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The 2023 Health Challenge Research Springboard: Process and outcomes

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Non-technical summary

The Understanding Society team designed this Research springboard to harness collective knowledge and skills from across sectors, cross-fertilise research ideas and facilitate social learning, and co-produce health related research using Understanding Society data. The Research springboard consisted of three full day workshops spread over five weeks, with a further month at the end for completing analysis and plan further work.

A 'health challenge' document was prepared ahead of sending out invitations to perspective participants. The challenge document was designed to set the context for the research springboard and identify topic areas of policy relevance that could be examined using Understanding Society data. Four topic areas were identified: (1) Young people and health (2) Work and Health (3) Money, Finance and health (4) Disability and health. Invitations were sent to targeted relevant individuals and organisations. Expressions of interest were received from 35 individuals, of whom the vast majority were invited to take part in the research springboard. The organisational backgrounds of those who attended were equally split between academic and non-academic organisations with government departments, charities and third sector organisations making up half the participants.

Day one was an in-person day that provided detailed briefings on the Understanding Society survey and the four topic areas. The delegates self-selected into these topic areas and were taken through a facilitated brainstorming process, with participants identifying research questions and forming teams around related questions of interest to them. Eight teams emerged through the process, with each team consisting of between 2 to 5 researchers. On the final day the teams presented their results to a policy panel of experts who offered feedback and suggestions for how to develop further outputs targeted at influencing policy. Summaries have been captured in two-page summary reports and the high-level findings of the eight teams were as follows:

1. **Money, measurement and health team** identified a large benefit observed in terms of people's mental health from not being behind with bills or not being under financial strain.
2. **Money, social factors and health team** found that poor mental health is associated with worse financial outcomes, possibly subsequent job loss and increased likelihood of experiencing material deprivation.
3. **Sectoral variation and disability team** observed that people with disabilities were retained in work at lower rates than non-disabled people, particularly among those who had been working in the accommodation and food sectors.
4. **Precarious work and health team** did not find **a** single measure of economic precarity that predicted all aspects of health, but subjective job insecurity was significantly associated with poor mental health.
5. **Young people, place and health team** looked at which subjective experiences of a range of local services were observed to be 'protective' of economic inequalities leading to poor health for different ages of young people.
6. **Young people, social relations, and health team** observed a U-shaped relationship for reported loneliness and age, with levels highest among females and those aged 16 to 19.
7. **Young people, disability & health team** identified a U-shaped cohort relationship for reported disability, with the oldest cohort (born pre-1936) and youngest cohort (since 1996) having higher rates of reported disability. Both the rates of disability and the degree of this U shape was greater among women than men.
8. **Disinvestment and trends in young people's Mental Health** team observed a significantly association between austerity policies and a decrease in mental health for young people in Scotland, the South East, London, and the North East.

The 2023 Health Challenge Research Springboard: Process and outcomes

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Abstract:

Established researchers and analysts were invited to take part in a health challenge research springboard using Understanding Society data. 29 attended in person for the first of the three contact days to explore four topic areas of interest: (1) Young people and health (2) Work and Health (3) Money, Finance and health (4) Disability and health. Eight teams formed around these topics, which on the third and final day presented their results to a policy panel of experts who offered feedback and suggestions for how to develop further outputs targeted at influencing policy. The high-level findings of the eight teams were: (1) There was a large benefit observed in terms of people's mental health from not being behind with bills or not being under financial strain (2) Poor mental health is associated with worse financial outcomes; and possibly with subsequent job loss and increased likelihood of experiencing material deprivation (3) Disabled people were observed to be retained in work at lower rates than non-disabled people, which was most pronounced among those who had been working in the accommodation and food sectors (4) No single measure of economic precarity uniformly predicted all aspects of health but subjective job insecurity was significantly associated with poor mental health (5) The team looking at young people, place and health identified which subjective experiences of a range of local services were observed to be 'protective' of economic inequalities (6) A U-shaped relationship was observed for reported loneliness and age, with levels high for those aged over 55 years but highest among those aged 16 to 19 (7) A U-shaped cohort relationship was identified for reported disability, with the oldest cohort (born pre-1936) and youngest cohort (born since 1996) having higher rates of reported disability (8) Austerity policies were found to be significantly associated with a decrease in mental health for young people in Scotland, the South East, London, and the North East.

Keywords: Health, work, young, money, finance, disability, place, mental health, precarious work

JEL classification: I1, I10, I12, I14, I15, I18, J71, J78

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1. Introduction

Research springboards

The original idea of running this series of challenge labs was based on offering cross-sectoral data dives that provide shared opportunities for using Understanding Society data and policy learning. The data dives were subsequently rebranded as research springboards after the first event on climate change - to better reflect the nature of distance travelled when working with complex data such as Understanding Society.

Real world problems are typically ill-defined and, and even when they are well-defined, often have open-ended solutions[1]. Solving real world problems is increasingly based on utilising methods based on 'design engineering' and collaborative learning. In this context we are particularly interested in the role that co-production models can play in strengthening academic-policy engagement. The *Independent Review of the UK's Research, Development and Innovation (RDI) Organisational Landscape* also identified that more should be done to improve the links between universities and other research performing organisations (RPOs) in the RDI landscape, but building productive interactions can be difficult to establish for a variety of reasons.[2]

Co-production in this setting is about bringing people together to collaborate and address complex policy challenges. However, ideally co-production should go beyond design engineering and collaboration to involve 'sharing power' (e.g. improving permeability' between organisations, breaking down hierarchies, new modes of governance, etc.), valuing the skills and knowledge of all those involved, and offering value for all concerned[3]. Central to co-production is identifying actors who have 'skin in the game' and a timely focus on opportunities presented by policy windows. The close tie between insights and creativity is a recurring theme in literature, and ideas as a factor are seen to matter as a variable in public policy research[4], while policy learning is also seen as a component of processes such as ideational theories of policy change[5].

At its simplest Understanding Society's research springboard is an activity where people from different disciplines/backgrounds collaborate to research and generate potential ideas to knotty problems. It is not a finalised method but the process moves research and policy thinking forward. Understanding Society's own model is adapted from the Design Council's double helix process, and includes post-event evaluation

[1] Sarathy, V., (2018), Real World Problem-Solving. Front. Hum. Neurosci. 12:261. doi: 10.3389/fnhum.2018.00261

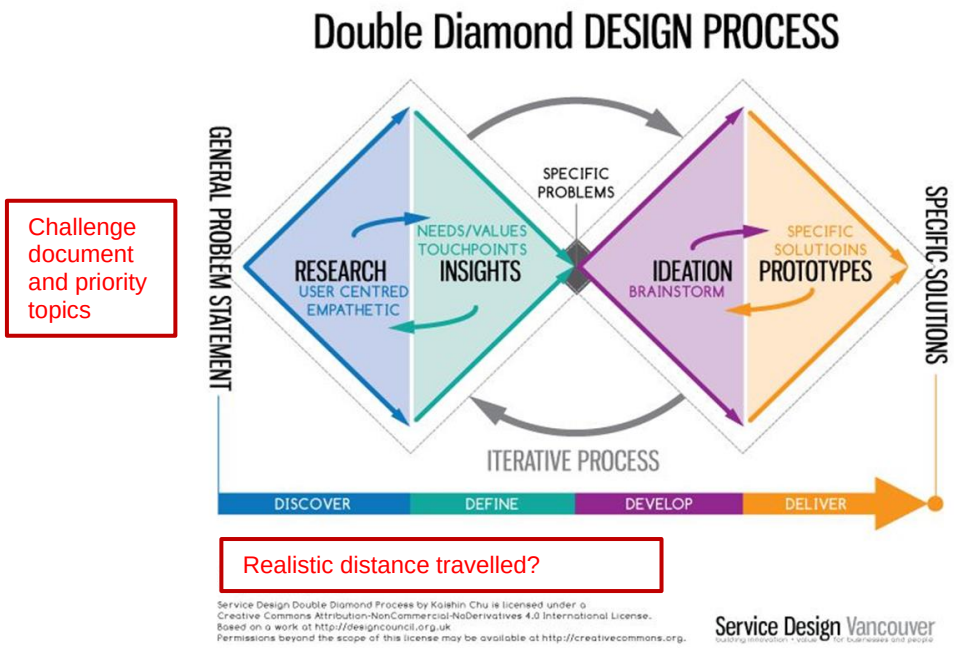
[2] Nurse, P., (2023), Independent Review of the UK's Research, Development and Innovation Organisational Landscape. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1141484/rdi-landscape-review.pdf

[3] Capabilities in Academic Policy Engagement (CAPE, 2023), Co-production in regional academic policy engagement: developing optimal conditions. https://www.cape.ac.uk/wp-content/uploads/2023/06/Co-production-in-Regional-Academic-Policy-Engagement.pdf

[4] Swinkels, M. (2020), How ideas matter in public policy: a review of concepts, mechanisms, and methods, International Review of Public Policy. http://journals.openedition.org/irpp/1343; DOI: https://doi.org/10.4000/irpp.

[5] Claire A. Dunlop, C., & Radaelli, C., (2022), Policy Learning in Comparative Policy Analysis, Journal of Comparative Policy Analysis: Research and Practice, 24:1, 51-72, DOI: 10.1080/13876988.2020.1762077

to improve the model over time. There are also other co-production approaches and tools available such as Nesta's Collective Intelligence Design Playbook[6]. Understanding Society's model has both an individual dimension that could influence beliefs or behaviours, and a collective dimension that could help construct meaning through social interaction, facilitate creative thinking and avoid group think.



More specifically, the research springboard is designed to:

1. **Identify and bring together users** (new & existing) from a range of disciplines/sectors with an interest in a public policy challenge.
2. **Co-design research** based on Understanding Society, identify how issues are connected, and build on existing Understanding Society findings (e.g. through the publications section).
3. **Facilitate the development of new insights and social learning** through group work, with academic and non-academic researchers working together - within the timeframe of the springboard and beyond if appropriate.
4. **Generate tentative policy ideas** informed by data analysis and dialogue, if feasible (the third stage of ideation in the double helix model).

It is acknowledged that while only the most productive teams are likely to be able to progress to the ideation stage, reflexive policy learning can be built in throughout the process in a number of ways: by inviting experts providing their perspectives on concepts and issues of salience from their vantage point; by different actors discussing and negotiating research questions of most relevance; and by providing teams an opportunity to work in mixed groups across organisational boundaries.

[6] NESTA (accessed in 2023), The Collective Intelligence Design Playbook (beta): Tools, tactics and methods to harness the power of people, data and technology to solve global challenges. https://media.nesta.org.uk/documents/Nesta_Playbook_001_Web.pdf

The health challenge research springboard

The health challenge research springboard set out to provide a unique collaborative data analysis and problem-solving approach to population health challenges, with researchers and analysts from different sectors and disciplines working together – in a co-production model - to identify and examine important research and policy questions.

The research springboard workshops took place over three days, spread across five weeks, with a mix of in-person (day 1) and online activities (days 2 and 3). Participants had a further month to complete their research if required. The first day was hosted in-person at the University of Essex. Day two and three was hosted virtually, using Zoom and the messaging app SLACK for information sharing and collaborative work.

Social learning was a key design feature, with participants working in teams, aligned to one of four topics of policy interest, and undertaking research during and between the workshop sessions. Each team focused on what new evidence is needed that could benefit policy or practice and work out a method to answer research questions of mutual interest. Participants used End User Licence data, with the latest data available from wave 12 (2020/2021).

A further objective of the research springboard was to help build relationships across disciplines, organisations and sectors and promote ongoing collaboration beyond the life of the research springboard. It is important to acknowledge that research springboards are not a finalised method or singular event but a means to an end; the process is designed to move things forward faster but not necessarily fully resolve all the issues that emerge in research and problem solving. The analytical outputs were intended to be open-ended, with a policy panel on the final day to draw the focus towards impact and further collaboration on the project.

The health ‘challenge document’ sent to invitees

A challenge document was prepared by Understanding Society ahead of sending out invitations out to perspective participants. The document set out the major population health challenges facing the UK and went on to frame issues faced by policy in the UK in relation to health into four topic areas:

1. Young people and health.
2. Work and Health.
3. Money, Finance and health.
4. Disability and health.

2. Who took-up the challenge?

Invitations were sent to targeted relevant individuals and organisations in the first instance. Efforts were made to ensure that those invited would likely meet the high level of analytical background required. Expressions of interest were received from 35 individuals. Of these, 33 were invited and 29 accepted and attended the first day of the event.

Those participants that needed knowledge about Understanding Society, were offered a place on the 'Introduction to Understanding Society 2-day training workshop.

The organisations that the participants – and speakers – represented are shown in alphabetical order below (with some organisations sending more than one participant).

List of organisations involved in the Research Springboard

Association for Young People's Health	Loughborough University	The Royal Society of Arts (RSA)
Business for Health	Money and Mental Health Institute	The Scottish Government
Centre for Health Economics		UKHAS
Centre for Longitudinal Studies	Nuffield Trust	University College London
Centre for Mental Health	Personal Finance Research Centre (PFRC), University of Bristol	University of Melbourne
Department of Health and Social Care	Royal Mencap Society	University of Northumbria
Department of Work and Pensions	Swansea University	University of Sheffield
Durham University	The Health Foundation	University of York
Lancaster University	The Public Health Agency of Sweden	Welsh Government

3. Inputs from participants and speakers

Proposed research ideas from the expressions of interests

The expressions of interest submitted by applicants proposed a very large number of research ideas and areas of research interest. These were grouped by the four topic area and have been summarised here and listed in full in Anne 2.

