

ACCESS AND WIDENING PARTICIPATION



UCL

Teacher Toolkit

Social Inequalities in Health

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Welcome

UCL provides a world-class education in one of the most vibrant cities in the world. As well as being a top-ranking university, UCL is right in the centre of London and it enriches students culturally as well as academically. UCL performs among the top universities globally in academic and employer reputation, student to staff ratio, citations per faculty member and the proportion of its international community*.

Introduction

This toolkit has been designed by researchers at UCL, to be used to enrich the A-level curriculum, generate knowledge in new subject areas, and to build bridges to undergraduate study. The toolkits can be used flexibly either as a resource for your A-level students to complete in their independent study time or as lesson plans to meet the requirements of subject specific programmes of study. We hope that you enjoy using this toolkit and find it useful in your teaching.

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*10th in the world (QS World University Rankings 2021)

Topic 1:

Socioeconomic Inequalities in Health

Worksheet 1



Socioeconomic Inequalities in Health

What are Health Inequalities?



'... **systematic differences** in health between different socio-economic groups within a society. As they are **socially produced**, they are potentially avoidable and widely considered **unacceptable** in a civilised society'

Whitehead M. 2007

'Health Inequalities are **avoidable, unfair and systematic differences** in health between different groups of people'

The Kings Fund, 2020

We see health inequalities when certain groups in society have different health outcomes compared to others. Such groups can be defined by gender, race, poverty, education, occupation and so on. Because these differences are preventable, they are known as health inequalities.

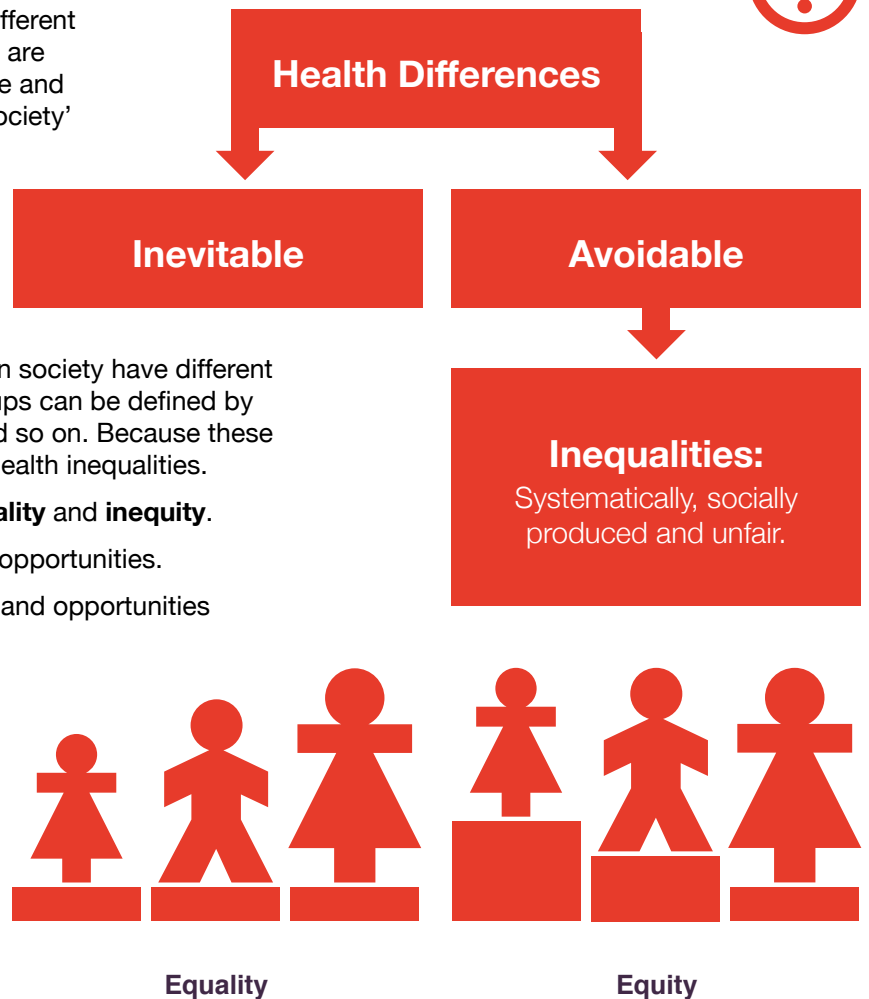
Some authors like to distinguish between **inequality** and **inequity**.

