

# Public Health: Policy, Practice, and Perceptions



Companion to Jonas & Kovner's Health Care Delivery in the United States, Chapter 6, "Public Health: Policy, Practice, and Perceptions"

## PHC 4630

Understanding U.S. Healthcare

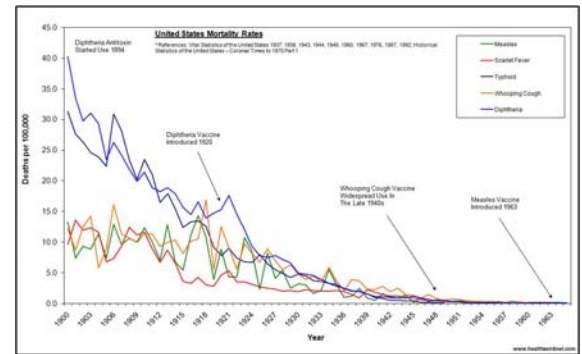
## Presentation Objectives

- Describe major public health successes
- Review 3 categories of health prevention
- Relate the Ten Essential Public Health Services to public health activities
- Define the public health system structure and responsibilities
- Relate the difficulties in public health communication and advocacy

## Top Ten Public Health Achievements, 1900-1999

1. Vaccinations
2. Decline in CVD deaths
3. Healthier mothers & babies
4. Tobacco health hazard awareness
5. Control of infectious diseases
6. Safer foods
7. Family planning
8. Fluoridation
9. Safer workplaces
10. Motor-vehicle safety

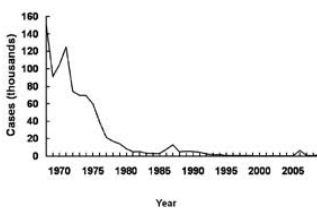
## Vaccine-preventable Diseases



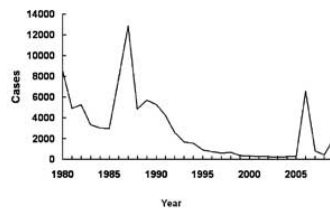
<http://sphweb.bumc.bu.edu/otl/MPH-Modules/PH/MA-Surveillance/MA-Surveillance7.html>

## Mumps

Mumps - United States, 1968-2009



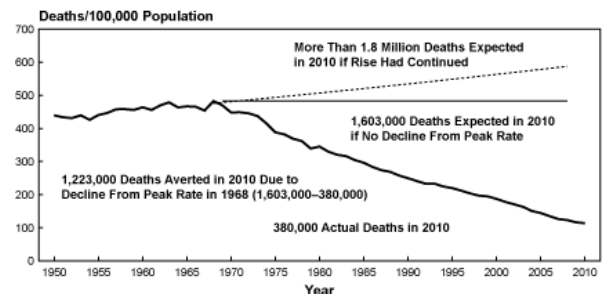
Mumps - United States, 1980-2009



<http://www.cdc.gov/vaccines/pubs/pinkbook/mumps.html>

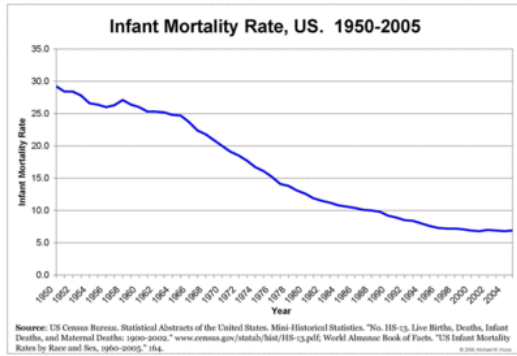
## Deaths from Diseases of Heart

### Age-Adjusted Death Rates for Coronary Heart Disease, U.S., 1950-2010 Actual Rate and Expected Rates if Rise Had Continued or Reached a Plateau

