Public Health and HIV Prevention: Old, New, and Not

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Class of 1962
Public Health: What is it?

The science and art of
1. Preventing disease
2. Prolonging life
3. Promoting health through organized community effort

Cf. CEA Winslow (1920)

Public Health: Old, New, Not
1. Classic Concepts (BC to 1970’s)
   Ottawa Charter (1986)
3. Moral Maxims for the poor and
   Medical Care for the affluent
Public Health: Classic Concepts

- health of populations and communities
- surveillance (detection)
- epidemiology: host, agent, environment
- environmental sanitation
- communicable disease prevention and control
- health education for personal hygiene
- code enforcement (police powers)
Expansion: The New Public Health

- Commitment: Health for All
- Social Activism: Advocacy for supportive environments
- Empowerment of vulnerable populations & communities
- Local participation in decision making: goals and resources
- Professional standards, clear objectives, and evaluation to improve health outcomes
- Comprehensive planning models, adequate political and financial support to fully implement public health interventions, and continuous support for effective programs

The purpose of this presentation is to be provocative by reviewing the history of the HIV/AIDS pandemic from its beginning up to the present and then trying to answer the question, “What went wrong?”

Jonathan Mann proposed three stages to the HIV/AIDS pandemic:

- Silent Spread
- Recognition and Discovery
- Global Mobilization

1947-1998
Silent Spread (c1930-1981)

- **1930s**: Simian-human barrier is breeched in west/central Africa
- **1959**: HIV infection in human detected in plasma (Congo)
- **1968**: HIV begins to spread in North America
- **1979**: “Patient 0,” an airline steward, is diagnosed with KS in Toronto, Canada
- **1981**: “Highly unusual cases” of “GRID” seen in New York, Miami, LA, San Francisco, and elsewhere

Emerging infectious diseases have been linked to international travel.
Recognition: 1981-1983

- CDC KSOI Task Force formed to gather information (spring 1981)
- Five “highly unusual cases” of PCP reported among young gay men in Los Angeles
- CDC Surveillance system established to identify and describe cases of “GRID”
- Estimated 100,000 to 300,000 HIV infections in existence by 1981

Cases of AIDS reported and projected (1981-1991)

Jim Curran, Harold Jaffe, Dennis Juranek, Bill Darrow
Etiology: What is the cause of “GRID”? 

- GENETICS: Does it occur in families?
- TOXIN: Nitrite inhalants (poppers)?
- BIOLOGIC AGENT: retrovirus (lentivirus, e.g., kuru)?
- COMBINATION OF FACTORS: causing severe and prolonged immunologic overload?

CASE STUDY (n=53)

CASE CONTROL STUDY

CLUSTER INVESTIGATION
Of 19 men reported with AIDS in Los Angeles, information is gathered about the sex partners of 13. Three name the same out-of-California man as a sexual partner, “Patient 0”.

GRID probably caused by a sexually transmitted (blood-borne) agent

For all the young men dying
LAV/HTLV III (HIV) is identified as the etiologic agent.

ELISA and Western blot serologic tests detect HIV-antibody.

AZT has therapeutic benefits; can prevent maternal transmission.
AIDS Policy and HIV Prevention

Government officials hold a series of retreats to prepare a national response to AIDS:
- Coolfont I (1985)
- Coolfont II (1986)
- Charlottesville (1987)

National Strategy built on the medical model:
- Pathogenesis research
- Therapeutic approaches
- Vaccine development
- Public Health Control measures: CTRPN and HE/RR
- Patient care and health care

PHS pledges no new HIV infections after 2000

1985: DHHS Secretary Heckler promises “the eminent Dr. Gallo” will develop a vaccine for HIV within two years.

1992: Dr. Robert Gallo is found guilty of scientific misconduct by the NIH Office of Research Integrity (Cf. Crewdson, Science Fictions).

2003: Since 1987, more than 27 vaccine candidates have been tested—none has proven effective against HIV.
Biomedical Approach to AIDS

- Diagnostic Tests
- Therapeutics
- Vaccines
- Cure

AIDS problem solved..., or is it?