Equality is when individuals are given the same opportunities.

Equity is when individuals are given full support and opportunities to succeed based on their needs.

In the public health community, **inequality and inequity are often considered synonymous**

– in other words, they are considered to mean the same thing: health differences that are unfair and unjust.



The Social Gradient in Health

The Social gradient in health is “a stepwise, or linear, decrease in health that comes with decreasing social position.” (Marmot, 2004). In other words, as socioeconomic advantage decreases, burden of disease increases.

The implications of this are that everyone is affected by health inequalities - it is not just the very disadvantaged who experience worse health because of their socioeconomic position.



Worksheet 1 (cont.)

Socioeconomic Inequalities in Health

Drivers of Health Inequalities

Health Inequalities exist because of social, economic and environmental factors that influence our opportunities, behaviour, attitudes and lifestyles that ultimately affect our health – this process is often thought of as the **social determinants of health**.

‘The social determinants of health are the **circumstances in which people are born, grow up, live, work and age**, and the systems put in place to deal with illness.

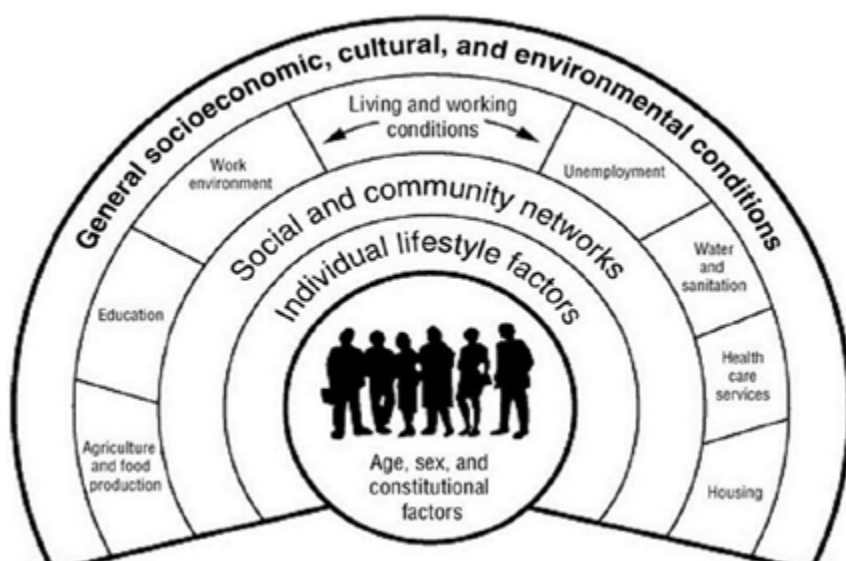
These circumstances are in turn shaped by a wider set of forces: **economics, social policies, and politics.**’

WHO, 2013

In particular, an important determinant of health inequalities is the higher-level influences, such as **political and social factors**, that affect the **extent of inequality in a given society**.

Socioecological model (Dahlgren and Whitehead rainbow – see right) taken from here:

▼ esrc.ukri.org/about-us/50-years-of-esrc/50-achievements/the-dahlgren-whitehead-rainbow/



Health inequalities and Covid-19

Read the article “Why inequality could spread COVID-19” by The Lancet:

▼ [thelancet.com/action/showPdf?pii=S2468-2667%2820%2930085-2](https://www.thelancet.com/action/showPdf?pii=S2468-2667%2820%2930085-2)

Discuss the questions (see right) relating to the article.