- The research ideas submitted by applicants as part of their expressions of interest relating to the **health issues facing young people** in modern Britain placed emphasis on mental health over physical health, as well as the challenges faced particularly by younger people including the impact of pandemic lockdowns, labour markets, housing insecurity & deprivation, as well as what might protect young people from the impact of inequalities.
- The research ideas submitted by applicants as part of their expressions of interest relating to the relationship between **health and work**. The focus of the ideas included suggestions for analysis of how the health and disability status of workers from different sectors affect the level of retention. Other areas of interest included issues around the changing nature of the work in relation to the changes seen during the pandemic, and interest in the barriers to moving out of economic inactivity**.**
- The research ideas submitted by applicants as part of their expressions of interest relating to the relationship between **money, Finance and health** sought to understand not just whether there is an association, but the causal relationship (i.e. does money issues cause mental health issue or does mental health issue cause money issue). It was additionally proposed to look how this relationship differs for different groups, measures of financial strain and financial products.
- The research ideas submitted by applicants as part of their expressions of interest relating to the relationship between **disability and health** proposed to consider the causal relationship between mental health and musculoskeletal conditions, the wider experiences of disabled people in their work, and how the benefits systems effects their lives.

These research ideas provided an input and starting point for the later development of specific set of research questions through a process of ‘filter and forge’ within topic groups once participants met in person.

Expert presentations on day-one

Day one was an in-person day the Institute for Social and Economic Research at the University of Essex. Research springboards acknowledges that while only the most productive teams are likely to be able to progress towards useful results, for others, reflexive policy learning can be built in by inviting experts to provide their perspectives on concepts and issues of salience from their vantage point. Therefore, in the morning of the first day, in addition to detailed briefings on the survey and data from the Understanding Society team, the delegates were given presentations from four policy-engaged experts from the four topic areas set out in the challenge document. These briefings are summarised as follows:

1. Young adults and health

On the topic of young adults and health, Ann Hagell, Research Lead for the Association for Young People's Health (AYPH), outlined the life opportunities which the transition to adulthood presents in terms of people's living arrangements, employment and finances, relationships, mental and physical health, and community participation. In terms of its health, this group is characterised by low mortality, but where there are deaths, they usually have external causes, such as road accidents, rather than internal (disease etc.)[7]. Non-communicable diseases, including mental disorders and musculoskeletal disorders account for the majority of years lived with disability[8].

'Youth-responsive' research, policy, and services are needed at this developmental stage, because there are different patterns of behaviour, symptoms, and responses to treatment. There is also evidence that health inequalities are already embedding at this stage, with those living in the most deprived areas 2.7 times more likely to become pregnant[9], 2.5 times as likely to have tooth decay[10], twice as likely to be obese[11], and twice as likely to die in adolescence[12] as those in the least deprived areas.

This is a neglected age group, with the United Nations' Committee on the Rights of the Child saying in 2016: "the potential of adolescents is widely compromised because States parties do not recognize or invest in the measures needed for them to enjoy their rights"[13]. Consideration of policy outcomes tends to be restricted to academic achievement and employment, or to levels of smoking, drinking, and drug use.

In addition, AYPH believes there is a mental health intervention crisis, with nearly 1 in 4 (25%) young women aged 17-19 meeting the criteria for having a mental disorder[14], but only 19 in 1,000 children and young people under 18 (1.9%) were on the community mental health services caseload in England in 2019[15].

Policy levers in this area include tackling health inequalities; supporting the development of integrated care systems boards and partnerships; place-based interventions such as youth clubs & apprenticeships; social prescribing; and NHS Core20+5 for children and young people (an approach which identifies five clinical areas requiring improvement for the most deprived 20% of a target population).

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[7] Office for National Statistics, Mortality statistics – underlying cause, sex and age, England and Wales, 2019: https://www.ons.gov.uk/releases/deathsregisteredinenglandandwales2019
[8] Benedetta Armocida et al, Burden of non-communicable diseases among adolescents aged 10–24 years in the EU, 1990–2019: a systematic analysis of the Global Burden of Diseases Study 2019, Lancet Child & Adolescent Health, 2022: https://doi.org/10.1016/S2352-4642(22)00073-6
[9] OHID Child and Maternal Health, 2019
[10] Child Dental Health Survey, England, Wales and Northern Ireland, 2013
[11] NHS Digital, National Child Measurement Programme, England, 2020/21
[12] AYPH analysis of ONS Mortality statistics: underlying cause, sex and age, 2020
[13] General comment No. 20 (2016) on the implementation of the rights of the child during adolescence, 2016: https://www.ohchr.org/en/documents/general-comments-and-recommendations/general-comment-no-20-2016-implementation-rights
[14] Mental health of children and young people in England 2017, NHS Digital: https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-of-children-and-young-people-in-england/2017/2017
[15] NHS Benchmarking Project, Child and Adolescent Mental Health Services, 2020: https://www.nhsbenchmarking.nhs.uk/news/tag/CAMHS

2. Work and health

On the topic of work and health, Elizabeth Bachrad, Head of Programme Strategy at Business for Health, showed that there has been an increase in economic inactivity since the start of the COVID-19 pandemic, much of which is due to long-term sickness[16]. There are around 13.7m working-aged people in the UK with a long-term health condition, including 8.3m disabled people whose condition reduces their ability to carry out day-to-day activities[17]. In 2019, 138m working days were lost to sickness absence, and every year, 1.4m people have a sickness absence lasting 4+ weeks[18]. As of November 2022, 13.3% of businesses surveyed by the ONS reported worker shortages[19]. UK employers lose £56 billion every year because of poor mental health in their workforce[20].

Business for Health has identified gaps in our existing knowledge, including:

- the effectiveness of workplace health interventions that target the needs of specific underserved population groups.
- interventions that aim to support women's health in the workplace.
- the impacts of changes to job design, changes to working practices, and home and hybrid working on health and health inequalities.
- the environment and the impact of biological/chemical, environmental, physical and social exposures at work.
- outcomes from upskilling and training line managers across different age groups, employment sectors and socio-economic groups.

There are also emerging gaps, such as:

- environment, social and governance (ESG) agendas – Business for Health suggests businesses and local authorities "should explore opportunities to integrate health considerations within existing ESG plans".
- local needs – there could be synergy between community engagement strategies and existing ESG strategies that correspond to needs of a local area, their workforce and their own business interests.
- biopsychosocial approaches – asking questions such as what prevents companies from disclosing metrics associated with determinants that affect health outcomes, and how to link electronic health records with business data.

To address these gaps, joined-up local health and employment data could identify the link between ill health and sickness benefits in enough detail to shape policy interventions. Research could lead to evidence-based recommendations to help people affected by mental health in the workplace and/or working with pre-existing mental health conditions. New regulations could hold businesses accountable for

[16] Office for National Statistics, Economic inactivity by reason (seasonally adjusted): https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/economicinactivity/datasets/economicinactivitybyreasonseasonallyadjustedinac01sa
[17] Department for Work and Pensions, The employment of disabled people 2021: https://www.gov.uk/government/statistics/the-employment-of-disabled-people-2021
[18] Office for National Statistics, Labour Market Overview, UK: April 2022, Table A08: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/april2022/relateddata?sortBy=relevance
[19] Office for National Statistics, Private sector employment as % of total employment, 2021: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/publicsectorpersonnel/timeseries/db37/pse
[20] Public Policy Projects: Population Health in Business, 2023: https://publicpolicyprojects.com/latest-from-ppp/population-health-business-improving-health-outcomes-community/

health equity goals, particularly in terms of pay equity, working conditions, and fair recruitment. Business for Health believes that:

- tackling health inequalities can help people of working age and boost the UK economy.
- the right balance of quantitative and qualitative data could allow companies to improve decision making in policies and practices.
- short-term gains should be balanced with longer-term measures on social and economic value.

3. Money, finance and health

Conor D'Arcy, Head of Research and Policy at the Money and Mental Health Institute, talked about the vicious circle of mental health problems and financial difficulty. Mental health problems make it harder to earn, to manage money and spending, and to ask for help, leading to financial difficulty. This, in turn, causes stress and anxiety, which is made worse by going without essentials and by 'collections activity' (others' efforts to collect money owed). The Institute's own research suggests that people with mental health problems are more likely to have no savings to help them cope with emergencies; more than twice as likely to have relied on credit or borrowing to cover everyday spending; and nearly twice as likely to have debts equivalent to more than half of their annual income. They are also three times more likely to be behind on a range of payments such as council tax and bills.

Thirty-six per cent of people with mental health problems have never received a diagnosis, and 54% have significant difficulty using the phone. Stigma will prevent many more people disclosing their illness. Of those with a mental health problem:

- 32% will be 'secure' – that is, likely to be in work, with low debts, a decent income, savings to fall back on, up to date with bills, and less severe mental health problems.
- 20% will be 'coping' – out of work, on a lower income, unable to save, but with low debts and up to date with bills.
- 12% are 'fire-fighting' – in work, on a lower income, with low savings and high debts, but up to date with bills, and with less severe mental health problems.
- 15% are 'slipping' – in work and on benefits, with a decent income and savings to fall back on, but with high debts, behind on bills, and with severe mental health problems.
- 21% are 'sinking' – out of work, on benefits, with a lower income, low savings, and high debts, behind on bills, and with more severe mental health problems.

Rapid inflation – i.e. the cost of living crisis – leaves people with mental health problems even more exposed, and, while help is available, it doesn't reach enough people. Just 14% of people with mental health problems have ever told their bank about their condition. When they did, one in three weren't offered additional support. Financial support during the pandemic was vital, but only a fraction of people who could have benefited from payment holidays used them. There are similar challenges with mental health services regarding money worries.

The Money and Mental Health Institute identified a number of possible research questions and policy opportunities. These include:

- identifying opportunities in the labour market to help people get into, stay in, and/or progress at work.
- understanding the gap between the need for support and the use of support – who accesses help, when and why, what impact does (not) accessing help have, and what could services do proactively?
- does the relationship between money and mental health vary for different groups?
- how do physical and mental health problems and people's finances interact?

4. Disability and public health

Dr Zoe Aitken, Senior Research Fellow in the Disability and Health Unit at the University of Melbourne, addressed the topic of disability in public health, beginning by pointing out that there are 9.8 million disabled people in England (almost 1 in 5 of the population), according to the 2021 Census – and that disabled people experience poorer health than non-disabled people[21]. People with an intellectual disability die on average 19 years earlier than the general population[22]. Mortality rates from Covid were eight times higher, and the rate of hospital admission five times higher, for people with learning disabilities, compared to those without[23].

There is also evidence of poorer self-reported health, poorer wellbeing, higher rates of suicide, lower happiness, and higher rates of many chronic conditions. However, research has generally focused on disability as a health outcome, rather than inquiring into the health of people with disabilities. Public health has tended to focus on avoiding disability, rather than poorer health outcomes of disabled people. Improving the health of people with disabilities should be a core part of public health and epidemiology. This requires an approach to health and health equity which takes the social determinants of inequality into account – because there is evidence that the poorer health of disabled people is at least partly explained by the disadvantaged circumstances in which they live[24].

This approach is supported by the WHO's Global report on health equity for persons with disabilities, 2022, which says: "Regardless of the health condition or impairment, persons with disabilities can enjoy healthy lives by realizing their aspirations, satisfying their needs and changing their environments". It also aligns with the UN's Convention on the Rights of Persons with Disabilities, which says, "persons with disabilities have the right to enjoyment of the highest attainable standard of health without discrimination on the basis of disability"[25].

[21] Global report on health equity for persons with disabilities, WHO, 2022
[22] Mary McCarron, Rachael Carroll, Caraiosa Kelly, Philip McCallion, Mortality Rates in the General Irish Population Compared to those with an Intellectual Disability from 2003 to 2012, JARID: Journal of applied research in intellectual disabilities, 2015: https://doi.org/10.1111/jar.12194
[23] Elizabeth Williamson et al, Risks of COVID-19 hospital admission and death for people with learning disability: population based cohort study using the OpenSAFELY platform, BMJ, 2021: https://doi.org/10.1136/bmj.n1592
[24] Zoe Aitken, Julie Anne Simpson, Lyle Gurrin, Rebecca Bentley, Anne Marie Kavanagh, Do material, psychosocial and behavioural factors mediate the relationship between disability acquisition and mental health? A sequential causal mediation analysis, International Journal of Epidemiology, 2018: https://doi.org/10.1093/ije/dyx277 and Zoe Aitken, Glenda Bishop, George Disney, Eric Emerson, Anne Kavanagh, Disability-related inequalities in health and well-being are mediated by barriers to participation faced by people with disability. A causal mediation analysis, Social Science & Medicine, 2022: https://doi.org/10.1016/j.socscimed.2022.115500
[25] United Nations, 2006: https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-persons-disabilities

The social determinants approach means that research from the Disability and Health Unit at the University of Melbourne has a strong emphasis on causal inference, in order to understand causes of poorer health, and how to improve outcomes. The Unit has produced several papers recently using Understanding Society to examine health for disabled people during the Covid pandemic, including the impact of disability on employment and financial security[26], health and healthcare for people with disabilities during the crisis[27], and vaccine hesitancy among disabled people[28]. It has also used HILDA (Household, Income and Labour Dynamics in Australia), Australia's equivalent of Understanding Society to look at people who become disabled (i.e. are not born with a disability), and investigate what drives their mental health inequalities. Using the UK's Life Opportunities Survey, a longitudinal study of disability, they looked at how barriers to participation contributed to health inequalities and found that they explained a large proportion of them[29]. HILDA has also been used to assess the impact of policies on mental health, highlighting how useful longitudinal data can be in assessing policy impact[30].

