ATARNotes

HEALTH & HUMAN DEVELOPMENT

UNIT 3 HEADSTART

Presented by:
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WELCOME!

- Hi I'm Janath Fernando!!
- I graduated from SCHS in 2018 with an ATAR of 97.80
- At school I studied HHD, Bio, Chem, Accounting, Methods and English
- For HHD I received a 50 raw with a premier's award
- I currently study a Bachelor of Science at Melbourne university and am majoring in genetics
- Absolutely love sports and music as well as painting

THREE RULES OF THUMB

- With HHD it is important that we build a foundation from the get-go. To do so, it is important we try to follow these 3 rules of thumb:

1. Be formal
   - We should be utilizing a cause-and-effect structure in our answers to ensure that all our links are in place. Try to avoid using loose terms such as "impacts" where possible.

   'impacts' could mean that it is either positively impacted or negatively impacted', instead use 'compromises' for negatively impacting or 'promotes' for positively impacting.

2. Be specific
   - Think of your answer as a funnel. Your answer starts with many possibilities, but it should ultimately be very specific. Try to use the phrase "such as" in your answer.

3. Don't be definitive
   - Avoid being overly general and so try not to use words such as "will" and instead for instance say "may."

   "recovering will lead an individual free of disease or injury" because that one time out of 100 when that doesn't happen it negatively impact your answer, instead use words such as 'can' or may'

HHD UNIT 3

Area of Study 1

Understanding Health and Wellbeing

OVERVIEW

Unit 3 AOS1

- Health and wellbeing & dynamic and subjective nature of each
- Benefits of optimal health & wellbeing → individually, nationally & globally
- WHO prerequisites of health
- Indicators of health status
- Factors that contribution to variations in health status
- Smoking, alcohol, high BMI, dietary risks → BOD & health status

HEALTH AND WELLBEING

Health and wellbeing as separate concepts

HEALTH

"Health is a state of physical, mental and social wellbeing and not merely the absence of disease or infirmity." (WHO, 1946)

WELLBEING

- Wellbeing is ***how*** a person ***feels*** about themselves/ their lives in relation the dimensions.

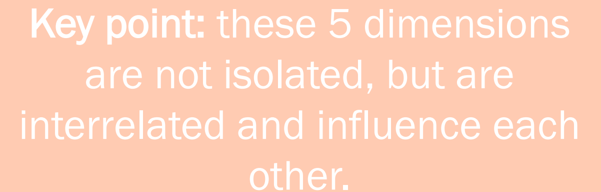
"Health and wellbeing relates to the state of a person's physical, mental, social, emotional, and spiritual existence...

... and is characterized by an equilibrium in which the individual feels happy, healthy, capable and engaged."

DIMENSIONS OF HEALTH

Dimensions of health
Health and wellbeing = PMSES

- Physical
- Mental
- Social
- Emotional
- Spiritual



Key point: There are detailed explanations available of all 5 dimensions on VCAA's 'clarification of terminology' document online.

"describe physical health and wellbeing" would be a two mark question, firstly provide the definition for one mark and then provide an example to receive the second mark.

DIMENSIONS OF HEALTH

Dimension	Explanation	Aspects
Physical	Relates to efficient functioning of the body and its systems, including the physical capacity to perform tasks and physical fitness.	• Free of disease or injury • Adequate energy levels
Mental	Relates to state of person's mind or brain, and their ability to think and process information.	• Levels of optimism • Positive self-esteem
Social	Refers to the ability to form meaningful and satisfying relationships with others and the ability to manage or adapt appropriately to different social situations.	• Supportive network of family and friends • Engage with the community positively
Emotional	Refers to the ability to recognize, understand and effectively manage and emotions as well as the ability to display resilience.	• Manage and express their emotions • Being resilient
Spiritual	Relates to ideas, beliefs, values and ethics that arise in the minds and conscience of human beings.	• A sense of belonging • Positive meaning and purpose in life

EMOTIONAL VS MENTAL H+W

- Emotional health and wellbeing relates to appropriately experiencing, identifying and managing emotions whereas mental health and wellbeing relates to the nature of feelings and thoughts that a person is having.
- e.g., If an individual undergoes a breakup
    - The person may feel a low level of optimism regarding their imminent future, compromising mental h+w
    - However, if the individual is experiencing embarrassment, they are expressing the appropriate emotions, promoting emotional h+w

PRACTICE QUESTION

VCAA 2013

Men's shed is an initiative of the Australian Men's Shed Association. It has been developed in many local communities across Australia, and it offers men an opportunity to socialise with other men in their community and learn new skills, such as woodworking and the restoration of old furniture.
The Australian Men's Shed Association is a not-for-profit organisation that is funded by the Federal Government. It is now the largest association in Australia focused on men's health and wellbeing.

Explain two ways in which this initiative could impact men's health and wellbeing.
(4 Marks)

PRACTICE QUESTION

Explain two ways in which this initiative could impact men's health and wellbeing.
(4 Marks)

The initiative is aimed at encouraging men to socialise with others in their community [1], through which they can form meaningful relationships and improve their **social health and wellbeing.** [1] Being involved in the community could also instil a sense of belonging and purpose in the mens' lives [1], which improves their **spiritual health and wellbeing.** [1]

→ *4 marks = 2 dimensions*
→ *Identify dimension and explain how it is impacted*
→ *Be sure to state whether the impact is positive or negative (not just that it "impacts" a dimension)*
→ *Good words include promoting (positively impacting) or compromising (negatively impacting)*

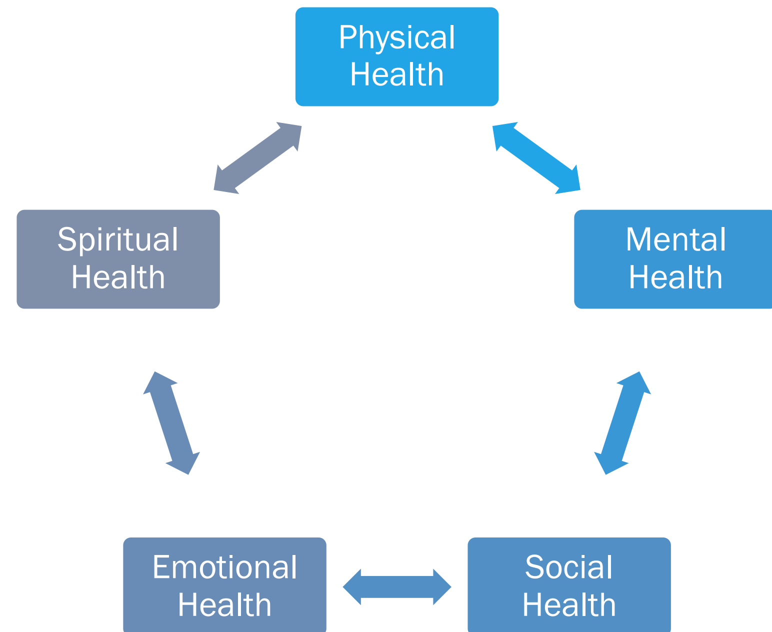
INTERRELATIONSHIP BETWEEN DIMENSIONS

Use this initiative to describe the interrelationship between the dimensions of health and wellbeing. (2 Marks)

- The dimensions are interrelated → levels of health in one dimension will impact the levels of health in another

- With interrelationships,
  For 2 Marks:
  Dimension 1 → Dimension 2 → Dimension 1

  For 3 Marks:
  Dimension 1 → Dimension 2 → Dimension 3 → Dimension 1



PRACTICE QUESTION

Use this initiative to describe the interrelationship between the dimensions of health and wellbeing. (2 Marks)

The initiative is aimed at encouraging men to socialise with others in their community, through which they can form meaningful relationships and improve their **social health and wellbeing.** This could lead to men being more willing to attend the classes for woodworking and restoring old furniture, which could then increase their physical fitness and capacity to perform tasks, thus promoting their **physical health and wellbeing.** [1] Subsequently, these men can become more physically active which can lead these males to be more outgoing to social functions due to a stronger self-esteem, through which a strong social network can be formed, thus promoting **social health and wellbeing.** [1]

→ *2 marks = From a starting point link between two dimensions in an interrelating manner (e.g., in this case social h+w → physical h+w → social h+w)*
→ *link final dimension back to first dimension to complete interrelationship*
→ *Try to use linking phrases e.g., "as a result", "leading to", "consequently" etc.*

DYNAMIC AND SUBJECTIVE

- Health and wellbeing is **dynamic** in that it is only a state of wellbeing which is constantly changing.

- How people perceive their health is influenced by several factors, for which reason it is **subjective**. Thus, the concept of health and wellbeing can be viewed differently by different people.

    - *Age*
    - *Fitness*
    - *Body weight*
    - *Social networks*
    - *Income*
    - *Occupation*
    - *Education*
    - *Culture*

DISEASE VS ILLNESS

Disease refers to a physical or mental disturbance involving dysfunction or tissue damage.

Disease = actual ailment e.g.,, a broken arm
Illness = the feeling that comes with disease e.g.,, the *pain* from the broken arm

Overall: Illness is the subjective experience of a disease based on factors such as pain threshold, age and past experiences.

HEALTH AS A RESOURCE

Optimal health and wellbeing as a resource

- Optimal health and wellbeing is a resource that ***can be attained as well be lost.***

- WHO declares that "health is…seen as a resource for everyday life, not the objective of living."

- *Good examples in the HHD course notes that illustrate this concept*

BENEFITS OF OPTIMAL HEALTH

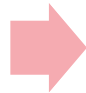
Individually	Nationally	Globally
Cycle of wellbeing - Education - Employment - Income - Necessities - Recreational activities - Live independently	- Contributions to economy - Higher taxation revenue - Government improves infrastructure - Can create emphasis on health promotion - Less burden on public health system	- Enable universal access to healthcare - Reduce rates of communicable and non-communicable disease can increase emphasis on other transnational issues i.e., climate change - Increased levels of peace and security

HEALTH AS A RESOURCE

Bringing it all together

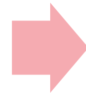
OPTIMAL HEALTH AND WELLBEING

Is associated with being free of disease and injury (or any aspect of any dimension of H+W)



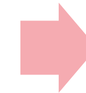
INDIVIDUAL

Adults can feel well enough to go to work and earn a stable income



NATIONAL

More people contributing to the economy; governments can use the increased tax revenue to develop a health care system for all citizens



GLOBAL

Coming closer to achieving universal health care. Morbidity and mortality are reduced, allowing countries to work together to combat broader issues such as climate change

PRACTICE QUESTION

Australia uses information and statistics like Australia's Health to shape and improve the health of all Australians.

It is widely recognised that optimal health and wellbeing is a resource. Describe two benefits of the importance of optimal health and wellbeing for Australia. (4 marks)

SAMPLE RESPONSE

Optimal health and wellbeing is associated with being free of disease. As a result, more individuals are likely to work productively leading to higher average incomes [1]. Higher average incomes leads to greater taxation revenue for the government, providing the government with a greater opportunity to build more infrastructure, a national benefit of pursuing optimal h+w [1]. Furthermore, optimal health and wellbeing is associated with lower levels of stress which can lead to health system savings as populations experiencing lower rates of mental health conditions such as depression are less likely to visit medical professionals for check-ups [1]. As a result, resources in the public healthcare system can be saved for those who need it most such as older people, another national benefit of optimal h+w [1].

