

# Global Health (2<sup>nd</sup> Week)

# Health Indicator is

- “...a measure that helps quantify the achievement of a goal.”

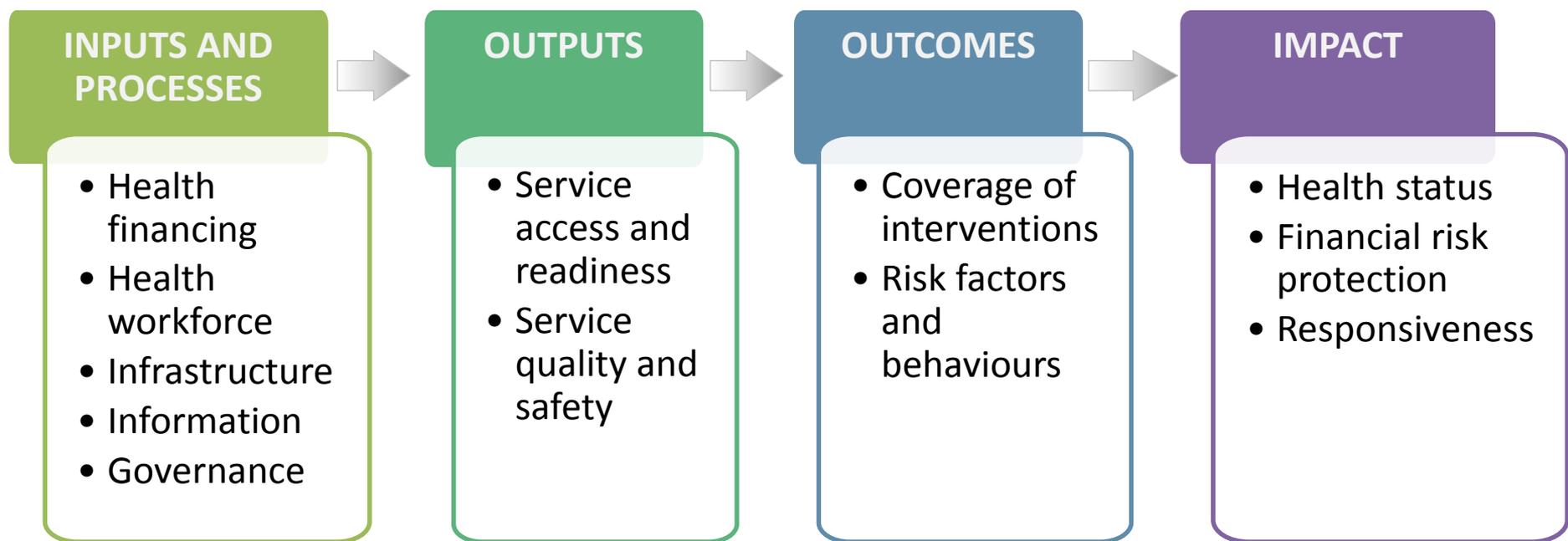
-Mark Friedman

- Health indicators are essential for comparing health status
  - over time (trends)
  - geographic areas
  - groups of people

# A good indicator depends on

- Availability of high quality data
- Importance in measuring health status
- Is well understood at the global level and various comparability options are possible.

# Health indicators within the Monitoring, Evaluation and Review framework



Source: Adapted from *Monitoring, evaluation and review of national health strategies: a country-led platform for information and accountability*. Geneva, World Health Organization, 2011.

- The general concept of health can be construed broadly to encompass indicators of all measurable aspects of health and the health sector.
- The World Health Organization's Monitoring, Evaluation and Review framework organizes health indicators into four components. Within each component various categories of indicators are defined that allow the measurement of health at many levels:
  - Indicators of inputs and processes are broad, affecting many other parts of the health sector.
  - Indicators that fall under outputs and outcomes tend to be quite specific to a particular health topic, and may respond quickly to changes and progress in the health sector.
  - Impact indicators, which are slower to respond to policy, programme and practice changes, are important to provide a snapshot of the health of a population.
- The components of the monitoring, evaluation and review framework can also be loosely linked to the type of data that are used.
  - Outcomes and impact indicators tend to be calculated using individual- or household-level data.
  - Inputs and processes or outputs are often calculated using subnational-level data.
- Certain inputs and processes indicators, such as total health expenditure, are calculated at the national level.

# Health indicators are important because

- They are essential for monitoring and reporting data for decision making about population health.
- To inform policy makers to formulate evidence based policies and to promote accountability among governmental and non-governmental agencies.
- They are critical for setting priorities, assessing the health status at baseline, planning, allocating resources, and monitoring progress towards better health status goals
- Needed for assessing the health problems and trends to create awareness, engage all the stakeholders in collaborative action and design interventions.

