

## HEALTH AND HUMAN DEVELOPMENT – UNIT 4

### OUTCOME 1: HEALTH AND WELLBEING IN A GLOBAL CONTEXT

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KEY KNOWLEDGE	KEY SKILLS
Characteristics of high-, middle- and low- income countries	<ul style="list-style-type: none"><li>Describe characteristics of high-, middle-, and low income countries</li></ul>

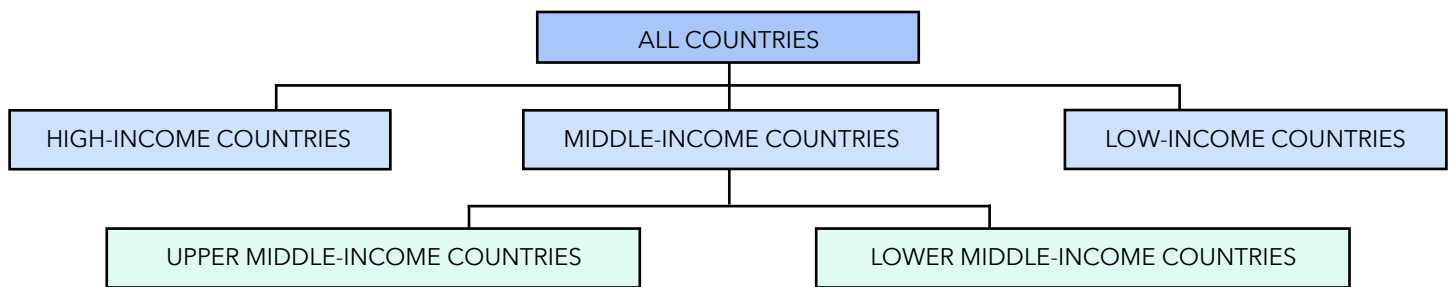
**GROSS NATIONAL INCOME (GNI):** per capita – the total value of goods and services a country's citizens produce, including the value of income earned by citizens who may be working in an overseas country

**GROSS DOMESTIC PRODUCT (GDP):** a measure that reflects the economic state of a country. GDP is the value of all goods and services produced in a country in a 12-month period

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### CLASSIFICATION OF COUNTRIES

- Countries are classified by the World Bank by using their Gross National Income (GNI) per capita, or average income, to classify countries into one of three main groups:



	GNI per capita range	Examples of countries in this grouping
<b>High income</b>	\$12 476 or more	Australia, Canada, Chile, Greece, Ireland, Japan, USA, United Kingdom
<b>Upper middle income</b>	\$4036 – \$12 475	China, Cuba, Fiji, Mexico, South Africa, Turkey, Russian Federation
<b>Lower middle income</b>	\$1026 – \$4035	Cambodia, India, Indonesia, Pakistan, Papua New Guinea
<b>Low income</b>	\$1025 or less	Mali, Nepal, Zimbabwe, Uganda, Rwanda, Somalia

- Classifications = necessary – allows countries that experience similar characteristics to be grouped together for the purpose of guiding policies and interventions that may improve the level of health and wellbeing experienced
- Successful strategies used in one country may be built upon and applied to other, similar countries to promote trade, increase incomes and improve health and wellbeing

## ECONOMIC CHARACTERISTICS (– People Are Really Overrated)

- **Poverty levels**

- ↳ Lack of access to resources, often as the result of a lack of access to money
- ↳ Can be expressed as proportion of those living with incomes of <US\$1.90/day (*extreme poverty*)
- **High**: low levels of poverty
- **Low**: large proportion of population living in poverty

- **Average incomes**

- **High**: higher average incomes
- **Middle/Low**: lower average incomes

- **Range of industries**

- ↳ Range increases probability that some industries will experience positive production trends at a time
- **High**: wide range of industries including mining, processing, manufacturing, education, healthcare, scientific research and technology
- **Low**: limited range of industries, usually centred around farming and primary production
- ↳ Limited range reduces ability of low-income countries to trade on global market – unable to generate goods that other countries require
- ↳ Rely on one industry = event (*e.g. war, drought*) may have a significant impact on industry and no other industries can take their place on global market – affects trade, affects economy

- **Opportunities for global trade**

- ↳ Affected by range of industries, infrastructure (*roads, ports, transport*), knowledge and experience
- **High**: access to resources to transport goods from the place of production to an overseas destination and benefit most from trading opportunities as a result
- **Middle**: most in the process of building infrastructure and developing trading links around world
- **Low**: often lack the infrastructure, knowledge and production capabilities to produce a range of goods and services to trade on a global scale

## SOCIAL CHARACTERISTICS (– *God Blesses Every Soul, He Attacks Little Houses*)

- **Gender equality**

- **High:** all have opportunities and choices in education, employment, community participation, family planning and recreation
- **Middle:** more females in paid employment – help reduce poverty, increased productivity & economy
- **Low:** females lack same opportunities as males (*limited education, work in fields tending crops and/or spend significant time collecting water and preparing meals*)

- **Birth and population rates**

↳ *Factors contributing to difference:* access to contraception, choice in family planning, career choices, education, gender equality, culture

- **High:** low birth rates, slow rates of population growth
- **Middle/Low:** high birth rates, fast rates of population growth – limit ability of parents to care for all their children, limit ability of governments to provide services for citizens (*e.g. education, healthcare*)

- **Education and employment levels**

- **High:** people often have choices about the level of education and type of career they pursue, government contributes significant funds to provide education opportunities
- **Middle:** governments contribute funds to provide education opportunities
- **Low:** do not have a developed education system, career options are limited, pay to attend school

- **Social security systems**

- **High:** high levels of economic development and stable political systems = increase ability of governments to provide social security payments for those in need (*unemployed, illness or disability*)
- **Middle/Low:** do not have means to provide assistance to their citizens – those unemployed or unable to work are driven further into poverty

- **Health systems**

- **High:** public health systems – access basic healthcare when needed regardless ability to pay
- **Middle/Low:** often lack access to suitable healthcare

- **Access to technology**

↳ Includes access to communication systems, the internet and media technologies – assists countries in developing their economies, building trade opportunities, furthering education and treating ill-health

- **High:** more accessible here due to combination of economic resources, infrastructure, education
- **Low:** often lack access – impacts ability of citizens to gain an education and earn an income

- **Legal systems**

↳ Ensuring human rights are upheld, people have right to live safely

- **High:** strong and stable political and legal systems
- **Middle:** (some) unstable governments and political unrest
- **Low:** unstable governments and political unrest – increase risk of civil conflict

- **History of colonisation**

- **Middle/Low:** history of colonisation

↳ Throughout history, many western European nations (*Britain, France, Spain, Portugal, Germany, Belgium*) colonised many countries in Africa and Asia

↳ Countries that were colonised often had their natural resources exploited by the colonisers

↳ Colonisers would trade these resources in order to promote their own level of health and wellbeing

↳ Reduced ability of the countries to develop their own trade potential and generate decent incomes for themselves, often at the mercy of the colonising countries when it came to employment

## ENVIRONMENTAL CHARACTERISTICS

(– SFAAL)

- **Safe water and sanitation**
  - **High/middle:** safe water and sanitation
- **Food security**
  - **High:** access to quality food supply
  - **Low:** often lack food security, natural disasters tend to have a bigger impact on their food availability due to them lacking the financial resources to purchase food in emergency situations
- **Adequate housing**
  - **High:** access adequate housing
  - **Middle/Low:** urban slums = common feature – lack access to adequate housing; substandard – poor ventilation, lack of heating/cooling, poor resistance to infestation of disease-carrying organisms (e.g. insects), lack of cooking facilities and running water, poor protection from elements
- **Adequate infrastructure**
  - **High:** adequate roads, piped water, sewerage systems, electricity grids, telecommunication systems
  - **Middle/Low:** often lack access to such facilities, especially in rural and remote areas and urban slums
- **Levels of carbon dioxide emissions**
  - ↳ Linked to climate change and the associated effects on sea levels and changing weather patterns
  - **High:** range of industries = emit greater amounts of carbon dioxide per person into the atmosphere
  - **Middle/Low:** often most affected by climate change – lack the economic resources to effectively deal with the associated impacts

KEY KNOWLEDGE	KEY SKILLS
Similarities and differences in health status and burden of disease in low-, middle- and high income countries, including Australia	<ul style="list-style-type: none"> <li>Evaluate data to analyse similarities and differences between countries in relation to health status and burden of disease</li> </ul>

**COMMUNICABLE DISEASES:** infectious diseases which are transmitted from the environment; including through air, water, food and other infected organisms (including humans)

- malaria, diarrhoea, influenza, HIV, measles, tuberculosis, cholera, poliomyelitis

**MALARIA:** a communicable disease that is transmitted via infected mosquitoes

**HUMAN IMMUNODEFICIENCY VIRUS (HIV):** an infection that results in the gradual depletion and weakening of the immune system, resulting in increased susceptibility to other infections such as pneumonia and tuberculosis

**ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS):** the most advanced stages of HIV infection

**NON-COMMUNICABLE DISEASES:** conditions that are usually long lasting, and generally progress slowly – not spread through the environment; include cardiovascular disease, cancer, respiratory diseases, diabetes

- **Health inequities:** differences in health status or in the distribution of health resources between different population groups, arising from the social conditions in which people are born, grow, live, work and age
  - Unfair and could be reduced by the right mix of government policies

## LIFE EXPECTANCY

- Globally – more than doubled since 1900 with most significant gains being achieved since 2000
- Occasional fluctuations (*e.g. war, conflict, spread of infectious diseases = significant impact on life expectancy in a relatively short time*)
- **Middle/Low:** more susceptible to such issues – generally experience more severe fluctuations in life expectancy compared to high income
  - ↳ *e.g. many African countries experienced a decrease in life expectancy in 1990s due to AIDS epidemic*

## MORTALITY AND MORBIDITY

- These rates give valuable information about the causes of death and illness, and about the resources that might be employed to close the gap between high-, middle- and low-income countries
- **Child Mortality and Morbidity**
  - Under-five mortality rate (U5MR) – important indicator health and wellbeing experienced in a country
  - Survival of a child is reliant on numerous factors – U5MR is a reflection of the:
    - Nutritional health status of mothers
    - Health literacy of mothers
    - Level of immunisation available
    - Availability of maternal and child health services
    - Income and food availability in the family
    - Availability of clean water and safe sanitation
    - Overall safety of the child's environment