→ *4 marks = 2 mark per benefit to national*

→ *Start your answer by providing an example of "optimal health and wellbeing"*

→ *Need to use linking phrases e.g.,, "as a result", "leading to", "consequently" etc.*

→ *In HHD always think in a cause and effect manner*

PREREQUISITES FOR HEALTH

Prerequisites for health

- **Prerequisites** – essential factors that need to be in place first before health can optimally be achieved; all must be achieved before significant health outcomes can be made
- These are determined by **WHO**
- There are 9 of them:
  - *Peace*
  - *Education*
  - *Shelter*
  - *Food*
  - *Sustainable resources*
  - *Income*
  - *Equity*
  - *Social justice*
  - *Stable ecosystem*
- Link these to improved health outcomes = **PMSES/ HS/ Global BOD**
- **Detail is key!!**

NOTE: When a question mentions 'promote health outcomes' you can link to H+W dimensions or H/S indicators

REMEMBER A MNEMONIC e.g., PESFRIESS

PREREQUISITES FOR HEALTH

Prerequisites for health

- Peace
  - Government can reorient funds required to sustain a war effort → invest in healthcare, education, trade development, social security (Centrelink, meals on wheels etc.)
  - Peace = the absence of conflict.
  - Conflict = Landmines, child soldiers, abuse of human rights i.e.,, increased violence, rape/ sexual assault, harassment, exclusion, imprisonment
  - Infrastructure not damaged from conflict → employment, education, healthcare
  - Reduced risk of displacement → reduced refugees
- Shelter
  - Adequate shelter provides protection and a safe place for people to spend their time and pursue activities
  - Promotes safe water + sanitation → preventing communicable diseases i.e.,, measles, malaria, diarrhea

Prerequisites for health

- **Education**
  - Literacy + numeracy → seek employment, earn an income
  - Can afford necessities e.g., nutritious food, water, access to healthcare, water
  - Health literacy → understand health better which means more likely to take control over health i.e., practice safe sex, wash hands, get vaccinated etc.
  - Education can break cycle of poverty
- **Food**
  - Food security = nutritiously adequate food all year round
  - strengthens functioning of immune system which prevents infectious/ communicable diseases e.g., malaria, measles
  - Have enough energy to attend school/ work
  - Can prevent malnourishment/ stunting/ wasting

stunting: short height for age

wasting: low weight for height

PREREQUISITES FOR HEALTH

Prerequisites for health

- **Income**
  - Allow people to afford food, health care, and shelter to ensure a decent standard of living
  - Prevents poor mental health from financial stress
  - Higher individual incomes → higher tax revenue for government to spend on improving public health, education, etc.
- **A stable ecosystem**
  - **Ecosystem** = community that consists of all things living and nonliving of an area
  - Ensures that basic resources needed for survival (e.g., food and water) can be regenerated at the same rate that they are used up (i.e., won’t run out and cause starvation, etc.)
  - Provides predictable weather patterns for farmers → can reduce levels of stress

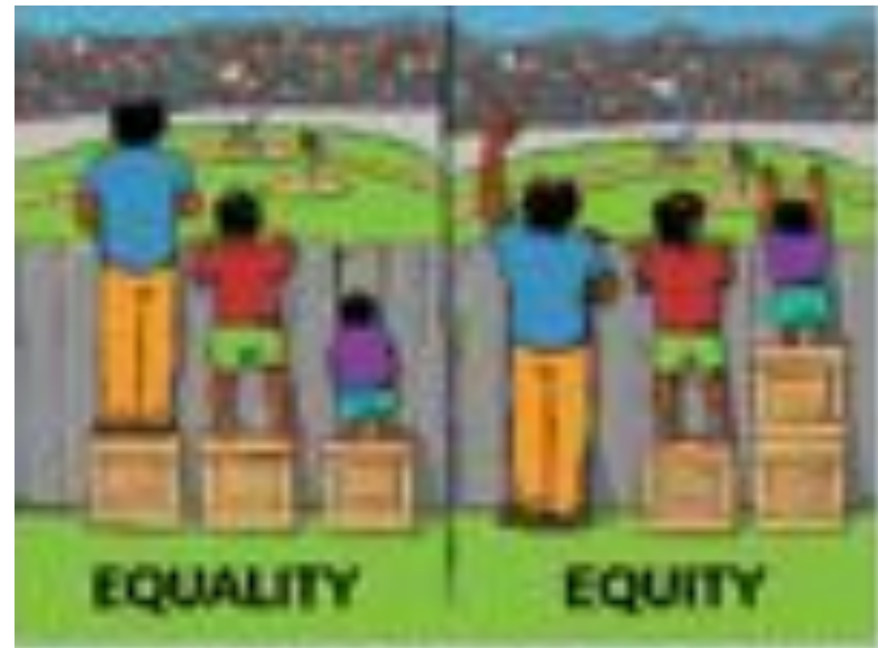
Prerequisites for health

- **Sustainable resources**
  - Meeting the needs of the present without compromising the ability of future generations to meet their own needs
  - Current resources required for good health and wellbeing e.g., energy production, food, water supply, employment, housing & healthcare are available for future generations
  - Sustainable use of fossil fuels as well as responsible use of natural resources.
- **Social justice**
  - Equal rights and opportunities for all (equality)
  - Regardless of sex, class, income, ethnicity, religion, age, sexual orientation, etc.
  - e.g., access to essential services such as housing, healthcare and education

PREREQUISITES FOR HEALTH

Prerequisites for health

- Equity
  - Fairness and impartiality within the population
  - Providing every person with the resources they need to lead a healthy life
  - e.g., minimum levels of income and resources that everyone should have access to
  - Ensuring no one is disadvantaged in their ability to accessing such resources



HEALTH STATUS

Health status

- morbidity and mortality
- incidence and prevalence
- **burden of disease** (i.e., DALY)
    - years of life lost (YLL) and years of life lost to disability (YLD)
- life expectancy and health adjusted life expectancy (HALE)
- **U5MR, infant & maternal mortality**
- Self-assessed health status

Key point: when any question asks you about health status you must make links to one these terms!!

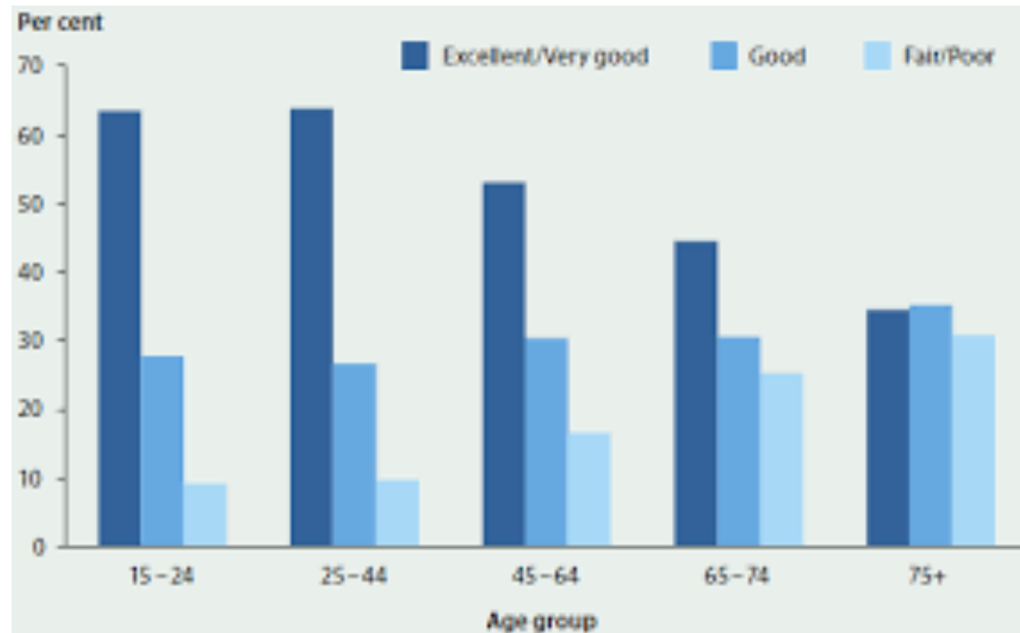
Key point: don't forget that U5MR and infant mortality are measured per 1000 live births.

Know **definitions** for these health status 'indicators'

HEALTH STATUS

Self assessed health status

- Reflects a person's perception of his or her own health and wellbeing at a given point in time, based on five indicators; a very subjective measure of H/S
- A useful measure of a person's current health status and provides a broad picture of a population's overall health and wellbeing
- A limitation: what I rate as "very good" health may not be what you rate as "very good" health



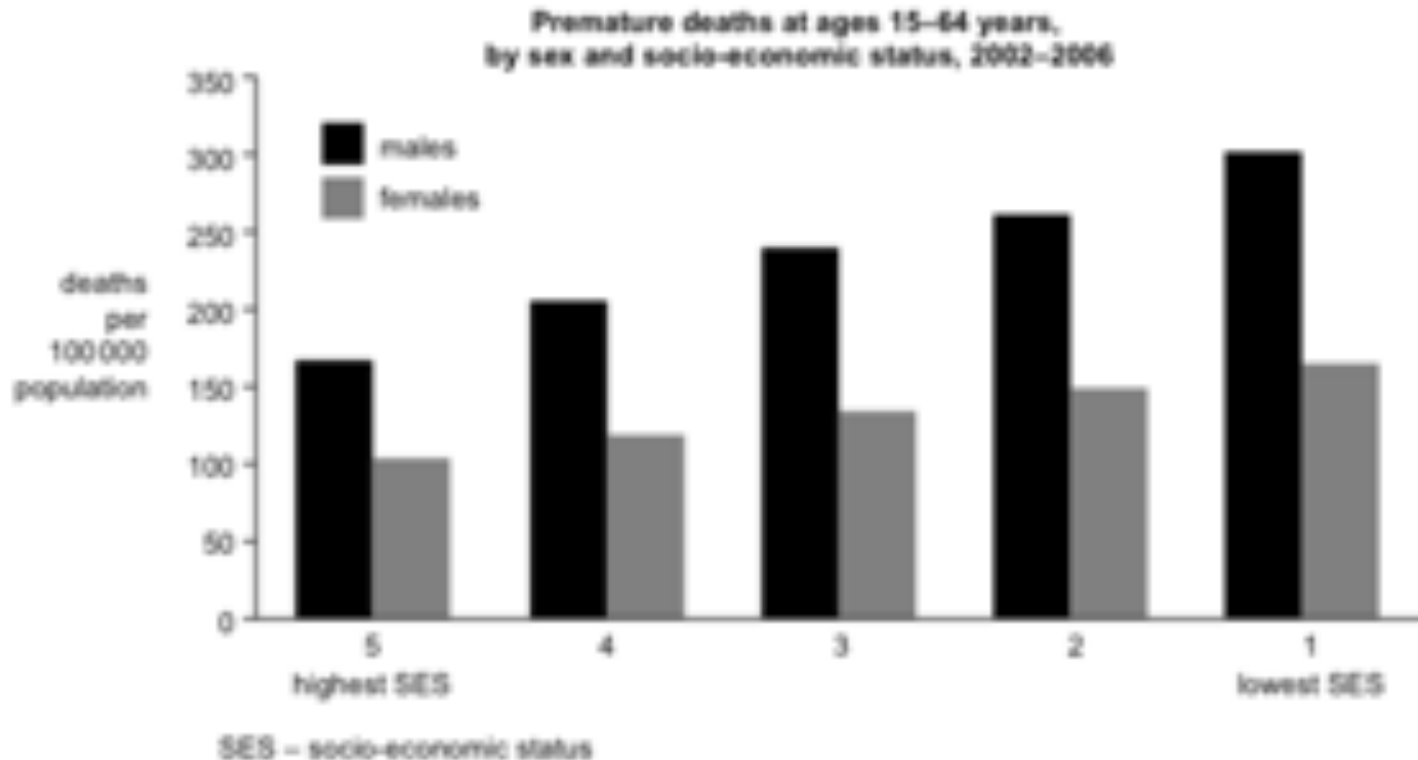
INTERPRETING GRAPHS

Five Steps for interpreting graphs

1. Read the **title** of the graph. It may be located at the top of the graph or next to the figure number.
2. Read the **horizontal** and **vertical axes** (of a bar graph, for instance) and look at the **units**.
3. Look at the **key** if there is one.
4. Read any additional **notes** that relate to the data.
5. Look for **trends**, similarities and differences between the data.