Activity 1

1. What is the main message of the article?
2. What is your understanding of inequality?
3. How might COVID-19 impact inequalities?
4. What does the author say about the relation to health inequalities between and within countries?
5. Do you agree with the article?
6. Do you think the number of Covid-19 deaths would be the same if societies were more equal?

Worksheet 1 (cont.)

Socioeconomic Inequalities in Health

Markers of socioeconomic position



What is socioeconomic position?

“Socioeconomic position refers to the social and economic factors that influence what positions individuals or groups hold within the structure of a society.”

Galobardes, B. et al., 2006

Socioeconomic position is often considered to be a broad term, under which a number of different measures and indicators exist. For example:

- Education
- Income
- Social Class based on Occupation
- Housing Tenure and Conditions
- Poverty
- Wealth
- Receipt of benefits
- Household amenities
- Neighbourhood deprivation

Different measures of socioeconomic position capture different information about an individual's position in society. It is important to distinguish what each measures might capture, how they relate to an individual's health, and the strengths and weaknesses of using them. Read the brief descriptions below about four different measures of socioeconomic position.

Education is a marker of socioeconomic position that captures the formal education an individual receives. Education confers skills that allow an individual to access and critically evaluate information, increases an individual's knowledge, intellectual assets and cognitive function. Education is thought to relate to a person's health by increasing their health literacy. **Health literacy is the ability to understand and use healthcare information.**

Education is considered a “gateway” to an individual's occupation and income, and often does not change after early adulthood when most individuals have left formal education.

Income is a marker of socioeconomic position that is a direct measure of an individual's **material resources**. Income therefore influences a person's living standard, and allows an individual to access commodities and services they may need. These may include things such as access to different types of food or being able to afford a gym membership, but may also include access to education, health services and medication. Unlike education, income is **likely to increase with age**, but can also **change very quickly** over a short period of time.

Social Class is normally based on occupation and reflects an individual's social standing in society, or in other words the level of prestige associated with their job. Occupation is strongly related to both education and income, and therefore is likely to be related to health through both access to material resources and through health literacy. Additionally, occupation may be related to health through **access to privileges, or through psychosocial process**. Such privileges may include health insurance, a pension plan and a healthy balance between life inside and outside of work. **Psychosocial processes** occur where stresses associated with a job, such as being on a low salary or having little autonomy over the type of work you do, negatively impacts on an individual's health. Additionally, occupation may be related to health through **occupational hazards** – these are injuries that arise from the type of work done or the conditions people work in.

Housing tenure and conditions is another material measure of socioeconomic position, as it relates to whether an individual owns their own house or rents it, and the size and condition of the house. Housing tenure can be an indicator of an individual's **wealth**, which is typically more uneven than income. **Wealth is different to income**, as it represents an individual's savings whereas income is the amount of money that an individual receives on a regular basis.

Activity 2

Fill in the table below using the information provided, and the article “Indicators of socioeconomic position (part 1)” by Galobardes et al:

➤ ncbi.nlm.nih.gov/pmc/articles/PMC2465546/pdf/7.pdf

	Theoretical basis	How is it measured?	Strengths	Limitations
Education				
Housing Tenure and Conditions				
Income				
Occupational Social Class				

Lesson plan 1

Socioeconomic Inequalities in Health

Key words and concepts

- Health
- Social Epidemiology
- Health Inequalities
- Socioeconomic Position

What you'll need for this lesson

- ✓ *“Why inequality could spread COVID-19”* by The Lancet:
 - ▶ [thelancet.com/action/showPdf?pii=S2468-2667%2820%2930085-2](https://www.thelancet.com/action/showPdf?pii=S2468-2667%2820%2930085-2)
- ✓ *“Indicators of socioeconomic position (part 1)”* by Galobardes et al:
 - ▶ ncbi.nlm.nih.gov/pmc/articles/PMC2465546/pdf/7.pdf

Learning context

This session aims to introduce students to different measures socioeconomic position (SEP) and how these might be useful in understanding health inequalities.