The causal pathways between acquiring a disability and poor mental health are complex, but analysis suggests that more than a third of the mental health inequalities are explained by material factors such as (un)employment, income, financial security, and housing costs[31]. Looking specifically at employment and income and how they mediate the effect of disability on poor mental health, they found that unemployment on its own explains 10% of the effect[32]. It is also important to consider the concept of 'disabling working environments': experiences which affect the likelihood of people with disabilities to find and keep good jobs, which may then affect their health. Disabling working environments consist of three mutually reinforcing components: differential selection into work; selection into certain types of jobs and exposure to poor psychosocial working environments when in employment; and differential selection out of work (such as leaving employment at an earlier age than those who do not have a disability)[33]. The design of policies and interventions should therefore consider the life course effects of employment on the mental health of people with disabilities.

Opportunities and challenges for future research in this area include low employment rates, and understanding barriers to employment, because there is evidence that

[26] Eric Emerson, Roger Stancliffe, Chris Hatton, Gwynnyth Llewellyn, Tania King, Vaso Totsika, Zoe Aitken, and Anne Kavanagh, The impact of disability on employment and financial security following the outbreak of the 2020 COVID-19 pandemic in the UK, Journal of Public Health, 2021: https://doi.org/10.1093/pubmed/fdaa270
[27] Anne Kavanagh, Chris Hatton, Roger Stancliffe, Zoe Aitken, Tania King, Richard Hastings, Vaso Totsika, Gwynnyth Llewellyn, Eric Emerson, Health and healthcare for people with disabilities in the UK during the COVID-19 pandemic, Disability and Health Journal, 2022: https://doi.org/10.1016/j.dhjo.2021.101171
[28] E Emerson, V Totsika, Z Aitken, T King, RP Hastings, C Hatton, R Stancliffe, G Llewellyn, AM Kavanagh, Vaccine hesitancy among working-ag adults with/without disability in the UK, Public health, 2021: https://doi.org/10.1016/j.puhe.2021.09.019
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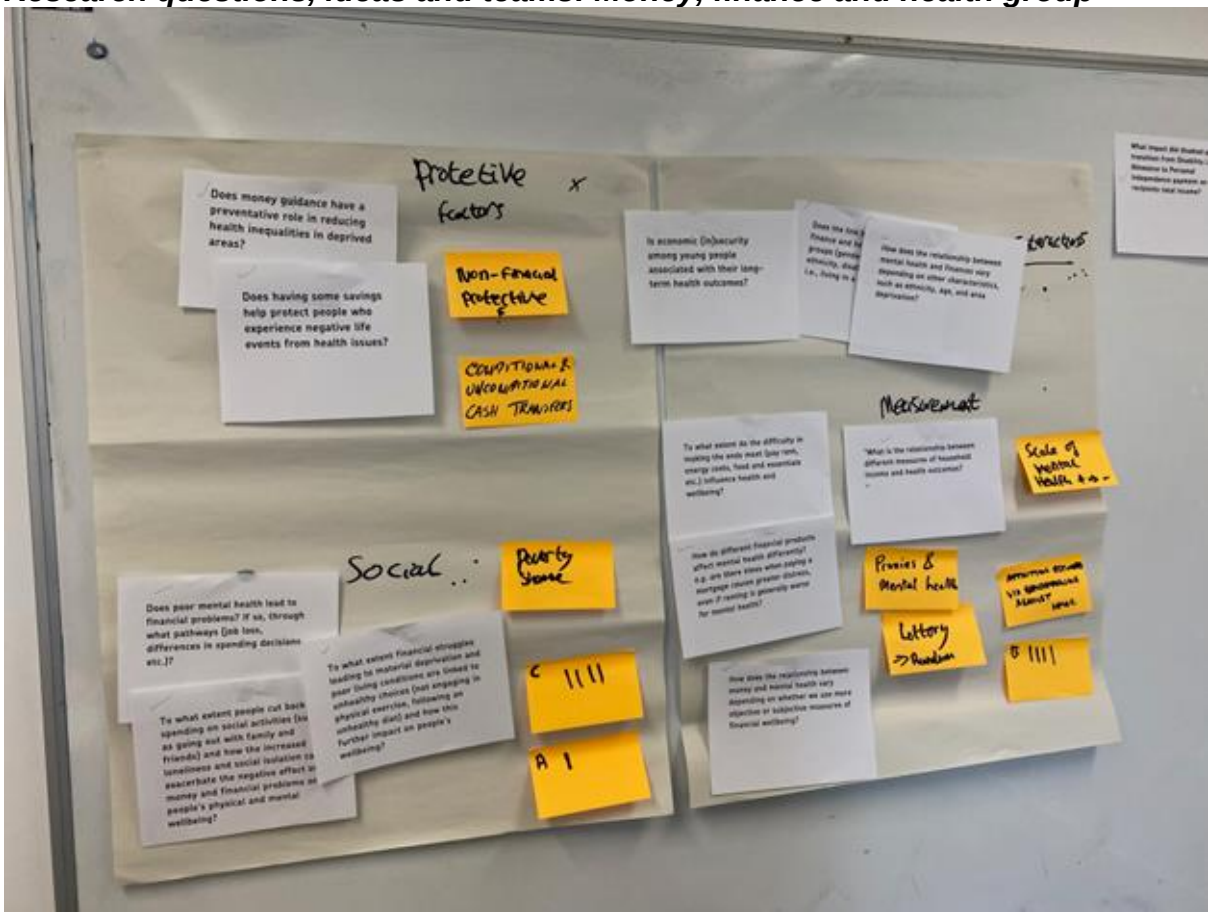
high rates of unemployment have negative effects on health, including mental health. Again, causal pathways are complex. Unemployment may be affected by people's education, financial situation, financial stress, and housing (in)security, as well as other factors such as gender, age, ethnicity, family relationships, and living situation – so it's important to use the right variables to understand different social determinants of health and how they relate to each other. Whatever questions it chooses, research should be careful to take account of complex causal pathways, the heterogeneity of the disabled population, intersectionality (different kinds of disadvantage and how they interact), the effects of policy changes, and the impact of the COVID-19 pandemic.

4. Formation of teams and development of research plans

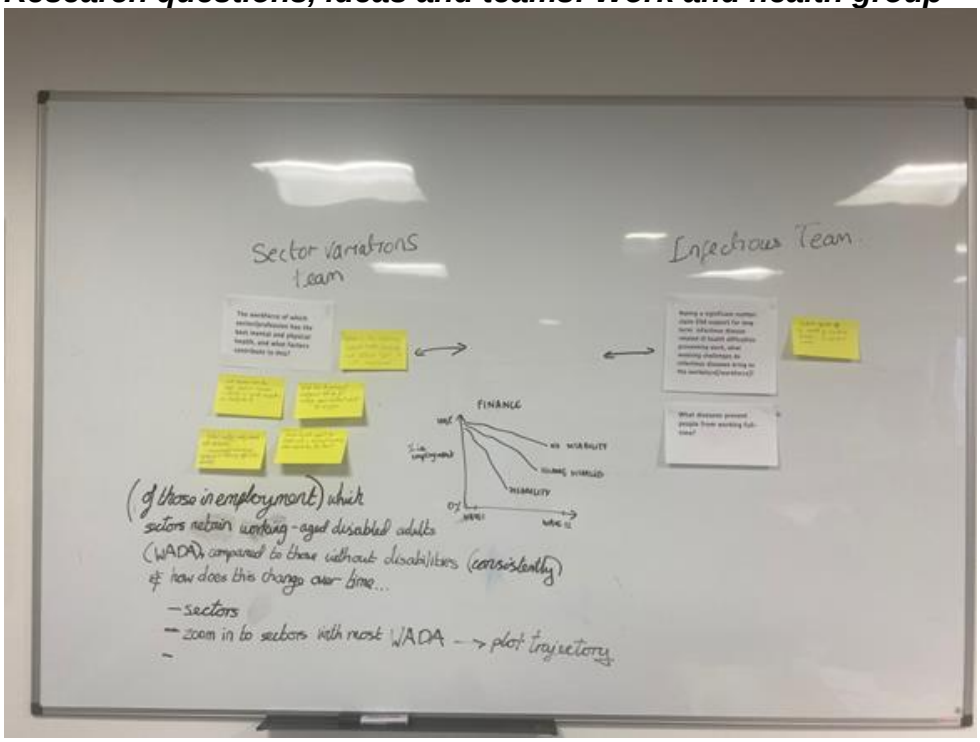
An important part of a research springboard is to provide teams an opportunity to work in mixed groups across organisational boundaries so different actors can discuss and negotiating research questions of most relevance.

Therefore, once the delegates had been briefed and had selected which topic area they wanted to pursue, each topic group were taken through a facilitated brainstorming process to identify possible (additional or re-crafted) research questions, to cluster these into groupings before a process of team formation could occur. The process took place using post-it-notes and flip charts. Photographs from the brainstorming, clustering and team formation process are provided below.

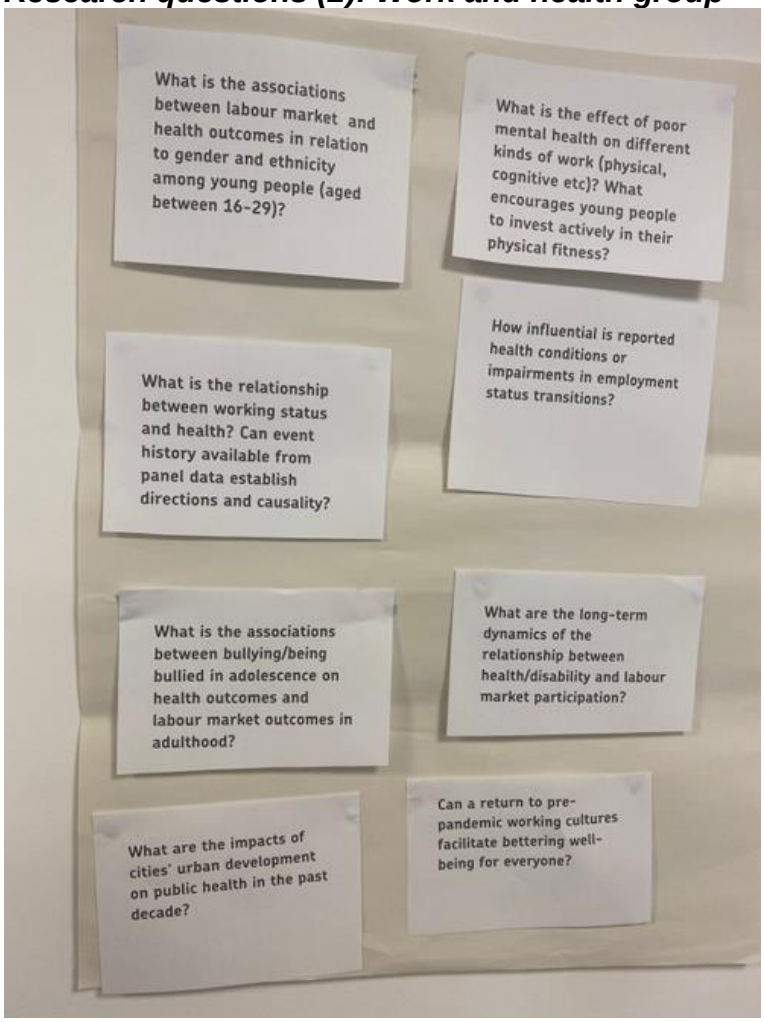
Research questions, ideas and teams: Money, finance and health group