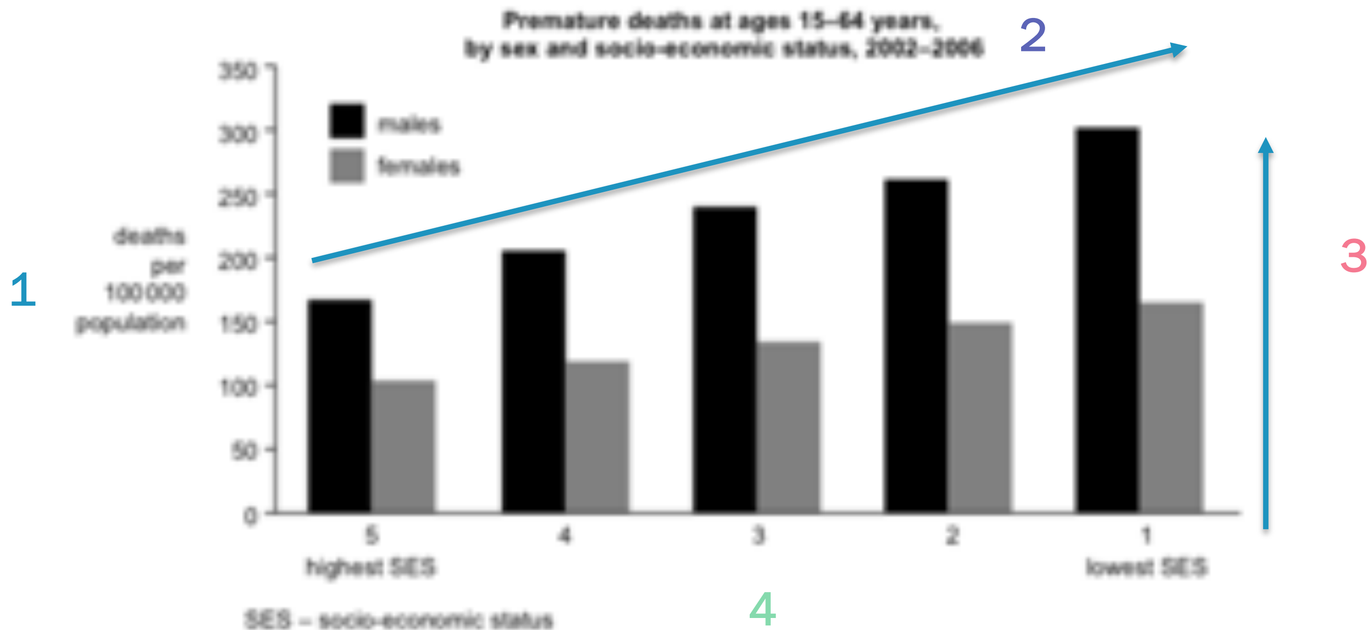
PRACTICE QUESTION

VCAA 2013



Identify two trends from the graph in relation to the proportion of premature deaths at ages 15 – 64 years. (2 Marks)

PRACTICE QUESTION



Source: Australian Institute of Health and Welfare, *Australia's health 2010*, Australia's health series no. 12, cat. no. AUS 122, Canberra, 2010, p. 254

Identify two trends from the graph in relation to the proportion of premature deaths at ages 15 – 64 years. (2 Marks)

The proportion of premature deaths at ages 15-64 years in 2002 - 2006 steadily increases in both sexes from the highest SES to the lowest SES.

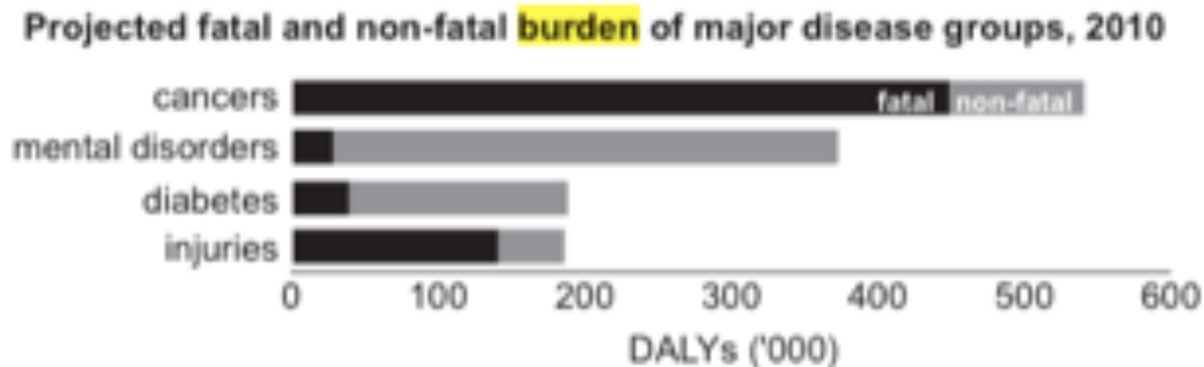
The proportion of premature deaths at ages 15-64 years in 2002 - 2006 is consistently higher amongst males than females, from the highest to lowest SES.

PRACTICE QUESTION

VCAA 2011

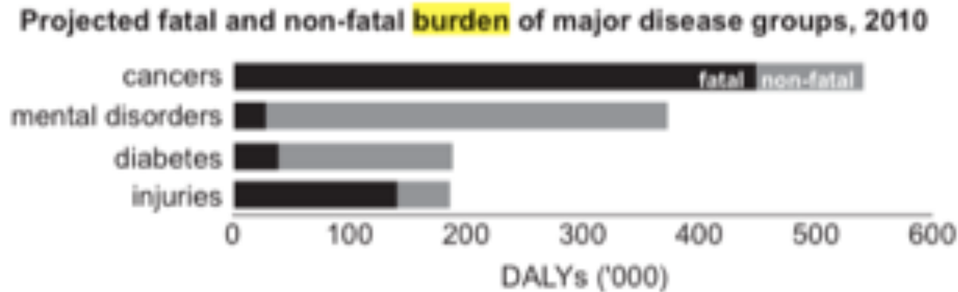
Have a go in your spare time
Sample answer on next slide

A measure known as the burden of disease shows the impact of different health related problems. The graph below shows the projected fatal and non-fatal burden of some major disease groups.



Define burden of disease and use an example from the graph to illustrate its meaning. (3 Marks).

PRACTICE QUESTION



Source: Australian Institute of Health and Welfare, Australia's health 2010

Define burden of disease and use an example from the graph to illustrate its meaning. (3 Marks).

Burden of disease (BOD) measures the **gap** between the **current health status** and an **ideal situation** where everyone lives to an old age free of disease and disability. [1] It is measured in DALYs, which includes both a fatal (year of life lost due to premature death) and non-fatal component (years of life lost due to disability or disease). [1] Thus, though diabetes and injuries make the same contribution to BOD, injuries have a much higher fatal burden, whilst diabetes has a higher non-fatal burden of disease. [1]

→ *3 marks = 2 marks for BOD explanation + 1 mark example*

VARIATIONS IN HEALTH

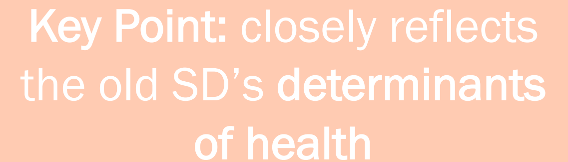
Factors contributing to variations in health status within the following population groups:

- Males and Females
- Indigenous and Non-Indigenous Australians
- High and Low SES
- Inside and outside major cities i.e., rural and remote

FACTORS

- factors that raise or lower the level of health in an individual or population
- <u>purpose:</u> help to explain or predict trends in population groups and why some groups have better or worse health than others

- Biological
- Sociocultural
- Environmental



FACTORS OF HEALTH

Biological: relates to the structure of cells, tissues and systems of the body and how adequately they function.

- Blood pressure → high → blood pumps faster → CVD
- Cholesterol levels → high → CVD
- Body weight → high → obesity → strain on heart, or pancreas→ CVD or T2D
- Birth weight → low → poorer immune system → U5MR
- Testosterone → high → risk-taking behavior (e.g., drink driving)
- Oestrogen → before menopause: reduced CVD; after menopause, increased osteoporosis
- Genetic predisposition → cancer, obesity, CVD
- Sex → some diseases exclusive to males or females (e.g., breast cancer for females only)

FACTORS OF HEALTH

Sociocultural: relate to the social and cultural conditions into which people are born, grow, live, work and age.

- Food security → poor nutrition → CVD, obesity, osteoporosis, diabetes mellitus
- Poverty → mental health, malnutrition
- Socioeconomic status
  - → poor health literacy → injuries
  - → lack of income → low access to healthcare → poor mental health, CVD
- Level of social support → mental health, injuries
- (Un)employment → CVD, obesity, diabetes mellitus, poor mental health
- Cultural traditions → injuries, STIs, obesity, lack of access to healthcare
- Attitudes/beliefs ("macho male") → whole range of conditions
- Early life experiences → emotional and behavioral problems if neglected → poorer mental health

FACTORS OF HEALTH

Environmental: factors relating to physical surroundings in which we live, work, and play, and how these impact our health.

- Overcrowding → communicable diseases, injuries
- Physical access to healthcare → whole range of conditions
- Water quality → whole range of conditions
- Air quality → respiratory conditions
- Level of sanitation → whole range of conditions
- Hazard exposure → injuries
- Road condition → injuries
- Climate and climate change → excessive UV exposure → increased risk of skin cancer
- Geographical access to healthy food → whole range of conditions

MALES VS FEMALES

Variations in Health Status	Factors that contribute to variations in health status
In 2016, male's life expectancy is 80.3 years, lower than 84.4 years for females. Males have higher rates of burden of disease than females. Males have higher rates of premature death than females (57%) Males have higher rates of injury, suicide and road trauma compared to females. Males have higher rates of chronic conditions including CVD, kidney disease, diabetes, cancers and chronic obstructive pulmonary disease (COPD).	Genetics (Sex) → males store more fat around their abdomen increasing the strain on major organs increasing the risk of CVD. Females tend to store their body fat near their hips and thighs. Females also have a high level of oestrogen which acts as a protective factor against cardiovascular disease during menopause. Genetics (Hormones) → Males also have high levels of testosterone increasing levels of risk-taking behaviours and likelihood of injuries. Access to healthcare → males perceived stereotypically as 'macho-man image', less likely to access health care as they may see it as a sign of weakness. This increases the risk of chronic conditions due to not seeking early intervention. Unemployment → when unemployed, males often tend to feel more pressure than females increasing levels of mental health issues such as depression. Unemployed males have higher morbidity levels than unemployed females. Work environment → males are more likely to work in outside occupations increasing the risk of skin cancer compared to females. Males are also more likely to work in transport and spend prolonged periods of time on Australia's road, increasing the risk of road trauma.

INDIGENOUS VS NON-INDIGENOUS

LOW VS HIGH SES

Variations in Health Status	Factors that contribute to variations in health status
Those from a low SES have a life expectancy of approximately 2.6 years lower than those of high SES. Rates of preventable deaths is 1.8 times higher in low SES compared to high SES. Those from low SES have 1.2 times higher mortality rates than people from high SES. Those from a low SES have higher infant mortality rates than high SES. (1.3 times) Those from a low SES have higher rates of chronic conditions.	Birth weight - people from a low SES are 1.5 times more likely to give birth to a low birthweight baby, compared to high SES, which increases the risk of chronic conditions such as asthma later in life. Access to healthcare - low SES is less likely to access health care as they may not understand the need of early intervention and diagnosis. This increases the risk of morbidity and mortality. Food security (sociocultural) - due to an inability to afford nutritious foods, those from low SES suffer from food insecurity increasing the risk of consuming cheaper energy dense, thus increasing the risk of overweight and obesity. Social exclusion - low SES population groups are more likely to experience social exclusion compared to high SES groups as they may feel disconnected with society increasing levels of mental health conditions. Housing - low SES are more likely to live in inadequate, unsafe or overcrowded housing conditions compared to high SES. This may mean that there is a lack of sufficient cooking facilities or sanitation and increases the risk of unhygienic living conditions, thus increasing the risk of infections, injury and mental health conditions.