Learning objectives

- Able to explain what health inequalities are.
- Able to compare and contrast different measures of socioeconomic position.
- Able to critique the strengths and weaknesses of different measures of socioeconomic position in relation to measuring health outcomes.

Time (min)

Learning opportunities / activities / differentiation

15

As a class, read the article on “Why inequality could spread COVID-19” by The Lancet. You may wish to nominate a student at a time to read each sentence or paragraph. Encourage students to take notes or annotate as they go along.

Start

15

Students should read through the material provided on the worksheet under the headings “What are health inequalities?” and “Drivers of health inequalities”. In groups, students should answer the questions to Activity 1.

Learning focus

25

Individually, students should read the material on the worksheet titled “Markers of Socioeconomic Position”.

Students should then be given the article “Indicators of socioeconomic position (part 1)” by Galobardes et al, and be allocated one of the following sections to read independently:

- Education
- Housing tenure, housing conditions, and household amenities
- Income
- Occupation Based Measures

Whilst reading, students should fill in the information about their allocated SEP marker in the table on the worksheets.

Students should then pair up with another person who was working on a different SEP marker. They should teach each other about the marker they were investigating, and complete the correct section of the table. Repeat until everyone has completed the table.

5

As a class, consolidate the material covered in the session by reviewing the answers given to activities 1 and 2. Ask students for their thoughts of the strengths and weaknesses of each marker of socioeconomic position, and which they think would be most useful for measuring inequalities in health.

Wrap-up

Topic 2:

Socioeconomic inequalities over the life course



Worksheet 2

Socioeconomic inequalities over the life course

The Life Course Approach



What is the life course?

An individual's life is made up of different stages: **Infancy; Childhood; Adolescence; Adulthood – this may also be split up into early adulthood and mid-life; and Older age.**

At each of these different stages, important “life course events” occur. For example, in infancy you learn to walk and talk; in childhood and adolescence you go to school, college and maybe university; in adulthood you may get your first job, get married, start a family and buy a house. There may also be events that occur over your life course that are unique to you. For example, you may move to a different country, may get an apprenticeship or internship, may break your leg or have a serious injury, take up an extreme sport or a new hobby. Even though these different events may happen at a single stage of life, they have the potential to influence you and your health across your life course. In other words:

‘The life course is a set of **interlocking trajectories or pathways** in various domains (e.g. health, family, work) over an individual's life that are marked by a **series of events, transitions or exposures** across biologically and socially defined life stages’

Alwin, 2016

Activity 1 – Vignette

To help understand the different life course factors that influence an individual's health, it is useful to write a vignette, documenting the important events, exposures and transitions an individual has experienced that leads them to their current position.

A vignette is a brief description or account of an individual that captures their characteristics.

Imagine an individual who is:

- 63 years old
- Married
- Overweight
- Running a small family business
- 1st generation immigrant
- Homeowner
- Diagnosed 5 years ago with chronic obstructive pulmonary disease.

Chronic obstructive pulmonary disease is the name for a group of lung conditions that cause breathing difficulties. It often occurs in individuals in middle-age or older, and individuals who smoke.

Create a vignette...

With the other members of your group, create a vignette describing this person.

You may also wish to draw an illustration of them.

Describe their life history (series of changes and events over their life time [e.g. when did they finish formal education]) including key elements that are important for understanding their adult health state.

Worksheet 2 (cont.)

