Public Health and the Promise of Prevention

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Public Health and the Public Health System

• **Public health** – Organized measures and services, public and private, to prevent disease, injury, and disability; promote physical and mental health; and protect and prolong life among the population as a whole.

• **Public health system** – All public, private, and voluntary entities that contribute to the delivery of essential public health services within a jurisdiction.
What is Public Health?

- Public health is concerned with **preventing** health problems from happening in the first place, **promoting** healthy behaviors and choices, and **protecting** the health of entire populations – from neighborhoods, to towns and cities, to entire countries.

What is the Public Health System?
Current Public Health Funding and Policy Priorities

• Infectious disease prevention
  – Surveillance, epidemiology, lab capacity
  – Prevention and control
• Chronic disease prevention
  – Obesity prevention
  – Tobacco control and prevention
• Injury prevention
• Environmental health

Current Public Health Funding and Policy Priorities

• Emergency preparedness
  – Public health emergency preparedness
  – Hospital emergency preparedness
• Public health capacity building
  – Core funding for public health services
  – Public health workforce education and training
• Strengthening public health and health care collaboration within the context of a rapidly transforming health care system
  – CDC’s 6|18 Initiative
Three Buckets of Prevention

Bucket 1: Traditional Clinical Prevention

Increased use of evidence-based preventive services provided during one-on-one patient encounters with physicians and nurses, such as:

- Seasonal flu vaccines
- Colon cancer screening and other cancer screening such as periodic mammograms
- Screening for obesity, tobacco use, depression

Bucket 2: Innovative Clinical Prevention

Extending care for individuals from the clinical setting to the community, such as:

• Community paramedicine, e.g., REMSA, Humboldt General Hospital
• Medical homes, Accountable Care Organizations, bundled payments, utilization of community health workers
• CMS Accountable Health Communities Model (AHC)

Bucket 3: Community-Wide Prevention

Implement interventions that reach whole populations, examples include:

• Community water fluoridation
• Mass immunization for infectious diseases
• Tobacco taxes, expansion of smoke-free workplaces and public spaces
• Mass education on the dangers of high-fat diets
• Improved access to birth control and family planning services
Key Principles of Public Health

• A primary focus on populations rather than individuals
• A public service ethic tempered by concerns for the individual
• Employs the full spectrum of interventions aimed at the environment, human behavior and lifestyle, and medical care
• Emphasis on prevention and health promotion for the whole community

Health Impact Pyramid

Zip Code is a Better Predictor of Health than Genetic Code

Ten Great Public Health Achievements in the Twentieth Century

- Vaccinations
- Safer workplace
- Safer and healthier food
- Motor vehicle safety
- Control of infectious diseases
- Decline in deaths from heart disease and stroke
- Family planning
- Recognition of tobacco use as a health hazard
- Healthier mothers and babies
- Fluoridation of drinking water

Source: [http://www.cdc.gov/about/history/tengpha.htm](http://www.cdc.gov/about/history/tengpha.htm)
Tobacco Control in the US

FIGURE 1. Annual adult per capita cigarette consumption and major smoking and health events — United States, 1900–1998


Tobacco Control in Nevada

• Utilization of MSA dollars for tobacco control and prevention (1999 to present)
• Increase in tax on cigarettes from 35 to 80 cents per pack (2003)
• Nevada Clean Indoor Air Act (2006) and efforts to reduce exposure to second-hand smoke
• Increase in tax on cigarettes from 80 cents to $1.80 per pack (2015)
Tobacco Use and Tobacco Control Policy in Nevada

- Tobacco Master Settlement Agreement (MSA) signed between major tobacco companies and 46 US states and DC, including Nevada (1998)
- From 1999 to 2009, adult smoking prevalence in Nevada declined by 30.2%
- From 1999 to 2009, youth smoking prevalence in Nevada declined by 30.2%
- In 2003, Nevada increased its state tax on cigarettes from 35 to 80 cents per pack
- Nevada Clean Indoor Air Act (NCIAA) passed by Nevada voters (2006)
- Utilization of Tobacco MSA funding for tobacco control initiated by the State of Nevada (2000)
- State tax on cigarettes increased from 35 to 80 cents per pack in Nevada (2003)
- Adult smoking prevalence in Nevada drops to its lowest recorded level in 2014 (16.9%)
- Youth smoking prevalence in Nevada drops to its lowest recorded level in 2013 (10.2%)
- From 1999 to 2009, youth smoking prevalence in Nevada declined by 30.2%
- From 1999 to 2009, adult smoking prevalence in Nevada declined by 30.2%
- Final Caveat: You Get What You Pay For

- US health spending: $3 trillion
- Only $79 billion or 2.6% is spent on local, state, and federal government public health services
- State public health budget in Nevada: $10 million
- Spending per capita in Nevada: $3.59
- Average US state spending per capita: $31.06
- Nevada’s Rank Among US States: 51st
- Range: $3.59 (NV) to $156.01 (HI)
- CDC spending per capita in Nevada: $19.76
- HRSA spending per capita in Nevada: $14.06

Public Health and the Promise of Prevention

Through evidence-based prevention –

- Countless injuries, illnesses, and even chronic diseases can be avoided
- Lives can be saved and life expectancy extended
- Health care costs can be contained, resources allocated more efficiently and effectively

“...The determinants of health are beyond the capacity of any one practitioner or discipline to manage....We must collaborate to survive, as disciplines and as professionals attempting to help our communities and each other.”

—Institute of Medicine, 1999