THOSE LIVING WITHIN VS OUTSIDE AUSTRALIA'S MAJOR CITIES

FACTORS OF HEALTH

Questions tend to be quite formulaic:

"Identify and explain how one __________ factor of health that may contribute to the differences in health status of [Group A] and [Group B]."

Step 1: **Identify** (factor + example)

Step 2: **Compare** the population groups

Step 3: **Explain** the example and discuss if it is a *risk factor* or *protective factor* for certain conditions

Step 4: **Link** to *health status variations between population groups*

Elaborate as necessary according to marking scheme.

PRACTICE QUESTION

Select one factor of health and explain how it might contribute to variations in health status between those living in rural areas and those living in major cities. (3 Marks)

Note: H/S Indicator (e.g., LE)

Environmental: Work Environment

Those in rural and remote areas are more likely to work laborious jobs such as mining or construction. Due to spending prolonged periods of times outdoors, those in rural areas have higher levels of UV exposure than those in major cities. This is a major risk factor for skin cancers such as melanoma, which can ultimately cause death. This contributes to a lower life expectancy amongst rural and remote populations compared to major cities.

PRACTICE QUESTION

Select one factor of health and explain how it might contribute to variations in health status between those living in rural areas and those living in major cities. (3 Marks)

Environmental: Work Environment → identify: example
Those in rural and remote areas are more likely to work laborious jobs such as mining or construction. Due to spending prolonged periods of times outdoors, those in rural areas have higher levels of UV exposure than those in major cities. → compare [1] This is a major risk factor for skin cancers such as melanoma, which can ultimately cause death. → explain [1] This contributes to a higher mortality rate and thus lower life expectancy amongst rural and remote populations compared to major cities. → link to HS variation [1]

→ *In first link, state which group is impacted by the factor to a greater extent (this is the basis of the response)*
→ *Ultimately link to a health status indicator*

FACTORS INFLUENCING HS AND BOD

- Smoking
- Alcohol
- High BMI
- Dietary Risks
  - under-consumption of vegetables and fruits
  - under-consumption of dairy foods
  - high intake of fat
  - high intake salt and sugar
  - low intake of fibre
  - low intake of iron

SMOKING

How smoking leads to…

- **Cardiovascular disease:** smoking increases blood pressure, chemicals cause atherosclerosis (build up of plaque on blood vessel walls) → inhibit blood flow → increase risk of heart attack and stroke
- **Cancers:** toxins in smoke can damage DNA, particularly the genes that protect us from cancer → cause abnormal mutation of cells → tumour and potentially cancer e.g., lung cancer
- **Respiratory conditions:** respiratory tract has a set of mechanisms to protect the lungs from injury. The mass of chemicals overwhelms the respiratory system → damages airways → reduced airflow into the lungs → chronic obstructive pulmonary disease (COPD)
- **Low birth weight:** mothers who smoke during pregnancy increase risk of child being born with low birth weight (foetus receives toxins from tobacco through placenta rather than nutrients)→ higher risk of premature death
- **Communicable diseases:** smoking lowers immune system function → increases prevalence of infectious diseases such as pneumonia

ALCOHOL

How alcohol leads to…

- **Liver diseases:** alcohol is filtered through the liver; excessive consumption can scar liver tissue → inhibits its functioning → sclerosis of the liver
- **Child defects:** consuming alcohol while pregnant → increase risk of foetal alcohol spectrum disorder (FASD) → low birth weight and premature death
- **Cardiovascular disease:** alcohol leads to weight gain through excess calories in consumption → lead to obesity → excessive body weight is a risk factor for CVD, type 2 diabetes and other cardiovascular disease due to greater strain on major organs
- **Injuries:** alcohol intake lowers inhibitions → greater risk taking behaviour such as drink driving → higher risk of injury

HIGH BODY MASS INDEX

How a high BMI leads to…

- **Cardiovascular disease:** greater strain on the heart → increases hypertension, atherosclerosis → heart attack and stroke
- **Cancers:** fat cells inhibit normal cell growth and those overweight or obese have chronic low-level inflammation → cause DNA damage → cancer
- **Type 2 diabetes:** high BMI decreases the ability of cells to metabolise glucose → causes insulin resistance/impaired glucose regulation → type 2 diabetes
- **Arthritis:** high BMI places pressure on joints → increase arthritis, a disease characterized by painful inflammation and stiffness on the joints.
- **Mental health conditions:** a high BMI increases risk of mental health conditions such as anxiety and depression, especially amongst children

NOTE: Formula $= \frac{Weight\ in\ kg}{Height\ in\ m^2}$

DIETARY RISKS

Under-consumption of essential micronutrients in:

- Vegetables:
  - Rich source of **fibre** → promotes fullness → reduces weight gain as energy dense processed foods won't be consumed
  - Source of **antioxidants** → remove free radicals from the body → decreases the risk of CVD and cancers such as gastrointestinal and colorectal
  - High in **nutrients** such as vitamin C → promote immune system function → reduced risk of infectious diseases such as influenza
- Fruits:
  - Rich source of **fibre** → promotes fullness → reduces weight gain as energy dense processed foods won't be consumed
  - Source of **antioxidants** → remove free radicals from the body → decreases the risk of CVD and cancers such as gastrointestinal and colorectal
  - Source of **nutrients** → during pregnancy nutrients passed through placenta to foetus → reduced risk of neural tube defects → reduced infant mortality

DIETARY RISKS

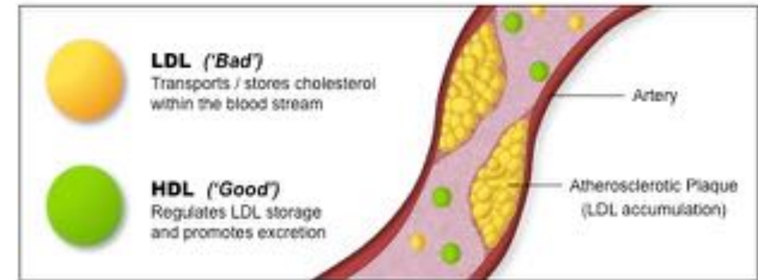
Under-consumption of essential micronutrients in:

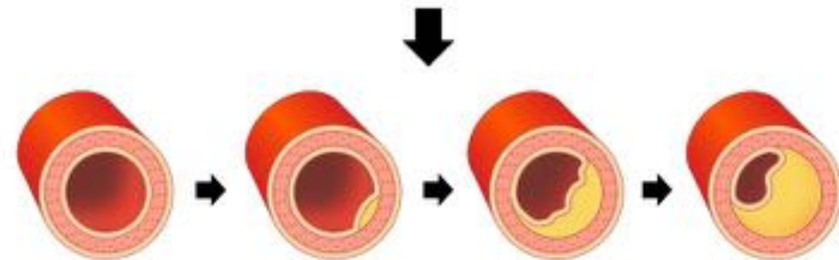
- **Dairy goods:**
  - e.g., milk, yoghurt, cheese
  - Rich source of **calcium** – required for ossifying hard tissue
  - Source of calcium → peak bone density → less likely to have porous bones → reduced likelihood of injury or osteoporosis (later in life)
  - Dairy strengthens teeth and reduces the risk of dental carries

DIETARY RISKS - FATS

Lipoproteins

Lipoproteins transport fat around the body





LDL – Low-density lipoproteins

- Ineffective cholesterol carriers
- Tend to deposit it on the artery walls
- Want in low amounts
- Found in Trans- and Saturated fats

HDL – High-density lipoproteins

- Prevents or reverses build up of plaque in artery walls
- Delivers cholesterol to the liver where it is disposed of
- Want in high (yet moderate) amounts
- Found in Mono- and Polyunsaturated fats

DIETARY RISKS

High intake of fats, salt and sugar

- **Fats:**
  - Diets high in saturated and trans fats increase the risk of impaired glucose regulation and thus the risk of type 2 diabetes
  - Too much LDL **cholesterol** in the blood → deposited on arterial and blood vessel walls → hardening and narrowing of arteries through build up of plaque → can lead to atherosclerosis
  - Fats are **energy dense** and if not consumed is stored as adipose fat tissue in the body → can lead to weight gain over time → place strain on the heart → increase the risk of coronary heart disease

High intake of fats, salt and sugar

- Salt:
  - Food sources: olives, cured meats
  - Sodium is required to regulate fluids (blood, water) in the body
  - Fluid is drawn to sodium, so amount of sodium influences amount of fluid in and out of the cell (in bloodstream)

  - **Consequences of excess sodium**
    - High levels of sodium in the body **draws excess fluid out of cells** → increases blood volume and thus contributes to hyperextension of the heart
    - Excess sodium causes **calcium** to be **excreted** through the urine → leads to demineralisation of bones → over time contributes to osteoporosis

High intake of fats, salt and sugar

- Sugars:
  - Food sources: lollies, soft drinks, fruits (natural sugars)
  - Sugar = high GI/ simple carbohydrates
  - Quick to break down, quick release of energy, feel hungry quicker

Consequences of excess sugar in the diet include:

- Sugar, whilst a fuel for energy production, if consumed in excess, is **stored as adipose fat tissue** → over time can lead to weight gain and a high BMI (a risk factor for other diseases)
- Sugars provide a **food source for bacteria** in the mouth → can contribute to dental decay and the development of dental carries such as periodontitis
- Sugars **raise blood glucose levels** which if not managed can lead to an impaired glucose regulation, the precursor for type 2 diabetes.

Low intake of fibre and iron

- **Fibre:**
  - Type of carbohydrate
  - Regulate functioning of digestive system (soluble fibre attaches to particles of LDL cholesterol to excrete them) → decreased levels of LDL cholesterol in body → reduces risk of cardiovascular disease
  - Absorbs water to add **bulk to faeces** → reduces risk of a cancerous tumour forming → reduces prevalence of colorectal cancer
  - **Fibre promotes fullness** → remember back to fruits and vegetables (reduced risk of overconsuming energy dense foods)
- **Iron:**
  - Produce haemoglobin in RBC's, responsible for transporting oxygen around body for energy
  - **Low intake:** diet-related deficiency diseases (e.g., anaemia – associated with fatigue, paleness, breathlessness)

PRACTICE QUESTION

VCAA 2015
Outline how excessive sodium consumption can have an impact on health status. (2 Marks.)

Excessive sodium in the body draws water into the bloodstream. This increases blood volume [1] and can lead to hypertension due to a greater strain on the heart, which is a risk factor for a stroke or heart attack, increasing mortality rates and thus decreasing life expectancy. [1]

→ *1 mark for function of sodium*
→ *1 mark for link to HS*
→ *Try to link to a condition even when not specifically asked .*

EXPERT TIP:
Where possible, always try to write in a cause and effect format

BREAK TIME!