Socioeconomic inequalities over the life course

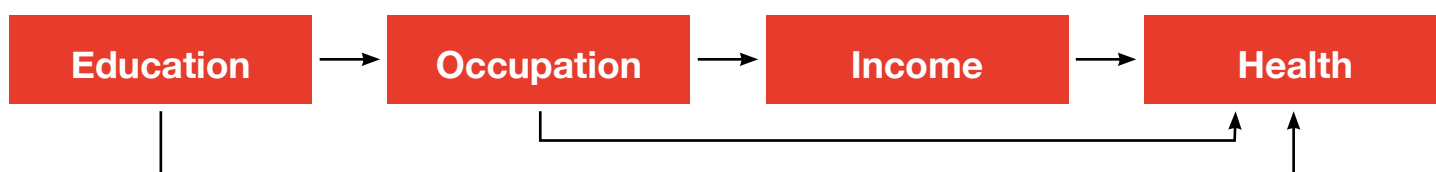
A Life Course Approach to Social Inequalities



A life course approach looks at **how socioeconomic position at one stage of our life course is connected to socioeconomic position in the next**. For example, level of income in childhood may impact their level of formal education by their early adulthood, and this in turn may influence their wealth in midlife. Therefore socioeconomic advantage or disadvantage could be thought to **accumulate over the life course**.

A life course approach also looks at how socioeconomic position at different stages of our life impacts our health across our life course. For example, there are important **sensitive periods** across the life course, where events or conditions at that age can have long lasting impact. For example, children who have a low birthweight have greater risk of cardiovascular disease in adult life. This is a **latency or lagged effect**, where birth weight in childhood has impacts on health that are not seen until adulthood and older age.

Additionally, socioeconomic position may have a direct impact on your behaviours and health at a single time point, and these behaviours or health conditions may set you on a particular **trajectory or pathway**. For example, family income may directly impact what food an individual has as a child, and this may result in particular food preferences and eating behaviour that continues into adolescence and adulthood, and ultimately impacts on health through adult dietary choices.



Activity 2 – Life course diagram

Using ideas covered, create a life course diagram to demonstrate how inequalities in health might develop. A simple example is given on page 12 – your diagram may have many more pathways involved.

Choose **one measure of socioeconomic position (SEP)** (see page 13, point 1), and **one later life health condition** from the list (page 13, point 2) as your “start” and “end” points.

Think of as many pathways and factors that may connect the two. There is no right or wrong answer, but be prepared to explain why you have drawn a particular pathway. You may wish to colour code different factors i.e social, biological, behavioural. Examples of **important factors** are given on page 13 (point 3), you may want to think of more!

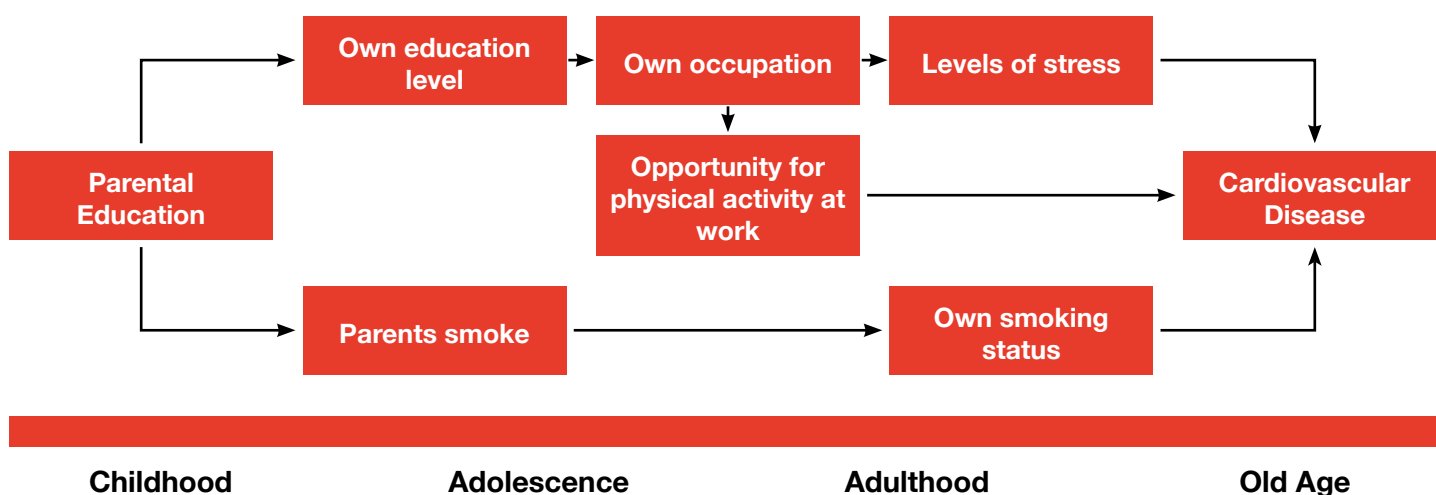
Things to think about:

