

## PUBLIC HEALTH

- Public health is the science and art of preventing disease prolonging life and promoting health through the organised efforts of society.
- WHO: people have the fundamental right to health. I.e. accessible, affordable, culturally acceptable and good quality health care. Safe food & water, sanitation, health related education and information.
- Isolation can impact health as much as smoking and drinking.
- Determinant of health characteristic that changes health for better or worse.
- Environmental, social (systems theory)
- Health status: mortality, life expect, morbidity, prevalence, incidence, hospital separations, disability adjusted life years, reported health, reported illness. (infant mortality very obvious indicator of inequality in community.)
- Globalisation (bird flu) urbanisation (garbage, air pollution, water quality, overcrowding)
- Where you live impacts your life greatly the built environment. People recovering in hospital; had a view of a tree or environment they recovered faster than those without. Need to be in nature, being removed from nature can be physically harming. (can your kids walk to school? Can you walk to the shop, is the environment friendly.)
- Climate change (drought, cyclone yasi, locust plague)

## LEC TWO

### History of public health:

- Activities society undertakes to assure the conditions in which people can be healthy. Organised community efforts to prevent, identify and counter threats to the health of the public.
- The state of complete physical mental and social well being and not merely the absence of disease or infirmity. (WHO 1947)
  - It is significant to have a comprehensive definition of health.
- Definition of health has evolved from merely the absence of disease, to include ideas about more general wellbeing. Including the capacity to live, work and participate in community.
- Health promotion:
  - any intervention that seeks to eliminate or reduce exposure to harmful factors by modifying human behaviours. Through health education and related organisational, political and economic

interventions designed to facilitate behavioral and environmental adaptations that will improve or protect health.

- Disease prevention:
  - intervention reduce or eliminate diagnosable conditions. Individual level vaccinations, community level chlorination of water.
- Ethical values of public health:
  - Beneficence- doing good with every action.
  - Non-maleficence- avoid harm,
  - autonomy- individual decision making,
  - social justice- like cases, treated in like manner and all individuals rights be respected.
  - Truth telling- accurate information be available to all participants in any information exchange or decision making situation. Give good information to the public.
- Balancing ethical conflicts:
  - balance between autonomy and the need for limitations to achieve social justice. Between what individuals might prefer to do vs actions that are necessary for the good of the whole group.
- Key Events in public health:
  - John Snow & cholera: epidemiology- mapping cases of cholera and household use of water sources to reveal a pattern that led to a single water pump.
  - Increased life span: significant increase over the past century from 45-50 to 75-80 years. Due to public health initiatives, 5 years improvements of medicine and drugs. But other 25 public health based.
- Public health accomplishments:
  - Vaccination: eradication of smallpox & polio, control measles, rubella, tetanus, diphtheria.
  - Motor-vehicle safety: seat belts, child safety seats, motorcycle helmets and reduced drink driving.
  - Safer workplaces: 40% reduction in fatal injuries.
  - Control of infectious diseases: reduced infections, through clean water and sanitation and antimicrobial therapy.
  - Decline in deaths from heart disease and stroke: smoking, high blood pressure early detection and treatment.
  - Safer and healthier foods: eliminate major nutritional deficiency diseases, micronutrients.
  - Healthier mothers and babies: 90% decrease in infant mortality and 99% decrease in maternal mortality through hygiene and nutrition, availability of antibiotics, greater access to health care and technological advances in medicine.
  - Family planning: altered social and economic roles of women due to contraceptive services, smaller family sizes, and longer intervals between births.
  - Fluoridation of drinking water: resulted in reduced tooth decay and tooth loss in adults.
  - Recognition of tobacco: resulted in prevention of millions of smoking related deaths.
- Evolving Need for Public Health 1900's to present:

- 1918 influenza pandemic
- 1964, u.s surgeon general cigarette smoking and cancer.
- 1981, the HIV-AIDS virus was first recognised
- 1990, relationship between diet and disease increased
- 2001, threat of bioterrorism