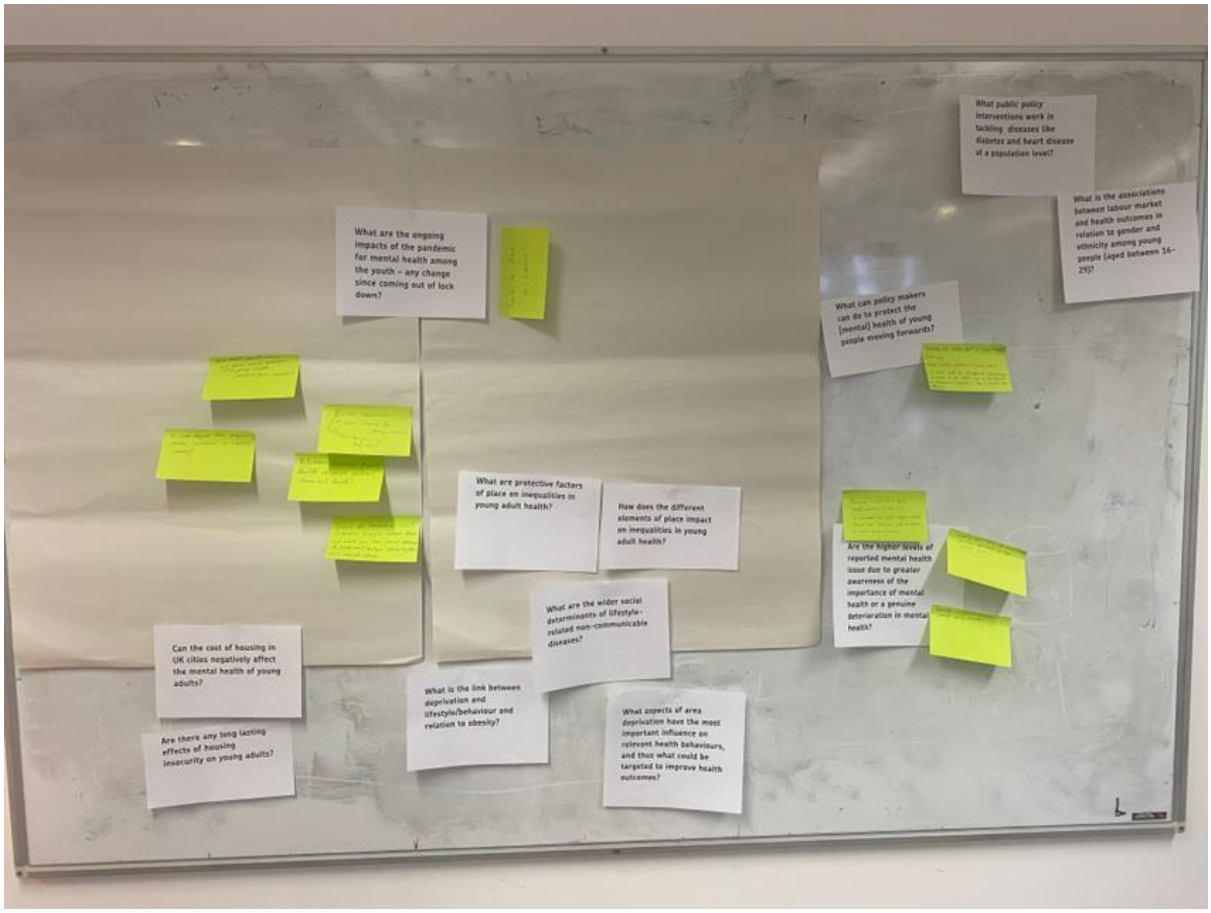
Research questions, ideas and teams: Work and health group



Research questions (2): Work and health group



Research questions, ideas and teams: Young people and health group



The teams then agreed the research questions that they wanted to pursue, which is shown in the Table below.

Initial research questions identified by the teams that formed

Team name	Team size	High level research questions		
Money, measurement and health	4	What is the impact of parental windfalls (potentially lottery wins) in childhood on later health?	Using siblings to control for other factors: What is the impact of one's family's socioeconomic status during childhood on later health?	How does associations between income and health when using different objective and subjective measures?
Money, social factors and health	5	Are people with poor mental health more likely to experience financial problems?	Can money and financial problems lead to poor mental health?	Who are the most fragile/disadvantaged group in these two-way relationships?
Sectoral variation and disability	5	In which sectors or occupations in the UK do disabled people experience increased job retention?		
Precarious work and health	3	…exploring how different generations handle precarious work situations and how that impacts health outcomes.	repeated across different years across the UKHLS survey period, and looking at how the pandemic may have played a role.	
Young people, place and health	4	What are the positive aspects of place that are protective for (inequalities in) health?		
Social relations, loneliness, and health among the young	2	What are the longitudinal patterns of loneliness among young people in the UK?	How does loneliness mediate the relationship between the quality of relationships between young people and their family members and their mental health?'	How does the relationship between young people and their peers affect their sense of loneliness, health behaviours and health?
Young people, disability and health	2	How has the definition of disability changed over time and what factors have influenced these changes?	What are the implications of differing definitions of disability between younger and older people for policy and support services aimed at improving the lives of people with disabilities?	How do younger people's perceptions of disability, including their definition of physical and mental health, compare to those of older people, and what implications do these differences have for public health policy and practice?
Young people and policy evaluation	3	What are the trends in mental health in young people over time?	Are changes in these trends explained by changes in government funding levels for services used by young people?	

Note: These were initial research questions, subject to change refinement based on feasibility, data availability and analytical method available to the team.

Research plans developed by the teams

Further explorations occurred within each team to refine the research questions, agree data and methodologies, and identify outstanding issues. Each team provided an update as part of day-two. Summary notes from these presentations are summarised below.

Team	Size of team	Refined research question(s)	Main method/approach	Issues
Money, measurement and health	4	What are the associations between different measures of income and financial strain?	Test relationship with variables: (1) Net equivalised income, (2) Finical strain, financial strain, up to date with household bill …. Mental health (SF-12v20). Ability to predict mental health R^2	Not followed: Windfalls lottery wins (sample size), siblings (in household and not in household) and windfalls, invested income
Money, social factors and health	6	Can money and financial problems lead to poor mental health? Who are the most fragile/disadvantaged group in these two-way relationships? (gender, age and ethnicity)?	GhQ-12 (caseness) and SF-12 - Fixed Effect (FE) Model and logistic regression with a lagged mental health measure in addition to FE for job loss estimations.	Results already delivered. Going to look forward towards policy & engagement.
Sectoral variation and disability	5	In which sectors or occupations in the UK do disabled people experience increased job retention?	Health, employed & and industrial sector from wave 1, logistic regression: probability of staying in jobs by sector and disability status.	1. Structural factors need to be considered in policy such as structural racism. 2. The cost to individuals and government of not addressing mental health concerns. 3. Recommendations for services

Precarious work and health	2	What are the impacts of precarious employment on health in relation to COVID?	Variables: Demographic, Economic precarity, health……..Stress, coping behaviours,	How to measure precarity - Single measures or precarious employment do not capture the issues. Need to aggregate/narrow precarity variables from 14 down. Also, COVID cuts across wave 10.
Young people, place and health	4	What are the positive aspects of place that are protective for (inequalities in) health?	Material deprivation (Wave 6), Outcomes: Mental well-being Wave 7. Moderators: local services, subjective measures, cohesion, IMD…. Split 16-20 and 21 to 29	Issues around how to split by age challenges around sample size
Social relations, loneliness, and health among the young	2	Loneliness, the young and their family	Relationship, loneliness moderator, wellbeing outcome	Age range & sample attrition
Young people, disability and health	2	Has disability changed: are younger people becoming disabled differently?	SF12 questions: does limit your activities. Split into those which physical and non-physical disability. Also looking at life satisfaction measures.	Young more likely to say that they have mental disability.
Young people and policy evaluation	3	Can changes in mental health in the young be linked to changes in funding?	(1) reported mental health (2) GHQ 12 (3) SF12. Controlled by social variables. Interpreted time series with fixed effects. Using B-O decomposition for explanation allocation.	Need special license for LA of young person.
Cross team issues	Classification of young people			
	Appropriate use of GHQ 12 or SF12 variables.			

5. Outputs from the research teams

After their presentations to the policy panel on day 3, the teams were asked to produce a short summary of their research. Edited versions of are provided in this section.

Team one: Money, measurement and health

Research Questions:

- What are the associations between different measures of income & financial wellbeing and mental health?
- Which measures [of income] are likely to be most effective and efficient in capturing trial data that can be generalised through microsimulation modelling?

Sample of interest:

11-20 (children and young people) and 21-64 (working-age adults)

Summary of approach/research methods:

Measures of interest for income and financial wellbeing are:

- Household income
    - Net equivalised household income (w_fihhmnnet1_dv+ with OECD-modified equivalisation using w_ ieqmoecd_dv) as proxy for Department for Work and Pensions' Households Below Average Income (HBAI) Before Housing Costs (BHC) measure.
    - Net equivalised household income minus rent and mortgage interest payments (w_houscost2_dv) as proxy for HBAI After Housing Costs (AHC)
- Net non-equivalised household income
- Net equivalised benefit unit income (combined buno_dv w_fimnnet_dv with imputation)
- Net individual income (w_fimnnet_dv)
- Financial strain: How well would you say you yourself are managing financially these days? (Finnow)
- Up to date with household bills (e.g. electricity, gas, water rates, telephone and other bills) (Xphsdba)

Measures of interest for mental health are:

- SF-12v2 Mental Component Summary (sf12mcs_dv)
    - Continuous scale
    - Dichotomous (≤45.6 = depressed / ≥45.7 = not depressed [Vilagut et al. 2013] can also be used
- GHQ Likert (scghq1_dv)
- SDQ Total Difficulties Score (child: chsdqtd_dv; youth: ypsdqtd_dv) and Rosenberg Self-Esteem (ypest*)

Initial, indicative, analysis was undertaken using a fixed effects panel regression with each measure of (current) income as the predictor and each measure of mental health as the outcome. Controls were included for age and interview month.

Planned analysis will use a within-between model, which includes:

- Mean of income across waves for each individual (pidp) for 'between' effects.
- Income at time t minus mean of income across waves for each individual for 'within' effects.
- Controls for attrition, past mental health, study wave number, sex, age, highest qualification, urban-rural, disability, marital status, region, housing tenure and labour market status. We will examine whether this is likely to be overadjustment.

We also hope to explore non-linearity in the income-mental health relationship and assess whether BHC and AHC rise at similar rates from one wave to the next.

Issues in our planned analysis include:

- Nonindependence at household level given possible of interaction within households.
- Scaling income and financial wellbeing variables so they are comparable.

Summary of findings:

Those designing upstream income interventions for health (e.g. Universal Basic Income), need to know which measures are best suited to capturing data that can be generalised, including through microsimulation modelling.

Although initial analysis, shown in the figure below, included physical health as measured by the SF-12 Physical Component Summary (PCS), we are likely to restrict final analyses to mental health in order to produce a focused and manageable paper. There are, however, indications from within-between modelling of positive associations between income and PCS.

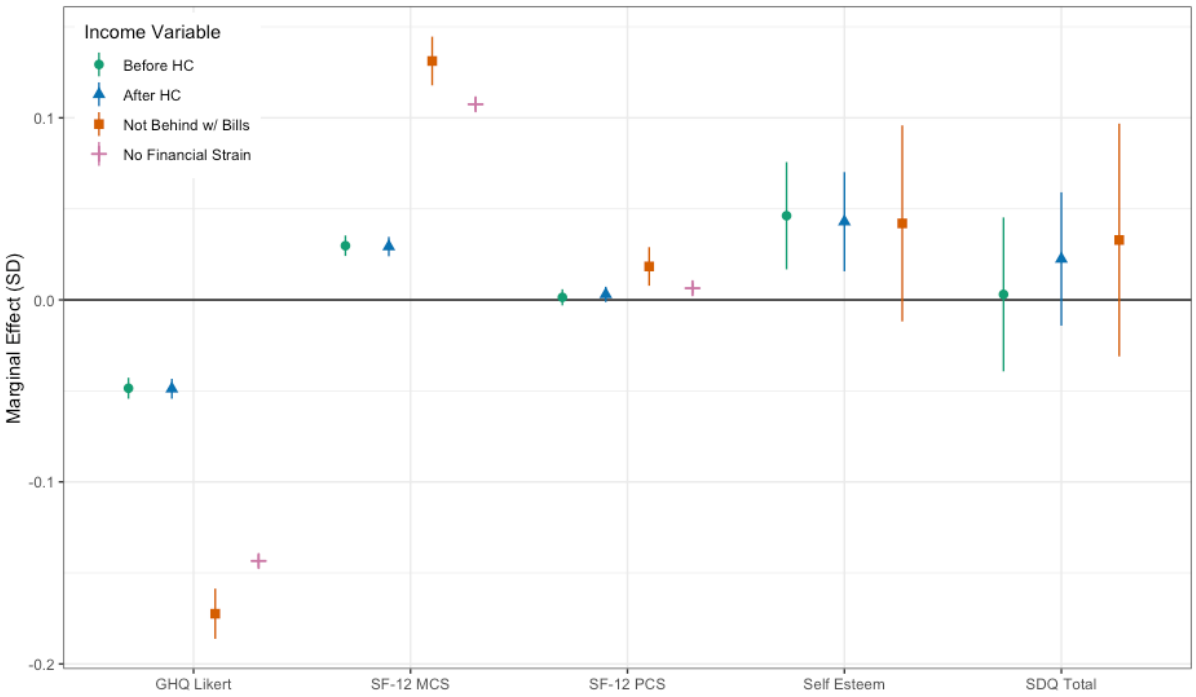
Using a fixed effects panel regression, we found the following.

For Adults:

- Significant positive associations between BHC and AHC net equivalised household income and SF-12 (with higher scores indicating better mental health).
- Significant negative associations between BHC and AHC net equivalised household income and GHQ-12 Likert scores (with lower scores indicating fewer symptoms of general (non-psychotic) mental health problems).
- Little apparent difference between the effect sizes of BHC and AHC income.
- Larger effect sizes on mental health from not being behind with bills or not being under financial strain than household income, though this may change if they are rescaled.