# Important Health Indicators for measurement of Health Status

- Cause of death
  - Obtained from death certification but limited because of incomplete coverage
- Life expectancy at birth
  - *The average number of years a new-borns baby could expect to live if current trends in mortality were to continue for the rest of the new-born's life*
- Maternal mortality rate
  - *The number of women who die as a result of childbirth and pregnancy related complications per 100,000 live births in a given year*

# Important Health Indicators for measurement of Health Status

## ◎ Infant mortality rate

- > *The number of deaths in infants under 1 year per 1,000 live births for a given year*

## ◎ Neonatal mortality rate

- > *The number of deaths among infants under 28 days in a given year per 1,000 live births in that year*

## ◎ Under five child mortality rate

- > *The probability that a new-born will die before reaching the age of five years, expressed as a number per 1,000 live births*

# Determinants of Health

# Context

- The context of people's lives influence their health, and so blaming individuals for having poor health or crediting them for good health is inappropriate. Individuals are unlikely to be able to directly control many of the determinants of health.

# Determinants of health

- Many factors combine together to affect the health of individuals and communities.
- Whether people are healthy or not, is determined by their circumstances and environment.
- To a large extent, factors such as where we live, the state of our environment, genetics, our income and education level, and our relationships with friends and family all have considerable impacts on health.
- Access and use of health care services often have less of an impact.

# Determinants of health

- The social and economic environment,
- The physical environment
- The person's individual characteristics and behaviours.
- Access to quality health care

# Determinants of health

- Poverty, Income and social status - higher income and social status are linked to better health. The greater the gap between the richest and poorest people, the greater the differences in health.
- Social support networks – greater support from families, friends and communities is linked to better health.
- Education – low education levels are linked with poor health, more stress and lower self-confidence.
- Gender - Men and women suffer from different types of diseases at different ages.
- Culture, customs and traditions, and the beliefs of the family and community all affect health.

# Determinants of health

- Genetics - inheritance plays a part in determining lifespan, healthiness and the likelihood of developing certain illnesses.
- Personal behaviour and coping skills – balanced eating, keeping active, smoking, drinking, and how we deal with life's stresses and challenges all affect health.
- Health services - access and use of services that prevent and treat disease influences health

# Determinants of health

- Physical environment
  - Safe water and clean air, healthy workplaces, safe houses, communities and roads all contribute to good health.
  - Employment and working conditions – people in employment are healthier, particularly those who have more control over their working conditions

# Determinants of Health

**Plus many more factors such as**

- Political stability, wars and conflicts
- Natural disasters
- Human and civil rights
- Population growth and economic development in the country
- Urbanization

# Examples

- Malnutrition –
  - more susceptible to disease and less likely to recover
- Cooking with wood and coal –
  - lung diseases
- Poor sanitation –
  - more intestinal infections
- Poverty
  - commercial sex work and STIs, HIV/AIDS
- Advertising tobacco and alcohol –
  - addiction and related diseases
- Untrained drivers on unsafe roads–
  - road traffic accidents

