GLOBAL HEALTH 101

KaiserEDU.org Tutorial

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Tutorial Goals

- Provide definitions of key concepts and measures
- Describe major global health challenges, the determinants of health, and burden of disease
- Summarize the global response to these challenges, including key stakeholders and key initiatives
- Highlight future global health opportunities and challenges
Global Health is…

- No standard definition

- Approach to health globally has evolved from *tropical health* and *international health* to *global health*

Global health has been described as:

“encompassing ‘health problems, issues, and concerns that transcend national boundaries, and may best be addressed by cooperative actions’” and may be viewed “not just as a state but also the goal of improving health for all people by reducing avoidable disease, disabilities, and deaths.”

—Institute of Medicine (2009)

**Selected Key Global Health Concepts and Measures**

<table>
<thead>
<tr>
<th>Concept</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prevalence</strong></td>
<td>• the number of people with a particular condition at any given time</td>
</tr>
<tr>
<td><strong>Incidence</strong></td>
<td>• the number of new cases of a disease or condition in a population within a period of time</td>
</tr>
<tr>
<td><strong>Morbidity</strong></td>
<td>• the number of people who became ill from a disease or at a certain stage of life</td>
</tr>
<tr>
<td><strong>Mortality</strong></td>
<td>• the number of people who died from a disease or at a certain stage of life</td>
</tr>
<tr>
<td><strong>Burden of Disease</strong></td>
<td>• a comprehensive demographic and epidemiological framework used to assess the comparative importance of diseases, injuries, and risk factors in causing premature death, loss of health, and disability</td>
</tr>
<tr>
<td><strong>Disability-Adjusted Life Year (DALY)</strong></td>
<td>• designed to quantify the burden of diseases, injuries, and risk factors, adds together years of life lost due to premature mortality with the equivalent number of years of life lived with disability or illness</td>
</tr>
</tbody>
</table>
Major Global Health Challenges

**Infectious Diseases**
- HIV/AIDS
- Malaria
- Tuberculosis (TB)
- Neglected tropical diseases (NTDs)

**Non-Communicable Diseases (NCDs)**
- Cancer
- Heart Disease
- Diabetes
- Obesity

**Population-Based and Other Challenges**
- Maternal, newborn, and child health (MNCH)
- Family planning and reproductive health (FP/RH)
- Nutrition
- Clean water, sanitation, and hygiene (WASH)
- Health systems strengthening
Major Global Health Challenges: Examples

**HIV/AIDS**
- Almost all (97%) of those living with HIV reside in low- and middle-income countries, particularly in sub-Saharan Africa.

**Non-Communicable Diseases (NCDs)**
- Nearly 80% of all deaths caused by NCDs occurred in low- and middle-income countries in 2008.

**Maternal Mortality**
- 99% of maternal deaths occurred in developing countries in 2008.

Major Determinants of Health

- Biological
  (genetic make-up, sex, age)

- Environmental
  (access to safe drinking water and sanitation, air pollution, safe workplaces/homes)

- Socioeconomic
  (income, class, education, gender norms, race/ethnicity)

- Individual Behaviors
  (handwashing, sexual activity, diet)


<table>
<thead>
<tr>
<th>Rank</th>
<th>Low-Income Countries</th>
<th>Middle-Income Countries</th>
<th>High-Income Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lower respiratory infections</td>
<td>Ischaemic heart disease</td>
<td>Ischaemic heart disease</td>
</tr>
<tr>
<td>2</td>
<td>Diarrheal diseases</td>
<td>Stroke and other cerebrovascular diseases</td>
<td>Stroke and other cerebrovascular diseases</td>
</tr>
<tr>
<td>3</td>
<td>HIV/AIDS</td>
<td>Chronic obstructive pulmonary disease</td>
<td>Trachea, bronchus, lung cancers</td>
</tr>
<tr>
<td>4</td>
<td>Ischaemic heart disease</td>
<td>Lower respiratory infections</td>
<td>Alzheimer and other dementias</td>
</tr>
<tr>
<td>5</td>
<td>Malaria</td>
<td>Diarrheal diseases</td>
<td>Lower respiratory infections</td>
</tr>
<tr>
<td>6</td>
<td>Stroke and other cerebrovascular diseases</td>
<td>HIV/AIDS</td>
<td>Chronic obstructive pulmonary disease</td>
</tr>
<tr>
<td>7</td>
<td>Tuberculosis</td>
<td>Road traffic accidents</td>
<td>Colon and rectum cancers</td>
</tr>
<tr>
<td>8</td>
<td>Prematurity and low birth weight</td>
<td>Tuberculosis</td>
<td>Diabetes mellitus</td>
</tr>
<tr>
<td>9</td>
<td>Birth asphyxia and birth trauma</td>
<td>Diabetes mellitus</td>
<td>Hypertensive heart disease</td>
</tr>
<tr>
<td>10</td>
<td>Neonatal infections and other</td>
<td>Hypertensive heart disease</td>
<td>Breast cancer</td>
</tr>
</tbody>
</table>

**Note:** “Neonatal Infections and Other” category also includes other non-infectious causes arising in the perinatal period apart from prematurity, low birth weight, birth trauma and asphyxia.