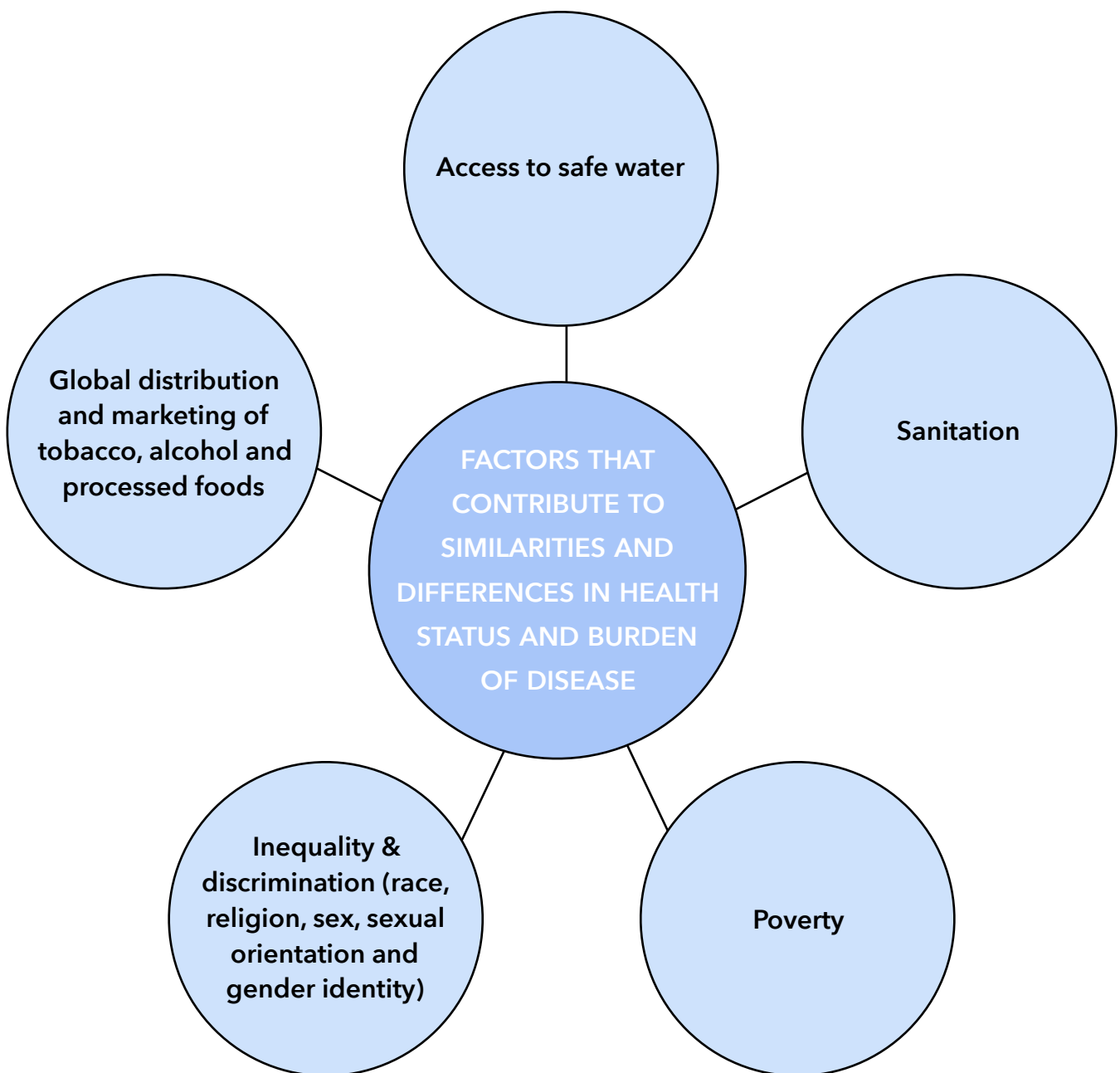
- **Middle/Low:** U5MR varies – but significantly higher than high-income countries
  - *Malnutrition:* underlying factor contributing to high rates
  - Undernourished children = underdeveloped immune system, struggle to fight diseases – as a result, communicable diseases (*which cause few deaths in Australia*) have a huge impact in these countries
- **High:** children more likely to die due to congenital malformations, premature birth, and accidental causes (*e.g. injuries, poisoning*)
- **Adult Mortality and Morbidity**
  - Premature adult mortality increases as average incomes decrease
  - Low child mortality but high levels of adult mortality
  - Often due to impact of lifestyle factors (*e.g. tobacco smoking, excessive alcohol consumption, unsafe sex causing HIV/AIDS*)
  - Adult mortality and morbidity requires attention in many low- and middle-income countries
  - **Middle/Low:** non-communicable (as well as communicable) diseases such as cancer, heart disease and type 2 diabetes are higher in countries with lower incomes
  - **'Double burden'** – suffer from communicable and non-communicable diseases
    - Puts added strain on relatively basic healthcare available – contributes to poorer health status
    - Adults in family become ill – children care for adults and themselves = cycle of poverty & ill health
  - Other causes include those associated with pregnancy and childbirth
    - **Middle/Low:** higher maternal mortality rates
    - Associated with birthing procedure, lack of sufficient and available healthcare

- **Why may some countries experience a low U5MR but high adult mortality and morbidity**
  - Poor roads and infrastructure
  - Poor work areas
  - Non-communicable diseases (lifestyle related)

## BURDEN OF DISEASE

- **Middle/Low:** rates of communicable diseases, non-communicable diseases and injuries are higher – contributes to higher rates of morbidity and mortality – experience a greater burden of disease and higher rates of DALY
- **High:** (Australia) well-developed health system – many conditions that cause premature death are often effectively treated – may extend life expectancy and reduce YLL
  - Treating conditions increases rate of YLD – people live with a range of diseases for long periods
- **Middle/Low:** treatment options are often limited – increase risk of premature death and higher YLL rates
- Rate of YLD generally increases with life expectancy
  - People live longer – more likely to experience chronic non-communicable conditions (*cardiovascular disease, cancer, musculoskeletal conditions, respiratory diseases, neurological conditions*)

KEY KNOWLEDGE	KEY SKILLS
<p>Factors that contribute to similarities and differences in health status and burden of disease, including:</p> <ul style="list-style-type: none"> <li>- Access to safe water</li> <li>- Sanitation</li> <li>- Poverty</li> <li>- Inequality and discrimination (<i>race, religion, sex, sexual orientation and gender identity</i>)</li> <li>- Global distribution and marketing of tobacco, alcohol and processed foods</li> </ul>	<ul style="list-style-type: none"> <li>• Analyse factors that contribute to health status and burden of disease in different countries and discuss their impact on health and wellbeing</li> <li>• Compare health data and other information to analyse reasons for health inequalities within and between nations</li> </ul>



## ACCESS TO SAFE WATER

- **SAFE WATER:** refers to water that is not contaminated with disease-causing pathogens such as bacteria and viruses, or chemicals such as lead and mercury
- Safe water is required for consumption, food preparation and cooking, washing and hygiene, agriculture and production
  - Average person requires minimum of 50L of safe water per day to survive
  - A reliable and clean source of water is essential for every human
  
  - **High:** (Australia) well-established and reliable water supply
    - Interruptions to supply sometimes occur in some remote Indigenous communities, and as a result of natural disasters
    - However, emergency provisions can generally be supplied when clean tap water is unavailable
  - **Middle/Low:** lack of access to safe water accounts for majority of the DALY experienced
    - Greater risk of the effects of unsafe water due to lack of infrastructure to supply clean drinking water (*especially in rural and remote areas*)
    - These governments often lack strict controls on water quality and monitoring, or the money to provide clean water to those who need it
  
  - **Diseases that transmit easily from the water source to the individual:** gastroenteritis, diarrhoea, dysentery, cholera
  
  - Children are particularly susceptible to impacts of unsafe water
    - Experience repeated infection – account for high proportion of total deaths from water-related causes: (**mostly middle/low**)
    - **Diarrhoea:** 1.1 million preventable deaths per year; body dehydrates because of diarrhoea – unsafe water is consumed to relieve thirst = deadly cycle
    - **Malnutrition:** 450 000 preventable deaths per year – reduced immune system = individual more susceptible to secondary infection
  
  - Lack of access to safe water contributes to hundreds of millions of missed school days each year
    - Reducing levels of education – unable to earn decent income in future = cycle of poverty
  
  - Women, in communities where water is not available, often trek long distances to collect water and carry it back
    - May make trips many times in one day – reduce ability to look after children, pursue education or paid employment, contributes to physical ailments (*musculoskeletal conditions*)
    - According to WHO: women and children spend 125 million hours every day collecting water
    - Affects economy and reduces the capacity of governments to provide resources such as healthcare – in turn, increases rate of morbidity, mortality and number of DALY experienced
  
  - Uncontrolled watercourses (*swamps, dams*) – breeding ground for disease-causing parasites such as bacteria and **malaria**-carrying mosquitoes

**HEALTH STATUS:** unsafe water, children susceptible = increased U5MR

**B.O.D:** water-borne diseases = YLD, fatal = YLL



## ACCESS TO SANITATION

→ **SANITATION**: generally refers to the provision of facilities and services for the safe disposal of human urine and faeces, but can also refer to the maintenance of hygienic conditions through services such as garbage collection and wastewater disposal

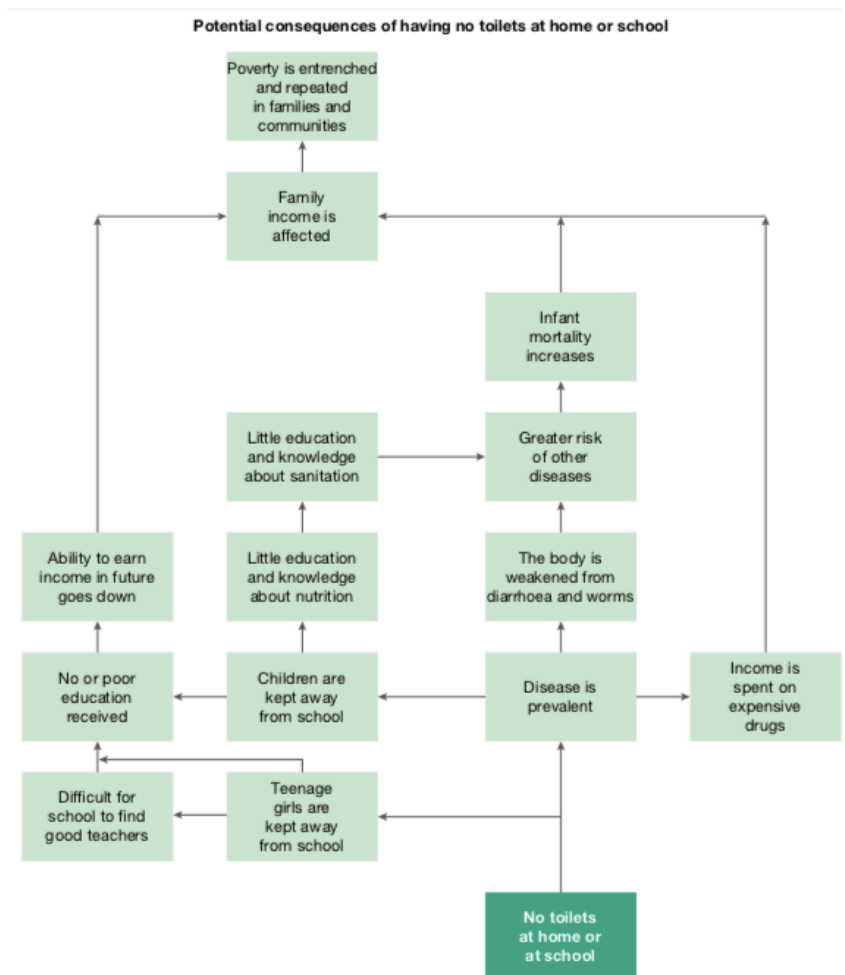
→ Adequate sanitation requires a flushing toilet or covered latrine and the hygienic removal or containment of the waste products

- Globally 2.5 billion, or 1 in 3, people lack access to basic sanitation
  - Almost 1 billion of these people openly defecate (*street gutters, behind bushes, open bodies of water*)
  - Waste often seeps into water sources and contaminates the water that people will eventually consume

- **Middle/Low**: inadequate sanitation is one the main causes of contaminated water supplies
  - Leads to increased rate of DALY from infectious diseases (*diarrhoea, typhoid, cholera*)
- Globally, 1 in 3 people are infected with intestinal worms (*hookworm, roundworm, whipworm*)
  - Occur as a result of soil contaminated with faeces
  - Adequate sanitation could entirely prevent this cause of death

- **Middle/Low**: schools lack toilets and/or not segregated = girls don't attend (menstruation)
  - Without private toilets, many cultures expect girls to wait until it is dark to relieve themselves – exposed to dangers (harassment, assault, animal attacks, discomfort, loss of dignity, illness)
  - Reduced ability to receive education or meaningful employment – driven further into poverty
  - Contributes to increases burden of disease