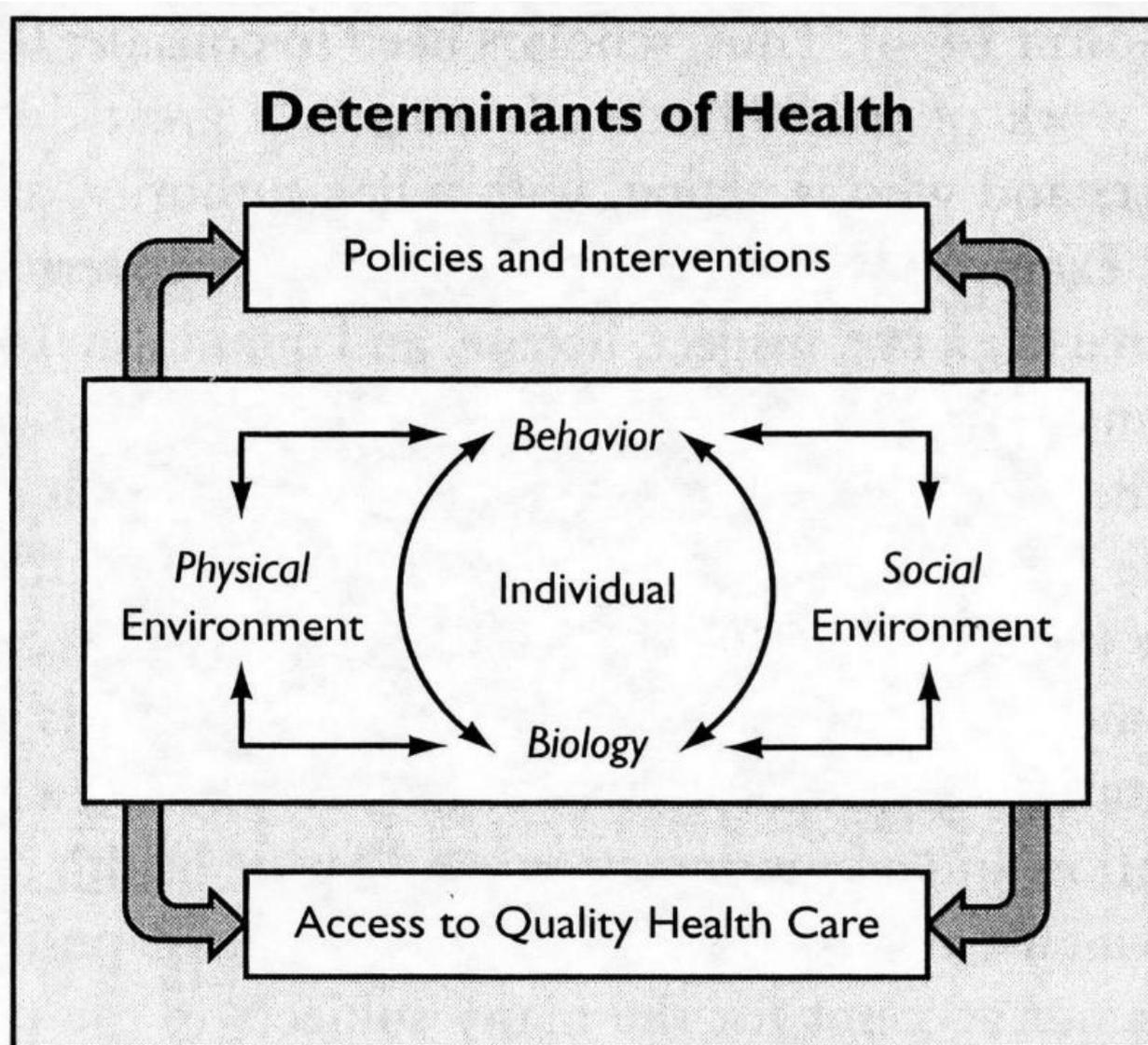
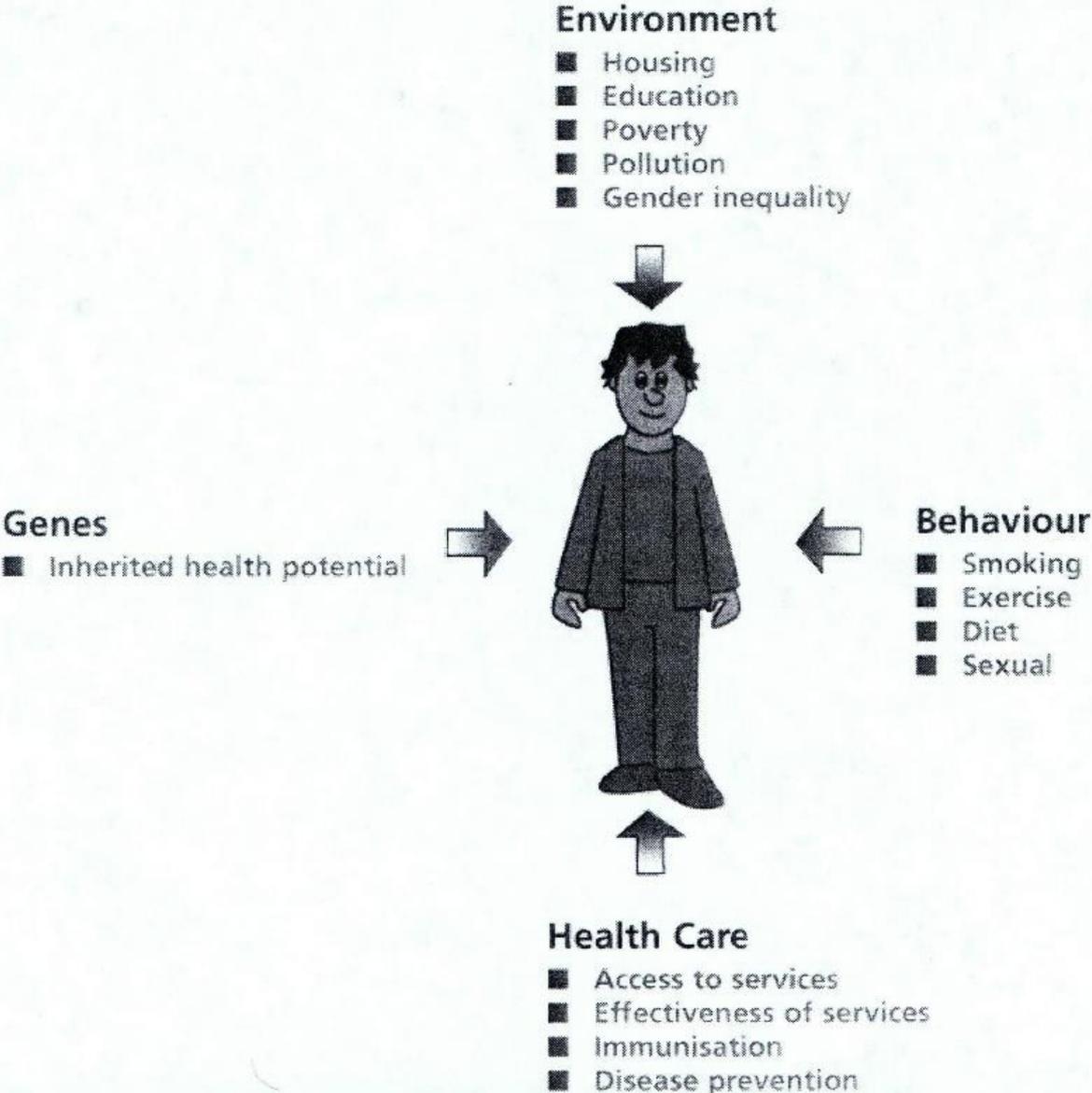