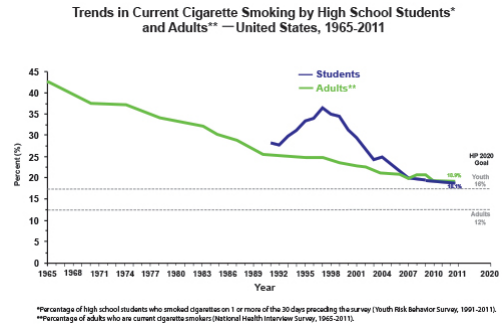


Source: Vital Statistics of the United States, NCHS, <http://www.nhlbi.nih.gov/about/factbook/chapter4.htm>

## Infant Mortality Rate Nationwide



## Tobacco Cigarette Use



[http://www.cdc.gov/tobacco/data\\_statistics/tables/trends/cig\\_smoking/](http://www.cdc.gov/tobacco/data_statistics/tables/trends/cig_smoking/)

## Prevention and Health Promotion

- Primary prevention
  - Exercise, nutrition, immunization
- Secondary prevention
  - High blood pressure management
- Tertiary prevention
  - Diabetes management to prevent blindness and amputations

## Difference in Roles

	Individual Medical Care	Public Health
<b>Primary prevention</b>	Encourages patients to maintain healthy weight, be physically active, and not smoke	Works to establish bike and walking paths and to eliminate trans fats from foods, offers smoking quit-lines, advocates for smoke-free public spaces and higher cigarette taxes, provides prevention guidelines to medical care providers
<b>Secondary prevention</b>	Regular checkups for detecting and treating high blood pressure, elevated cholesterol, and other risk factors	Mounts public service campaigns about the importance of controlling blood pressure and "knowing your number" for cholesterol, provides guidelines to medical care providers on diagnosis of blood pressure and hypercholesterolemia
<b>Tertiary prevention</b>	Medical treatment to save the heart muscle after a heart attack or to prevent complications from stroke, treatment of atherosclerosis, cardiac rehabilitation, and medication to restore function and prevent recurrence	Provides guidelines to medical care providers, creates widespread awareness of the symptoms of heart attack and stroke and the need to seek help quickly, provides CPR training, provides automated external defibrillators in public places and worksites, establishes effective emergency systems, sponsors patient support groups

Source: Jonas & Kovner's *Health Care Delivery in the United States*, Chapter 6, "Public Health: Policy, Practice, and Perceptions"

## Ten Essential Public Health Services

<b>Assessment</b>
1. Monitor health status to identify community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
<b>Policy Development</b>
3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
<b>Assurance</b>
6. Enforce laws and regulations that protect health and ensure safety.
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. Assure a competent public health and personal health care workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
<b>Serving All Functions</b>
10. Research for new insights and innovative solutions to health problems.

Source: Abstracted by the author from: Institute of Medicine. (2002). *The future of the public's health in the 21st century*. Washington, D.C.: National Academies Press.

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## Assessment

1. Monitor the public's health status to identify and solve community health problems
2. Diagnose and investigate health problems and health hazards in the community

## Policy Development

3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships and action to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.

## Assurance

6. Enforce laws and regulations that protect health and ensure safety
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
8. Assure competent public and personal health care workforce.
9. Evaluate effectiveness, accessibility, and quality

## Innovation

- Research for new insights and innovative solutions to health problems
  - Connected pill
  - Mobile Phone Diabetes Project

## Circle of Public Health Activities



Source: U.S. Department of Health and Human Services. (2001, revised January 2007). *The Surgeon General's Call to Action To Prevent and Decrease Overweight and Obesity* (p. 3). Rockville, MD: Author.