- When in life do you think SEP has the biggest impact on your health?
- Are there points of intervention in your life course diagram when health could be improved?
- What policy could you implement that would improve the health of many people in similar circumstances?

Worksheet 2 (cont.)

Socioeconomic inequalities over the life course

Life course diagram example: parental education and cardiovascular disease.



This life course diagram shows three different pathways from parental education level to cardiovascular disease.

Pathway 1

The first pathway goes through own education level, own occupation and stress. The education of an individual's parents is related to their own educational attainment. An individual's education is likely to impact what occupation they have, and this will impact on work related stress. High levels of stress can increase the risk of cardiovascular disease.

Pathway 2

The second pathway goes through own education, own occupation, and physical activity at work. Different occupations allow different opportunities for physical activity at work, such as more manual jobs. Greater levels of physical activity is associated with a lower risk of cardiovascular disease.

Pathway 3

The third pathway goes through parental smoking and own smoking status. Education level is associated with smoking status – those who complete less education are more likely to smoke. An individual's health behaviours are influenced by their parent's behaviour, so if a parent smokes, the child is more likely to also smoke as an adult. Smoking can increase the risk of cardiovascular disease.

Worksheet 2 (cont.)

Socioeconomic inequalities over the life course

Socioeconomic Position

1

Choose from the list a socioeconomic factor at the start of life, which will be the left hand side of your life course diagram:

- Family Income
 - Parental Education
 - Parental Occupation
 - Housing Conditions and ownership
-

Later Life Health Condition

2

Choose a later life health condition, which will be the right hand side of your life course diagram:

- **Cardiovascular disease (CVD).** CVD relates to all conditions of the heart and circulatory system, including heart attacks, heart failure, strokes and angina (pain in the chest). Risk factors for CVD include having a high BMI, smoking and having high blood pressure. CVD can be prevented by living a healthy lifestyle, including staying physically active and eating a healthy diet.
 - **Bowel Cancer.** Bowel cancer is a very common type of cancer that starts in the bowel (or colon) and tend to effect people over the age of 60. Other risk factors for bowel cancer include family history, diets high in red or processed meat, lack of exercise, higher BMI, alcohol consumption and smoking.
 - **Chronic Obstructive Pulmonary Disease (COPD).** COPD is the name for a group of lung conditions that cause breathing difficulties. It often occurs in individuals in middle-age or older, and individuals who smoke. Other risk factors include exposure to harmful fumes or dust and genetic factors.
 - **Type 2 Diabetes.** Type 2 diabetes is a very common condition, where the body is not able to produce enough insulin to regulate blood sugar levels. The main causes of type 2 diabetes are related to life style, such as living a sedentary lifestyle, have a diet high in fat, sugar and cholesterol, consumption of alcohol and smoking. High blood pressure and BMI are also associated with diabetes.
 - **Chronic Kidney Disease (CKD).** CKD is a condition where the kidneys don't work as effectively as they are meant to. It is a common condition that is often associated with old age and a result of other long term health conditions that put a strain on the kidneys. Other risk factors include diabetes, consumption of alcohol, and long term use of certain medicines, high blood pressure and cholesterol.
-

Life course factors

3

Look at the list of life course factors and pick any that are relevant to your life course diagram.