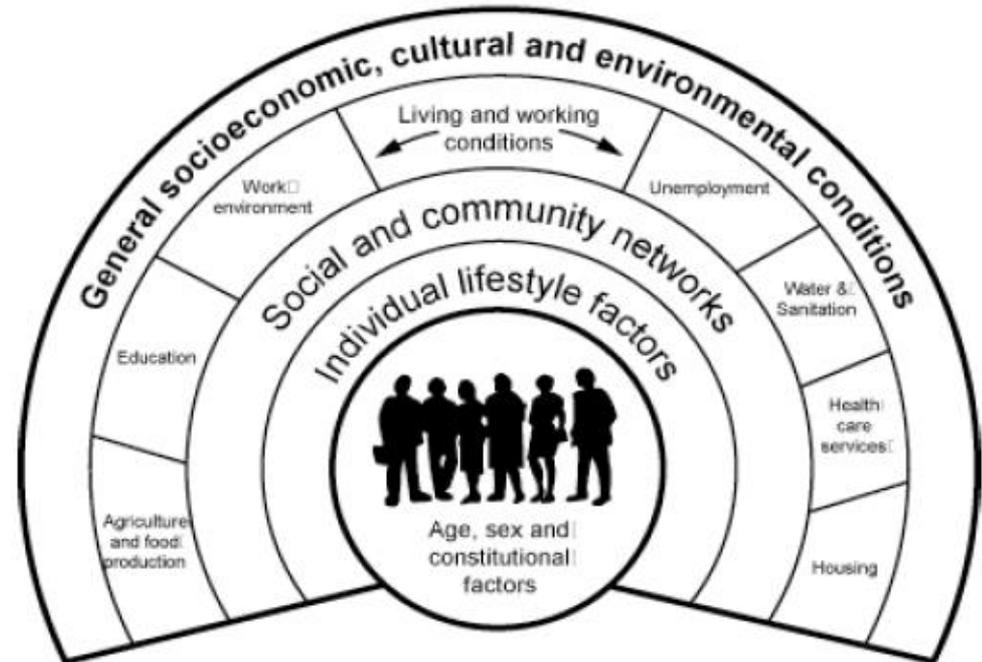
Figure 1. Determinants of health. (Source: U.S. Department of Health and Human Services, *Healthy People 2010*.)

# Influences on Health



# Determinants of Health

- Genetic make up
- Age
- Gender
- Lifestyle choices
- Community influences
- Income status
- Geographical location
- Culture
- Environmental factors
- Work conditions
- Education
- Access to health services



Source: Dahlgren G. and Whitehead M. 1991

# Poverty and Health

# Poverty

1. Conventional economic understanding "income poverty"
2. Poverty includes income, ignorance, ill health, disempowerment, gender issues and vulnerability.

# Poverty

- What the Poor Say : “Poverty is pain; it feels like a disease. It attacks a person not only materially but also morally. It eats away one’s dignity and drives one into total despair” - a poor woman, Moldova.

[Voices of the poor - World Bank](http://siteresources.worldbank.org/INTPOVERTY/Resources/poor.pdf)

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# Poverty

- Poverty is associated with the undermining of a range of key human attributes, including health.
- The poor are exposed to greater personal and environmental health risks, are less well nourished, have less information and are less able to access health care; they thus have a higher risk of illness and disability.
- Conversely, illness can reduce household savings, lower learning ability, reduce productivity, and lead to a diminished quality of life, thereby perpetuating or even increasing poverty.

# Poverty

- Poverty is often defined in absolute terms of low income – less than US\$2 a day, for example. But in reality, the consequences of poverty exist on a relative scale.
- The poorest of the poor, around the world, have the worst health. Within countries, the evidence shows that in general the lower an individual's socioeconomic position the worse their health.
- There is a social gradient in health that runs from top to bottom of the socioeconomic spectrum. This is a global phenomenon, seen in low, middle and high income countries.

# Gender and Health

# Gender

- **Gender** refers to the socially constructed characteristics of women and men – such as norms, roles and relationships of and between groups of women and men. It varies from society to society and can be changed.
- While most people are born either male or female, they are taught appropriate norms and behaviours – including how they should interact with others of the same or opposite sex within households, communities and work places.
- When individuals or groups do not “fit” established gender norms they often face stigma, discriminatory practices or social exclusion – all of which adversely affect health.