Mathematical models stress the necessity of intervening quickly
Richard Feynman derides “cargo cult science”
- Rituals performed to entice planes to land
- Virologists (Dowdle and Noble) formulated CDC policy
- Virologists believed only a vaccine could stop AIDS
- Education might slow rates of HIV transmission until “the medical mystery of the 20th Century” was solved in biomedical laboratories by “medical miracles”
San Francisco City Clinic Study

- Studies of Hepatitis B virus prevalence, incidence, and vaccine efficacy in MSM designed (1976-1977) and conducted
  - HBV Prevalence: 75.8% (1978)
  - HBV Incidence: > 8% per annum
  - Vaccine efficacy: 80-85% protection
  - Safety: Few adverse events recorded
  - Complications? None, but...
  - Six cohort members were among the first 10 AIDS cases in San Francisco
  - Cumulative incidence of HIV infection among 6,705 study participants increased from 4.5% in 1978 to 73.1% in 1985.
HIV Information and Education

- **Scientific information:** MMWR, peer-review
- **Public Information:** America Responds to AIDS
- **Health Education:** Four Lessons from the Past
- **Health Promotion:** Ottawa Charter
- **The New Public Health**
Social Marketing and the Media

- America Responds to AIDS offers general information and a telephone number
- Callers can request specific information
- Built on assumption that the customer is always right, but...
- DHHS Secretary Lewis Sullivan always has the last word.

US Government: Executive Branch

President

- NAPO
- DHHS
- Surgeon General
  - CDC
  - NIH
  - HRSA
  - FDA

Understanding AIDS
A Message From The Surgeon General

107 million pamphlets mailed—one to every postal address in the United States (1987)
HIV Prevention Message: A, B, C

- Abstinence
- Be Faithful
- Condom use

“From start to finish”
C. Everett Koop, 1986
Fear [of the virus and “carriers”] will powerfully influence public health interventions and policy.

Education will not control the epidemic, but explicit, focused, and targeted messages will help.

Compulsory measures are counterproductive and will not work.

The development of effective treatments and vaccines will not end the AIDS epidemic.

Public Health system in the USA is broken and must be fixed.

Current capabilities are inadequate.

Tension exists between politics and professional expertise.

Decision making is driven by crises, hot issues, and organized interest groups [and not by systematic planning].

Essential are: assessment, policy development, and assurance.

Health is a social as well as individual responsibility—no citizen should be without protection.

Public health is “organized community efforts aimed at the prevention of disease and promotion of health.”
Ottawa Charter for Health Promotion: 1986

The New Public Health

Enabling people to increase control over, and to improve, their health by:

- Building healthy public policy
- Creating supportive environments
- Strengthening community action
- Developing personal skills
- Reorienting health services
Health Promotion for HIV Prevention

Three basic prerequisites:

- Advocacy for health
- Enabling people to act: Empowerment
- Mediation:
  Coordination by governments to assure that “people from all walks of life” can participate, have healthy lives, and achieve physical, emotional, and social well-being

“I always knew it would take a long time to educate people, but I never knew it would take this long.”

Ryan White
Global Mobilization: 1986-1990

- WHO Global Program established (1986)
- National Program Plans and Policies formulated
- Solidarity and Human Rights to offset stigma
- UN Special Assembly: Int’l Coordination (1987)
- Global Summit (1988)

“Global leadership is lacking and a global ethic of caring has not been developed.” J Mann (1992)

- UNAIDS (1996): Poverty and discrimination spread HIV
"We all have AIDS. ... The earth has AIDS"

Donald Berwick, CEO, Institute for Healthcare Improvement

Epidemic began in the late 1970’s, still emerging.