Children and young people:

- Positive and significant associations (and similar effect sizes) between BHC and AHC household income and Rosenberg Self-Esteem.
- Positive but not significant associations between BHC and AHC household income and SDQ Total Difficulties Score, with AHC having a slightly larger effect size.
- Not being behind with bills had a similar effect size, but with greater uncertainty, than BHC and AHC income on Rosenberg Self-Esteem.
- Not being behind with bills had a slightly larger effect size, again with greater uncertainty, than BHC and AHC income on SDQ Total Difficulties Score.



Implications of the findings for policy:

This study adds further evidence on the relationship between different measures of income and financial wellbeing on the one hand and mental health on the other. Planned analysis will provide more practical, implementable data, that can be considered in the design of upstream income interventions for health.

In particular, there are indications from the initial results that BHC and AHC measures may not differ significantly in terms of their associations with health and that it may, therefore, not be worth the additional respondent load needed to obtain that data from trial participants. This finding may be reviewed with further detailed analysis, should it find differences between particular groups.

On the other hand, it appears that financial strain may be a simple, efficient means of measuring people's day-to-day experience of their income and outgoings that has a significant and strong association with mental health. Only small numbers say they

are not up-to-date with bills, so while it has a significant and strong association with mental health, it may limit its usefulness to very targeted interventions.

In terms of policy implications, consideration should be given to components of personal finances not directly based on income, for example by limiting excessive borrowing or overcommitment. This reflects French's (2018) conceptualisation of financial strain. Consideration should also be given to how policy features not based on increasing income alone can be modelled ahead of trials (e.g. income stability [Akanni et al. 2022] and predictability [French 2018]).

References:

- French, D. (2018) Financial strain in the United Kingdom. Oxford Economic Papers. 70(1): 163–182. https://doi.org/10.1093/oep/gpx030
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Team two: Money, social factors and health

Research Questions:

- Can poor mental health lead to worse financial outcomes?
- Who are the most fragile/disadvantaged group in these two-way relationships? With a particular focus on age/ethnicity/gender

Sample of interest:

When investigating job losses, the sample population was taken from working age population (aged 20-59). For other money and financial outcomes, the research looked at individuals aged between 15-66 or 15-70+, depending on the outcome measure.

Summary of approach/research methods):

We investigated the potential role of mental health on various types of money and financial problems. We employed two measures of mental health which we derived from the 12-item General Health Questionnaire (GHQ-12) and from the Short-Form 12 item health questionnaire (SF-12). For our first measure, we used GHQ-12 caseness score which is a scale ranging from 0 (the least distressed) to 12 (the most distressed).

Our second measure is the Mental Component Summary (MCS) derived from the SF-12, which is a continuous scale, ranging from 0 (low functioning) to 100 (high functioning). We considered material deprivation, financial management (having problems in paying for housing, paying council tax and bills) subjective financial situation and job loss as our outcome variables.

We employed Fixed Effect (FE) Model and linear probability model (LPM) with a lagged mental health measure in addition to FE for job loss estimations.

In our models, we controlled for an extensive set of factors which may influence the relationship between mental health and financial outcomes. These included individual/socio-demographic characteristics (such as age, gender, marital status, ethnicity, number of children in the household, household income, household size, economic activity etc.) as well as location.

Summary of findings:

Overall, we found that poor mental health is linked to worse financial outcomes.

Our results indicated that poor mental health might be linked to subsequent job loss. In addition, it is associated with an increased likelihood of experiencing material deprivation (for example, people with poor mental health are more likely to struggle in keeping their house in a decent state of repair or replace/repair electrical goods and they are less likely to have holiday away from home or have money to spend on themselves etc.). Poor mental health is also linked to experiencing difficulties in managing financially; for example, having problems in paying for housing, paying

council tax and other bills. We also found that those with worse mental health are more likely to report a worse subjective financial situation. These results persisted when we controlled for a rich set of factors which may influence the relationship between mental health and financial outcomes, such as age, gender, marital status, ethnicity, number of children in the household, household income, household size, economic activity, and region.

We also explored whether the relationship between mental health and money/financial outcomes differed across sub-groups of population. We looked at interaction effects by gender, age and ethnicity. Our results pointed towards poor mental health being associated with bad financial outcomes for all and the interaction effects were not strong. We found suggestive evidence that the link may be slightly less pronounced for women (aside from statistically insignificant interaction effects for the relationship between mental health and material deprivation and financial management indicators), more pronounced for people between 20-59 years old than young individuals aged 15-19 and, more pronounced for Black African, Indian, Bangladeshi, and Pakistani individuals (but the effect sizes were very small).

Implications of the findings for policy or practice:

We find that poor mental health has a strong association with unfavourable financial outcomes. Our findings point to the importance of ensuring financial and emotional support for people with mental health problems and, the need for early access to mental health support in order to reduce the subsequent adverse financial effects. In this regard, destigmatisation and additional support to improve job-search efficacy can also be crucially important as people with mental health problems could be regarded as low-quality job applicants and experience discrimination. Additionally, there may be a need for tailored support for some groups for whom the link might be relatively stronger, while being mindful of possible intersectionality.

Team three: Sectoral variation and disability

Research Question:

In which sectors and occupations in the UK do people with a disability/long term health condition experience increased job retention?

Sample of interest:

Individuals aged 18-50 years who were working (employed/self-employed) at Wave 1, split into disabled and non-disabled groups based on their Wave 1 status.

Summary of approach/research methods:

Disabled status was broadly defined based on the 'health' variable, which asks about "long-standing physical or mental impairment, illness or disability" lasting 12 months or more. We produced descriptive results to show the distribution of disabled and non-disabled people across sectors and occupations at Wave 1, and the nature of impairment experienced by the disabled group (the variable 'disdif').

We conducted a series of logistic regression models to examine the proportion who were still working at each follow-up wave. Separate models were run for each outcome wave W2-W12, weighted using the longitudinal weight from the outcome wave. In the analyses focused on sector, the models included disabled status, sector categories, interaction term for disabled*sector, and adjustment for age, sex, qualifications, married/partner, dependent children, ethnic group and region. In the analyses focused on occupations, the models included disabled status, occupation categories, interaction term for disabled*occupation, and covariate adjustments as described above. All predictors were taken from W1 and did not take into account changes in those variables over time. Results are presented in the form of adjusted percentages still in work at each wave (post-estimation predictive margins with 95% confidence interval) among disabled and non-disabled groups, overall and split by sector/occupation respectively.

Summary of findings:

Of 19,996 people aged 18-50 and working at Wave 1, 4,144 were included in the disabled group according to the 'health' variable. Almost half did not report any impairment on the 'disdif' variable. Among those who did, the most common problems were with lifting and mobility.

Across the major sectoral groups, disabled workers were somewhat over-represented in human health and social care and under-represented in construction. There was no clear pattern of over or under-representation across occupational categories.

The regression results showed that disabled people were retained in work at lower rates than non-disabled people. This was most pronounced among those who had been working in the accommodation and food sector at W1: only 44% (95% CI 24%, 65%) of the disabled group were still in work at W12, compared with 80% (95% CI 72%, 88%) of non-disabled participants (interaction p=0.005). The wholesale/retail

trade sector generally showed the smallest differences in retention between disabled and non-disabled workers. When looking at retention by occupation, there was a pattern of relatively lower retention rates for disabled workers in process/plant/machine and elementary occupations, and higher retention rates in administration/secretarial and sales/customer service, but these interactions were not statistically significant.

Implications of the findings for policy or practice:

These findings give useful insights into retention in work over time for those employed in different sectors and occupations at the start of the study, but more work is needed to track flows between sectors/occupations across time. It would also be important to understand which features of job requirements and job quality and satisfaction influence the extent to which certain sectors are more or less inclusive towards people with disability, and what factors drive disabled people's decisions to move sector or leave work. It is likely that availability and implementation of support and adjustments varies widely across sectors and employers; a greater understanding of this might point to the need for more targeted support initiatives in sectors with higher numbers of disabled workers and lower retention rates.

Further analysis/ planned collaborations:

One of our team plans to take this work forwards to investigate the extent to which job requirements are associated with job retention for people with different types of impairment. This work will involve linking Understanding Society with other datasets.

Team four: Precarious work and health

Research Question:

What is the impact of precarious employment and finance on health?

Sample of interest:

Working age adults (16-64), excluding those of an age where they could be economically active but chose not to be, for example students

Summary of approach/research methods:

To test the relationship between economic precarity and health, two sets of regressions were conducted.

One set treated Wave 8 as a cross-sectional dataset, using logistic, poisson and ordinary least squares regressions. The dependent variables included measures for mental health (SF-12 MCS, GHQ), number of long-term health conditions, and subjective physical health. By using Wave 8, the association could be examined pre-pandemic, avoiding any pandemic related factors skewing results. For mental health (GHQ), and subjective physical health, OLS regressions were repeated over waves 2, 8, and 10.

The independent variables tested included an aggregate measure for flexible working arrangements, as well as specific variables for different types of working, for example, remote working, or flexible working, also included was subjective job security, employment status and whether a profession is manual or not.

The second set of Poisson regressions involved looking at how Wave 8 independent variables (i.e. measures of precarity) predicted Wave 12 health conditions, specifically COVID-19 symptoms. Age, gender, ethnicity, living in a rural area, and education were controlled for in both sets of regressions and multiple imputation was used to deal with the missing data.

Summary of findings:

Firstly, our findings suggested that no single measure of economic precarity uniformly predicted all aspects of health, which means that some measures are sensitive to some forms of health but not others. For example, working a compressed week appears to be beneficial regarding long-term illness, but other forms of flexible working appear to be associated more with long-term illnesses.

Economic precarity, such as flexible working, working a compressed week and working from home on a regular basis, are associated with long-term health conditions pre-pandemic. This is perhaps unsurprising, the bi-directional nature of precarity and health, with those having long-term health conditions utilising different working patterns. However, with the pandemic, it is likely that there will have been changes to the labour markets, with more people utilising the flexible working offerings, furthering the changes in relationship between flexible working and health.

Subjective job insecurity was significantly associated with poor mental health measured by SF12 MCS and GHQ. Interestingly for GHQ, there was no other significant predictors, both positive or negative, however when looking at SF12 MCS and GHQ, job sharing is associated with greater psychological distress. Interestingly, when this is visually compared across waves, it always remains significant, however the size of the coefficient increases as we move from wave 2 to wave 12.

Consistently across semi-routine and routine working, there is a strong relationship to all the physical health measures we have included. This is perhaps a little unsurprising but does contribute to the argument surrounding the definition of economic precarity, suggesting that semi-routine and routine occupation could be considered as one of the measures of precarity instead of simply a measure of socioeconomic status.

The regressions showed that flexitime, working from home on a regular basis, and on-call working significantly predict increased COVID-19 symptoms, whilst semi-routine and routine working and working a compressed week are significant predictors of fewer symptoms. It could be that working flexitime, and on call working are more common in industries which are more crucial workers working in areas like food retailers. Whereas routine and semi-routine could potentially point to employees like the catering industry, where there was a significant collapse in activity over the COVID-19 pandemic, or to industries like farming, where contact with a significant number of individuals in an enclosed space is less likely.

Implications of the findings for policy or practice:

Even across a short period of time, the changes in the “conditions” between waves indicate changes in the magnitude and direction of the relationship between precarity and health. This will have been amplified across the pandemic and post pandemic years.

There is no consistent or single definition of economic precarity in the literature, this results in mixed results and varied understanding of the scale and impact of economic precarity. Policymakers and researchers should explore and adopt a multidimensional precarity measure to further understand the health and health equity impacts. This should include understanding how changing precarity maybe impacting the social protection designed to protect working age individuals.

As the responsibilities regarding employee health is split across government, employers and the individual. In addition to the above, employers, in future, should further explore how alternate forms of employment may positively impact their employees’ health.

Further analysis/collaborations planned:

The team is looking to further collaborate, revisiting the analysis within the springboard, as well as explore the additional research aims identified in the springboard, namely:

- Exploring the use of a composite measure of economic precarity using understanding society.

- Exploration of the mediating factors that exist between economic precarity and health outcomes.
- Generational difference in the association between economic precarity and health outcomes.

This next phase of work will look to continue using understanding society data, as well as expanding to include Next Steps and National Child Development Study.

Team five: Young people, place and health

Final Research Questions:

What are the positive aspects of place that are protective of health inequalities in young adults?

Sample of interest:

Understanding Society respondents aged 16-29 from Waves 6 and 7.

Summary of approach & research methods:

We looked at outcome variables primarily related to positive self-reported health (scsf1) and wellbeing (swemwbs_dv – a derived variable) as a secondary analysis. The exposure variables (inequalities) were poverty (defined as 60% of median of OECD equivalised household income) and household deprivation (defined as number of markers of household material deprivation (0-8)). We grouped young people into three groups of 16-19, 20-24 and 25-29.

For self-reported health we binarized scsf1 into 'Not Good' (scsf1 = Fair or Poor) and 'Good' (scsf1= Excellent/Very Good/Good). We then looked for further place-based explanatory variables for 'Good' health such as the quality of local services (Medical, Shopping, Leisure, Public Transport), neighbourhood cohesion and crime, also binarized into "positive" and "negative" places. We also compiled Wave 7 Index of Multiple Deprivation (IMD) quintile data for the four UK countries into a single variable (IMD14) and linked this with Wave 6 indresp data using the pidp variable.