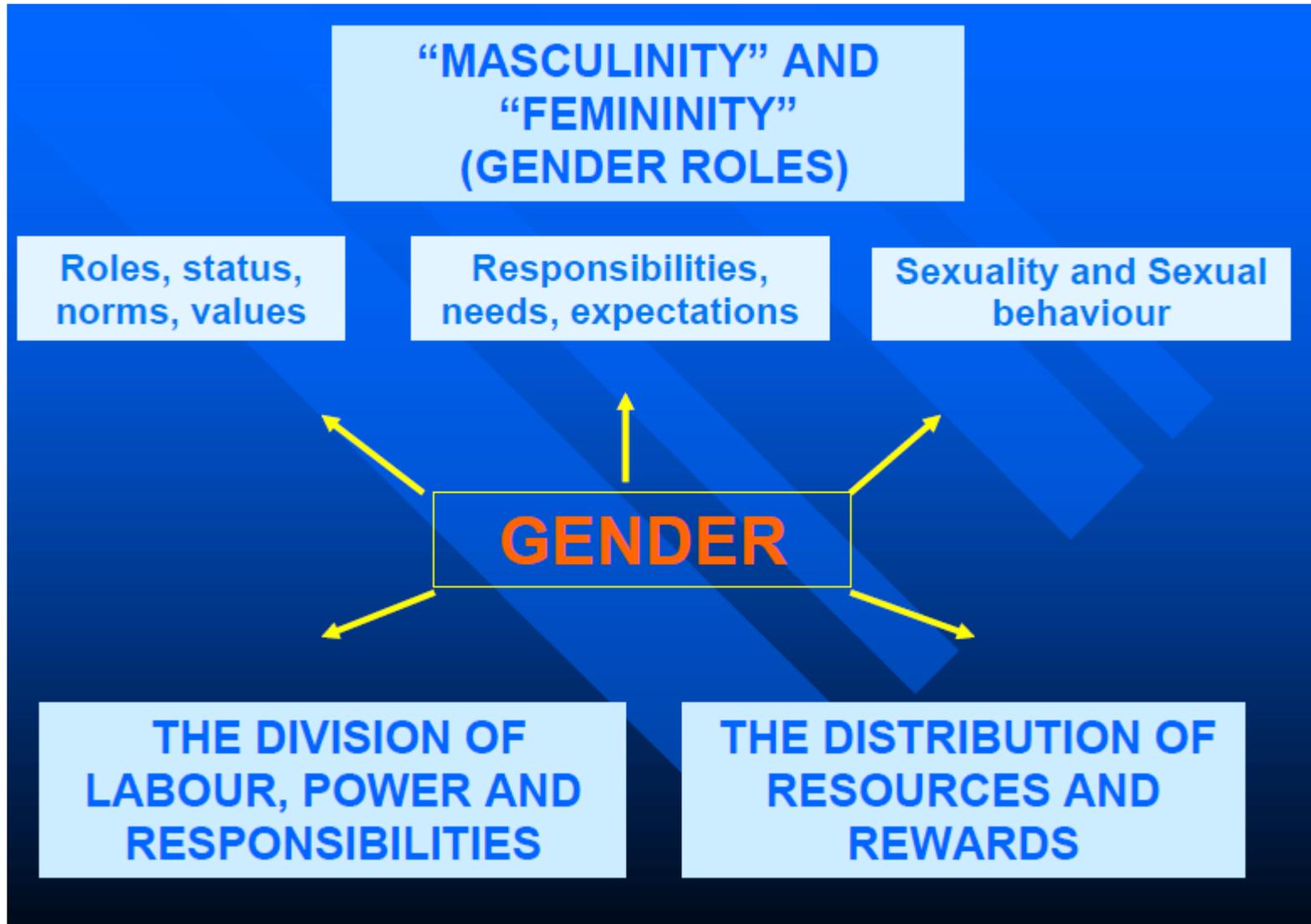
# “Sex” vs. “Gender”

- While most people are born either male or female (biological sex), they are taught appropriate behaviours for males and females (gender norms) – including how they should interact with others of the same or opposite sex within households, communities and workplaces (gender relations) and which functions or responsibilities they should assume in society (gender roles).
- Income, education, age, ethnicity, sexual orientation and place of residence are all important determinants of health. When they intersect with gender inequality, they can compound the experience of discrimination, health risks, and lack of access to resources needed for health attainment.

# Gender

- Gender norms, roles and relations can influence health outcomes and affect the attainment of mental, physical and social health and well-being.
- Gender inequality limits access to quality health services and contributes to avoidable morbidity and mortality rates in women and men throughout the life-course.
- Developing gender-responsive health programmes which are appropriately implemented are beneficial for men, women, boys and girls.
- It is necessary to disaggregate data and conduct gender analyses to identify sex and gender-based differences in health risks and opportunities and to design appropriate health interventions.
- Addressing gender inequality improves access to and benefits from health services.