40 million people living with HIV/AIDS (70% in Africa)

New HIV Infections: 6 / minute, 14,000 / day, 5 million / year

Half of new infections occur in people 15-24

27 Million Deaths
75% adults
50% women

75% are heterosexual transmissions

WHO AIDS Epidemic Update, December 2003
Public Health—By the Numbers

5 Americans died from anthrax in 2001.

2801 people died in the World Trade Center attack on September 11, 2001.

3000+ civilians have been killed in Afghanistan since the US invasion.

8219 men, women, and children died EACH DAY from HIV disease in 2001.

AIDS is now a leading cause of death worldwide.
National Commitments: Wars to be won, and wars to be talked about

- Action must be taken immediately to avert a global disaster (Barcelona, 2002)

- WHO/UNAIDS estimates 100 million people will be infected with HIV by 2010

- Global Fund could treat everyone and stop HIV from spreading with $27 billion (Jeffrey Sachs, 14th World AIDS Conference, Barcelona, 2002)
Public Health—By the Bucks (2003)

- $1 billion: Annual CDC budget for HIV surveillance and prevention
- $2.5 billion: Annual NIH budget for HIV biomedical research
- $16 billion: Budget proposed by President Bush for AIDS programs in selected countries over the next 5 years
- $27 billion: Estimated cost for an effective worldwide HIV prevention and treatment program (Jeffrey Sachs, World AIDS Conference)
- $87.5 billion: Emergency budget approved by the US Congress for the military occupation of Afghanistan and Iraq
Christian Fundamentalism and the Construction of a National Program

“AIDS is God’s judgment of a society that does not live by His rules.”
Jerry Falwell (1982)

“Everyone detected with AIDS should be tattooed.”

“Maybe the Lord brought down this plague [because] illicit sex is against the ten Commandments.” Ronald Reagan (1987)

“AIDS is an effective vehicle to propel the homosexual agenda.” Pat Robertson (1990)
And the Band Played On: Mobilizing Alone

- Our Constitutional Government “can only end in Despotism as other Forms have done before it, when the People shall become so corrupted as to need Despotic Government, being incapable of any other.” Benjamin Franklin (1787)
  [Gore Vidal, Inventing a Nation, 2003]

- “AIDS did not just happen in America — it was allowed to happen by an array of institutions, all of which failed to safeguard the public health.”
  Randy Shilts (1987)

- “Civic engagement has been transformed into civic malaise. We need to reconnect with one another”
“Advancing HIV Prevention” (2003): Raising the white flag of surrender

In April 2003, CDC recommends:

1. Routine HIV-antibody screening in medical settings,
2. Testing outside traditional medical settings,
3. Contact tracing of sex partners,
4. Testing all pregnant women.

In “Understanding AIDS” (8 pgs), condoms are mentioned 20 times as a device for the prevention of HIV infection.

In “Prevention for Positives,” condoms are mentioned once (as reference 42).
Public Health Advocacy: ACT–UP

For over 20 years a series of American presidents and most of our elected officials have ignored the AIDS pandemic.

The crisis continues to expand.

Silence=Death (ACT-UP mantra)

Responsibility to learn, teach, connect, commit, and grow a grassroots effort to witness the devastation and confront the obstacles to the public’s health.

Larry Kramer
Founder, ACT-UP
HIV Prevention in USA: Summary

- AIDS was detected, defined, and interpreted by biomedical scientists following the rules and methods of the old public health.
- AIDS can be prevented by well designed, developed, and supported programs that are properly and fully implemented and evaluated to provide consistent improvement, as proposed in a new public health.
- AIDS cannot be prevented by a national program that: (1) preaches abstinence only, (2) primarily purchases and distributes drugs, and (3) presents health communication as doctors talking with their patients.
Conclusion

The war against AIDS has been lost. The virus (HIV) and three human attributes (selfishness, greed, and shortsightedness) have won.

Our Government has failed to respond appropriately. It has failed to win the hearts and minds of the American people.

Just about everyone is to blame, but the ultimate responsibility lies with the Commander in Chief, the President of the United States. Presidents from Ronald Reagan to George W. Bush have failed to lead America in the war against AIDS.