For analysis of the place-based variables, we estimated inequalities in self-reported health using logistic regression, and inequalities in well-being using linear regression. We then stratified the sample by "positive" and "negative" places, to see if experience of "positive" place reduced the inequality for those individuals living with poverty or household deprivation.

We produced boxplots of wellbeing scores vs IMD14 for relevant age groups to identify any significant distributional differences between quintiles. We mainly used Stata and SPSS along with R to experiment with recursive partitioning modelling (using the rpart method).

Summary of findings:

Inequalities in self-reported health and well-being were typically greater in older age groups of younger people. This was more notable for household deprivation, and in women compared to men.

Among young adults aged 16-19, there was little difference in inequalities in self-rated health between individuals who had a positive or negative experience of neighbourhood cohesion, crime, transport and leisure where they lived. Further, those experiencing household poverty typically show no difference in their self-rated health where they also report a positive experience of local medical and shopping

services. However, those experiencing household poverty who additionally reported a negative experience of local medical and shopping services were typically 60-70% less likely to report good health, compared to their peers not experiencing household poverty.

For young adults aged 20-24, the only place based variables that were protective of inequalities in self-rated health were local transport and leisure services. In particular, young adults aged 20-24 experiencing poverty who reported positive transport services show no difference in their self-rated health compared to peers not experiencing poverty. Whilst the same individuals who experienced a wider negative experience of place were 45% less likely to report good health.

Among young adults aged 25-29, the only place based variable that was protective of inequalities in self-rated health was local transport services. This means that those reporting positive transport services typically show no difference in their self-rated health in relation to their poverty. However, those in household poverty who reported a negative wider experience of place were 65% less likely to report good health.

All analysis is currently unweighted and minimally adjusted (sex).

For wellbeing using boxplots no significant differences could be identified in the distribution of scores by IMD quintile so no further modelling was undertaken.

Implications of the findings for policy or practice:

For young adults, investment in local services, particularly transport and leisure services, could help reduce the inequality in self-rated health. Where positive experiences of these services are reported by young adults, there is no statistically significant difference in self-rated health between those living in poverty and those who do not. Whilst for young adults who rate their local services poorly, this inequality is more apparent.

Further planned analysis/collaborations:

We intend to conduct further analysis considering inclusion of additional weight and covariates, and complete the summary of results for the other exposures and outcomes. There is also the potential to consider imputation for missing data in the exposures and covariates. This work would likely not take place till July 2023 or later.

Team six: Young people, social relations, and health

Research Questions:

- What are the longitudinal patterns of loneliness among young people in the UK?
- How does loneliness mediate the relationship between the quality of relationships between young people and their family members and their mental health?
- How does the relationship between young people and their peers affect their sense of loneliness, health behaviours and health?

Sample of interest:

UK Household Longitudinal Study, Waves 9, 10, 11, 12

Summary of approach/research methods:

- We identified key variables of interest from the dataset and focused the sample on those aged 16 to 30 years.
- Our statistical approach consisted of descriptive statistics, graphs and plots as well as exploring associations between interested ordinal variables and loneliness.
- We considered progressing with mediation analysis, if possible, using structural equation modelling, to further infer casual relationships with loneliness as our mediator variable. In this way, we aimed to express appropriately the role of loneliness as a cause for the outcome and the intervention effect. The method will consist of a conceptual model, path diagram and equations.

Summary of findings:

- There is broadly a nonlinear U-shaped distribution with loneliness levels for those aged 55 years and over, and those aged 16 – 24 being high (10% often reporting feeling lonely).
- A particularly important finding is that among young people, it is those aged from 16 to 19 who are the loneliest, which clearly is an important life stage. Future studies should aim to find out the factors responsible for the loneliness during this transition into adulthood.
- Females are more likely to report loneliness, which is consistent with many existing studies.
- How often people feel a lack of companionship illustrates the strongest relationship.
- Family support and sense of happiness are moderately correlated with a lower level of loneliness.

Implications of the findings policy or practice:

a. Our study has offered a further clear and strong confirmation that young people are particularly vulnerable to loneliness, especially those under the age of 20.
b. To effectively reduce loneliness among young people, it is very important to develop a sense of companionship in their social life; it is therefore useful to monitor young people's social life closely.
c. Whilst adolescents and young adults are in the life stage of establishing autonomy, support from their family remains an important source of psychological and mental wellbeing.

Further planned analysis/collaborations:

- As the surveys were conducted soon after the COVID-19 pandemic started, it appears to be impossible to disentangle the effect of COVID-19 from non-pandemic factors on the level of loneliness among young people. We shall explore ways in which this could be incorporated in our analysis and how a proper caveat could be included in the interpretation of our findings.
- Whilst the longitudinal nature of the data offers a stronger basis for making causal inference, it is still difficult to identify the causal effects of social relations and loneliness from their longitudinal effects on health, because either could precede the other. We shall consider this issue and how our conclusions could be formulated in a way that this issue could be incorporated.
- Our models did not include measurement errors in the key concepts, including loneliness, health, and social relations. We shall explore and if feasible, to employ more sophisticated models, such as structural equation models for longitudinal data, in order to incorporate both measurement errors and structural relations at the same time.

Team seven: Young people, Disability & Health

Research Questions:

- Has disability changed over time and what factors have influenced these changes?
- How do disability and perceptions of disability among younger people, including physical and mental health, compare to those of older people?
- What are the implications of differing experience and perceptions of disability between younger and older people for policy and support services aimed at improving the lives of people with disabilities?

Sample of interest:

Understanding Society Waves 2-12

Summary of approach/research methods:

To assess disability trends over time & focus not only on older adults:

- Focus on the *prevalence* of disability.
- Explore the *nature* of disability.

Methods of analysis:

- Age-Period-Cohort analysis.
- Logistic regression analysis.

- Key variables:
    - *health*: long-standing physical or mental impairment, illness or disability
    - *sf12pcs_dv & sf12mcs_dv:* SF12 components, as well as origin questions

Summary of findings:

- There is a U-shaped cohort relationship with the oldest cohort (born pre-1936) and youngest cohort (1996) having higher rates of disability than the in between cohorts.
- Cohort effects deviated more (i.e. more pronounced) among women than men.
- Females overall have higher rates of reported disability than men.
- Logistic regression shows association between physical and mental health and probability of reporting long-term conditions.
- Slight upward trend for both mental and physical health.
- Over past 10 years there has been an increase in magnitude of association between mental health and probability of having long term health condition.
- This is particularly for younger ages.

Implications of the findings for policy or practice:

- Studies suggest that long-term illnesses can have significant impact on both young people and older adults.

- Our work has shown that the prevalence, nature and therefore impact of these illnesses may differ between groups.
- There is an opportunity to tailor health policies and interventions to the specific needs of different age groups.

Further planned analysis:

- Incorporate the different nature of disabilities into the cohort analysis.
- Consider incorporating BHPS data to add almost 20 years of historical data.
- Disaggregate the specific health aspects by age categories.

Team eight: Disinvestment and Trends in Young People's Mental Health

Research Questions:

1. What are the trends in mental health in young people over time?
2. Are changes in these trends explained by changes in government funding levels for services used by young people?

Sample of interest:

Young people aged 16 to 25 in the UK between 1991-2017

Summary of approach/research methods:

Our outcome variable of interest is mental health measured using the GHQ-12.

For the first stage of the analysis we use an interrupted time series (ITS) approach to explore if there was a change in trend in mental health following the introduction of austerity (reduction in government spending). We employ data from the BHPS between 1991-2008 and compare this with data from 2010-2017 for young people between the ages of 16-25. We are looking at cohort effects not individual effects. We compare across different regions of England as the impact of austerity was heterogenous by place.

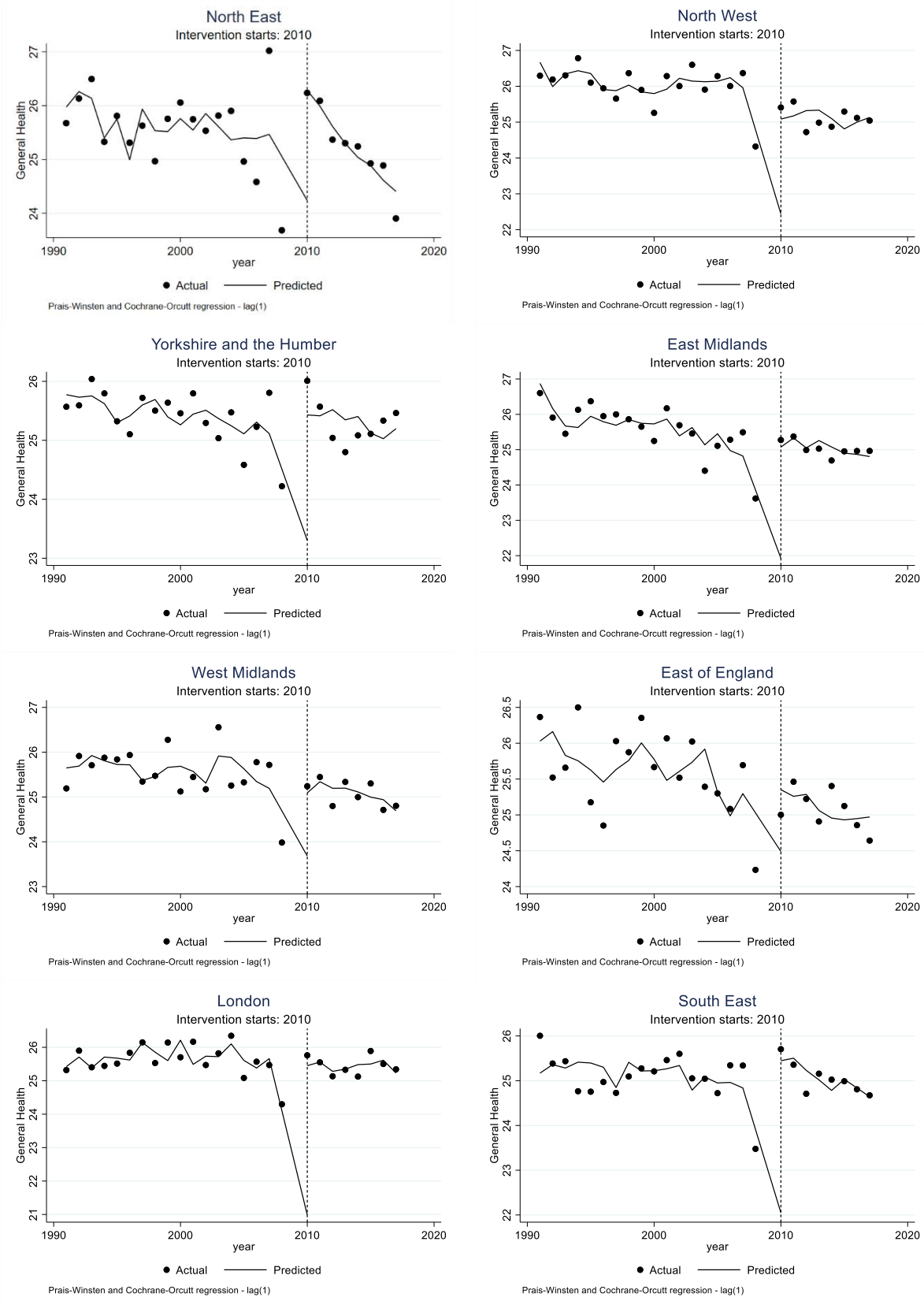
In the ITS models, we control for household size, number of people in the household who are employed, number of children under the age of 16 in the household, and age of the young person.