# Gender



# Impact on health

- There is not a problem per se in socially constructed differences between women and men, except when these differences limit opportunities or resources needed to attain health, and thereby result in discrimination and inequalities that may have negative consequences on health.
- When individuals do not conform to established gender norms, relations or roles, they often face stigma, discriminatory practices or social exclusion – all of which negatively impact health.

# Gender

Gender norms influence access and control over resources needed to attain optimal health, including:

- economic (income, credit);
- social (social networks);
- political (leadership, participation);
- information and education (health literacy, academic);
- time (access to health services); and
- internal (self confidence/esteem).

# Gender

Gender norms, roles and relations result in differences between men and women in:

- exposure to risk factors or vulnerability;
- household-level investment in nutrition, care and education;
- access to and use of health services;
- experiences in health-care settings; and
- social impacts of ill-health.

# Gender equality in health

- Gender equality in health means that women and men, across the life-course and in all their diversity, have the same conditions and opportunities to realize their full rights and potential to be healthy, contribute to health development and benefit from the results. Achieving gender equality in health often requires specific measures to mitigate barriers.

# Culture and Health

Varies Based on Cultural Background

# Health

Varies Based on Cultural Background

# Culture

- Set of values, beliefs, attitudes, languages, symbols, rituals, behaviors, customs of a group of people
- Learned, shared and reflects traditions having been passed down through generations.
- Culture is not necessarily consciously expressed.
- Culture drives a person's beliefs and behaviours.
- Culture is dynamic and changes over time.
- People can belong to many different subcultures

# Culture and Health

- Culture:
  - *The predominating attitudes and behaviour that characterise the functioning of a group or organisation*
- Beliefs about health
  - e.g. epilepsy – a disorder of neuronal depolarisation vs a form of possession/bad omen sent by the ancestors
  - Psychoses – ancestral problems requiring the assistance of traditional healer/spiritualist
- Influence of culture of health
  - Marginalisation and vulnerability due to race, gender and ethnicity

# Cultur and Health

Traditional practices such as

- Female Genital Mutilation in Somalia, Sudan and rural Egypt leads to *Physical, Sexual and psychological health problems*
- Male Circumsision among Muslims and Jews is associated with *HIV prevention*
- *Home delivery under the supervision traditional healers in Africa "unskilled" leads to complications and maternal mortality*

# Ethnicity

- Classification of people based on national origin or culture
- Examples: African American, Asian American, European American, Hispanic American, Middle Eastern/Arabic American, Native American

# Race

- Classification of people based on physical or biological characteristics
- Involves multiple cultures and ethnic groups

# Cultural Diversity

- Differences based on cultural, ethnic, and racial factors
- Must be considered when providing health care
- Healthcare providers must recognize and appreciate the characteristics of all patients

# Areas of Cultural Diversity

- Family organization
- Language
- Personal space
- Touching
- Eye contact
- Gestures
- Health care beliefs
- Spirituality
- Religion

# Cultural Diversity Impacts Beliefs about such things as:

- Birth
- Death
- Health
- Illness
- Health Care

# The effect of Education on Health

# The Effects of Education on Health

*"An additional four years of education lowers five-year mortality by 1.8 percentage points; it also reduces the risk of heart disease by 2.16 percentage points, and the risk of diabetes by 1.3 percentage points."*