You will probably also want to think of your own.

- | | | |
|--------------------------------|---|----------------------------------|
| - Adolescent BMI | - Infections in childhood | - Mental illness / mental health |
| - Adult BMI | - Interest in normal activities | - Nutrition in childhood |
| - Adulthood cognitive function | - Infant nutrition | - Nutrition in adulthood |
| - Alcohol consumption | - Infections in adulthood | - Own divorce |
| - Birthweight | - Dysregulation of physiological (e.g stress) systems | - Parental divorce |
| - Blood pressure | - Educational attainment | - Passive smoking |
| - Childhood BMI | - Exposure to air pollution | - Physical activity in adulthood |
| - Childhood cognitive function | - Genetic factors | - Physical activity in childhood |
| - Growth during adolescence | - Long-term chronic illness | - Religion |
| - Growth in childhood | - Smoking | - Self-worth/self-esteem |
| - Sleep patterns | - Marriage | - Other (specify) |
| - Air pollution | | |

Lesson plan 2

Socioeconomic inequalities over the life course

Key words and concepts

- Health
- Social Epidemiology
- Health Inequalities
- Socioeconomic Position
- Life course

What you'll need for this lesson

- ✓ Worksheet 2
- ✓ Post-it notes
- ✓ Large (e.g A1) paper

Learning context

The aim of this session is to think in greater detail about how socioeconomic position may impact individuals' health outcomes in different ways over their lifetime.

Learning objectives

- Able to recognise the complexity of the processes linking SEP with health.
- Able to describe different pathways that link SEP and health over the life course.
- Able to identify points of intervention to improve health during the life course.
- Able to specify possible policy interventions to improve health over the life course.

Time (min)

Learning opportunities / activities / differentiation

5

Students should read the material in the box “A Life Course Approach”. Ask students to think of a life course event they have experienced, and to write this down. Examples could be moving house, moving school, moving country, getting a pet, getting a job, learning a new skill, taking up a new sport etc. Ask students to think about why this was an important life course event. Ask if any students are happy to share their life course event and how it has affected them.

15

In groups, students are given a simple description of an individual and should write a vignette for this person exploring their life history. They may also want to draw them.

Each group should pair up with another group and compare their vignettes. Encourage students to discuss the differences, which life course events they considered important, and the ways in which socioeconomic position may be an important cause of health.

25

Students should use ideas from the first activity to then create a life course diagram, demonstrating how socioeconomic position may impact an individual over their life time.

Working in groups, students should select one SEP variable in early life, and a later life health condition and draw a life course diagram creating pathways between the two – hints of different variables and life course factors that may be on different pathways are provided. See the worksheet for an example of a life course diagram and the pathways that might be drawn.

This activity works well using A1 paper and post it notes to write the different life course factors on, as it allows students to move them around and change their diagram as they are working.

15

As a class, each group should take it in turn to briefly describe their life course, and explain one pathway that they thought was important. Ask students to think of potential points of intervention.

As an optional homework activity, ask students to write a couple of paragraphs answering the following questions:

- When in life do you think socioeconomic position has the biggest impact on your health?
- Are there any points of intervention in your life course diagram?
- What kind of policy or intervention would you want to implement to improve health over the life course?

Start

Learning focus

Wrap-up

Curriculum links

Below is a list of areas taken from the A-level curriculum that directly relate to content covered in this toolkit.

Subject area:

Sociology (AQA)

Core Themes – social differentiation, power and stratification

Core Theme: social differentiation, power and stratification.

The theme should be understood and applied to particular substantive areas of Sociology. These themes are to be interpreted broadly as threads running through many areas of social life and should not therefore be regarded as discrete topics.