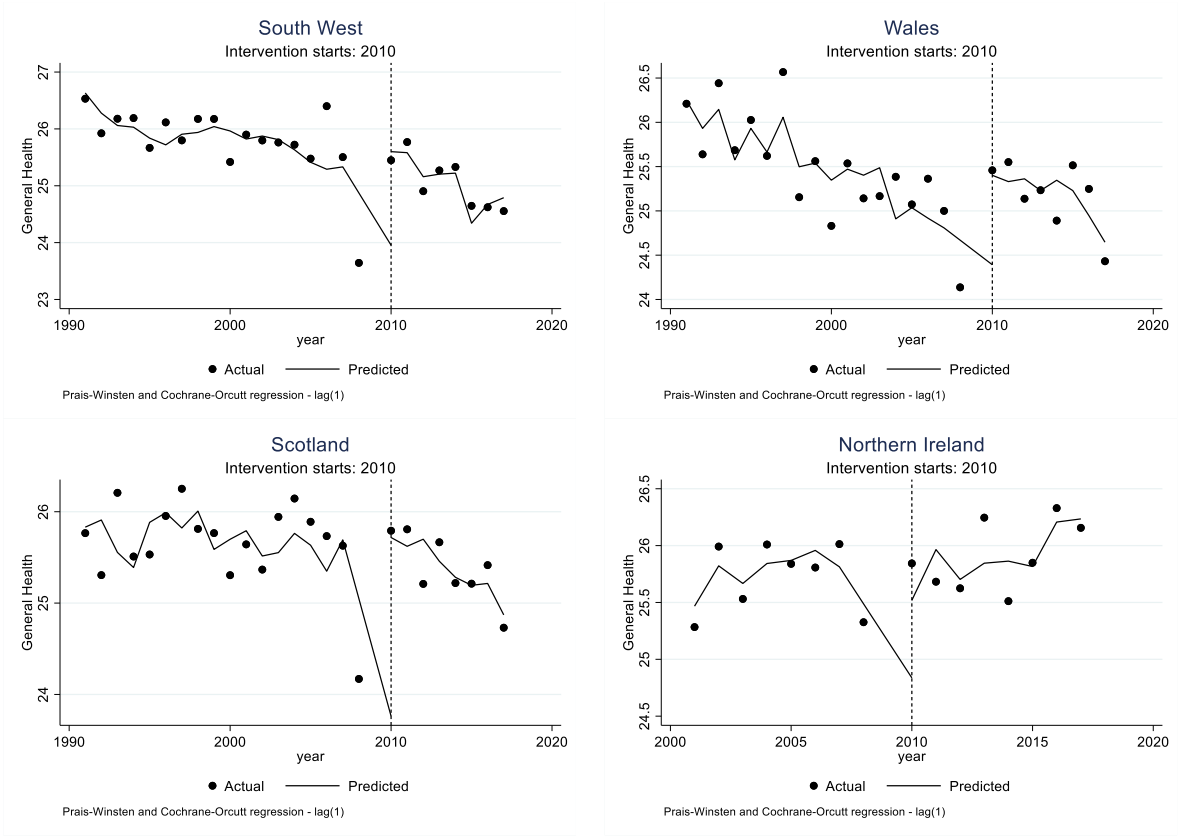
In the next stage of the analysis we employ an Oaxaca-Blinder decomposition approach to explore if reductions in mental health can be partially explained by reductions in funding from the Central Government to Local Authorities between the period 2011 to 2017. Specifically we look at funding for services relevant to children and young people which includes spending on education, culture, transport, and child social services

Summary of findings:

1. *What are the trends in Young People's Mental Health Over Time?*

Figure 1. Trends in Mental Health Over Time by Region

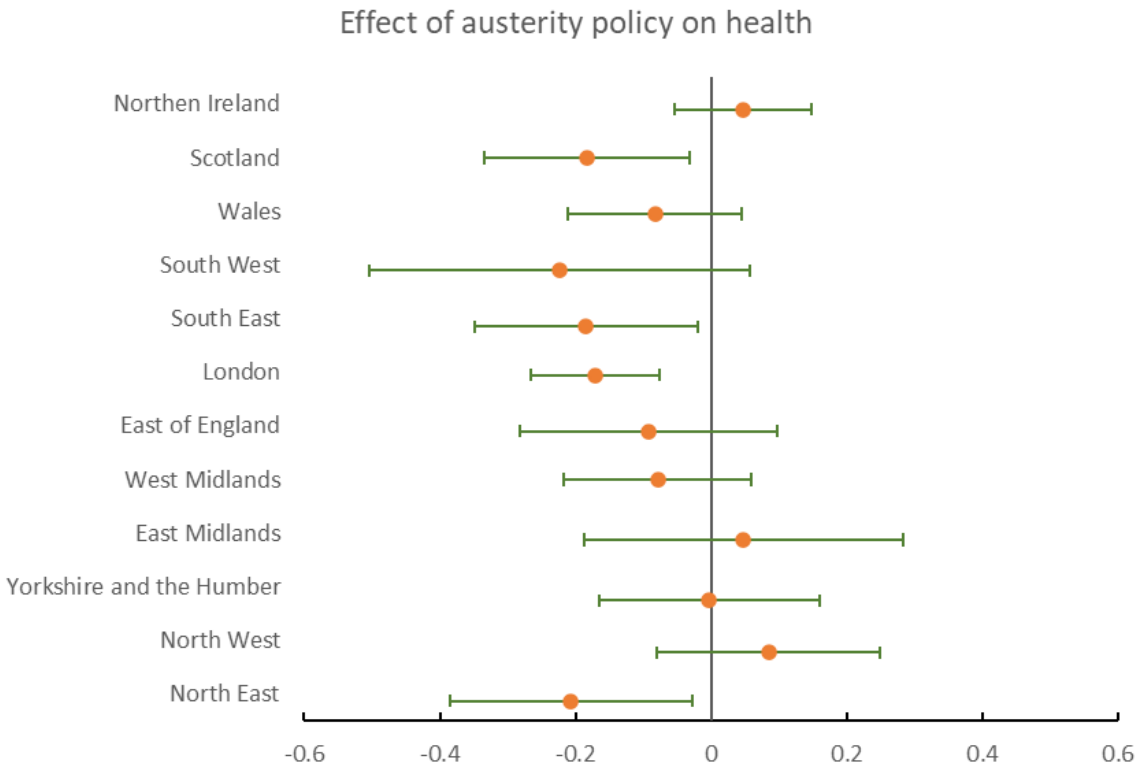




Looking at the results from a series of ITS equations for different regions we can see that from the financial crisis in 2008 there was a decrease in young people's mental health across most regions which was sustained throughout the period of austerity. This is particularly pronounced in the North East of England. In London, the East Midlands, and the North West young people's mental health remained fairly constant over the austerity period. Northern Ireland is the outlier where young people's mental health improved. All other regions saw a decline in mental health in young people over the austerity period.

2. Are Austerity Policies Associated with Mental Health in Young People?

Figure 2: Average Association between mental health austerity policy by region



Considering the association between mental health austerity policy by region, it is found that upper confidence level is below zero for Scotland, the South East, London, and the North East. Therefore, austerity policies are significantly associated with a decrease in mental health for young people in these areas. For all other regions there is not a significant association between austerity policies and mental health of young people.

3. *Can changes in mean young people's mental health between 2011 and 2017 be explained by decreases in spending at the local authority level to services relevant to young people's mental health*?

Table 1. Decomposition analysis on health between year 2011 and 2017

General Health	**Coefficient**	**Standard deviation**
Differential		
Health in 2011	25.532***	0.077
Health in 2017	24.941***	0.094
Health gap between 2011 and 2017	0.591***	0.122
Explained		
Age	0.015	0.006
Female	-0.030	0.018
Spending on education	0.168	0.296
Spending on culture	0.451	0.359
Spending on transportation	0.016	0.067
Spending on children	0.118	0.220
Total	0.738	0.589
Unexplained		
Age	-2.091**	0.824
Female	0.437	0.368
Spending on education	-0.697	2.470
Spending on culture	-2.378	1.801
Spending on transportation	-1.394**	0.476
Spending on children	6.771**	2.597
Constant	-0.795	2.277
Total	-0.147	0.600
Number of observations	8494	

The results of the decomposition analysis show that there is a significant decrease in young people's mental health. Only the unexplained component is significant suggesting that there are unobserved factors related to place that accentuate the impact of reductions on spending on young people's mental health.

Implications of the findings for policy or practice:

To tackle the young people's mental health crisis, we need to have evidence on potential intervention/policy levers that can be used to reverse the trend of declining young people's mental health.

Local authority spending on services for children and young people decreased by £325 million between 2010-11 and 2019-20 (Williams and Franklin 2021). Sunderland in the North East of England had the largest decrease in funding over this period at 84% (Williams and Franklin 2021).

This paper provides clear evidence on how in the regions with the largest decreases in funding such as the North East and Scotland (for early interventions-Willaims and Franklin 2021) are associated with the largest decreases in young people's mental health.

By investigating the association between spending at the local authority level and young people's mental health, this study provides important evidence on how we can buck this trend. Local authority spending and the local knowledge of the needs of people in communities is essential to being able to intervene early as well as give young people the chance to reach their potential through youth clubs, adequate transport, and opportunities to engage with cultural activities. The activities that help people thrive.

Levelling-Up would be greatly supported by investment in children and young people's services, particularly in those regions with the largest decline in young people's mental health.

References: Williams, M., & Franklin, J. (2021). Children and Young People's Services. Barnados. Available from: https://www.barnardos.org.uk/sites/default/files/2021-07/Spending%20on%20children%27s%20services%20in%20England%20-%20July%202021.pdf. Accessed May 2023.

Further planned analysis:

- Descriptive Analysis of the sample to ensure that cohort effects (differences in individual characteristics are not explaining our findings.)
- Additional graphs to show changes in spending by area.

6. Outcomes, reflections & evaluation

Outcomes

The research outputs from the research teams suggest that:

- All eight of the teams produced research outputs relevant to the policy challenge that they sought to respond to in their research questions.
- Four teams intended to submit their research for publication in an academic journal, three to produce other reports and three to present their results at conferences or other for a; six of the eight teams reported an intention to continue some activities after the final day.
- All teams showed an appreciation of the difference between; cross-sectional and longitudinal findings; and association and casual inference. Most either had or intended incorporate analysis to deal with issues of causal inference.
- Six of the eight teams reported an intention to continue some activities together after the final day.

Evaluation & reflections

The evaluation of the Research Springboard found that:

- The process was successfully conceived and delivered within a policy perspective. This was reflected in who attended and the research questions they chose to answer.
- The level and depth of engagement was significant; with all teams collaborating successfully, remaining engaged and delivering to time.
- The impetus to delivery results in time for the policy panel on the third day was considered central in the significant level of progress made by all teams**.**
- The participant that fed-back through the evaluation form reported that:
    - All 10 respondents felt that research springboard was at least effective in identify and constructing new research questions and at least somewhat effective in generating new insights relevant to their work and at least somewhat effective in developing policy thinking.
    - None of the 10 who responded felt that the event was too long or that they would have liked a fully virtual event.
    - 9 out of the 10 who responded felt that the inputs from external speakers and policy panel members were seen as useful.
    - 5 out of 10 respondents felt that the programme design was very effective, 3 felt it was effective, and 2 somewhat effective.

The event has been assessed to have fully achieved three of the four aims, with good progress made with the fourth aim in the generation of policy ideas. The focus on results risked being at the cost of thinking about detailed plans for policy engagement. This will need more explicit inclusion in what the teams are asked to deliver on the final.

7. Annex A – The Challenge Document as sent to invitees

Understanding Society Health Challenge
The Research Springboard

Dates/venue: The workshops will be on Tuesday 28 March (in person, University of Essex, Colchester), 20 April (online) and 4 May (online)

INTRODUCTION

Be part of this multi-disciplinary springboard to research health-related challenges facing the UK. It can be difficult to enjoy and fully participate in education, work, relationships and family life, and community without good mental and physical health. Indeed, many argue that health and wellbeing are good indicators of the overall state of a society and of increasing importance to economic growth. We do not become healthy by simply avoiding disease.

Many health problems have long antecedents, so panel data are a powerful tool for investigating the drivers of change in population health and their consequences. The unique property of Understanding Society is that the same questions are asked among a representative sample of the UK population over time, enabling researchers to examine the effects of events and policies as well as identify trends. The Study collects both objective and subjective measures of health, combined with detailed information on other key areas of life such as employment, education, income and deprivation, wellbeing, and civic participation. These measures are important for understanding all the different but interacting drivers of health and disease and to join up policy thinking.

There are marked socio-economic and regional differences in healthy life expectancy in the UK. The longer-term scarring effects of the pandemic on some aspects of life have yet to be fully assessed, but it has also brought health inequalities into greater prominence. Current health resources and services are under severe strain – and skewed towards the NHS.

While future demand for health services is expected to continue growing, significant resources end up going into treating preventable diseases – but there is also a growing recognition that health and illness are a result of the interaction between biological, psychological, and social factors. Policies in the future will require better targeting, and non-health departments, wider public services, employers, the food industry, community organisations and others will need to contribute more effectively to protecting health and wellbeing.

WHAT IS RESEARCH SPRINGBOARD AND HOW DOES IT WORK?

The research springboard starts with a societal challenge and aims to harness collective knowledge and skills from across sectors, cross-fertilise ideas and facilitate social learning. It will bring together about 30 to 35 researchers and analysts from different sectors and disciplines in a co-production workshop to investigate policy

and research questions using Understanding Society data in a supportive and creative learning environment. Working in this new way can be hard so we have borrowed ideas from data dives, hackathons, and sandpits and customised it for the research springboard!

The co-production workshop will benefit researchers and analysts from academia, government departments, public health organisations, health and social care services, charities, employer and industry bodies, Applied Research Collaborations and think tanks. It will include presentations from experts who will provide a perspective on the nature of policy problems we face.

The workshop will take place over three days, spread across a month, with a mix of in-person (day 1) and online activities (days 2 and 3). You will work in teams (and individually), aligned to a particular topic of your interest (see below), undertaking research during and between the workshop sessions. Each team will focus on what new evidence is needed that can benefit policy or practice and work out a way to best to answer a research question(s) of mutual interest. Participants will use End User Licence data (which can be analysed in STATA, R, SPSS and SAS), with the latest data available from wave 12 (2020/2021). We will also be releasing overall scores for the indices of multiple deprivation (at quintile level) linked to the Understanding Society data.