Note: “Neonatal infections and other” category also includes other non-infectious causes arising in the perinatal period apart from prematurity, low birth weight, birth trauma and asphyxia. These non-infectious causes are responsible for about 20% of DALYs shown in this category.

### Key Stakeholders in Global Health

**Multilateral and International Organizations**
- Global Fund
- UN Agencies, such as:
  - WHO
  - UNAIDS
  - UNFPA
  - GAVI
  - Stop TB
  - Roll Back Malaria

**Countries**
- Donor countries, such as those in the Group of 8 (G-8, including United States of America, United Kingdom, Japan, Germany, France) and the Group of 20 (G-20)
- Partner countries, such as South Africa, Vietnam, and Haiti

**Private Sector**
- Businesses, including pharmaceutical companies
- Foundations

**Academia and Research Organizations**
- Universities
- Research institutions
- Think tanks

**Civil Society**
- Non-governmental organizations (NGOs)
- Community organizations

**Individuals**
- Affected individuals
- Family members
- Community members
## Selected Recent Global Health Initiatives

<table>
<thead>
<tr>
<th>Initiative/Declaration</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Alliance for Vaccines and Immunisation (GAVI)</td>
<td>2000</td>
</tr>
<tr>
<td>Abuja Declaration</td>
<td>2000</td>
</tr>
<tr>
<td>Millennium Development Goals (MDGs)</td>
<td>2000</td>
</tr>
<tr>
<td>United Nations General Assembly on HIV/AIDS</td>
<td>2001</td>
</tr>
<tr>
<td>Global Fund to Fight AIDS, Tuberculosis, and Malaria</td>
<td>2002</td>
</tr>
<tr>
<td>U.S. President’s Emergency Plan for AIDS Relief (PEPFAR)</td>
<td>2003</td>
</tr>
<tr>
<td>World Health Organization 3x5 Initiative</td>
<td>2003</td>
</tr>
<tr>
<td>International Health Regulations</td>
<td>2005/2007</td>
</tr>
<tr>
<td>International Health Partnership Plus (IHP+)</td>
<td>2007</td>
</tr>
<tr>
<td>United Nations Millennium Development Goals’ Review Summit</td>
<td>2010</td>
</tr>
</tbody>
</table>
### Spotlight on the Millennium Development Goals (MDGs)

"A new global partnership to reduce extreme poverty and setting out a series of time-bound targets"

| Announced in the United Nations Millennium Declaration (2000) | Agreed by all UN member-states and the world’s leading development institutions | Goal date: 2015 |

## The Millennium Development Goals (MDGs)

<table>
<thead>
<tr>
<th>MDG 1</th>
<th>• Eradicate extreme poverty and hunger</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDG 2</td>
<td>• Achieve universal primary education</td>
</tr>
<tr>
<td>MDG 3</td>
<td>• Promote gender equality and empower women</td>
</tr>
<tr>
<td>MDG 4</td>
<td>• Reduce child mortality</td>
</tr>
<tr>
<td>MDG 5</td>
<td>• Improve maternal health</td>
</tr>
<tr>
<td></td>
<td>• Achieve universal access to reproductive health</td>
</tr>
<tr>
<td>MDG 6</td>
<td>• Combat HIV/AIDS, malaria, and other diseases</td>
</tr>
<tr>
<td>MDG 7</td>
<td>• Ensure environmental sustainability</td>
</tr>
<tr>
<td>MDG 8</td>
<td>• Foster global partnerships for development</td>
</tr>
</tbody>
</table>

Looking Forward: Selected Opportunities and Challenges

Future of Global Health

- Coordination of efforts?
- Sustainability?
- Donor and developing country roles?
- Emerging diseases and other challenges?
- Vertical and horizontal approaches?
- Funding and other support?
### Multilateral and international organizations

- GAVI
  - [http://www.gavi.org/](http://www.gavi.org/)
- Global Fund
- Millennium Development Goals (MDGs)
- UNAIDS
- UNFPA
- UNICEF
- World Health Organization
  - [http://www.who.int/en/](http://www.who.int/en/)

### Learning, data, and analysis

- Kaiser Family Fndn. Global Health Gateway
  - [www.globalhealth.kff.org](http://www.globalhealth.kff.org)
- KaiserEDU issue module on global health
- Consortium of Universities for Global Health
- Global Health Council
  - [www.globalhealth.org/](http://www.globalhealth.org/)
- Global Health Education Consortium
  - [http://globalhealthedu.org/](http://globalhealthedu.org/)
- Institute of Medicine
  - [http://iom.edu/](http://iom.edu/)