

HLTH350 Notes

Lecture 1: Introduction to Unit

Health is “a state of complete physical, emotional and social-wellbeing and not merely the absence of disease or infirmity” (World Health Organization)

Policies:

- Stated objectives or a course adopted and pursued by a government, ruler, political party
- Reflect the objectives of a government
- Made in the name of public by the government and it has to draft bills and get them passed to give these policies a concrete shape of laws
- What a government intends to do, law helps it in doing what it intends to do
- Example: Sweden wants to be 100% renewable energy by 2025, that is the policy/objective

Laws:

- Standards, procedures and principles that must be followed, breaking them may result in prosecution
- Provide the legal and institutional framework to further these policies
- Example: Laws would be around compliance with renewable energy and at 2025 that industries are complying with that

Ethics:

- System of moral principles which affect how people make decisions and lead their lives
- Concerned with what is good for individuals and society
- Example: OH&S, food packaging, banned smoking areas

Health inequality does exist between countries

- Japan has the highest life expectancy at 83 years while Sierra Leone is at 51 years
- Under 5 mortality rate has decreased over 20 years but has stayed the same in Russia and Africa
- Notable health improvements in a number of areas in the past decades however overwhelming numbers of preventable deaths in poorer countries
- Poor and marginalized countries are suffering the most
- Example: Child and maternal health, infectious diseases, non-communicable diseases, mental disabilities, injuries, climate change

Lecture 2: Legal considerations and public health and intro to Ethics

Millennium Development Goals:

- At the Millennium Summit in September 2000, the largest gathering of world leaders in history adopted the UN Millennium Declaration committing their nations to a new global partnership to reduce extreme poverty and setting out a series of time-bound targets with a deadline of 2016 that have become known as the Millennium Development Goals

To achieve these goals

- Poorer countries pledged to improve policies and governance and increase accountability to their own citizens
- Wealth countries pledged to provide the resources
- Some progress but goals have not been met



Figure 1.1 Key determinants of global health equity

Case study: Ebola

- **Ebola** is a rare and deadly disease caused by infection with 1 of the 5 Ebola virus strains
- Transmitted through direct contact with blood or body fluids (urine, saliva, feces, vomit, breast milk and semen) and without wearing the right protective clothing and equipment
- For healthcare workers, protective clothing and equipment include face shield, goggle, medical mask, double gloves, waterproof gown, apron and waterproof boots

Epidemic 2014; Jan-Sept

- In West Africa

Notes

- Higher survival in developed countries and fewer incidences
- No FDA-approved vaccine or medicine is available and trials now only started in Sierra Leone
- Treated by symptoms as they appear
- Following basic interventions when used early can improve chances of survival such as
 - o Intravenous fluids and balancing electrolytes
 - o Maintaining oxygen status and blood pressure
 - o Treating other infections if they occur

Response: Guinea, Liberia, Sierra Leone

- Ebola treatment beds
- Health workers have been hit the hardest
- Laboratory capacity
- Contact tracing
- Safe burials
- Social mobilization efforts

US-led containment efforts

- 10,000 person US backed civilian response
- constructed 15 Ebola treatment units in the region
- Provided more than 400 metric tons of personal protective equipment and other medical and relief supplies
- Operated more than 190 burial teams in the region
- Conducted aggressive contact tracing to identify chains of transmission
- Trained healthcare workers and conducted community outreach
- Worked with international partners to identify travelers who may have Ebola before they leave the region

Leadership challenges

- WHO was envisaged as the "directing and coordinating authority on the international health work"
- WHO budget is operating a budget a third of the US Centers for Disease Control and Prevention's
- WHO controls only 30% of their budget and member states have co-opted WHO's agenda through earmarked funds
- WHO relied on donations which lead to costly delays while preparing their budget
- WHO was trying to catchup in mobilizing resources for Ebola

- WHO had recommendations on treatment centers, health worker compensation and personal protective equipment requiring states to co-operate but they could not realistically

5 recommendations for governance changes

1. Sustainable funding (double the WHO budget)
2. Restructuring WHO's regional offices so regional representatives report to WHO director-general rather than to region
3. Improving WHO governance by empowering non-governmental stakeholders
4. Exert WHO's constitutional authority by setting an ambitious agenda of health treaties and voluntary code
5. Build health system capacities to help prevent the next global health emergency (emergency fund)

Lecture 3: Ethics in Public Health Research

Brief history of medical research ethics: Nazi Human Experimentation

- During World War 2, the Nazis conducted gruesome experiments on human beings who were prisoners in Nazi concentration camps
- Many of the people who were experimented on were killed, maimed, or disfigured by the Nazi experiments

The Nuremberg Trials and the Nuremberg Code

- In the 1946, the atrocities committed by Nazi scientists in the name of research were investigated in War Crimes Tribunal at Nuremberg (often called the "Nuremberg Trials")
 - This led to development of the Nuremberg Code in 1947. **The Nuremberg Code was the first international code of research ethics.** It mandated that research involving human beings must follow 10 basic directives, including (the included are important):
1. Voluntary, informed consent about research participants
 2. No coercion to participate in research
 3. Only properly trained scientists should carry out research
 4. Any risks must be outweighed by the humanitarian benefits of the research
 5. Research should be designed to minimize risk and suffering
 6. Participants can end the experiment at any time, and researchers must stop the research if it becomes apparent that the outcomes are clearly harmful

Tuskegee Syphilis Experiment: 1932-1972

- The infamous **Tuskegee, Syphilis Experiment proved that the Nuremberg Code wasn't enough to prevent abuse of research** participants by medical researchers
- The experiment ran from 1932 to 1972. The research subjects were poor African American men, sharecroppers in Alabama. They were coerced by various means to participate in the research
- The men in the experiment were told they were being treated for "bad blood". In fact, they were only observed to watch the progression of the disease. The doctors never treated them at all
- When the experiment started in 1932, there was no complete cure for syphilis, but there were treatment programs known to help. But during the Tuskegee Syphilis Experiment, these treatments were withheld
- Even when penicillin was discovered in the 1940s, participants in the Tuskegee syphilis trials were never told or treated. In fact they were actively prevented from receiving treatment so that doctors could continue to watch the progress of syphilis
- By the end of the trial, "28 of the men had died directly of syphilis, 100 were dead of related complications, 40 of their wives had been infected, and 19 of their children had been born with congenital syphilis"
- The fact that researchers deliberately withheld treatment meant that only did the men in the study suffer for decades, others who were infected by them also suffered and were disfigured by the disease
- There was no scientific benefit from the study. Simply watching how the disease progresses did not help to find a cure for syphilis, and it did not help reduce the spread of venereal disease

The Helsinki Declaration

- The Nuremberg Code was an important development in regulating ethical research, but it was not enough to prevent tragedies like Tuskegee
- The Helsinki Declaration: another key historical moment in regulating research on human beings. Developed by the World Medical Association in 1964 in Helsinki, Finland as an elaboration of Nuremberg Code