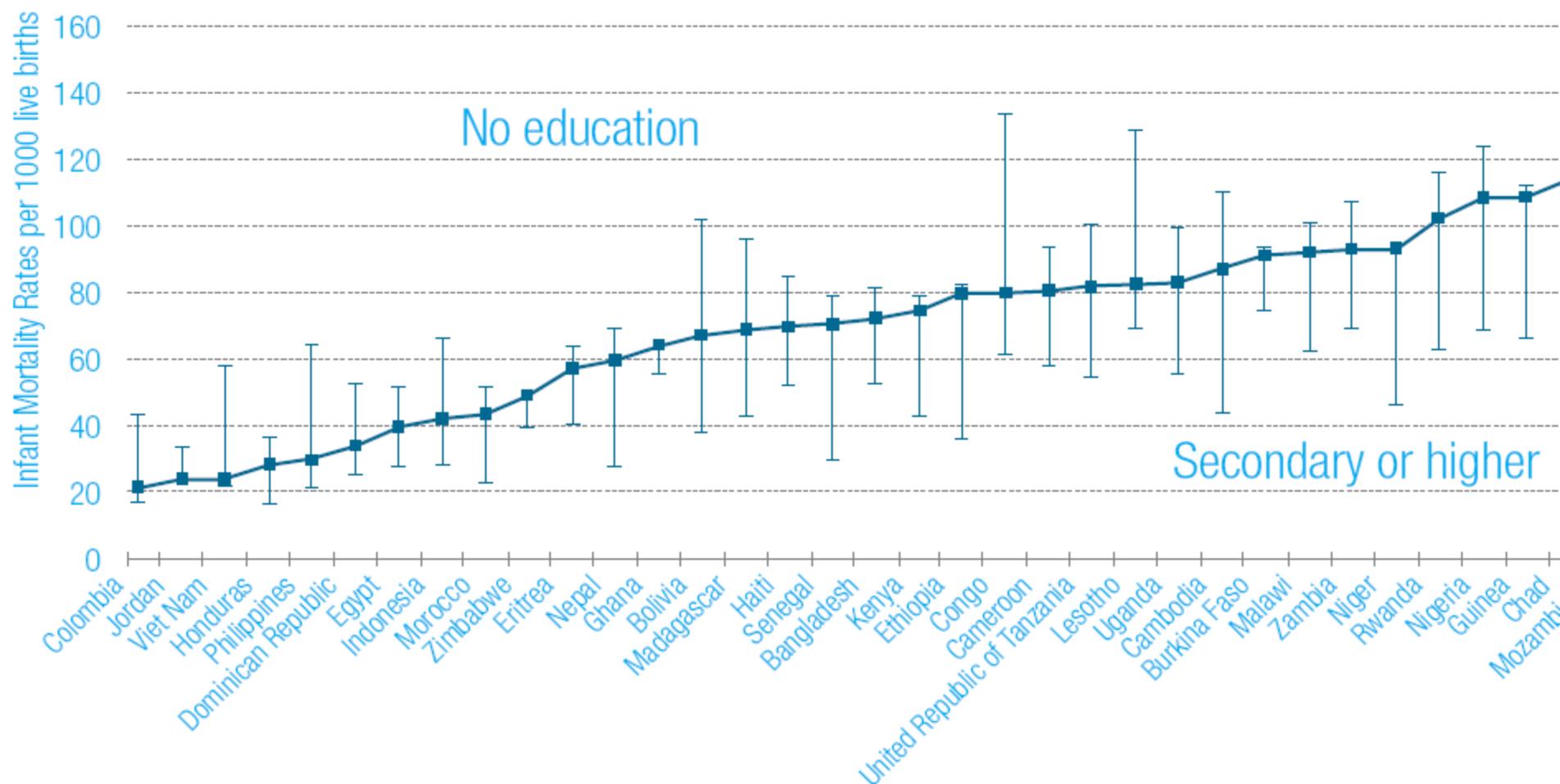
# The Effects of Education on Health

- The positive correlation between mother's schooling and child health in numerous studies was one factor behind the World Bank's campaign in the 1990s to encourage increases in maternal education in developing countries (World Bank 1993).
- Deaton (2002) argues that policies to increase education and income in developing countries are very likely to have larger payoffs in terms of health than those that focus on health care, even if inequalities in health rise.
- The same proposition can be found in other studies since more education typically leads to higher income, policies to increase the former appear to have large returns on health.

# The Effects of Education on Health

- Education is widely held to be a key determinant of fertility and infant health.
- Education raises a woman's permanent income through earnings, tilting her optimal fertility choices toward fewer offspring of higher quality (Becker 1960, Mincer 1963, Becker and Lewis 1973, Willis 1973).
- Under positive assortative mating, a woman's education is causally connected to her mate's education (Behrman and Rosenzweig 2002), so that the effect of education on household permanent income is augmented through a multiplier effect.
- Third, education may improve an individual's knowledge of, and ability to process information regarding, fertility options and healthy pregnancy behaviors (Grossman 1972).
- On the empirical side, There is extensive literature documents associations between education and fertility and infant health (Strauss and Thomas 1995)

**Figure 2.1:** Inequity in infant mortality rates between countries and within countries by mother's education.



Data from the Demographic and Health Surveys (DHS, nd) derived from STATcompiler. The continuous dark line represents average infant mortality rates for countries; the end-points of the bars indicate the infant mortality rates for mothers with no education and for mothers with secondary or higher education.

# Social Support and Health

# Social support

“perception that one is cared for and loved or has a confident or intimate friend”. Bloom  
“may be seen as the emotional, instrumental and financial aid that is obtained from one’s social network.” Berkman

Social Networks refers to people’s social ties between each other, and the structure of those social ties.

# Types of social support

**Emotional Support:** The provision of care, love, trust, empathy, respect and admiration.

**Instrumental Support:** Providing tangible support and services, such as money, food, goods, completing work assigned to someone else or use of one's car or home.

**Informational Support:** Providing information or advise to another in a time of need, especially problems solving situations. E.g., Health Professionals , etc. However informational support can also be provided by friends and family.

**Appraisal Support:** Often included as part of informational support. It Involves the communication of key information that is relevant in self-evaluation situations.