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Area of Study 2 Promoting health and wellbeing

OVERVIEW

Unit 3 AOS2

- Reasons for improvement in Australia's HS
  - Old public health
  - Biomedical model of health
  - New Public Health: SMH, Ottawa Charter
  - relationship between biomedical and SMH
- Australia's health system
- Health promotion for Smoking/Road Safety/ Skin Cancer
- Initiatives for improving Indigenous Health and Wellbeing in Australia (r/ship with Ottawa)
- Initiatives to promote healthy eating in Australia

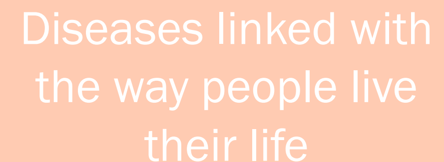
OLD/ NEW PUBLIC HEALTH

Old Public Health

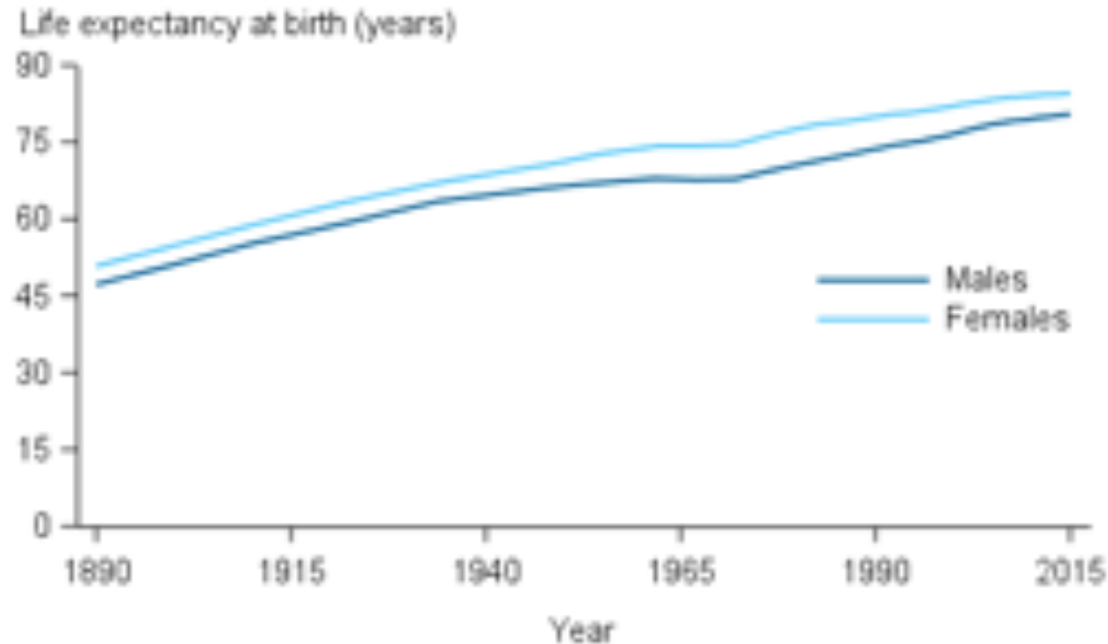
- Related to government actions that focused on changing the physical environment to prevent spread of disease
- Focus on communicable diseases
  - *Providing safe water*
  - *Sanitation and sewage disposal*
  - *Improved nutrition*
  - *Improved housing conditions*
  - *Better work conditions*

New Public Health

- Approach to health that expands traditional focus on individual behavior, to one that considers the way in which physical, sociocultural and political environments impact health
- Focus on non-communicable/ lifestyle diseases
- Has an overarching focus on health promotion



PRACTICE QUESTION



Since the 1900s, the life expectancy for Australians has increased by over 30 years. Using data, outline how the new approach to public health may have accounted for this. (2 Marks)

PRACTICE QUESTION

Since the 1900s, the life expectancy for Australians has increased by over 30 years. Using data, outline how the new approach to public health may have accounted for this. (2 Marks)

Life expectancy in Australia increased from approximately 45 years and 47 years in 1890, to 75 years and 85 years in 2015, for males and females, respectively. [1] New public health involved advocating the importance of physical activity and less sedentary behaviour which promotes the adequate functioning of the bodies major organs including the heart, thus reducing the risk of cardiovascular disease, thus contributing to life expectancy in Australia increasing for both sexes. [1]

MODELS OF HEALTH

Biomedical Model of Health

- Focusses on the physical and biological aspects of disease and illness
- Medical model of care practiced by doctors and health professionals
- Associated with diagnosis, cure and treatment of disease

Social Model of Health

- improvements to health and wellbeing are achieved through directing efforts to social, economic and environmental (SEE) determinants of health → thus, HEALTH PROMOTION
- For health gains to occur, SEE determinants must be addressed
- Targeted on a population basis (moreso to those vulnerable)
- NOTE: The SMOH is the same as NEW PUBLIC HEALTH

MODELS OF HEALTH

Biomedical Model of Health	
Strengths	**Limitations**
Significant advancements in medical technology	Does not promote good health practices
LE extended and quality of life improved	Not all conditions such as HIV can be cured and treated

Social Model of Health	
Strengths	**Limitations**
Typically cost effective	Health promotion messages can be ignored
Can be targeted at vulnerable population groups	Not all conditions can be prevented (e.g., those that are genetic)

MODELS OF HEALTH

MODELS OF HEALTH

Biomedical

Social

VS

RELATIONSHIP BETWEEN MODELS OF HEALTH

Biomedical model of health	Social model of health
‘band-aid’ or ‘quick-fix’ approach i.e., focuses on **physical** and **biological** aspects of diseases	addresses the broader influences i.e., **social**, **environmental** and **economic** aspects affecting health
involves **diagnosing** and **treating** diseases once symptoms are already present	five **principles** of the social model **AREAS**
centres around doctors, health professionals, hospitals, health clinics	centres around the community, policies, education and health promotion
focus: - the **individual** and the attempt to return them to pre-illness levels - the disease itself	focus: - the **community** to **prevent** ill health - influences and causes for ill health
Examples: - Chemotherapy - Medication (make it specific to condition) i.e., blood thinning medication for hypertension	Examples: - Any health promotion program - Pick the Tick - SunSmart - BreastScreen

MODELS OF HEALTH

The biomedical, and social models of health must be used in collaboration to address the main causes of mortality.

Cardiovascular disease

Social MOH

- Education regarding healthy eating in schools.
- Investment in environment to encourage physical activity.

Biomedical MOH

- Prescribe blood pressure medication to treat hypertension.
- Bypass surgery to treat heart attack and blockage. Surgery to treat heart attack and blockage.

Lung Cancer

Social MOH

- Banning smoking in public places to address the broader determinants of health.

Biomedical MOH

- Development of treatments to treat lung cancer such as chemotherapy or radiation.
- GP consultations to diagnose and treat lung cancer.

MODELS OF HEALTH

Type 2 diabetes

Social MOH

- Including insulin on the PBS to remove cost as a barrier to accessing insulin and therefore reducing social inequities.

Biomedical MOH

- Development of personal blood glucose meters.
- Development of insulin injections or tablets.

Infectious diseases

Social MOH

- The federal government's 'no jab no pay' policy introduced from 1st January 2016.
- The Australian Childhood Immunisation Register to address the broader determinants of health by keeping records and sending reminders of childhood immunisations.

Biomedical MOH

- Development of new vaccines such as the varicella chicken pox vaccine.
- Development new treatments to treat infectious disease such as antibiotics.

MODELS OF HEALTH

VCAA 2016

Explain how both the biomedical and the social models of health could be used to reduce the burden of disease associated with cardiovascular disease. (4 Marks)

NOTE: For 4 marks, two links to Burden of Disease needs to be made. The best students will link once to reducing YLL (years of life lost due to premature death) and once to YLD (years of life lost due to disability)

Have a go in your spare time
Sample answer on next slide

MODELS OF HEALTH

Explain how both the biomedical and the social models of health could be used to reduce the burden of disease associated with cardiovascular disease. (4 Marks)

The biomedical focusses on the physical and biological aspects of disease, and involves diagnosing and treating such diseases. [1] This could involve prescribing a patient who suffers from hypertension with blood thinning medication such as aspirin, which reduces the risk of stroke, and thus reduces the burden of disease (BOD) from cardiovascular disease (CVD). [1]

The social model of health is a conceptual framework which addresses the social, economic and environmental determinants. [1] This involves health promotion programs such as the Heart Foundation's 'Pick the Tick', which encourages consumers to purchase foods low in saturated and trans fats. This reduces the risk of atherosclerosis, and thus reduces the non-fatal component of BOD (YLD) associated with CVD. [1]

SOCIAL MODEL OF HEALTH

The social model of health

The five principles = AREAS

Addresses the broader determinants of health

Acts to reduce social inequities

Empowers individuals and communities

Acts to enable access to health care

Involves intersectoral collaboration

Note: a common mistake is confusing "intersectoral" with "intersectorial" and "inequities" with "inequalities"

SOCIAL MODEL OF HEALTH

Principle	Explanation
ADDRESSES the broader determinants of health	All social, environmental and economic factors impact on health. Factors include gender, income and culture.
ACTS to reduce social inequities	Reducing the inequities that exist in relation to the health status and provision of health services due to factors such as gender, age, race, SES, location and physical environment.
EMPOWERS individuals and the community	Involves providing knowledge, understanding, and information to empower individuals to participate in decision making about their health – education is a key component.
ACTS to enable access to healthcare	Involves providing health services and promotion that is affordable, accessible, and relevant to people's needs in a culturally appropriate manner.
INVOLVES inter-sectoral collaboration	The public and private sector working together in coordinated action to improve health outcomes of all.

PRACTICE QUESTION

VCAA 2015

A new campaign aimed at Victoria's Youth hopes to change the drinking culture. The No Excuse Needed campaign aims to empower young Victorians to say no to an alcoholic drink if they don't want to keep drinking without having to justify the decision by using an excuse.

A joint project by VicHealth and the Victorian government, the campaign includes a series of television commercials that challenge the social norm of feeling obligated to drink, with billboards and buses the next target advertising the campaign.

VicHealth chief executive offer Jerril Rechter said it was hoped the project would gradually improve the drinking culture among people aged 16 to 29 by challenging the perception about harmful drinking behaviour…

[Ms Rechter said] '…61 per cent of people aged 16 to 29 don't go out to get drunk, they go out to have fun but somehow peer pressure kicks in and they find themselves in a situation they don't want to be in.'

Identify and describe two principles of the social model of health and explain how they are reflected in this project. (6 marks)

PRACTICE QUESTION

Identify and describe two principles of the social model of health and explain how it is reflected in this project. (6 marks)

ALWAYS start by identifying the principle – immediately gets you 1 mark

1. Identify the principle
2. Explain the principle
3. Link principle to case study

1. Involves intersectoral collaboration: the program involves several organisations working together improve health outcomes through VicHealth and the Victorian government working in conjunction with each other to address peer pressure that young people may feel with respect to drinking culture.

2. Empowers individuals and the community: the program seeks to provide young people with the knowledge and awareness required to better improve their health. This is through exposing them to television commercials aimed at challenging the ”social norm of feeling obligated to drink”.

Quoting shows you have a really good understanding of the case study.

THE OTTAWA CHARTER

The Ottawa Charter for health promotion

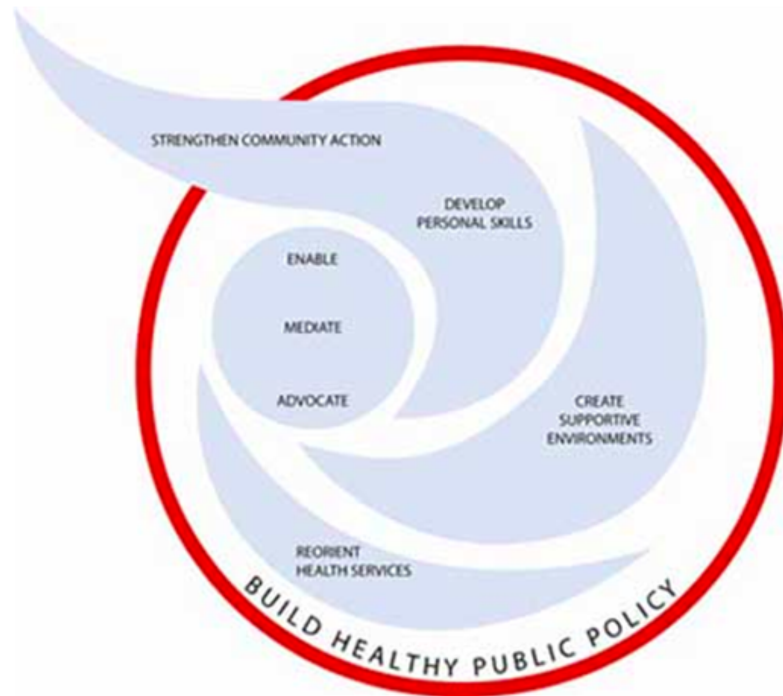
- Approach to health developed by WHO and its member states
- Aims to reduce inequalities in health
- Developed from the social model of health
- Defines health promotion as “*the process of enabling people to increase control over, and to improve their health*”

What are its **3 strategies**?
What are its **5 priorities**?