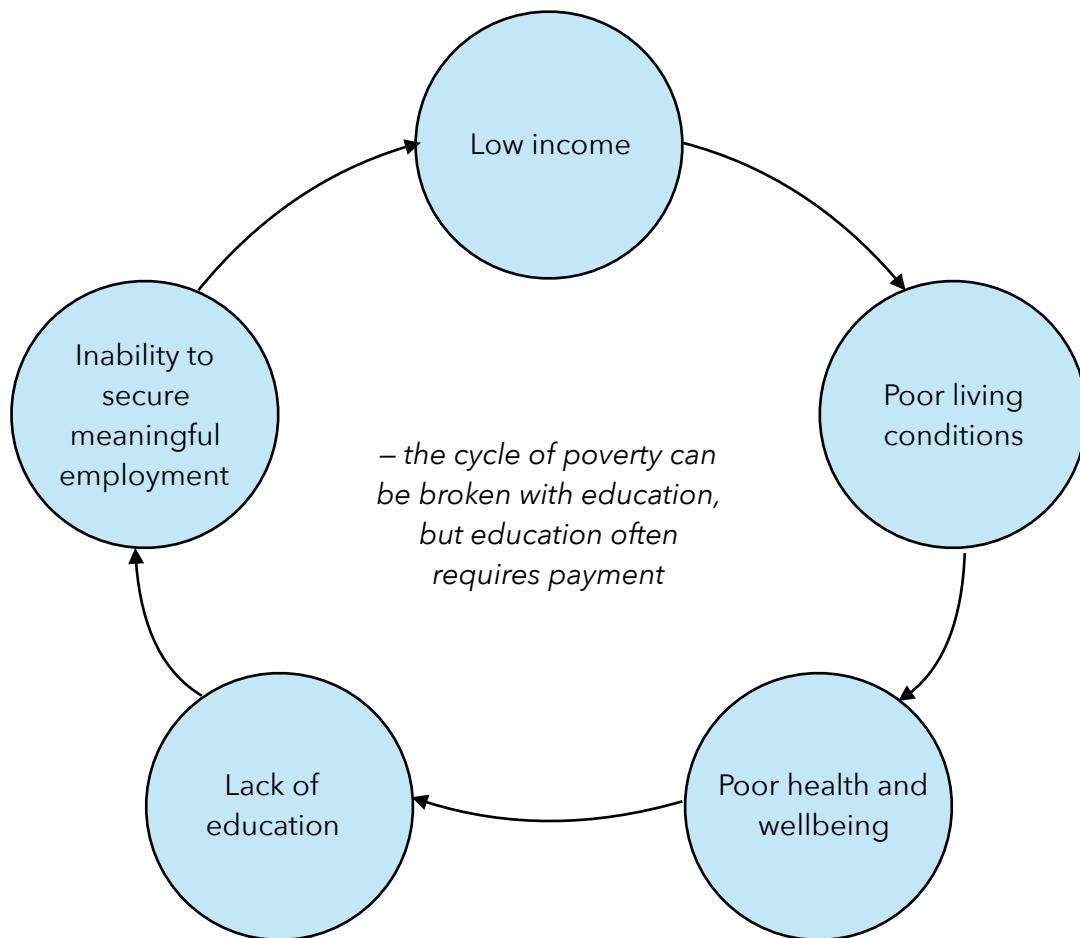
- Repeated infection caused by inadequate sanitation requires medical treatment
  - Treatment available = individual or family often responsible for costs in low-/middle-income countries
  - Costs drain family income further – difficult to break poverty cycle



**HEALTH STATUS**: females don't attend school, uneducated on maternal health risks = maternal mortality  
**B.O.D**: open defecation, seep into water supplies, water-borne disease = YLD, fatal = YLL

## POVERTY

- **POVERTY:** relates to the deprivation of resources, and often occurs as a result of a low income
- Presents as a lack of material resources such as food, shelter, clean water and healthcare; and deprivation of intangible resources such as social inclusion, opportunities for education and decision making
- Individual perspective: poverty is generally defined in terms of income and is measured in a number of different ways
  - ↳ Those living on less than a certain amount per day (often US\$1.90 a day) – referred to as absolute poverty or extreme poverty
  - ↳ Those living on less than 50% of their country's average income – referred to as relative poverty
- Poverty contributes to differences in burden of disease by reducing access to a range of resources
- **Government services, social protection measures and infrastructure**
  - (*GNI reflects the wealth of a country and indicates how much money the government is able to spend on services and infrastructure*)
  - Level of GNI affects government's ability to provide access to clean water, sanitation, health services, public education and social protection measures (*e.g. pension, welfare, disability payments*)
  - ↳ More money government generates through taxation and investment = greater opportunity it has to provide these resources its citizens
  - However, in some countries, it is common for a few people to control most of the wealth and majority of the country is left with low living standards
    - **Middle/Low:** divide in wealth
      - Contributes to high rates of communicable diseases, higher rates of child and adult mortality for poorer individuals
      - Also contribute to diseases associated with high-income for wealthy few = **double burden**
  - **High:** (Australia) higher average incomes = variation in distribution of wealth has a smaller impact than in low- and middle-income countries
- **Nutritious food**
  - Unable to afford nutritious food – often results in malnutrition
  - Malnutrition decreases immune function – increases risk of infection and premature death, especially among children
  - Pregnant women who cannot access nutrition foods – more likely to die as a result of their pregnancy – have babies more susceptible to premature mortality due to undeveloped body systems
- **Access to clean water and sanitation**
  - Poverty restricts ability of governments to provide resources such as clean water and sanitation
  - Further increases risk of infectious diseases, including diarrhoeal disease, which is a leading cause of death among children and low- and middle- income countries
- **Education**
  - Reduced access to education = lower literacy rates
  - Lower literacy rates = lower levels of health literacy – risk factor for ill-health and premature mortality from conditions associated with poverty, such as HIV/AIDS
  - **Middle/Low:** governments lack funds to provide education
    - Often only wealthy who can afford to pay for their children to be educated
    - Employment prospects are lower – cycle of poverty and poor health and wellbeing continues
  - **High:** (Australia) school-based education is compulsory from 6 to 15 years
    - Government funds education system through tax revenue
    - Allows people from all socioeconomic status groups to educate their children
    - Higher health status and lower burden of disease



- **Healthcare**

- **High:** (Australia) Medicare and PBS ensures access to a range of health professionals and services
- Few countries have a universal health insurance scheme, so only those who can afford to pay healthcare can receive treatment
- **Middle/Low:** children = more likely to die from conditions that are easily treatable in high-income
- Increased rates of maternal mortality
  - **Middle/Low:** 280 000 women die each year from preventable complications during pregnancy or childbirth
  - **High:** (Australia) most women can access maternal healthcare regardless of ability to pay

- **Housing**

- **Middle/Low:** poverty = inadequate housing
- Inadequate ventilation = high levels of indoor air pollution – this is responsible for 2.7% of global burden of disease
- Outdoor exposure = increased risk of exposure to mosquitoes, thus malaria
- Extreme temperatures = death from pre-existing condition as the body attempts to maintain body temperature
- Types of heatings (such as solid fuels) = increased risk of respiratory diseases

**HEALTH STATUS:** lack of healthcare, increased risk of serious illness = lower life expectancy

**B.O.D:** no nutritious food, malnutrition, decreased immune functioning, illness = YLD, repeated illness = YLL

## INEQUALITY AND DISCRIMINATION

- Equality and freedom from discrimination are basic human rights
- Human rights not upheld = poorer health status and higher level of burden of disease
- Minority groups still experience discrimination and inequalities in health status around the world, these people include:
  - Those from minority racial groups (*indigenous people, migrants*)
  - Those from minority religious groups
  - Females
  - Homosexuals and bisexuals
  - Those who identify as a gender different from the sex assigned to them at birth
- Groups who are discriminated against experience inequality in relation to a range of outcomes, including:
  - Having higher rates of depression and anxiety
  - Having higher rates of premature death, including under-five mortality
  - Being more likely to be the victim of intentional violence
- **Race**
  - **Racial discrimination:** (*according to the Australian Human Rights Commission*) is when a person is treated less favourably than another person in a similar situation because of their race, colour, descent, national or ethnic origin or immigrant status
  - Results in social exclusion – prevention millions of people from participating in the society in which they live (*regarding education, access to healthcare, community participation, employment, housing*)
  - In some cases, victims of racial discrimination become **displaced** from their homes as they are forced to flee and live in foreign countries as refugees or become displaced in their own country
  - ↳ Displacement has a flow-on effect as this new living environment may lack food and water, educational opportunities for children, employment opportunities for adults, and healthcare
- **Religion**
  - Many members of religious or belief communities face discrimination based on their religion or belief
  - **Middle/Low:** Some extreme cases – people arrested or killed due to religious beliefs
  - **High:** Muslim and Jewish Australians have been particularly targeted by acts of discrimination including being sworn at, spat on, told they do not 'belong' in Australia and denied jobs
- **Sex**
  - **Sex:** refers to the physiological characteristics, including the DNA and sex organs present in an individual at birth
  - Born either male or female, some born 'intersex'
  - **Women** often have less power and less control over resources than males
  - **High:** (Australia) women generally have the same opportunities for education, employment and community participation as men do – thus increases health status experienced by women
  - **Men:** often experience high levels of risk taking, higher rates of smoking, higher levels of violence
- On a global scale, sex inequalities impact women's health status more severely than they do men's
  - **Educated women are more likely to...:**
    - Have healthier children
    - Adopt health-promoting behaviours (*e.g. immunise child*) to reduce their risk of disease
    - Have fewer children – the children they do have will have greater opportunities and better access to education, food, healthcare
  - Females have less say in decision affecting their lives than males
    - Society norms make men the sole decision makers
    - In many countries, women are expected to abide by their father's or husband's decisions

- Male may have multiple partners – not use protection – increased risk of HIV/AIDS for woman
- Women may be last fed = malnutrition
- **Forced marriage:**
  - Occurs when one or both parties is married against his or her will
  - Violation of human rights, viewed as a form of slavery
  - Girls forced to marry = often withdraw from school, regularly become pregnant (bodies likely not ready) – experience conditions such as obstetric fistula, and other complications like excessive bleeding
  - **Low/Middle:** maternal mortality is a leading cause of death for females aged 15–19 years
  - Child brides face a higher risk of contracting HIV/AIDS – often marry older men with greater experience
  - Child brides are less likely to be educated
- **Female genital mutilation:**
  - (FGM) describes procedures that intentionally alter or cause injury to the female genital organs for non-medical reasons
  - Can cause severe pain, excessive bleeding (haemorrhage), infections, shock, psychological problems, death
  - No benefit to female
- **Sexual orientation**
  - **Sexual orientation:** describes the sex that an individual is sexually and romantically attracted to
  - Those who do not identify as heterosexual are often subjected to discrimination:
    - *Refused:* jobs, opportunities for education, healthcare
    - *Subjected to:* sexual assault, physical beatings, criminal proceedings, death penalty
- **Gender identity**
  - **Gender identity:** describes how individuals perceive themselves as male, female, or a blend of both, or neither
  - One's gender identity can be the same or different from their sex assigned at birth
  - Cisgender (birth gender), transgender (opposite sex), gender non-conforming (neither/combination)
  - Individuals are at higher risk of discrimination in most societies and experience:
    - Higher rates of mental disorders
    - Higher rates of physical and sexual assault
    - Increased rates of self-harm including suicide

- **Sexual orientation** refers to the sex an individual is sexually or romantically attracted to, whereas
- **Gender identity** refers to how individuals perceive themselves as male, female, neither, or both

**HEALTH STATUS:** assaulted for religion = incidence of injury

**B.O.D:** social exclusion, mental health = YLD, suicide = YLL

## GLOBAL DISTRIBUTION AND MARKETING

- Improved technology has decreased barriers allowing for increased communication, trade, transport, and other forms of contact
- Result has been increased **globalisation**
- Globalisation makes it easier for companies to distribute, market and sell their services and products all over the world
- Some services can enhance health status (*including pharmaceuticals and improved farming techniques*)
- Others can be detrimental to health status (*including tobacco, alcohol, processed foods*)
- **Tobacco**
  - Target low- and middle-income – make up lost revenue experienced in high-income
  - **High:** laws, taxes, regulations and public awareness campaigns – decreased smoking rates
    - Despite these improvements, smoking is still a major concern in Australia
  - **Middle/Low:** increases distribution and marketing to increase global sales
  - **Low:** (according to WHO) tobacco use is growing fastest in low-income countries – 80% of the world's one billion smokers now live in low- and middle-income countries
  - Increased rates of women smoking in low- and middle-income countries
    - Smoking = traditionally considered a male activity
    - Tobacco companies have invested heavily trying to tap into female market
  - Rates of children smoking has increased
  - Purchase single-cigarettes in low- and middle-income countries = increases tobacco affordability for those living in poverty
  - **Middle/Low:** rapid population growth and developing economic – brings new wealth and a desire to be more like western cultures. These factors, as well as lack of education, tobacco industry distribution and marketing, and lack of health promotion interventions = increase in smoking rates
    - Tobacco smoking can also affect health status and burden of disease indirectly – financial resources often scarce, money that is spent on tobacco may leave less money available to spend on food, clothing, education, basic healthcare
- **Alcohol**
  - Global alcohol consumption has increased in recent decades, with most or all increase occurring in low- and middle-income countries
  - Alcohol manufacturers are increasingly marketing their products in low- and middle-income countries – in past would have neglected this market but these countries provide an additional income source
  - **High:** education and public awareness campaigns relating to alcohol misuse – however still a significant concern
    - However, accessibility of healthcare in Australia may reduce the measurable impact of alcohol misuse compared with that in low- and middle-income countries
  - **Middle/Low:** the countries experiencing an increase in alcohol consumption – often those with no cultural relationship with alcohol consumption, lack the resources to educate the population about alcohol, or to control alcohol consumption and care for those suffering the negative effects associated with excessive (e.g. liver disease, cardiovascular disease, cancer)
  - Individual's limited income spent on alcohol – may be less available to spend on food, clothing, shelter and healthcare – directly impacts on standard of living and increases burden of disease
- **Processed foods**
  - Companies producing processed foods have been marketing their products for years in low- and middle-income countries
  - **Factors increasing access to processed:** increasing incomes, migration of many people from rural areas to major cities
  - Many have neglected their traditional diets (*which are often low in fat*)

