-traditional providers
Policies and initiatives for refugees and immigrants
Program priorities
Special initiatives/strategies

Structure of Immunization Program

Immunization advisory boards
Immunization coalitions
Immunization information systems
Structure of immunization program
Structure of state and local health system
Vaccines: Your best shot at hitting the health care trifecta

- Improving patient care
- Creating healthier communities
- Reducing health care costs
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