THE OTTAWA CHARTER

Strategies for health promotion (3)

- **Mediate:** more than just the health sector working to improve health
- **Advocate:** supporting and lobbying governments
- **Enable:** equal access and education to make positive health choices



Tip: for 'enable' think **equity**

My Arch Enemy

THE OTTAWA CHARTER

Bad Cats Smell Dead Rats

Action areas

Building a healthy public policy

Create supportive environments

Strengthen community action

Develop personal skills

Reorient health services

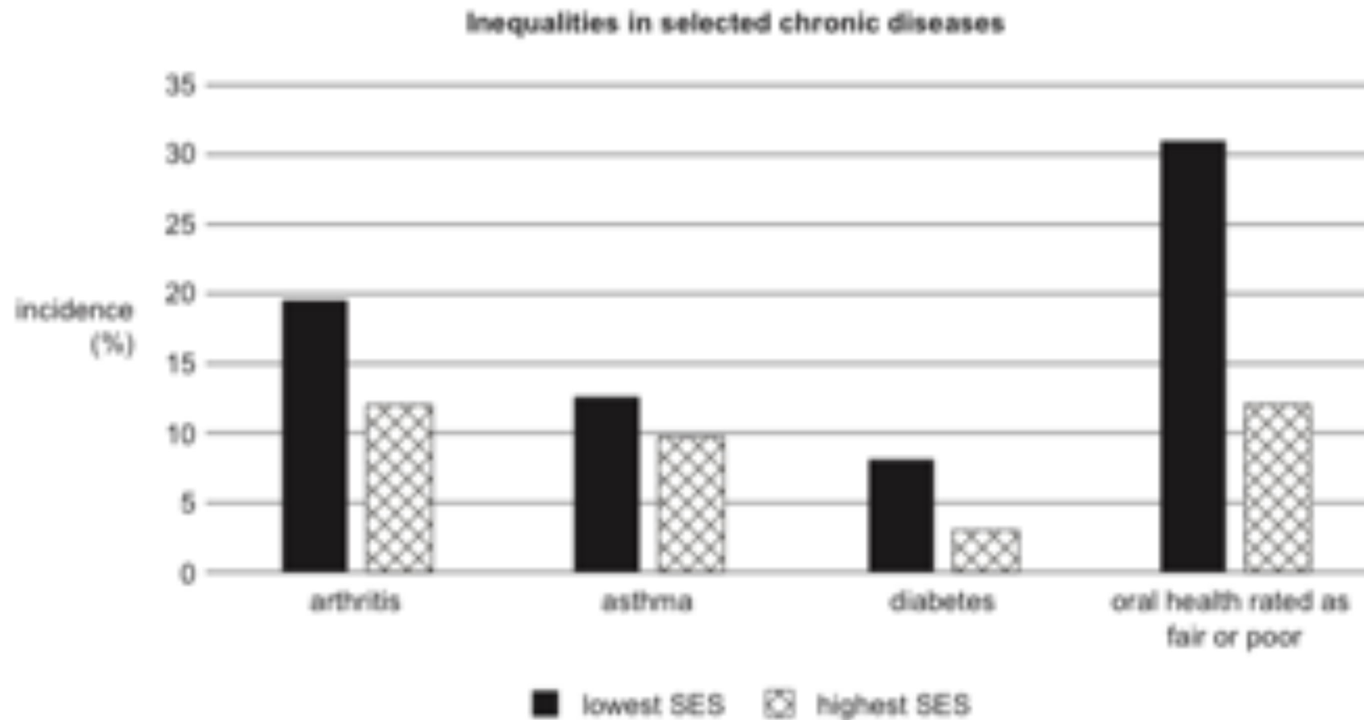
THE OTTAWA CHARTER

Action Area	Explanation
Build Healthy Public Policy	Relates to the decisions that are made by governments and organisations in relation to legislation, rules and regulations.
Create Supportive Environment	Change physical environment to encourage/promote health behaviours. Involves building links between individuals and environments. e.g., ensuring children's playgrounds are free from hazards.
Strengthen Community Action	Bringing everyone together and empowering communities to set health priorities and implement strategies to improve health and work towards common health goals.
Develop Personal Skills	Education Better position to make choices/decisions about their health
Reorient Health Services	Medical professionals typically associated with cure and treatment advocating health promotion Doctors take the role of educator (e.g., a doctor discussing the benefits of stopping smoking with a patient who presently has asthma)

PRACTICE QUESTION

VCAA 2017

The following graph shows the incidence of selected chronic diseases by socio-economic status (SES) in Australia 2014 – 2015.



Select one chronic disease from the graph. Explain how two action areas of the Ottawa Charter for Health Promotion could be used to address this chronic disease. (4 Marks).

PRACTICE QUESTION

Select one chronic disease from the graph. Explain how two priority areas of the Ottawa Charter for Health Promotion and explain how it is reflected in this project. (4 marks)

1. Name the priority area
2. Explain the priority area
3. Link principle to chronic disease

Chronic Disease: Diabetes

Note: When discussing nutrition and diabetes, you must link it to type 2.

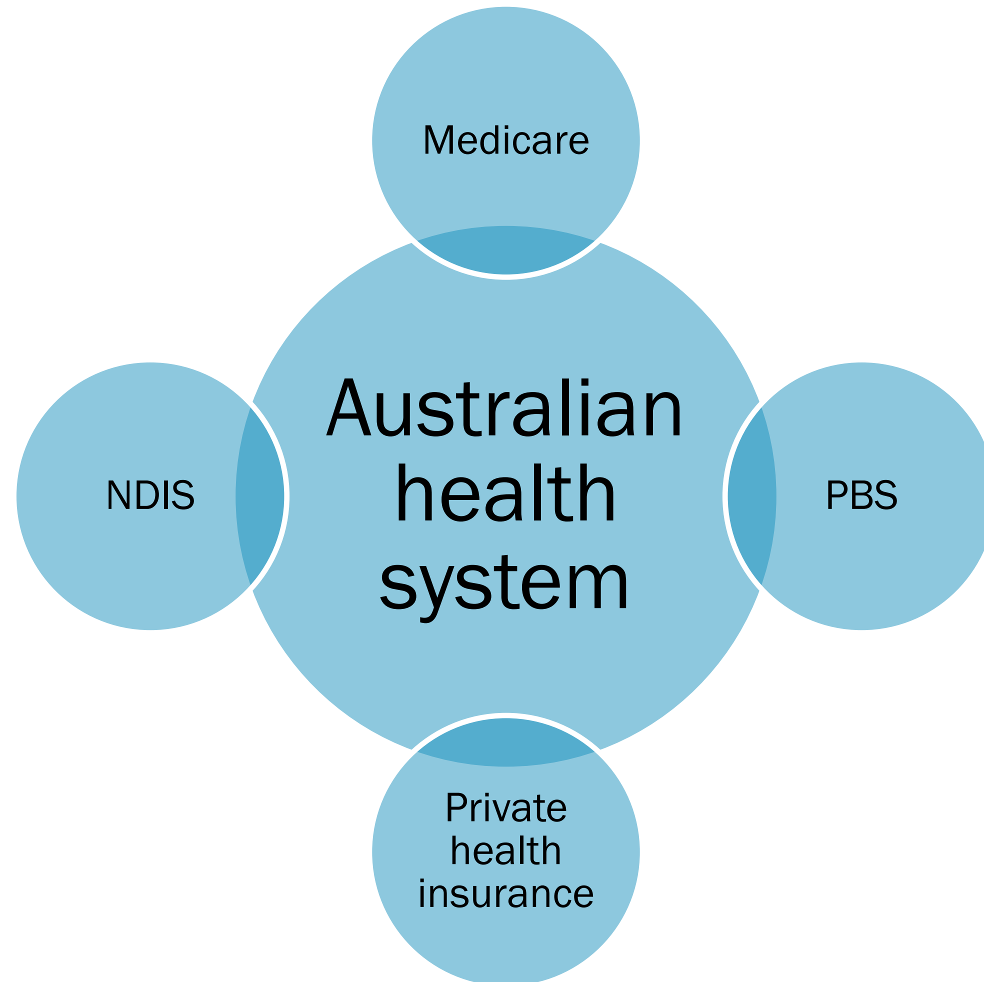
Action Area 1: Build Healthy Public Policy

This action area involves placing health on the agenda of all policy makers rather than simply the health sector. [1] To address type 2 diabetes, school canteens could stop selling energy dense or processed foods such as meat pies, and instead only sell nutrient dense foods which prevent obesity, thus placing less strain on the pancreas, reducing the risk of type 2 diabetes. [1]

Action Area 2: Develop Personal Skills

This action area involves educating individuals in order to place them in a better position when making choices on their health. [1] To address type 2 diabetes schools could emphasise the importance of physical exercise everyday, which can help to burn excess kilojoules and reduce the risk of obesity, and thus, type 2 diabetes. [1]

THE AUSTRALIAN HEALTH SYSTEM



MEDICARE

Medicare

- Australia's universal health insurance scheme
- Provides access to 'clinically necessary' healthcare services for all Australian permanent residents and those from countries under reciprocal agreement

covers → anything clinically necessary	does not cover
- doctors consultations (including specialists) and associated treatments - tests and examinations by doctors - x-rays and pathology tests - eye tests performed by optometrist - most surgical and other therapeutic procedures performed by doctors - some surgical procedures performed by dentists	- dental examinations (except for concession card holders) - home nursing treatment - ambulance services - alternative services (unless referred to by a GP) - acupuncture, physiotherapy, chiropractors - cosmetic surgery

MEDICARE

Medicare's Funding

Medicare Levy	• 2% taxable income for those who earn above the threshold (LI earners and pensioners exempt)
Medicare Levy Surcharge	• extra 1-1.5% of taxable income for high income earners without private health insurance (income means tested) • to encourage individuals to take out private health insurance reduce the demand on the public health care system
General Taxation	• revenue collected from Medicare Levy/ surcharge not enough to cover the full operating costs of Medicare

MEDICARE

Advantages of Medicare

- Choice of doctor for out of hospital services
- Available to all Australian citizens
- Citizens from countries under reciprocal agreement granted free healthcare
- Covers costs for essential services
- Medicare safety net provides extra financial contributions to medical services

Disadvantages of Medicare

-no choice of doctor for **in-hospital treatments**

-waiting lists for many treatments

-does not cover alternative therapies

-often does not cover the full amount of a doctor's visit (only pays for scheduled fee)

PRIVATE HEALTH INSURANCE

Private health insurance

- Additional cover that can be taken out on top of Medicare
- Incurs additional cost in the form of premium (plus any chosen extras)
- Covers services not covered by Medicare e.g.,, physiotherapy, dental services, maternity etc.
    - *incentives*
    - *advantages/ disadvantages*