- Instead consume westernised foods (*which are often high in fat, salt and /or sugar*) – contribute to more energy-dense diet
- Increased incidence of lifestyle disease (*obesity, hypertension, cardiovascular disease*)
- **High – Australia:** processed foods have been marketed for many years
  - Contribute to high rates of overweight, obesity and related conditions (*cardiovascular disease, type 2 diabetes*)
- **Middle/Low:** overweight, obesity and related conditions (*cardiovascular disease, type 2 diabetes*) are on the rise as causes of burden of disease here
  - WHO predicts incidence of stroke deaths will double in these countries over the next 20 years
- **Middle/Low:** ‘double burden’
  - High rates of malnutrition and other conditions associated poverty
  - High rates of conditions associated with wealth such as obesity and cardiovascular disease
  - Effects of obesity and malnutrition exist side by side in the same community
- Chronic diseases associated with processed foods impact health status
  - E.g. person with diabetes or cvd – may be unable to earn income = reduced standard of living, may further increase the risk of chronic illness and premature death
- **Middle/Low:** under-resourced health systems means treatment for conditions related to obesity may be unavailable – further contributing to high mortality rates

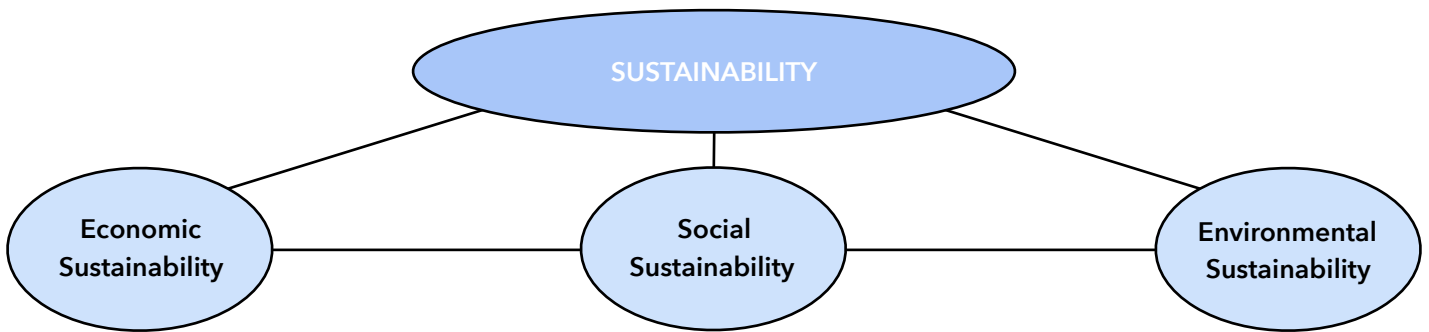
**HEALTH STATUS:** processed foods, obesity, cardiovascular disease = prevalence

**B.O.D:** tobacco, lung cancer = YLD, fatal = YLL

KEY KNOWLEDGE	KEY SKILLS
The concept and dimensions of sustainability (environmental, social, economic) and its role in the promotion of health and wellbeing	<ul style="list-style-type: none"> <li>Explain sustainability (environmental, social, economic) and its importance in the promotion of health and wellbeing in a global context</li> </ul>

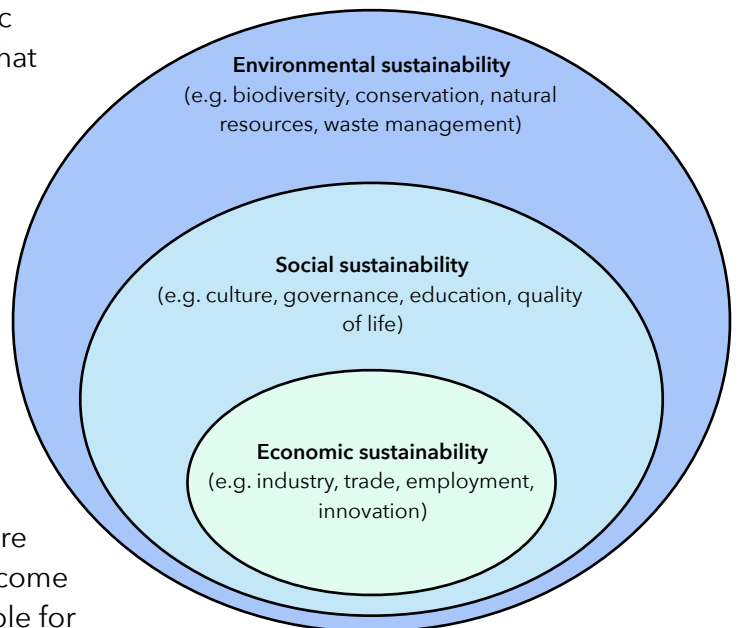
**SUSTAINABILITY:** meeting the needs of the present without compromising the ability of future generations to meet their own needs

- Three dimensions of sustainability: **economic, social, environmental**



### INTERRELATIONSHIPS BETWEEN THREE DIMENSIONS OF SUSTAINABILITY

- Interrelated; all have an impact on each other
- Some examples of resources or conditions required for sustainability can fit into more than one dimension. For example:
  - Poverty reduction** is closely related to economic sustainability, but also reflects the inequalities that exist between people, which is a part of social sustainability
  - Access to safe water** is an aspect of social sustainability, but relies heavily on environmental sustainability to ensure clean water is available
- Failure to consider one dimension will affect the others, for example:
  - A country may have a high-income due to oil reserves they are mining, however oil reserves deplete (*reduced environmental sustainability*) thus this source of income will shrink in the future (*reduced economic sustainability*) – reduced income could lead to fewer economic resources available for public education, which as an impact on *social sustainability*
- The environmental aspect of sustainability is considered the largest dimension because social and economic sustainability depend on it – without access to natural resources, humans cannot survive nor earn an income

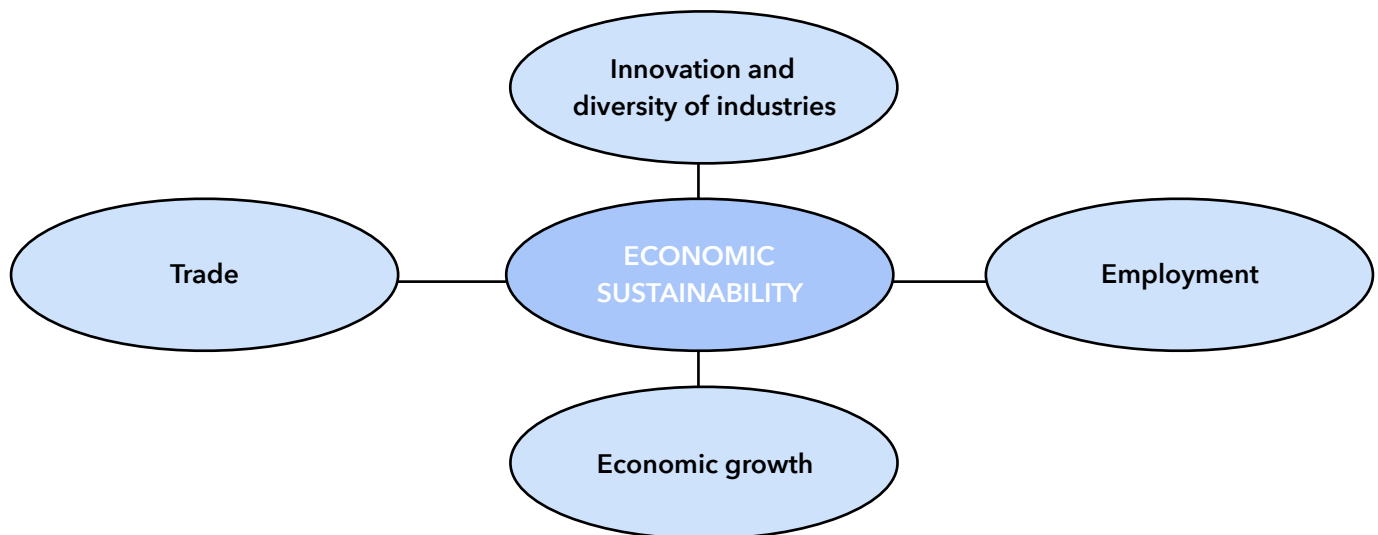




## ECONOMIC SUSTAINABILITY

**ECONOMIC SUSTAINABILITY:** ensuring that average incomes in all countries are adequate to sustain a decent standard of living and continue to rise in line with inflation and living costs in the future

- Adequate income = government receives more funds through taxation, can provide public services to promote health and wellbeing of its citizens
- Economic sustainability promotes health and wellbeing by:
  - **Ensuring all people can earn a decent income**
    - Able to purchase health-promoting resources (*food, shelter, education, basic healthcare*)
    - Given means to prevent and treat many common conditions
    - Individuals can provide for families
  - **Increasing the capacity of governments to provide services and infrastructure**
    - Clean water and sanitation – reduced risk of infectious diseases
    - Public education, transport systems – promotes ability to earn income, increases positive feeling
  - **Ensuring children can stay in school**
    - Children not forced into labor due to poverty; remain at school instead
    - Promotes social interaction, assists in providing sense of meaning and purpose in life



- **Innovation and diversity of industries**
    - Countries require a range of industries to promote economic growth and stability
    - Range ensures interruptions to specific industries (*e.g. drought for agriculture*) will not cause economic catastrophe within a country
    - **Middle/Low:** often rely on agriculture as sole industry – *heavily dependent on weather patterns and global markets which are unstable and can prevent the economy from growing*
    - **High:** many of their established industries are undergoing significant change due to technological advancements (including robotics, automation)
      - Must develop new and innovative industries to ensure employment for next generation
- **Mental h/w:** Through the development of industries involving technological advancements, these new and innovative industries will suit the modern world and not become outdated in the future, therefore ensuring employment opportunities for future generations so they may too earn an income, and may experience **lower levels of stress** in relation to getting a job in an industry of interest.
- **Spiritual h/w:** Through a diverse range of industries, interruptions to a specific industry is unlikely to cause economic catastrophe now nor in the future, therefore promoting **peace and harmony** in the economy.

- **Employment**

- People earn a wage, avoid poverty, contribute to country's economy
- World's population grows = economic sustainability will mean an increase in employment opportunities – all people of working age have the opportunity to work
- Ensuring industries continue to evolve is an important part of job creation

→ **Physical h/w:** Through adequate employment opportunities that continue to increase as the world's population grows, employment may be ensured for current and future generations, thus their incomes may increase their ability to afford health-promoting resources, such as medication to treat common conditions and allow for an **absence of disease**.

→ **Mental h/w:** Through adequate employment opportunities that continue to increase as the world's population grows, employment may be ensured for current and future generations, therefore this may reduce **levels of stress and anxiety** in relation to finding employment.

- **Economic growth**

- Sustained growth in GNI per capita to counter impact of inflation, and to ensure governments can continue to provide services, infrastructure and developments relating to industry
- Achieving economic growth must be done in a manner that does not decrease the ability of future generations to sustain economic growth
  - *e.g. depleting natural resources (like coal) may provide economic growth for current generation, but this resource will be unavailable for future generations to use for their own economic growth*

→ **Physical h/w:** Through economic growth, there may be sustained growth in GNI per capita to counter impact of inflation, and therefore this may allow individuals to afford a decent standard of living now and in the future, thus reducing **levels of stress and anxiety** relating to being able to afford increasing living costs.

→ **Mental h/w:** Through economic growth and sustained growth in GNI per capita, this is likely to increase taxation which may allow the government to then contribute more funds to provide services, infrastructure and developments relating to industries, which in turn may increase employment opportunities for future generations, therefore allowing them to experience lower **levels of stress and anxiety** relating to finding employment.