# Social support

- During the last 30 years, researchers have shown great interest in the phenomena of social support, particularly in the context of health. Prior work has found that those with high quality or quantity of social networks have a decreased risk of mortality in comparison to those who have low quantity or quality of social relationships, even after statistically controlling for baseline health status

# More About Poverty

# How are all countries, rich and poor, define poverty?

## Absolute poverty lines (option 1)

- Including the [recently updated World Bank global poverty line of US\\$1.90/day](#),.
- Are widely used by developing countries, since large portions of their populations count on a limited number of goods to meet their basic needs.
- Middle and high income countries may also chose to adopt absolute poverty lines – as is the case of the United States. These, however, need to be '*socially relevant*', where it is commonly understood that their calculation (on the basis of a bundle of food and non-food goods) represents the absolute minimum below which livelihood and inclusion are not possible in that particular country and social context.

# Relative poverty lines (option 2)

- As income level rises, countries may opt to use **relative poverty lines** (option 2). Relative poverty lines are defined in relation to the overall distribution of income in a country – they are set as a share (usually between 40 and 60 percent) of the country's mean income. As such, they are more suitable to measure poverty in middle and high income countries.
- In prosperous societies, poverty is generally assessed vis-à-vis the standard of living of society as a whole, whereby people are considered poor relative to the wealth of others and if they cannot meaningfully participate in that society because of lack of resources. Relative poverty lines implicitly assume that the cost of social inclusion increases proportionally with the income of society. A number of countries, particularly in Europe, have adopted relative poverty lines.

# Subjective poverty line

- A third option available to countries is the **subjective poverty line**, which is set on the basis of what people perceive as the minimum income (or consumption) that a person, or household, needs in a specific society to not be considered poor. Subjective poverty lines come from perception surveys and are not widely used.

# Why did the World Bank decide to update the International Poverty Line, and why now?

- As differences in the cost of living across the world evolve, the global poverty line has to be periodically updated to reflect these changes.
- Since 2008, the last update, was \$1.25 as the global line.
- **As of October 2015, the new global line will be updated to \$1.90.**

# What does this mean for previous estimates?

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We have back-casted the estimates for previous years, in order to assess the trends in poverty reduction over the last 25 years. These trends continue to show that the world has made impressive progress in reducing poverty since 1990, but that poverty persists at unacceptable levels, and much more needs to be done to ensure that people continue to move out of poverty in the years to come.

# **What does this mean for previous estimates?**

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**What is the new poverty line, and based on this new measure, how many people are living in extreme poverty in the world?**

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The new global poverty line is set at \$1.90 using 2011 prices. Just over 900 million people globally lived under this line in 2012 (based on the latest available data), and it is estimated that in 2015, just over 700 million are living in extreme poverty.

# Why raise the poverty line? What was wrong with the \$1.25 a day line that we are all used to?

- As differences in the cost of living across the world evolve, the global poverty line has to be periodically updated to reflect these changes.
- The new global poverty line uses updated price data to paint a more accurate picture of the costs of basic food, clothing, and shelter needs around the world. In other words, the real value of \$1.90 in today's prices is the same as \$1.25 was in 2005.

# Should I use this new poverty line to plan programs and policies in my country?

- It is important to note, however, that the global poverty line is used primarily to track global extreme poverty, and to measure progress on global goals set by the World Bank, the United Nations, and other development partners. A country's national poverty line is far more appropriate for underpinning policy dialogue or targeting programs to reach the poorest.

# **Should I use this new global poverty line to plan programs and policies in my country?**

- While the global extreme poverty rate may not be dramatically different after the adoption of the new PPP and poverty line, some regional and country rates may fluctuate considerably.
- It is important to note, however, that the global poverty line is used primarily to track global extreme poverty, and to measure progress on global goals set by the World Bank, the United Nations, and other development partners. A country's national poverty line is far more appropriate for underpinning policy dialogue or targeting programs to reach the poorest. For example, in a middle-income country, where the national poverty line is at \$4 a day, the global poverty threshold may be less relevant than in a poorer country where the national line is at \$1.65 or similar.

# Doesn't this put too much emphasis on money? What about the other dimensions of poverty?

- There are many non-monetary indicators—on education, health, sanitation, water, electricity, etc—that are extremely important for understanding the many dimensions of poverty that people experience. These are an important complement to monetary measures of poverty and are crucial to effectively improving the lives of the poorest.
- The global poverty line does not currently take these multiple dimensions of poverty into account.
- There is a recently-established [Commission on Global Poverty](#) who is currently assessing how to measure and understand poverty.

# To end extreme poverty by 2030

Countries need to make deliberate policy decisions that make growth more inclusive; that prioritize investments in education, health, clean water, sanitation, and smart infrastructure that benefit the poorest; and that help people protect their hard-won gains and assets to avoid falling right back into poverty after a drought, disease, or economic shock.

# We can end extreme poverty by 2030 by:

- Investing in agriculture
- Creating jobs
- Expanding social safety nets
- Expanding nutrition programs that target children under 2 years of age
- Universalizing education
- Promoting gender equality
- Protecting vulnerable countries during crises