PRIVATE HEALTH INSURANCE

Incentives schemes for PHI

Life Time Health Cover

- When taking out PHI, those aged over 30 pay an extra 2% on their premiums for every year they are over 30 when they take out the policy
- maximum loading of 70%
- Targets *young Australians*

Private Health Insurance Rebate

- receive rebate from government to help cover the cost of premiums
- designed to increase affordability and incentives of private health insurance
- Targets *low- and middle-income earners*

Medicare Levy Surcharge

- those who earn over a set amount but do not have PHI must pay an extra 1-1.5% of their taxable income to Medicare (based on income, tested)
- Targets *high-income earners*

PRIVATE HEALTH INSURANCE

Advantages of Private Health Insurance

-enables access to private hospital care

-choice of doctor while in a public or private hospital

-shorter waiting times for some medical procedures such as elective surgery

-depending on level of cover some dental, chiropractic, physiotherapy, services could be paid for

-government rebate for some

Disadvantages of Private Health Insurance

-costly in terms of premiums that must be paid

-sometimes have 'the gap'

*doctors may charge more than the scheduled fee, some may be covered by the insurance company but rest may have to be paid for by the individual

-qualifying periods for some conditions (e.g., pregnancy)

PBS

Pharmaceutical Benefits Scheme

- Federal government initiative
- Aims to make essential medicines available through subsidizing range of prescription medications at affordable prices
- For Australian citizens and those under the reciprocal agreement

Advantages	Disadvantages
Includes PBS Safety Net to protect people from high cost of medication.	Significant financial burden on federal government ($10.8 billion in 2015/16)
Provides access to essential medication at a subsidised rate or sometimes at no cost.	Generally does not cover all medications, only those PBS listed
Provides additional support to those with connection cards by having low co-payments	For most Australians, there still is a $38.80 co-payment per prescription

NDIS

National Disability Insurance Scheme

- Implemented by National Disability Insurance Agency (NDIA)
- Services and support for Australians/ permanent residents with permanent, significant disabilities under the age of 65 and their families and carers
- Funded by the Medicare Levy
- Individualised packages of support for all individuals who meet the eligibility criteria. Criteria include:
  - ❖ Must be aged under 65
  - ❖ Must have a lifelong and permanent disability

AUSTRALIA'S HEALTH SYSTEM

Necessary to link Australia's health system to the following

- Funding
  - Financial resources that are provided to keep health system adequately staffed and resourced for a high level of care.

- Sustainability
  - Health system that provides work and infrastructure, and is innovative and responsible to emerging needs, now and into the future.
  - Involves interventions such as research and monitoring.

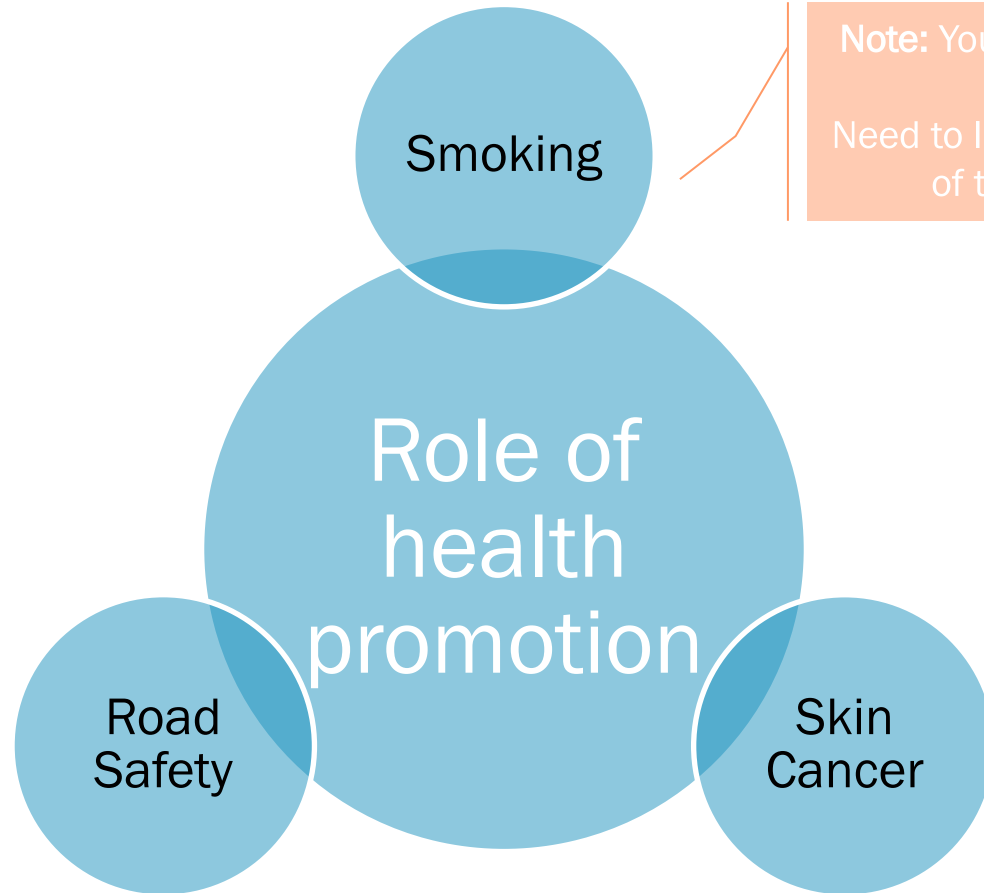
- Access
  - Health system that ensures all can access quality healthcare in a timely manner.
  - Irrespective of financial situation or physical location.

- Equity
  - Ensures all Australians can access healthcare when required.
  - Equal access does not necessarily mean the system is equitable.

SUMMARY OF THE HEALTHCARE SYSTEM

Area of consideration	Examples of how it promotes health in Australia	How it is reflected in:			
		Medicare	The PBS	Private Health Insurance	The NDIS
Funding	Provides infrastructure such as hospitals and medical technology. Provides training for health professionals. Pay salaries of medical staff. Allows implementation of health promotion programs.	Medicare is funded through general taxation, the Medicare Levy and the Medicare Levy Surcharge.	The PBS is funded by the Commonwealth Government through general taxation.	Generally funded by members through the premiums they pay.	Funding shared amongst all levels of governments in Australia including the Medicare Levy
Sustainability	The development of an electronic health record (eHealth) system (My Health Record in Australia) which promotes sustainability by streamlining the record keeping process. Ensuring the health workforce are adequately trained can reduce the numbers of issues raised with the health system. Public cancer screenings such as BreastScreen and Bowel Screen – early detection can reduce the cost of treatment and improve health status. Funding research can improve the way diseases are prevented and treated, reducing the strain on the health system.	Medicare only covers essential 'clinically necessary' health services which assists in saving funds for future years and generations.	The PBS aims to be economically sustainable by only adding medications that are more efficient at treating diseases than existing treatments.	Is economically sustainable as it helps to meet the healthcare needs of the current generation through placing less burden on the public healthcare system.	The extra 0.5% added to the Medicare Levy by the Commonwealth Government to support the NDIS attempts to make the scheme more financially sustainable.
Access	The Royal Flying Doctor Service receives funding from the federal and state/territory governments to maintain its fleet of air and road vehicles and reach and treat those in need regardless of geographic location. Indigenous Health Incentive – this initiative provides financial incentives to medical practices to provide culturally appropriate healthcare for Indigenous people.	Medicare aims to treat patients in hospitals based on need, which means those in most need are treated first.	Can provide timely access to medication at local pharmacies at a reduced cost without having to travel.	Through incentives such as the rebate scheme, the government tries to make private health insurance more financially accessible.	Aims to ensure all Australians with disability are able to access all the services they need to lead an ordinary life.
Equity	Interventions to increase access for those of low SES, those living outside major cities and Indigenous Australians work to promote equity. Public dental health services – the Victorian Government funds the Royal Dental Hospital of Melbourne and over 50 dental clinics in metropolitan and regional Victoria to provide dental treatment for vulnerable groups.	The Medicare Safety Net protects those who experience higher costs of healthcare by providing extra financial support.	PBS safety net further protects individuals and families from large overall expenses for PBS-listed medicines.	Private health insurance rebate scheme provides a greater rebate for lower income earners to promote equity.	Due to the individualised plan, the NDIS provides more support to those who need help the most.

PROMOTING HEALTHY EATING



Note: You only need to learn one of these.
Need to link them to action areas of the Ottawa Charter

SMOKING

Why it is targeted:

- Smoking kills around 15,000 Australians each year
- Affects vulnerable population groups disproportionately
  - *People living outside major cities*
  - *Indigenous Australians*
  - *Low SES backgrounds*

Effectiveness of health promotion:

- There has been a delay in the uptake of smoking (age increasing from 14.3 in 2001 to 15.9 in 2013)
- Smokers are smoking fewer cigarettes (weekly number decreasing from 113 per week in 2001 to 96 per week in 2013)
- Fewer people are being exposed to secondhand tobacco smoke (number of children being exposed to it decreasing from 31% in 1995 to 3.7% in 2013)
- The prevalence of daily smokers aged over 14 has decreased from 24% in 1991 to 12% in 2016.

SMOKING

How programs reflect the Ottawa Charter for Health Promotion

- QUIT Victoria
  - *Builds Healthy Public Policy: has pushed for smoke free outdoor areas*
  - *Creates Supportive Environments: Quitline, QuitCoach and QuitText all online platforms to materials assisting smokers to quit*
  - *Strengthens Community Action: online resources specifically for friends/ family of smokers*
  - *Develops Personal Skills: provides practical advice and strategies on quitting*
  - *Reorients Health Services: provides specialist training to health professionals to undertake interventions and referrals to Quitline*

ROAD SAFETY

Why it is targeted:

- All causes of road crashes are deemed preventable (e.g., not wearing seatbelt)
- 4 people die and 90 people are seriously injured on Australians roads each day
- Affects vulnerable population groups disproportionately
  - *Males*
  - *Indigenous Australians*
  - *Young Australians*

Effectiveness of health promotion:

- On 10th December 1989, the first TAC commercial went to air. In that year, the Victorian road toll was 776 – by 2012, it had fallen to 303.
- The premature death rate in Australia due to land transport accidents decreased from 3798 deaths in 1970 to 1205 deaths in 2015.
- Road trauma levels have declined substantially over the last four decades, despite considerable population growth and a threefold increase in registered motor vehicles.

ROAD SAFETY

How programs reflect the Ottawa Charter for Health Promotion

- Transport Accident Commission
  - *Builds Healthy Public Policy: ANCAP safety ratings ensure cars are roadworthy*
  - *Create Supportive Environments: Addition of safety barriers as well as removal of Victoria's most dangerous level crossings*
  - *Strengthens Community Action: VicRoads, TAC, Department of Justice all overseeing the 'Towards Zero' campaign*
  - *Develops Personal Skills: 'if you drink and drive, you're a bloody idiot' and other TAC hard hitting TV commercials*
  - *Reorients Health Services: Ambulance officers providing seminars at schools to raise awareness on young drivers, drug-driving, fatigue, vehicle safety other and road related risks*

Safety barriers save lives.

SKIN CANCER

Why it is targeted:

- Australia has highest rate of non-melanoma (treatable) and melanoma cancers in world
- Affects vulnerable population groups disproportionately
  - *Men*
  - *Those working outdoors*

Effectiveness of health promotion:

- 90% of primary schools (430,000 students) having sun smart protection policies. Used to be 17% in 1993
- Whilst the incidence of melanoma in Victoria continues to rise among those aged over 45, the rate of increase has slowed. In addition, melanoma incidence is falling in those aged under 45.
- It is estimated that up to 5 in 6 melanomas in young Australians aged 18-29 will be prevented due to the shutdown of solariums.
- It is estimated that SunSmart campaigns have prevented more than 43,000 skin cancer cases and 1,400 deaths from the disease in Victoria between 1988 and 2011.