- **Trade**

- Unfair trade prevents poor countries adding value to their exports
- Fair trade is about achieving greater opportunities for international trade, decent working conditions and fair prices for producers in low- and middle-income countries
- Reduce poverty, achieve a more equal spread of wealth around the world

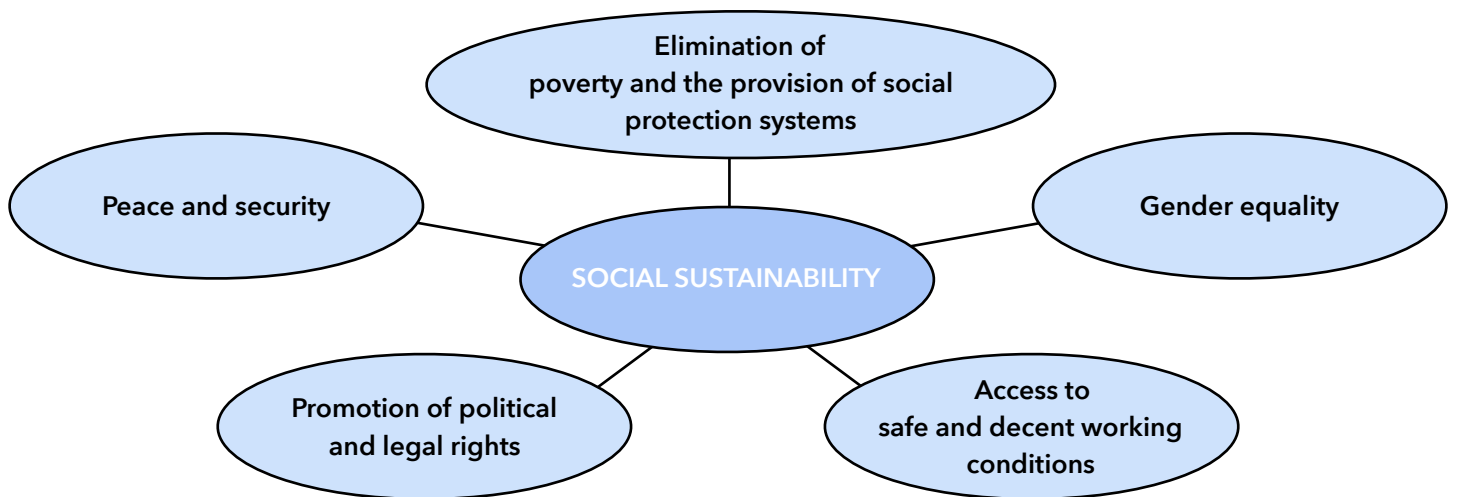
→ **Mental h/w:** Through fair trade, low-income countries may become able to afford to grow their industries through receiving fair prices on the products they trade, and this eventually may allow them to be able to process their own resources into valuable products for trade in the future, therefore this is likely create an **optimistic** future for the industry.

→ **Social h/w:** Through fair trade, low-income countries may become able to afford to grow their industries through receiving fair prices on the products they trade, and this eventually may allow them to be able to process their own resources into valuable products for trade in the future, therefore enhancing their trading opportunities and promoting **productive relationships** globally between countries of different levels of income.

## SOCIAL SUSTAINABILITY

**SOCIAL SUSTAINABILITY:** creating an equitable society that meets the needs of all citizens and can be maintained indefinitely. Social sustainability works to ensure all people have their human rights upheld, can participate in the society in which they live, participate in decisions that affect their lives, and experience equal access to resources (*food, shelter, education, healthcare, employment, clean water, sanitation, clothing, recreation, leisure*)

- To be socially sustainable, progress must lead to improvements in health and wellbeing of all people over time – especially those who currently experience inequality



- **Elimination of poverty and the provision of social protection systems**

- Unequal access to financial resources creates a divide between rich and poor
- Social protection systems provide support for vulnerable people who are unable to earn an income, and assist in providing access to essential resources (*e.g. housing, food, basic healthcare*)
- **Middle/Low:** absence of social protection systems drive vulnerable groups further into poverty
- Poverty is eliminated = all may access the resources required for a decent standard of living, such as education, food, clean water, adequate housing, and sanitation

→ **Social h/w:** As a result of social protection systems increasing the ability of individuals living in poverty to afford financial resources, such as food, housing and healthcare, this may act to reduce the health inequities and remove the divide between the rich and poor associated with accessing these resources for current and future generations, thus increasing the **social connectedness** of a country.

→ **Spiritual h/w:** Through the provision of social protection systems, this may assist individuals living in poverty to afford a decent standard of living, and overtime this may reduce poverty levels and increase the ability of current and future generations to earn their own income and gain a **sense of control and purpose in their life**.

- **Gender equality**

- Females lack same opportunities in relation to education, employment, leadership, decision making

→ **Emotional h/w:** Through gender equality, females may have an increased influence in making choices in decisions that affect them, and these decisions may then act to benefit other females in the future, therefore increasing the ability of females in current and future generations to express their emotions through contributing to decision-making affecting their lives.

→ **Physical h/w:** Through gender equality contributing to all females gaining access to education, this may contribute to healthier future generations as educated females are more likely to have healthier children, as they are likely to be aware of maternal health risks such as the dangers of smoking while pregnant, therefore this may promote an **absence of illness or disease**.

- **Access to safe and decent working conditions**

- All people access meaningful employment – including women, young people, those with disabilities
- Billions are unemployed, or work in conditions that violate basic human rights/destroy their dignity
- Many children work in commercial agriculture, fishing, manufacturing, mining and domestic services
- Some children work in illicit activities (*drug trade, prostitution*), or traumatic activities (*child soldiers*)
- Access to safe and decent working conditions would see an end to child labour and forced and unsafe conditions, and assist in reducing poverty

→ **Spiritual h/w:** Through access to safe and decent working conditions, children may be less likely to be forced into child labour, and this may allow them to remain in school to receive an education and increase their ability to receive employment in the future which may promote pride and satisfaction, therefore allowing them to gain meaning and purpose in life, and this is likely to decrease rates of child labour for future generations as well.

→ **Physical h/w:** Through access to safe and decent working conditions, workers in current and future generations may be less at risk of work-related injuries thus promoting an **absence of injury**.

- **Promotion of political and legal rights**

- Opportunities available in a society must be equitable for all people
- Women, indigenous populations, ethnic minorities – often under-represented in governments; do not have their rights upheld
  - Under-representation = policies are less likely to be developed to promote awareness and action towards issues that affect the health and wellbeing of these groups – creates difficulty in breaking cycle of poverty and achieving social sustainability
- Despite laws in many countries which protect citizens' human rights by making discriminatory acts illegal, many groups are not adequately protected under the law of the country they live in
  - Resulting in many groups, including women, experiencing high rates of crime and a reduced ability to participate in the community in which they live (*e.g. unable to vote, secure a loan, drive a car, own land*)
  - Can also contribute to forced displacement from their homes

→ **Mental h/w:** As a result of laws that make discriminatory acts illegal being better enforced, individuals of minority groups, such as ethnic minorities and indigenous people, in current and future generations may feel safe in their communities and not feel targeted, thus promoting **low levels of stress and anxiety**.

→ **Spiritual h/w:** Through the development of policies that prevent discrimination, minority groups, such as women, indigenous populations and ethnic minorities, may feel better connected to the communities in which they live, and this is likely to continue through for future generations, therefore promoting a **sense of belonging**.

- **Peace and security**

- A peaceful environment and society are essential for promoting optimal health and wellbeing
- Country in conflict = significantly lower level of health and wellbeing compared to times of peace
- During times of peace and security:
  - Financial resources not directed to a war effort – government is in a better position to provide essential resources for its citizens (*infrastructure, education, healthcare, social protection*)
  - People can better access food (reduced risk of malnutrition)
  - People can better access services such as healthcare, and water and sanitation facilities
  - Adults work, children attend school

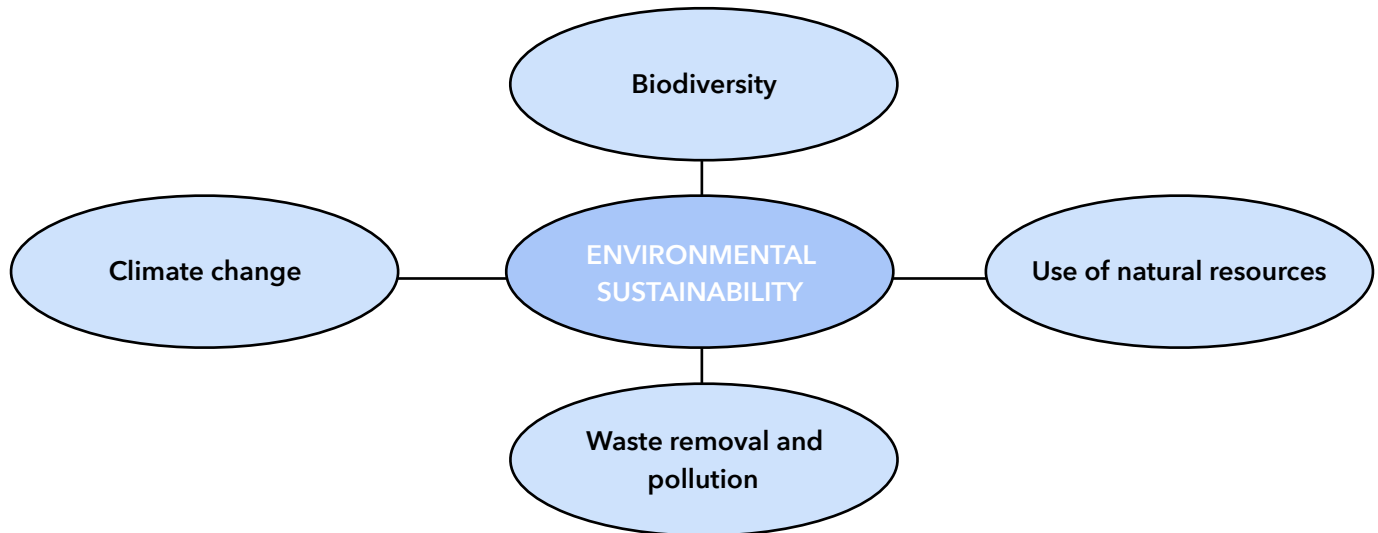
→ **Mental h/w:** Through peace and security, countries may not have to worry about the long-lasting effects of war, such as the presence of landmines and the lack of infrastructure, thus this can allow future generations to not have to focus on rebuilding, therefore reducing **levels of stress and anxiety** associated with the lasting impacts of war.

→ **Spiritual h/w:** People are more likely to receive protection under law during times of peace, and this can further reduce the risk of war involvement in the future, thus promoting **peace and harmony**.

## ENVIRONMENTAL SUSTAINABILITY

**ENVIRONMENTAL SUSTAINABILITY:** ensuring the natural environment is used in a way that will preserve resources into the future

- Natural resources should be used at a rate that allows them to replenish for future generations
- **Middle/Low:** challenge to use natural resources sustainably as many of these countries exploit their natural environment as a means of generating income and facilitating trade



- **Biodiversity**

- Relates to the variety of all forms of life: the different plants, animals and micro-organisms, the genes they contain and the ecosystems of which they form a part
  - Ecosystem provides many of the processes and resources required for human health and wellbeing:
    - Provide oxygen, remove carbon dioxide
    - Protection of water resources
    - Soil formation
    - Nourish plants and animals used for food
    - Wood products
    - Fibres used for clothing
    - Resources used for medicine
    - Opportunities for recreation and tourism
  - Each species within an ecosystem plays an important role in maintaining balance within their environment
    - One species removed = ecosystem can become unbalanced and may be unable to carry out its processes effectively (this can directly impact human health and wellbeing)
- **Physical h/w:** Through maintaining biodiversity, many processes required for human life may be sustained, such as the process of oxygen and removal of carbon dioxide, and this may assist in the **efficient functioning of the respiratory systems** for humans in current and future generations.
- **Mental h/w:** Biodiversity involves the protection of all species, and this includes ensuring bee numbers stabilise and stop declining. If bee numbers continue to decline in the future, growing some crops may become increasingly difficult, and this may lead to **high levels of stress and anxiety** for individuals who are heavily reliant on crops for income and food security, and this industry may become less available for future generations.