## Public Health System

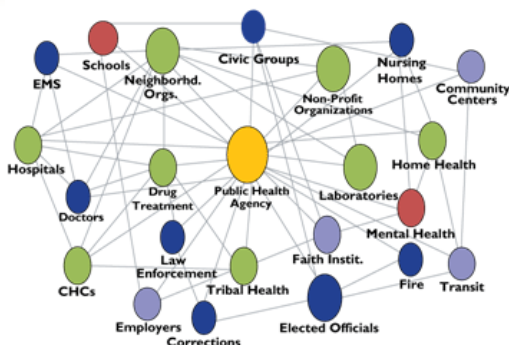


Figure from <http://www.cdc.gov/nphppsp/essentialservices.html>

## Top Local Health Department Services

- Adult Immunizations (92%)
- Communicable/Infectious Disease Surveillance (92%)
- Child immunizations (92%)
- Environmental Health Surveillance (77%)

[http://www.naccho.org/topics/infrastructure/profile/upload/2010\\_Profile\\_main\\_report-web.pdf](http://www.naccho.org/topics/infrastructure/profile/upload/2010_Profile_main_report-web.pdf)

## New Responsibilities

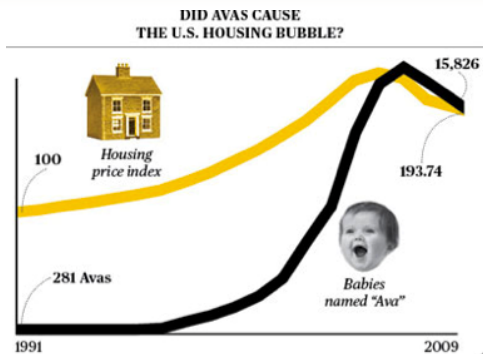
- Protecting the public against:
  - Terrorism
  - Emerging infectious diseases
- Resolving conflicts among varying agendas
- Effective communication & advocacy
- Building and maintaining public trust

## Broken Trust



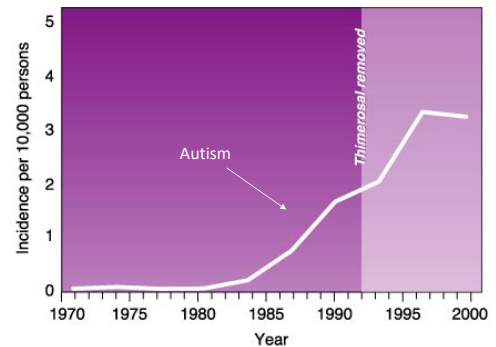
Gross L (2009) A Broken Trust: Lessons from the Vaccine–Autism Wars. *PLoS Biol* 7(5): e1000114. doi:10.1371/journal.pbio.1000114

## Correlation is Not Causation



<http://www.businessweek.com/magazine/correlation-or-causation-12012011-gfx.html>

## Removal of Thimerosal



## Scientific Method Not Comforting

- Over 200 studies reviewed
- P.R.O.V.E it!
- Autism is prevalent; measles is not
  - But measles kills ...

## If You Are a Conspiracy Theorist, You Might Also Be ...

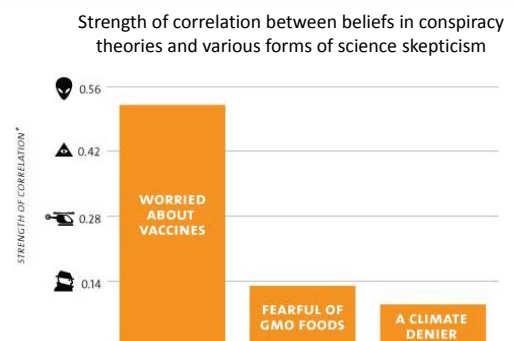


Figure from Mother Jones magazine; data from Lewandowsky, S., Gignac, G. E., & Oberauer, K. (2013). The role of conspiracist ideation and worldviews in predicting rejection of science. *PLoS one*, 8(10), e75637.

## **How to Communicate and Advocate to Science Deniers?**

- Factual strategies alone may not work
  - Confirm their competence and character
  - Acknowledge that science is not infallible
  - Make the consequences more tangible
  - Identify vulnerable; customize message
  - Share anecdotal evidence about the consequences
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## **Conclusion**

- Public health efforts led to some of the biggest accomplishments of science in the 20<sup>th</sup> Century
  - Be able to identify prevention categories and the differentiate medical care from public health
  - Public health activities are interconnected and process-oriented
  - Public health system structure is multi-layered and the responsibilities overlap
  - Public health communication and advocacy is challenging but our responsibility
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