During the springboard you will:

- Discuss knowledge gaps and collectively identify new research questions that need to be answered to move policy and science forward (see government Areas of Research Interest)
- Gain skills in the use of Understanding Society across a set of health issues and their social determinants
- Undertake practical data management and analysis, and share thinking on the best analytical approach to answer a specific research question
- Build relationships and connections with people from other disciplines and organisations to strengthen the research-policy interface
- Share lessons and early-stage findings and discuss their implications for policy, practice or future research.

HEALTH CHALLENGES

There are policy challenges on many fronts:

- Health related issues among the working age population contribute to increasing levels of economic inactivity and stalled levels of growth. Economic inactivity, because of long-term ill health among the working age population, has reached 2.5 million, a new record high adding to growing labour supply problem.
- Many areas and neighbourhoods in the country have been ‘left behind’ by the rest of the country economically. Recent research shows that people in England’s most deprived neighbourhoods live shorter lives, with more years in ill health, costing an estimated £29.8bn a year to the economy in lost productivity – and illnesses are seeded early in life.

- Although on average they live longer than men, women in the UK spend a significantly greater proportion of their lives in ill health and disability. According to the recent women's health strategy for England, 'not enough is known about conditions that only affect women, or about how conditions that affect both men and women impact them in different ways'. The picture on the health of ethnic minority groups compared to white groups is complex but the pandemic revealed excess mortality risk due to geography, deprivation, occupation, living arrangements and health conditions such as cardiovascular disease and diabetes.
- Current lifestyles present a serious threat to population health, particularly for more disadvantaged groups. Although reported levels of physical activity are rising and levels of smoking are declining slightly, rates of obesity are predicted to continue to rise. People are becoming overweight at a younger age than previous generations. There are high levels of diabetes, and the recent decline in smoking has occurred in some but not all socio-economic groups.
- Common mental disorders (CMDs) have become more widespread since 1993. An estimated 1 in 6 adults have reported experiencing a CMD like depression or anxiety in the past week (2020/2021), while 2.0 million adults and 0.8 million children accessed NHS mental health, learning disability and autism services in 2020/21. There has also been a gradual increase in the prescription of antidepressants since 2016 (England data), with the NHS Business Services Authority confirming that prescriptions for antidepressants continue to grow, with an increase of 23.1% between quarter one in 2016/17 to quarter one 2021/22.
- Multi-morbidity, a major risk factor for those aged over 65, is set to increase further within the adult population, particularly in the most deprived areas. This increased prevalence of multi-morbidity will mean that most of the life expectancy gains anticipated during this period (men 3.6 years, women: 2.9 years) will be spent with 4+ diseases (65.9% for men; 85.2% for women).
- The NHS and social care systems are under unprecedented levels of strain due to increasing demands at a time of staffing and funding challenges. This is leading to delays in accessing both GP and acute care services.

TOPICS FOR THE DATA DIVE

The scale of the challenge in understanding and improving health population is huge so this springboard will focus on four broad areas. These have been identified on the basis that Understanding Society has measures that can be used to investigate questions within or across these themes and they represent topical policy challenges in terms of prevention, protection and mitigation.

Topic 1: Young adults (16 to 29) and health

Improvements seen in young people's behaviour suggest that they may take a more positive approach to their health as they grow older. However, even before the pandemic, young adults in the UK faced many challenges, with their wellbeing being eroded by a lack of good quality jobs, shortage of affordable housing, student debt, a decline in apprenticeships and cuts to public services. Not surprisingly, many young people feel anxious about their needs not being met and what the future holds for

them. A critical aspect is to better understand how different aspects of health are transmitted across generations.

A report by young people's future health inquiry led by The Health Foundation, focusing on 12-24-year-olds, found that tackling the social determinants of health, particularly, housing, transport and education, was critical to ensure long-term healthy lives. Among some groups, such as particular ethnic minority groups, progress on the education front hasn't always been accompanied by progress in the labour market. Others may be more prone to loneliness, with previous research showing that there is a close but complex relationship between mental wellbeing and loneliness. According to the British Youth Council, traditional engagement approaches with healthcare don't work for young people (and US evidence also shows that for a number of reasons it is the generation least likely to engage with healthcare). Little is known about caregiving among young adults.

New Understanding Society research is showing interesting links between housing affordability and mental health. For example, what is the impact of sustained exposure to housing affordability problems? In terms of health behaviours, positively, smoking rates among young people have been falling. However, longitudinal analysis confirms that the main risk factors (smoking, binge drinking, physical activity and recommended consumption of fruit and vegetable) are still socially patterned across the population.

So as young people transition through into adulthood, what types of health challenges do they face, and how do these constrain their progress? What are the key drivers of health for this demographic, and what protective factors do policymakers need to pay greater attention to?

Topic 2: Money, Finance and Health

How money and finance problems interact with health has been a growing area of interest, including among some in the investor community. They are both a common cause and consequence of health problems. One in four people with a mental health problem is in problem debt, and half of people in financial difficulties have a mental health problem (Money and Mental Health Institute, 2017). In that analysis, based on Understanding Society data, one in five employees (21%) reported that they were just about managing financially, while a further 5% say they were finding things difficult. Equally, "people with long-term health conditions often have less, or a more precarious, income – due to being too ill to work or work regular hours – and more expenses on medication, transport, a special diet, physical exercise to manage pain and ways to keep emotionally well" (Impact on urban health).

Borrowing, debt and saving are a central feature of modern life, but nearly 17 million people have less than £100 in savings, and eight million are over-indebted (2017). While there was growth in household debt as a percentage of income from 2007 to 2015, debt-to-income ratio has broadly remained around the average 135% mark between 2016 and Q2 2022 (House of Commons Library). However, this average ratio masks many differentials – and as mortgage rates, energy costs and other living costs go up, and wages fail to keep pace with inflation, the consequence for both health and relationships are a potential worry.

What kind of new research could help better understand how to break or weaken the link between money, finance and health – and, importantly, where to target effort? Does the type and persistence of money and finance problems matter when it comes to health? How do material deprivation and living conditions affect mental and physical health?

Topic 3: Work and Health

There is growing interest in the interaction between the economy and health. A contracting workforce is contributing to a headwind against growth and productivity. In particular, Understanding Society data has been used to examine the interaction between changing nature of work and workers' health (using biomarker data/objective measures of health) as well as links between commuting and BMI. Equally, only 43% of adults with mental health problems are in employment, compared to 74% of the general population and 65% of people with other health conditions (Money and Mental Health Institute, 2017).

Previous research suggests that it is increasingly workers' mental health that is affected by the changing nature of work, and particularly among female workers who juggle caring responsibilities at home. The increased incidence of remote working introduced since the pandemic is therefore of mixed benefit to many working women. That said, the evidence suggests that it's not just the additional family responsibilities that impact women's mental health, with improvements in job design, working hours and work environments leading to improved levels of mental health among female workers. Entrepreneurship is linked to higher levels of wellbeing, even though those who are self-employed work longer hours than those employed.

Just under a third of the UK workforce is now aged over 50, with more than 1.3 million workers aged over 65. Journeys between working life and retirement need to be smoothed out so illness is less likely to create a gap between these life-stages. Moving out of the pandemic, research using ONS data is pointing towards significant numbers of workers aged 50–69 who are not returning to the workforce, with the main reason given as self-reported ill health. What more can be said about the growing number of the over-50s becoming economically inactive who cite ill health? How has the pandemic affected 'unretirement'?

How can 'separating out' personal, family, occupational, employer or sectoral differences help in developing better policy? What can be said about why men and women's mental health respond differently to job design, working hours and work environments? What are the key protective factors that can help inform the future design of work and labour market policies?

Topic 4: Disability and health

The prevalence of disability rises with age, but at an individual level, the relationship between disability and health is a complex one. Better understanding of transitions and fluctuations in health and disability over people's lives – and how they affect people's employment, wellbeing and support needs – is vital to reduce the disability employment gap as well improve the health of people with disabilities. There are also

more than one million disabled children in the UK, with families facing additional challenges navigating through recent crises.

Furthermore, the UK's disability benefits system (which is non-means-tested) has gone through a significant transformation since 2013. 6% of working-age individuals are now on disability benefits, up from 2% in 1992-93. More than half of the increase in disabled people in employment has been driven by an increase in disability, rather than an increase in the disabled employment rate.

In addition to the direct health implications of some disabilities, the wider health of those with disabilities can deteriorate at a faster rate than those without a disability in a number of ways. Previous research has identified that perceived disability-related discrimination is linked with poorer well-being. People with disabilities – and learning difficulties – are also found to have experienced worse outcomes after being diagnosed with COVID-19. Understanding Society data has previously been used to investigate the health inequalities experienced by a so called 'hidden majority' of adults with learning disabilities.

Many disabilities can take people on a very different life course via reduced opportunities to learn, earn money, socialise, and live an active life. All of these will have corresponding knock-on effects on an individual's ability to maintain their health and wellbeing. What are the additional health implications of being diagnosed with a disability? What barriers prevent people with disabilities and/or health conditions from moving into and progressing in work, and which policy interventions could be most effective at addressing these barriers? Is there evidence that providing support and anti-discrimination efforts within the jobs market have worked for disabled people in some sectors?

8. Annex B – Research ideas suggested in expressions of interests

The expressions of interest submitted by applicants proposed research ideas and areas of research interest. These are arranged under the four topic areas.

Young people, health research interests:

What aspects of area deprivation have the most important influence on relevant health behaviours, and thus what could be targeted to improve health outcomes?
Are the higher levels of reported mental health issue due to greater awareness of the importance of mental health or a genuine deterioration in mental health?
Can the cost of housing in UK cities negatively affect the mental health of young adults?
How does the different elements of place impact on inequalities in young adult health?
What are the ongoing impacts of the pandemic for mental health among the youth – any change since coming out of lock down?
What are the wider social determinants of lifestyle-related non-communicable diseases?
What is the associations between labour market and health outcomes in relation to gender and ethnicity among young people (aged between 16-29)?
What can policy makers can do to protect the [mental] health of young people moving forwards?
Are there any long-lasting effects of housing insecurity on young adults?
What are protective factors of place on inequalities in young adult health?
What is the link between deprivation and lifestyle/behaviour and relation to obesity?
What public policy interventions work in tackling diseases like diabetes and heart disease at a population level?

Work and health research interests:

How influential is reported health conditions or impairments in employment status transitions?
The workforce of which sector/profession has the best mental and physical health, and what factors contribute to this?
What are the impacts of cities' urban development on public health in the past decade?
What are the long-term dynamics of the relationship between health/disability and labour market participation?
What diseases prevent people from working full-time?
What is the associations between labour market and health outcomes in relation to gender and ethnicity among young people (aged between 16-29)?
What is the relationship between working status and health? Can event history available from panel data establish directions and causality?
Can a return to pre-pandemic working cultures facilitate bettering well-being for everyone?

What is the effect of poor mental health on different kinds of work (physical, cognitive etc)? What encourages young people to invest actively in their physical fitness?
Is an individual more likely to develop a mental health condition after a period of more than 2 years of inactivity/unemployment?
Noting a significant number claim ESA support for long term infectious disease related ill health difficulties preventing work, what evolving challenges do infectious diseases bring to the workplace[/workforce]?
What is the size of the association between physical and mental health on inactive economic activities and labour market precarity?
What is the associations between bullying/being bullied in adolescence on health outcomes and labour market outcomes in adulthood?

Money, Finance and health research interests:

Does having some savings help protect people who experience negative life events from health issues?
Does money guidance have a preventative role in reducing health inequalities in deprived areas?
Does poor mental health lead to financial problems? If so, through what pathways (job loss, differences in spending decisions, etc.)?
Does the link between money, finance and health differ across groups (gender, age group, ethnicity, disability, or location, i.e., living in a deprived area)?
How do different financial products affect mental health differently? e.g. are there times when paying a mortgage causes greater distress, even if renting is generally worse for mental health?
How do transition from Disability Living Allowance to Personal Independence payment affected the health of recipients?
How does the relationship between mental health and finances vary depending on other characteristics, such as ethnicity, age, and area deprivation?
How does the relationship between money and mental health vary depending on whether we use more objective or subjective measures of financial wellbeing?
Is economic (in)security among young people associated with their long-term health outcomes?
To what extent do the difficulty in making the ends meet (pay rent, energy costs, food and essentials etc.) influence health and wellbeing?
To what extent financial struggles leading to material deprivation and poor living conditions are linked to unhealthy choices (not engaging in physical exercise, following an unhealthy diet) and how this further impact on people's wellbeing?
To what extent people cut back spending on social activities (such as going out with family and friends) and how the increased loneliness and social isolation can exacerbate the negative effect of money and financial problems on people's physical and mental wellbeing?
What barriers do people with disabilities face once they are employed in terms of career progression and how these influence their mental health and subjective wellbeing?
What is the relationship between different measures of household income and health outcomes?

Disability and health research interests:

Does a mental health condition come before or after a musculoskeletal condition?
How did Covid-19 impact on informal caregiving and caregivers physical and mental health?
What are the experiences and inequalities of working-aged disabled adults?
What are the long-term dynamics of the relationship between health/disability and labour market participation?
What impact did disabled people's transition from Disability Living Allowance to Personal Independence payment on benefits recipients total income?
What is the relationship between socioeconomic differences in lifestyle risk factors and trends in disability and health outcomes?