- **Use of natural resources**

- Manner in which natural resources are used must be considered to ensure sustainable biodiversity
- **Renewable resources:** those that are replenished naturally and over a relatively short period of time, including crops, water, oxygen, forests and fish stock
  - With careful planning, these can be used for human use with little impact on the ecosystem

- e.g. *fishing is a source of food and income: if managed sustainably, fish can breed and replenish at the rate they are being caught – but many attempt to break the cycle of poverty by catching more fish to make a profit, resulting in overfishing*
  - Sustainable use of renewable resources = future generations can earn an income by utilising natural resources, preserve natural environments that many people value for cultural reasons
  - **Non-renewable resources:** those that are not replenished in a short period of time
    - Examples: fossil fuels (*coal, natural gas, petroleum, nuclear substances*)
    - e.g. *electricity generated using fossil fuels is not sustainable as fossil fuels will eventually run out – energy production should use renewable sources such as the sun, tides, waves, wind and rain*
- **Physical h/w:** Through hospitals relying on energy production from renewable resources, such as the sun through solar power, this may ensure hospitals can function effectively to treat patients now and in the future as the source of energy is renewable, therefore promoting an **absence of illness and disease**.
- **Mental h/w:** An example of a natural renewable resource is fish, and while this resource acts as food, it also acts as a source of income. Through sustainable fishery, this industry may be sustained for present and future generations to earn an income through it, hence employment in this industry may be maintained, and **reducing levels of stress and anxiety** related to the preservation of this industry.
- **Waste removal and pollution**
    - Maintaining clean ecosystems is important in maintaining environmental sustainability
    - Humans must minimise their waste where possible + appropriately treat their waste produced to reduce the impact on the environment
- **Physical h/w:** Through humans minimising their waste, this is likely to reduce pollution and contribute to a greater access of clean water for present and future generations, and this may prevent infectious diseases caused by unsafe water, such as diarrhoea and cholera, thus promoting an **absence of disease**.
- **Spiritual h/w:** Through humans minimising their waste, this is likely to reduce pollution which may assist in forming a fresher and cleaner environment, and this may allow the natural environment to act as a source of relaxation for present and future generations, therefore enhancing **peace and harmony**.
- **Climate change**
    - Global average surface temperature has increased over the past 50 years, and will continue to increase over the next century
    - Rate at which sea levels have risen has increased in recent decades, and is expected to continue over the coming century
    - These climate changes will in turn affect weather patterns (rainfall, drought, wind patterns, heat waves)
- **Physical h/w:** Through the current generation focusing on minimising climate change, this can reduce the risk of unstable weather and rainfall patterns resulting in severe natural disasters for the future generation, thus a reduction in climate change may promote an **absence of injury** caused by these events for future generations.
- **Mental h/w:** Through climate change being minimised, this may ensure people in low-lying areas will not be displaced in the future as a result of sea levels rising, therefore this can reduce **levels of stress and anxiety** for these people.

KEY KNOWLEDGE	KEY SKILLS
The concept of human development, including advantages and limitations of the Human Development Index	<ul style="list-style-type: none"> <li>• Explain the Human Development Index and evaluate its usefulness in measuring human development of countries</li> </ul>

## HUMAN DEVELOPMENT

**HUMAN DEVELOPMENT:** is about creating an environment in which people can develop to their full potential and lead productive, creative lives according to their needs and interests. It is about expanding people's choices and enhancing capabilities, having access to knowledge, health and a decent standard of living, and participating in the life of their community and decisions affecting their lives

- (adapted from the UN Development Programme, 1990)

- GNI of a country, or average income, has historically been used to gauge how well people are living and the level of human development being experienced in a country
- However although economic wealth is associated with better outcomes for people, wealth is rarely distributed equally – looking at this measure in isolation will not necessarily give an accurate indication of how well the entire population is living
  - Economic indicators can hide the vast inequalities that exist within and between countries

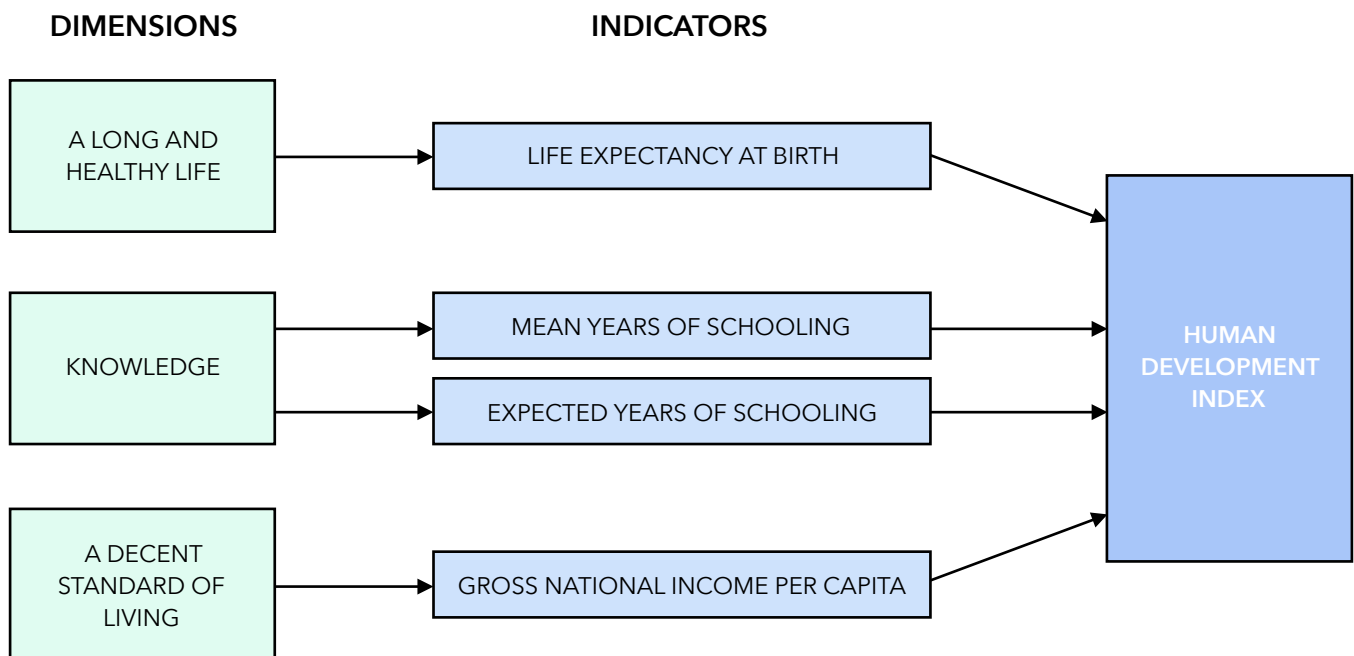
### HUMAN DEVELOPMENT IS ABOUT PEOPLE WHO:

- Have access to resources for a decent standard of living
- Lead productive lives
- Lead long and healthy lives
- Participate in decisions that affect their lives
- Can enhance their capabilities
- Participate in their community
- Have access to knowledge

## HUMAN DEVELOPMENT INDEX

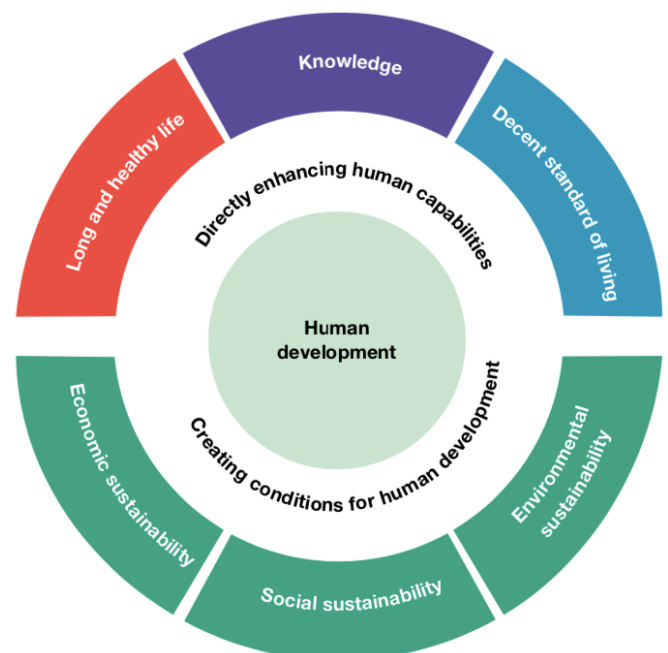
**HUMAN DEVELOPMENT INDEX:** a tool developed by the United Nations to measure and rank countries' levels of social and economic development. It provides a single statistic based on three dimensions – a long and healthy life, knowledge and a decent standard of living – and four indicators – life expectancy at birth, mean years of schooling, expected years of schooling and Gross National Income per capita

- **Dimensions** – relate to broad concepts that have an impact on the level of human development experienced: a long and healthy life, knowledge, a decent standard of living
- **Indicators** – the measurable aspect of each dimension; the four indicators relate to:
  - **Life expectancy at birth:** an indication of how long a person can expect to live; it is the number of years of life remaining to a person at birth if death rates do not change
  - **Mean years of schooling:** average no. of years of education achieved by those aged 25 years and over
  - **Expected years of schooling:** no. of years of education expected for a child of school entrance age
  - **Gross National Income per capita:** overall income of a country after expenses owing to other countries have been paid, divided by the population of the country



- HDI is a number between 0 and 1
  - Closer to 1 = greater level of development experienced
- HDI uses more than just economic indicators, thus a clearer picture of the overall standard of people's lives can be seen
- HDI reflects the level of development in a country, allows comparisons to be made between countries and regions, and allows improvements made over time to be monitored
- The *Human Development Report 2016* classifies countries by dividing them into **four quartiles** according to their HDI:
  - **Very high** human development (e.g. Norway, Australia, United Kingdom, Japan)
  - **High** human development (e.g. Belarus, Uruguay, Mexico, China)
  - **Medium** human development (e.g. Indonesia, South Africa, India, Bangladesh)
  - **Low** human development (e.g. Syrian Arab Republic, Papua New Guinea, Uganda, Central African Republic)
- For many countries, higher average incomes correlate to a higher HDI – but high average incomes do not necessarily relate to greater opportunities for education and health

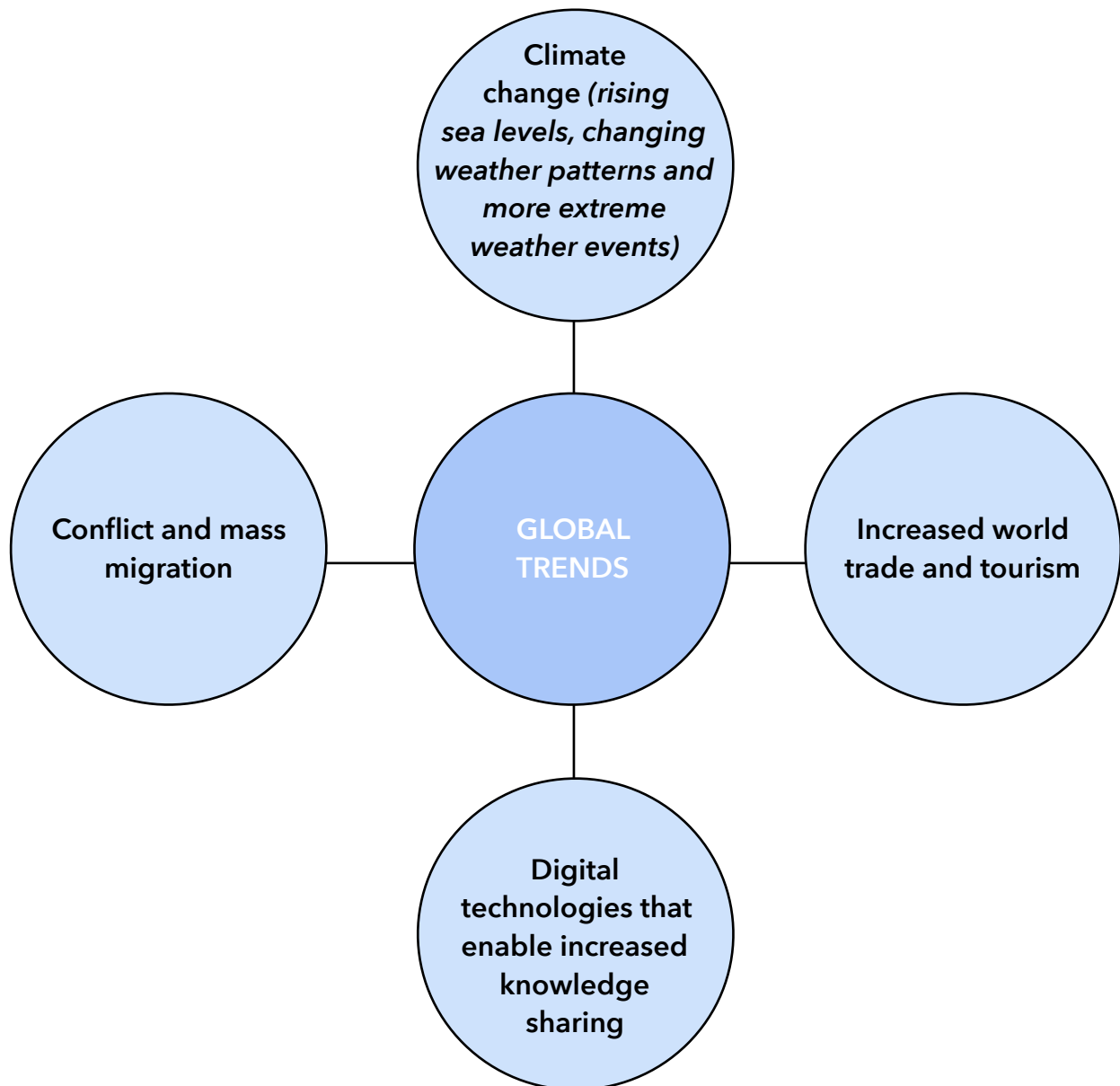
- In order for human development to continually improve, the initiatives, policies and strategies employed must be able to be maintained over a long period of time – if this cannot occur, the current level of human development may decrease over future generations
- Ensuring opportunities for future generations to lead productive and fulfilling lives is the underlying objectives of economic, social and environmental sustainability