In addition, students must understand the significance of conflict and consensus, social structure and social action, and the role of values.

Contemporary UK Society

The central focus of study in this specification should be on UK society today, with consideration given to comparative dimensions where relevant, including the siting of UK society within its globalised context.

Health – Unequal Distribution

- The unequal social distribution of health chances in the United Kingdom by social class, gender, ethnicity and region
- Inequalities in the provision of, and access to, health care in contemporary society
- The social construction of health, illness, disability and the body, and models of health and illness

Health – Social construction of health and illness

Stratification and Differentiation

Students are expected to be familiar with sociological explanations of the following content:

- stratification and differentiation by social class, gender, ethnicity and age
- dimensions of inequality: class, status and power; differences in life-chances by social class, gender, ethnicity, age and disability
- the problems of defining and measuring social class; occupation, gender and social class
- changes in structures of inequality, including globalisation and the transnational capitalist class, and the implications of these changes
- the nature, extent and significance of patterns of social mobility

Glossary

Below is a list of key terms in the toolkit, and their definitions.

Social Epidemiology

Social epidemiology is a branch of epidemiology that tries to understand the social determinants of the pattern of health and disease and tries to understand the pathways that lead from social characteristics to physical or mental health outcomes.

Social Inequalities

Social inequalities are an uneven distribution of resources in society. These may be differences in wealth, income, employment, education, and financial assets as well as differences in opportunities.

Health Inequalities

Health inequalities are unfair, avoidable and systematic differences in health. They are often a result of social inequalities.

Socioeconomic Position

Socioeconomic position is a broad term that captures the social and economic factors that influence the position individuals or groups of people hold in society. It can be measured through a number of different indicators, but some of the most common are education, occupation and income.

Life Course

The life course is made up of different stages: Infancy; Childhood; Adolescence; Adulthood (this may be split up into early adulthood and mid-life); and Older age.

Life Course Approach

The life course approach looks at the ways that different events, pathways and trajectories that occur over our life course interconnect and impact on our health and wellbeing across our life.

Resources

See below some useful resources linked to this subject area.

Kings Fund - What are health inequalities?

The Kings Fund is a charity based in England that aims to influence health policy and practice. Their website provides a number of up to date resources and videos.

- ▼ kingsfund.org.uk/publications/what-are-health-inequalities

NHS England - Definitions for Health Inequalities

NHS England provides further information on what health inequalities are.

- ▼ england.nhs.uk/ltphimenu/definitions-for-health-inequalities

The Health Foundation

An independent charity focused on improving health in the UK and addressing health inequalities. Produces independent and up to date reports and research. A number of videos and resources available on their website.

- ▼ health.org.uk
- ▼ health.org.uk/topics/inequalities

Useful Research Papers:

M. Marmot (2017) "The health gap: Challenges of an unequal world: the argument" International Journal of Epidemiology, Volume 46, Issue 4, Pages 1312–1318

- ▼ doi.org/10.1093/ije/dyx163
- ▼ ncbi.nlm.nih.gov/pmc/articles/PMC5837404/

D. Galobardes et al (2006) "Indicators of socioeconomic position (part 1)" Journal of Epidemiology and Community Health, 2006;60:7-12. DOI: 10.1136/jech.2004.023531

- ▼ jech.bmj.com/content/60/1/7.long

Other useful resources are provided in the lesson plans and worksheets.

Get in touch

UCL Institute of Epidemiology and Health Care

There are a number of different ways you can engage with UCL further. We host a number of school visits to UCL over the year, which include taster sessions of university lectures. We also run summer schools and summer challenges in a range of subjects, including in population health sciences. Additionally, we run yearly master classes and outreach events, as well as open days across UCL.

If you want more information on how to engage with UCL further, and in particular the BSc in Population Health Sciences, visit our website where you can find out more information.

➤ ucl.ac.uk/epidemiology-health-care/study/undergraduate/population-health-sciences-bsc

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