The public health movement.
What goes around comes around.

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The good old days

Life expectancy in England since the C17th
The early public health movement

- The industrialization of Europe which started in the 18th century produced urban slums which were swept periodically by epidemics of typhoid and typhus.
- Life expectancy in many urban areas declined in the early 19th century.
- As epidemics of Cholera spread through Europe, Rudolf Virchow (1821–1902) studied the connection between poor sanitation and disease, and challenged his fellow physicians to look beyond clinical manifestations of disease to recognize and treat the poverty and other social factors that underlay ill health.
- Virchow’s beliefs were later echoed in the slogans and practices of the sanitary reformers who gave birth to modern public health.

John Snow and the cholera map

- Famous anaesthetist who administered chloroform to Queen Victoria.
- Observed the spread of cholera during a number of outbreaks in London between 1830s and 1850s.
- Famously mapped the cases and made the link between the sources of the water supplies in the Soho area.
- Concluded (along with Budd) that an unknown agent was responsible for transmission, but the significance of this observation was not appreciated until...
- Robert Koch isolated and cultivated *Vibrio cholerae* in 1883.

Overcoming the ‘urban penalty’, Sweden, 1860s – 1920s
The public health movement

- The C19th model of public health was primarily directed to the control of filth, odour, and contagion, based upon the miasma theory of disease.
- Not unsurprisingly, the emphasis for many decades was on infectious disease due to the high mortality among the urban working population, and the fear that the poor living conditions could lead to social unrest.
- As mortality due to infectious diseases declined, attention turned to non infectious diseases (such as cancer and heart disease) in the mid C20th.
What a difference a century makes
Source: WHO

<table>
<thead>
<tr>
<th>Category</th>
<th>&quot;Event&quot;</th>
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<tbody>
<tr>
<td>Vaccine</td>
<td>Eradication of smallpox 1977</td>
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<tr>
<td>Antibiotic</td>
<td>Discovery of penicillin 1927</td>
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<td>Epidemic</td>
<td>Influenza epidemic 1918-19</td>
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<td>Bacterium</td>
<td>Tuberculosis (century)</td>
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<td>Virus</td>
<td>HIV 1981 -</td>
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<td>Controversy</td>
<td>H. pylori 1983</td>
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<td>Anti- viral</td>
<td>AZT (Zidovudine) 1986</td>
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<td>Public Health</td>
<td>Chlorination of water</td>
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<td>Basic Science</td>
<td>Plasmids: 1970</td>
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<td>Clinical Research</td>
<td>The RCT: 1945</td>
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Top 10 infectious disease events of the 20th century

Results of a Survey of Physicians asked to Name the Top 10 Infectious Disease Events of the Past Century

1. Eradication of smallpox
2. Discovery of penicillin
3. Epidemic of HIV
4. Epidemic of influenza 1918-19
5. Polio vaccine
6. Childhood immunization
7. Antibiotic resistance
8. Treatments for Tuberculosis
9. Cultivation of infectious agents
10. Chlorination of water

Survey conducted at The Harold C. Neu Infectious Disease Conference, May 18 - 20, 2000, Dallas, TX
Historical trend in Tuberculosis mortality

Historical trend in Diphtheria mortality

Historical trend in Measles mortality
HIV infections in gay men: England

Not such an exact science

- Sanitary reforms were associated with the recognition of the effects of the contamination of the body via the environment.
- Hygiene reforms emerged following the discovery of microorganisms.
- Lifestyle reforms focused on the identification of risk behaviors.
- Environmental reforms revisited the premises associated with the contamination of the body.
- Genetic fundamentalism appears to revisit the Darwinian concept of survival of the fittest.

The new public health movement

- Late 20th-century revival of interest in public health led to the emergence of the new public health movement.
- Key events: Alma Ata conference, and Ottawa Charter for Health Promotion.
- Inherent in the new paradigm is the notion that public health research and practice must actively engage political and social injustice.
- Ironically, the roots of this radically new vision for public health are, in fact, more than a century old.
- The new public health attempts to recapture the population focus of the early sanitary movement, framing contemporary health issues as primarily being social rather than individual problems that require a social and political response.
What lies ahead?

- A key challenge to the new public health model lies in the ascendancy of the notion of health as a commodity that individuals purchase through a market place.
- This is starkly illustrated in the tensions between the aim of the Blair Govt health service reforms to empower individuals with choice, and the less than robust reforms outlined in the public health white paper (again emphasising the notion of individual empowerment to make the right choices).

Emerging public health movements

- Healthy Communities Movement
  - A fusion of urban planning and public health, predominantly addressing health in urban populations in developed nations.
- The Peoples Health Movement
  - Aims to develop health, social justice, and equity in global economic development through social mobilisation.
- ???