ADVANTAGES	LIMITATION
<ul style="list-style-type: none"> <li>• Takes <b>more than just average incomes</b> into account – providing a more comprehensive representation of the level of human development experienced</li> </ul>	<ul style="list-style-type: none"> <li>• Complex concept and encompasses many aspects of human lives – <b>HDI only reflects selected aspects of human development</b> and therefore does not capture the richness and depth of human development <ul style="list-style-type: none"> <li>- <i>Aspects of human development not measured include: gender equality, freedom of speech, freedom of employment, levels of discrimination, empowerment, access to resources (such as water, social security, public housing), social exclusion, political participation</i></li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Provides an <b>indication of opportunities for education</b>, which reflects access to knowledge and the ability to enhance choices and capabilities</li> </ul>	<ul style="list-style-type: none"> <li>• Although moving beyond economic indicators, the HDI is still based on <b>average</b>, and therefore does not provide an indication of the <b>inequalities that exist within countries</b> <ul style="list-style-type: none"> <li>- Those from cultural minorities, females, those with disabilities and those in rural areas often experience lower levels of human development than the rest of the population</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• <b>Average income (GNI per capita)</b> reflects the ability to access the resources required for a decent standard of living</li> </ul>	<ul style="list-style-type: none"> <li>• <b>No survey data</b> are collected – people’s feelings about their lives and issues facing communities are not reflected, including social, emotional, mental and spiritual health and wellbeing, and feelings about physical safety</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Life expectancy</b> reflects the ability to lead a long and healthy life</li> </ul>	<ul style="list-style-type: none"> <li>• Collecting data is complex and the reliability of data for measuring human development remains a challenge <ul style="list-style-type: none"> <li>- Comparisons are often difficult because of the different definitions and methods used in measuring key components of the HDI, and also comparisons within countries is often difficult as data are often only collected at a national level</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• <b>Composite</b> statistic – provides a single statistic relating to the three dimensions and four indicators; this</li> <li>• <b>Makes comparison easier as numerous statistics do not have to be sorted through and compared</b></li> </ul>	<ul style="list-style-type: none"> <li>• In some situations, the concept of human development has been equated with the three dimensions of the HDI, which <b>neglects key aspects of human development</b> including freedom, choices and capabilities</li> </ul>
<ul style="list-style-type: none"> <li>• Effective for analysing progress that is made by countries over time. The four indicators may experience differing rates of progress, but monitoring the overall HDI is useful for analysing the overall progress achieved over time</li> </ul>	
<ul style="list-style-type: none"> <li>• Capture the attention of media, policy makers, communities and individuals; as a result, has raised awareness of the importance of human development – helps people question and revise current policy choices</li> </ul>	

KEY KNOWLEDGE	KEY SKILLS
Implications for health and wellbeing of global trends including: <ul style="list-style-type: none"> <li>- Climate change (<i>rising sea levels, changing weather patterns and more extreme weather events</i>)</li> <li>- Conflict and mass migration</li> <li>- Increased world trade and tourism</li> <li>- Digital technologies that enable increased knowledge sharing</li> </ul>	<ul style="list-style-type: none"> <li>• Analyse the implications for health and wellbeing of particular global trends</li> </ul>




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## CLIMATE CHANGE

- **Climate change:** a change in the pattern of weather, and related changes in oceans, land surfaces and ice sheets, occurring over time scales of decades or longer
- According to WHO, between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths each year, from malnutrition, malaria, diarrhoea and heat stress

## RISING SEA LEVELS

- Two major causes of rising sea levels:
  1. Expansion of water that occurs as it warms
  2. Increase in volume of water due to melting of ice in the Earth's polar regions and glaciers
- Rising sea levels will have a significant impact on health and wellbeing, such as:
  - Relocation of villages and farms – *people in coastal areas will lose their villages/farms due to flooding*
  - Reduction in availability of fresh water – *salt water seeps into fresh underground water sources*
  - Reduction in agriculture and food supplies – *salt water is unsuitable for many trees, plants and crops*
  - Changes in biodiversity – *increased salt water will change chemistry of the soil in coastal areas making it unsuitable for many coastal plants to survive + sand on beaches where wildlife, like turtles and shorebirds, nest may be flooded and eroded thus reducing their habitats and endangering them*

IMPACT OF RISING SEA LEVELS ON HEALTH AND WELLBEING	
DIMENSION	IMPACT
Physical	<ul style="list-style-type: none"> <li>• As a result of reduced availability of fresh water, individuals may lack access to clean water and may resort to using contaminated water for activities, such as cleaning and for consumption, and this can increase the risk of the <b>presence of waterborne diseases</b> such as cholera and diarrhoea.</li> <li>• As a result of increased ocean temperatures affecting marine biodiversity and leading to a decrease in availability of seafood as a food source, this may reduce food supply and increase hunger and undernutrition leading to individual's having weakened immune systems, therefore increasing the risk of <b>illness</b>.</li> </ul>
Social	<ul style="list-style-type: none"> <li>• As a result of the hunger and undernourishment caused by a reduction in food supplies due to rising sea levels, children may be more prone to illness and fatigue which can affect their ability to attend school, thus reducing their ability to <b>socialise with their supportive network of friends</b>.</li> <li>• As a result of rising sea levels forcing people living here to relocate, this may impact on these individuals' ability to <b>maintain their relationships</b> within the community.</li> </ul>
Mental	<ul style="list-style-type: none"> <li>• As a result of rising sea levels, people living in coastal areas are likely to have to relocate their homes and farms, and this may increase <b>levels of stress and anxiety</b>.</li> <li>• As a result of fresh water availability reducing, individuals may have to pay large amounts of money to buy clean water, and this may increase financial <b>stress</b> for the individuals.</li> </ul>
Emotional	<ul style="list-style-type: none"> <li>• As a result of rising sea levels flooding coastal areas, the people here having to relocate may have to rebuild their lives to recover from this misfortune, therefore they must <b>display resilience</b>.</li> <li>• As a result of rising sea levels affecting biodiversity, this may consequently affect resources such as water and soil therefore impacting on the ability of individuals to recover from disasters and pollution, thus affecting the ability of the population to <b>display resilience</b>.</li> </ul>
Spiritual	<ul style="list-style-type: none"> <li>• Water scarcity may result in conflict between countries seeking to gain control over the limited fresh water supplies, and this may lead to an absence of <b>peace and harmony</b>.</li> <li>• As a result of rising sea levels flooding coastal areas, individuals may have to relocate to a new and unfamiliar area, thus resulting in them lacking a <b>sense of belonging</b>.</li> </ul>

## CHANGING WEATHER PATTERNS AND EXTREME WEATHER EVENTS

- Oceans play an important role in determining the climate system, and the increasing temperature of the oceans has brought about changing weather patterns
- *Changing weather patterns include:* hot days, less cool days, change in rainfall, drier dry regions, wetter wet regions
- *Extreme weather events:* weather-related natural disasters – cyclones, floods, droughts, fires, storms
- Changing weather patterns and extreme weather events will affect health and wellbeing by:
  - Increasing the incidence of infectious diseases – *mosquitoes, and water-related diseases*
  - Extremes in temperatures – *can kill people*
  - Changes in the types of crops that can be grown – *some plants require cooler environments*
  - Reduced access to fresh water – *flood water contaminates water stores*

IMPACT OF CHANGING WEATHER PATTERNS AND EXTREME WEATHER EVENTS ON HEALTH AND WELLBEING	
DIMENSION	IMPACT
Physical	<ul style="list-style-type: none"> <li>• As a result of climate change creating warmer temperatures, this may produce ideal breeding grounds for mosquitoes who carry diseases such as malaria, dengue and yellow fever, therefore <b>increasing the risk of the disease</b>.</li> <li>• As a result of climate change increasing rates of flooding, these events may be responsible for drownings as well as an <b>increased risk of injury</b>.</li> </ul>
Social	<ul style="list-style-type: none"> <li>• As a result of climate change causing natural disasters, such as earthquakes, individuals may be separated from their families, therefore <b>impacting on family relationships</b>.</li> <li>• As a result of climate change creating unstable weather patterns and affecting the growth of crops, this may affect the jobs of farmers as well as their ability to trade their growth, thus reducing their ability to have <b>productive relationships with others</b>.</li> </ul>
Mental	<ul style="list-style-type: none"> <li>• As a result of climate change increasing the risk of heat-related natural disasters such as fires, this may result in people living in high risk fire areas to worry about the safety of their homes and families, thus increasing <b>levels of stress and anxiety</b>.</li> <li>• As a result of flood water contaminating water stores resulting in clean water becoming unavailable for drinking, this can reduce access to safe water for many people, thus increasing <b>levels of stress and anxiety</b>.</li> </ul>
Emotional	<ul style="list-style-type: none"> <li>• Through climate change increasing the risk of natural disasters, low- and middle-income countries may be less equipped to deal with these events as they are less likely to have the needed resources to, thus they may <b>struggle to display resilience</b> against these misfortunes.</li> </ul>
Spiritual	<ul style="list-style-type: none"> <li>• As a result of climate change increasing the risk of a extreme weather events such as fires, individuals living in high-risk fire areas may feel unsafe in their homes causing them to lack a <b>sense of peace and harmony</b> in their life.</li> <li>• As a result of climate change causing natural disasters such as floods to occur, individuals may lose their homes and be forced to relocate to new and unfamiliar areas, resulting in them lacking a <b>sense of belonging</b>.</li> </ul>

## CONFLICT AND MASS MIGRATION

### CONFLICT

- Since 2001, the level of conflict worldwide has increased
- According to WHO, armed conflicts are now the largest and longest experienced since the end of WWII
  - causing no. of refugees and displaced persons as a result of conflict being at its highest since WWII
- Conflict will affect health and wellbeing by:
  - Some countries may be unable to afford to sustain a war effort + provide resources for their people
  - Destroys physical environment – reduced access to supplies (*water, food*), and services (*healthcare*)
  - Destroyed water and sanitation facilities
  - Personal injury, destruction of infrastructure
  - Women are at higher risk of rape and abuse

IMPACT OF CONFLICT ON HEALTH AND WELLBEING	
DIMENSION	IMPACT
Physical	<ul style="list-style-type: none"> <li>• Conflict may involve the use of weapons, and this will likely increase the <b>risk of injury</b>.</li> <li>• As a result of the effect of conflict destroying the environment and limiting access to services such as healthcare, this is likely to lead to conditions going untreated, therefore not promoting an <b>absence of illness and disease</b>.</li> </ul>
Social	<ul style="list-style-type: none"> <li>• As a result of times of conflict limiting the ability of children to attend school, this is likely to reduce their ability to socialise with their <b>supportive network of friends</b>.</li> <li>• As a result of times of conflict creating difficulties for people to reach assistance and aid, this may cause health workers to struggle in carrying out their work and helping people, thus impacting on their ability to have <b>productive relationships with others</b>.</li> </ul>
Mental	<ul style="list-style-type: none"> <li>• Due to times of conflict posing a constant threat of harm to people, this is likely to cause individuals to worry about their safety, resulting in <b>negative thought patterns</b>.</li> <li>• As a result of times of conflict limiting peoples' access to resources, like food and water, individuals may have no means of gaining access to these, therefore this may create <b>high levels of stress and anxiety</b>.</li> </ul>
Emotional	<ul style="list-style-type: none"> <li>• As a result of conflict having lasting impacts on a country, the damage that may have occurred during it may make it difficult for people to return to the lives they once lead before the conflict, thus impacting on their ability to <b>display resilience</b>.</li> <li>• Times of conflict may cause people to not stand up for themselves out of fear of harm, therefore impacting on their <b>ability to express their emotions</b>.</li> </ul>
Spiritual	<ul style="list-style-type: none"> <li>• As a result of times of conflict causing individuals to live in fear, this is likely to reduce a <b>sense of peace and harmony in their life</b>.</li> <li>• As a result of conflict increasing the number of refugees and displaced people, this is likely to cause these affected individuals to <b>lose their sense of belonging</b>.</li> </ul>