SKIN CANCER

How programs reflect the Ottawa Charter for Health Promotion

- SunSmart
  - *Builds Healthy Public Policy: banning the use of solariums*
  - *Creates Supportive Environments: encouraging schools to build shade to promote supportive physical environments*
  - *Strengthens Community Action: SunSmart working in schools and workplaces to implement initiatives*
  - *Develops Personal Skills: 'slip, slop, slap, seek, slide' → educating individuals about how to prevent skin cancer*
  - *Reorients health services: doctors spreading the SunSmart message during consultations with patients*

INDIGENOUS HEALTH AND WELLBEING

There are 2 different types of questions related to Indigenous Health and Wellbeing in the course

1 – evaluate information from a case study

2 – relate your own knowledge of an initiative and link it to the Ottawa Charter or H+W dimensions

Very different ways of approaching questions:

INDIGENOUS HEALTH AND WELLBEING

Common Indigenous health and wellbeing questions include students being provided with a case study and then having to evaluate the potential of the program being successful.

Criteria to evaluate an Indigenous health and wellbeing program include:

- ✓ Are actual improvements in health and wellbeing made?
- ✓ The number of people who have accessed or been involved in this initiative.
- ✓ Is feedback provided by participants?
- ✓ Are actions areas of the Ottawa Charter that are evident in the initiative, including:
    - ❖ the provision of education.
    - ❖ the involvement of various stakeholders.
- ✓ Is the program culturally appropriate for Indigenous Australians?
- ✓ Have the specific needs relating to the health and wellbeing of Indigenous people been considered?
- ✓ Has funding been provided to implement the program?
- ✓ Does the program address a specific health issue for Indigenous Australians?

PRACTICE QUESTION

Research shows as many as 91% of Aboriginal and Torres Strait Islander Children in rural communities present with otitis media (a type of ear infection). The Care for Kids' Ears initiative aims to increase awareness of ear disease and hearing loss in Aboriginal and Torres Strait Islander communities. Features of the program include:

- *It provides information resources for use by health professionals to assist them in preventing, diagnosing and treating otitis media.*
- *It provides communities and schools with resources to educate the community about prevention and detection of otitis media.*
- *The smartphone apps and kiosks across 32 Aboriginal and Torres Strait Islander primary health care services provide a resource in 22 Indigenous languages on key ear health information.*
- *Media partnerships with 35 community media organisations across Australia designed to develop and deliver ear health communication at a local community level.*

Evaluation research demonstrates a strong level of awareness, with 4 in 10 mothers able to identify the campaign, and those exposed to the messages having had an increased knowledge of key symptoms and preventative behaviours (DoHA 2013).

Evaluate this initiative in relation to its capacity to improve Indigenous health and wellbeing.
(6 marks)

PRACTICE QUESTION

Evaluate this initiative in relation to its capacity to improve Indigenous health and wellbeing . (6 marks)

The program can be said to be culturally appropriate as it provides resources in 22 different Indigenous languages about key ear health information [1]. As a result, more individuals may be able to access this information and so, the rates of Otitis Media within the Indigenous population may decrease, assisting more Indigenous Australians to remain free of disease, promoting physical health and wellbeing [1]. The program 'develops personal skills,' an Ottawa Charter action area [1], as it provides communities and schools with resources to educate the community about preventing and detecting Otitis Media [1]. This can reduce levels of stress regarding diagnosing Otitis Media, promoting mental health and wellbeing. Furthermore, the program seems to be successful as four additional mothers out of every ten were able to access and identify the campaign and now have a knowledge about the key symptoms and preventative measures of Otitis Media [1], providing a sense of peace and harmony for these mothers, promoting spiritual health and wellbeing. Overall, this program can be said to be successful in promoting Indigenous health and wellbeing [1].

Criteria for evaluating Indigenous h+w programs (3 times for 1 mark each)

Link to a dimension of health and wellbeing (3 times for 1 mark each)

NOTE: Students must have a final evaluation sentence to receive full marks

INDIGENOUS HEALTH AND WELLBEING

INITIATIVE QUESTIONS

'briefly describe an initiative introduced to improve the overall health of Indigenous health and…' (1 mark)

1. *…explain how it has brought about changes in Indigenous Health and Wellbeing (2 marks)*
2. *…explain how it reflects the action areas of the Ottawa charter (2 marks)*

This question would probably be about 3 marks

3 marks:
***1 mark** for describing the initiative*
***1 mark** for directly explaining the work of the initiative and making an appropriate link*
***1 mark** for naming a PSMES dimension or BCSDR action area*

So, you need to know some initiatives!!

ABORIGINAL QUITLINE

Summary:

- Aimed at the prevention of smoking
- Caters specifically to Indigenous Australians and

has people who know the language and culture on the line

- They provide callers with specific plans that cater to their needs
- Has the same number as the normal Quitline, but individuals can ask for specialist Aboriginal advisers

Reflection of the Ottawa Charter:

- Create Supportive Environments: The Quitline is a supportive environment for people wanting to quit
- Strengthen Community Action: people from the community participate in the program
- Develop Personal Skills: provides information to callers on how to quit

ABORIGINAL ROAD TO GOOD HEALTH

Summary:

- Aimed at the prevention of diabetes and other chronic diseases
- Promotes healthy lifestyles through encouraging healthier food choices (through reading nutritional labels) and exercise

Reflection of the Ottawa Charter:

Create Supportive Environments – organises group sessions to encourage healthier habits

Strengthen Community Action – the Victorian Aboriginal Health Service (VAHS) has a 6-week program for communities aimed at preventing type 2 diabetes

Develop Personal Skills – individuals are taught skills such as reading labels, getting active and staying on track to maintain their healthy habits

Reorient Health Services – the program encourages doctors to teach their patients about heart disease and how to prevent it

PROMOTING HEALTHY EATING

Role of Government - Australian Dietary Guidelines

Guideline	Explanation
Guideline 1	To achieve and maintain a healthy weight, be physically active and choose amounts of nutritious food and drinks to meet your energy needs.
Guideline 2	Enjoy a wide variety of nutritious foods from these five food groups every day: *And drink plenty of water
Guideline 3	Limit intake of foods containing saturated fat, added salt, added sugars and alcohol a. Replace unhealthy fats with healthy fats b. Limit food and drinks with added salt c. Limit food and drinks with added sugar d. Limit consumption of alcohol
Guideline 4	Encourage, support and promote breastfeeding
Guideline 5	Care for your food; prepare and store it safely

PROMOTING HEALTHY EATING

Australian Guide to Healthy Eating

- A food selection tool which visually represents the proportions of the 5 food groups recommended in the daily diet.
- The AGHE is a visual representation of ADGs 2 and 3.

How are the ADGs portrayed in the AGHE?

- ADG 2, 'enjoy a wide variety of nutritious foods from the five food groups' is portrayed in the centre circle of the AGHE.
- ADG 3, 'limit intake of foods containing saturated fat, added salt, added sugars and alcohol' is represented in the bottom right corner of the diagram in the 'only sometimes and in small amounts' section.

Australian Guide to Healthy Eating

Enjoy a wide variety of nutritious foods from these five food groups every day.
Drink plenty of water.

Vegetables and legumes/beans

Fruit

Milk, yoghurt, cheese and/or alternatives, mostly reduced fat

Lean meats and poultry, fish, eggs, tofu, nuts and seeds and legumes/beans

Use small amounts

Only sometimes and in small amounts

www.eatforhealth.gov.au

PROMOTING HEALTHY EATING

Nutrition Australia - Healthy Eating Pyramid

- a simple visual guide to the types and proportion of foods that individuals should eat every day for good health
- based on the ADG, ranks the five core food groups and healthy fats, according to how much they contribute to a balanced diet
- Unlike AGHE, also addresses ADG 1 (‘be active every day’)

Tip: High scoring students will learn each individual layer and refer to them in their answers.

PRACTICE QUESTION

VCAA 2016

The federal government developed the Australian Dietary Guidelines and Nutrition Australia has used these guidelines as the basis for the development of the Healthy Eating Pyramid.

Choose two of the Australian Dietary Guidelines and explain how each is reflected in the Healthy Eating Pyramid. (4 marks).

1. Guideline 2: Enjoy a wide variety of nutritious foods everyday is reflected in the entire pyramid, as it ranks the five food groups based on recommended intakes. Thus, “healthy fats” are placed at the top of the pyramid, and vegetables, legumes and fruits are on the foundation layer.
2. Guidelines 3: Limit intake of foods containing saturated fat, added salt, added sugars and alcohol is reflected in the pyramid through illustrating healthy fats as opposed to saturated or trans fats, and the additional message outside the pyramid to “limit salt and added sugar.”

PRACTICE QUESTION

Choose two of the Australian Dietary Guidelines and explain how each is reflected in the Healthy Eating Pyramid. (4 marks).

1. Guideline 2: Enjoy a wide variety of nutritious foods everyday is reflected in the entire pyramid, [1] as it ranks the five food groups based on recommended intakes. Thus, "healthy fats" are placed at the top of the pyramid, and vegetables, legumes and fruits are on the foundation layer. [1]
2. Guidelines 3: Limit intake of foods containing saturated fat, added salt, added sugars and alcohol is reflected [1] in the pyramid through illustrating healthy fats as opposed to saturated or trans fats, and the additional message outside the pyramid to "limit salt and added sugar." [1]

→ *4 marks = 2 marks per explanation (1 mark for guideline and 1 mark for how the guideline in reflected in the food model)*
→ *Note use of the word "reflected"*
→ *Entire name of each guideline and specific aspects of pyramid*

PROMOTING HEALTHY EATING

Nutrition Australia – other initiatives

- Healthy Eating Advisory Service
  - information and support on nutrition for organisations such as hospitals and schools. Includes advice on healthier alternatives and how to incorporate a range of nutritious foods into the menu.
  - Nutrition Australia also works with early childhood services, outside school hours care and schools to promote healthy eating.

- National Nutrition Week campaign:
  - Nutrition Australia's annual healthy eating awareness campaign.
  - Each year, the week raises awareness around the role of food on our health to promote and enjoy healthy eating.
  - The campaign for 2020 was 'Try for 5'

CHALLENGES IN DIETARY CHANGE

- Food security
  - When all people, at all times, have access to sufficient, safe and nutritious food to meet their dietary needs for an active and healthy life
  - Cost of healthy foods has increased more rapidly than unhealthy foods
  - Lower SES are more likely to experience food insecurity than high SES, mostly due to their income or low health literacy
  - Those living in rural areas or suburbs of a low SES can have difficulty accessing nutritious food due to geographical location since fast food outlets are in a higher density in these areas.

- Education, nutrition knowledge and cooking skills:
  - Lack of nutritional knowledge can predispose people to consume unhealthy foods
  - People lack the knowledge to assess their food intake
  - Difficulty in understanding food labels/ nutritional labels
  - Due to low education levels, individuals may not be able to cook a nutritious meal such as a stir-fry and may thus have to rely on packaged energy-dense foods.

Tip: In your response, when answering questions as to why dietary change may be difficult, link to how an ADG may not be able to be achieved/addressed

CHALLENGES IN DIETARY CHANGE

- Time constraints and convenience
  - Meals are planned with consideration of time/ convenience
  - e.g., full-time working parents may purchase 'convenience food' as opposed to cook fresh meals from scratch
  - e.g., truck drivers and those working in trades may rely on outlet food offered near place of employment
  - e.g., full-time working parents may give children money to buy food from canteen rather than prepare something at time due to time constraints
  - Rise of food delivery services such as UberEats and Menulog provides ease for those with time pressure yet these foods are typically unhealthy
- Food marketing
  - The influence of social media has revolutionised the way food is marketed, particularly to young people.
  - Marketing through television and online advertisements influences what people eat, especially children.

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