## MASS MIGRATION

- **Mass migration:** refers to movement of large groups of people from one geographical area to another
- When conflict occurs, there is a mass migration of people who are either seeking refuge in another country, or who are displaced within their own country
- Number of displaced people has increased since 2011
- Internally displaced = usually results in overcrowding in urban centres, unsanitary living conditions
- Can create a huge burden on the already struggling economies, infrastructure, security and society of these countries and can have a destabilising effect regionally and globally
- Mass migration will affect health and wellbeing by:
  - Displaced people having to leave their homes, farms, jobs – living below poverty line
  - Seek shelter with relatives, friends, schools, public and abandoned buildings, makeshift shelters
  - People suffer from insecurity, lack of services, and shortages of food and water
  - Children drop out to work or beg, women forced into prostitution
  - Displaced women and children at risk of sexual and gender-based violence, increased levels of domestic violence, child abuse, alcohol-related violence

IMPACT OF MASS MIGRATION ON HEALTH AND WELLBEING	
DIMENSION	IMPACT
Physical	<ul style="list-style-type: none"> <li>• As a result of mass migration, displaced people may find shelter in makeshift shelters, and these are likely to be in the open with little to no protection, and this is likely to cause inadequate sleep, resulting in <b>low energy levels</b>.</li> <li>• Due to mass migrations causing people to suffer from shortages of food and water, this is likely to increase individuals' risk of malnutrition, resulting in the <b>presence of illness</b>.</li> </ul>
Social	<ul style="list-style-type: none"> <li>• As a result of mass migration leading to many children having to drop out of school, this is likely to reduce their opportunities for socialising, and impact on their ability to have a <b>supportive network of friends</b>.</li> <li>• Due to mass migration, the displaced women face an increased risk of rape. As a result of the shame and stigma of rape, the female victims may be rejected from their families and communities, thus reducing their level of a <b>supportive and well-functioning family</b>.</li> </ul>
Mental	<ul style="list-style-type: none"> <li>• Due to mass migrations causing people to suffer from shortages of food and water, this is unlikely to promote adequate food security, and may <b>increase levels of stress and anxiety</b>.</li> <li>• As a result of mass migration increasing the risk of displaced women to be victims of sexual violence, victims of these harassments may feel dehumanised resulting in <b>low levels of confidence</b>.</li> </ul>
Emotional	<ul style="list-style-type: none"> <li>• As a result of mass migrations forcing people to find new areas to live, this may cause individuals to feel a lack of control in their helpless situation, thus this may impact on their ability to <b>manage their emotions effectively</b>.</li> <li>• Due to mass migrations forcing individuals to leave their homes, farms and jobs, this may impact on their <b>resilience levels</b> as they are being forced to find a new life for themselves with limited resources.</li> </ul>
Spiritual	<ul style="list-style-type: none"> <li>• As a result of mass migration forcing people away from their homes, farms and jobs to find refuge in new areas, they may <b>lose a sense of belonging</b>.</li> <li>• As a result of mass migrations forcing many women into selling sex to get enough food to survive, this may cause them to question their <b>meaning and purpose in life</b>.</li> </ul>

## WORLD TRADE AND TOURISM

### WORLD TRADE

- **World trade:** the exchange of goods and services between countries
- Trade allows countries to specialise
- Trade enables technologies, skills and ideas to be shared
- Trade promotes competition – boosts innovation and productivity = economic growth

IMPACT OF TOURISM ON HEALTH AND WELLBEING	
DIMENSION	IMPACT
Physical	<ul style="list-style-type: none"> <li>• Through world trade increasing employment with increased trading opportunities, this therefore increases incomes allowing more people to be able to financially access services such as healthcare to promote an <b>absence of disease and illness</b>.</li> </ul>
	<ul style="list-style-type: none"> <li>• Many multinational corporations involved in world trade have been accused of social injustices, such as children who have had to work in very unsafe and poor conditions and safety standards are ignored, and this can increase their <b>risk of injury</b>.</li> </ul>
Social	<ul style="list-style-type: none"> <li>• Through world trade, countries may be able to trade with other countries which benefits them both through it contributing to economic growth and the exchange of goods and services, therefore promoting <b>productive relationships</b> globally.</li> </ul>
Mental	<ul style="list-style-type: none"> <li>• Through many exporting firms in low- and middle-income countries having female workers in the clothing industries, this provides these women with a source of income, therefore <b>reducing financial stress</b> as they have a source of income.</li> </ul>
	<ul style="list-style-type: none"> <li>• Many multinational corporations have been accused of social injustices, and this can include women who have been subjected to dangerous working conditions while also being underpaid, and this may result in these women feeling <b>low levels of confidence</b>.</li> </ul>
Emotional	
Spiritual	<ul style="list-style-type: none"> <li>• Through world trade assisting smaller businesses by providing them with greater opportunity to sell to foreign markets, this may be associated with promoting gender equality, as many of these small business owners are women, therefore this may promote a stronger <b>sense of belonging</b> for women in the economy.</li> </ul>

## TOURISM

- One of world's fastest growing industries
- Represents international trade in services
- Accounts for 10% of world's GDP
- International tourist arrivals worldwide are expected to reach 1.8 billion or more by 2030 – strongest growth in tourism is expected to be in Asia and the Pacific region
- Tourism develops jobs for local people + promotes local culture and products
- Drives socioeconomic progress – (2015) *provided 1 out of every 11 jobs*

### POSITIVE IMPACTS OF TOURISM

- Promotes inclusive and sustainable economic growth
  - Accounts for 10% of world's GDP → economic growth
  - Jobs, income → families are supported, send children to school
- Contributes to social inclusiveness and employment
  - More than half of international tourists will travel to low- and middle-income countries
  - Almost twice as many women employed in tourism sector = increased female empowerment and gender equality
  - Money from tourism can be reinvested in healthcare services
- Promotes resource efficiency and environmental protection
  - Source of attractions is wildlife and environment – tourism is effective in raising money for the conservation of this
- Preserves cultural values, diversity and heritage
  - Countries maintain culture to share with tourists
- Promotes mutual understanding, peace and security
  - Tourists develop greater understanding and respect of other cultures = breaks down barriers that exist between cultures

### NEGATIVE IMPACTS OF TOURISM

- Environmental challenges – overcrowding, pressure on local infrastructure and services, waste generated by tourist activities
- Increased spread of disease-producing organisms (potential epidemics)
- **SUSTAINABLE TOURISM:** tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities (defined by WHO)

IMPACT OF TOURISM ON HEALTH AND WELLBEING	
DIMENSION	IMPACT
Physical	<ul style="list-style-type: none"> <li>• Through the government receiving increased taxation from the tourism sector, they may be able to invest it into other aspects of the country, such as healthcare facilities, and this may promote an <b>absence of disease and illness</b>.</li> </ul>
	<ul style="list-style-type: none"> <li>• Tourism may increase the risk of diseases being transported from one country to another if an infectious disease has not been reported, thus increasing the risk of a potential epidemic and the <b>presence of disease and illness</b>.</li> </ul>
Social	<ul style="list-style-type: none"> <li>• Through tourism increasing employment through jobs directly involved with it such as at hotels, as well as jobs indirectly related to it, such as in food production, more individuals may be able to receive an income which may assist them in sending their children to school, and this may increase the children's ability to socialise and form a <b>supportive network of friends</b>.</li> </ul>



Mental	<ul style="list-style-type: none"> <li>• Through tourism being one the world's fastest growing industries worldwide, this may assist workers in this industry to feel comforted knowing their jobs are likely to be in demand in the future, therefore promoting <b>positive thought patterns</b>.</li> </ul>
	<ul style="list-style-type: none"> <li>• Tourism can result in the displacement of people through locals being displaced from their land and beaches which are reserved for hotel guests, therefore this may increase <b>levels of stress and anxiety</b> for the displaced people.</li> </ul>
Emotional	
	<ul style="list-style-type: none"> <li>• Some countries may be heavily dependent on tourism in the economy, therefore events out of the country's control, such as a terrorist attack, may impact on their economy as there may be a reduced number of tourists, therefore reducing the country's <b>resilience levels</b>.</li> </ul>
Spiritual	<ul style="list-style-type: none"> <li>• Tourism may break down barriers that exist between cultures, as tourists are developing a greater understanding and respect of the culture of the countries they visit, therefore promoting <b>peace and harmony</b> between countries.</li> </ul>
	<ul style="list-style-type: none"> <li>• Tourism may result in the harassment of visitors perceived to be wealthy, and this may cause visitors to <b>lack a sense of peace and harmony</b> on their visit.</li> </ul>

## DIGITAL TECHNOLOGIES THAT ENABLE INCREASED KNOWLEDGE SHARING

### POSITIVE IMPACTS OF THE RAPID GROWTH OF DIGITAL TECHNOLOGIES

- More available to people living in remote, resource-limited areas
- Used for complex data collection and sharing of health-related information
  - Digital technologies for health information systems
  - Easily gather population data
- Countries can registers births, deaths and marriages – ensures people have access to legal protection, education, basic human rights
- Disaster preparedness (*SMS services to issue warnings of impending emergencies*)
- Individuals and families more directly engaged in their healthcare experience
  - People have access to more self-care and diagnostic information – can use to monitor and improve their own health and wellbeing'
- eHealth can increase efficiency of healthcare
  - **eHealth**: health services and information delivered or enhanced through the internet and related technologies
  - Can reduce the cost by avoiding unnecessary duplication of diagnostic or therapeutic services and better communication that reaches more people
- Online networks enable people to share and compare different diagnoses and treatments with people who have the same condition all over the world
  - Advice, learn, discuss, compare

### NEGATIVE IMPACTS OF THE RAPID GROWTH OF DIGITAL TECHNOLOGIES

- Issues regarding privacy and safety of children and young people
  - Low- and middle-income countries at greater risk = fewer measures protecting children's safety online
- Children may share personal information (*such as the name of their school*) with someone online
- Children have been exposed to indecent content online
- Digital technology opens up opportunities to cyber bullying and threats

IMPACT OF DIGITAL TECHNOLOGIES THAT ENABLE INCREASED KNOWLEDGE SHARING ON HEALTH AND WELLBEING	
DIMENSION	IMPACT
Physical	<ul style="list-style-type: none"> <li>• Through eHealth, digital technology users may have access to valuable health information related to their own health situation, and this may empower them to <b>prevent ill-health</b>.</li> </ul>
	<ul style="list-style-type: none"> <li>• Children who may be less educated on how to be safe using technology may share personal information, such as their age or the name of their school, with a stranger online, and this may make them vulnerable to stalking and consequent assaults which can cause <b>injury</b>.</li> </ul>
Social	<ul style="list-style-type: none"> <li>• Through the rapid growth of digital technologies, it has become more available to more people, even those living in most remote, resource-limited areas, and this may allow them to feel more connected despite their location, therefore promoting <b>social connectedness</b>.</li> </ul>

Mental	<ul style="list-style-type: none"> <li>• Mobile phones may be used to prepare the population for disasters, such as through SMS services used to issue warnings of an impending emergency, therefore this may allow individuals to feel aware of what is occurring and can <b>reduce levels of stress</b>.</li> <li>• Digital technologies may increase the risk of children being exposed to indecent content online, and this can cause parents to worry about their children seeing this inappropriate content, therefore <b>increasing the parents' levels of stress and anxiety</b>.</li> </ul>
Emotional	<ul style="list-style-type: none"> <li>• Through online networks, people around the world who share the same conditions may be able to share and compare different diagnoses and treatments as well as ask one another for advice and learn from each other, and this can allow these individual's to feel more supported in dealing with their conditions, thus may increase their ability to <b>display resilience</b>.</li> <li>• Digital technologies can open up opportunities for children to face cyber bullying and threats, and the threats may cause children to feel scared to tell a parent or adult, thus impacting on their <b>ability to express their emotions</b> of feeling unsafe.</li> </ul>
Spiritual	<ul style="list-style-type: none"> <li>• Through digital technologies rapidly growing, it has become more available to people who live outside major cities, therefore this may allow these people to not feel separated or isolated due to distance, therefore increasing a <b>sense of belonging</b>.</li> <li>• Digital technologies may increase the risk exposure to indecent content online, and this can cause users to <b>lack a sense of peace and harmony</b> while using the internet.</li> </ul>