University of Essex

East of England All Party Parliamentary Group

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Innovation to Tackle Health Inequalities
Wednesday 30 March 2022

Overview

Health inequalities are the preventable, unfair and unjust differences in health status between groups, populations or individuals that arise from the unequal distribution of social, environmental and economic conditions within societies[1]. Over the last decade, health inequalities have widened and the amount of time people spend in poor health has increased. For the first time in more than 100 years, life expectancy has failed to increase across the country, and for the poorest 10% of women it has actually declined[2]. COVID-19 has exacerbated existing health inequalities, with the pandemic disproportionately affecting already disadvantaged populations[3].

Public policy responsibility for addressing health inequalities is shared by local authorities, Integrated Care Systems (ICS), the NHS, and two new national bodies replacing Public Health England, the Office for Health Improvement and Disparities and, with a focus on infectious disease surveillance, the UK Health Security Agency. The complexity of the root causes of inequalities in health requires integrated responses that take into consideration the multiple socio, economic, and environmental factors. Making progress is vital for post-pandemic recovery and levelling up and one of the explicit missions of the Levelling up White Paper[4] is to narrow the gap in healthy life expectancy (HLE) between areas. The 2021-22 Health and Care Bill[5] aims to strengthen action on health inequalities and speed the recovery of care disrupted by the pandemic. The Government has launched two independent reviews to tackle health disparities and will soon publish a White Paper to tackle the core drivers of health inequalities. Innovation through new models of care enabled by more integrated working between health and care partners and the use of technology to deliver new treatments or improvements to the way that care is organised and delivered could hold the key to tackling health inequalities.

Health Inequalities in the UK

Health inequalities arise because of the conditions in which we are born, grow, live, work and age. These conditions, or social determinants of health (SDOH) (**Fig 1**), influence our opportunities for good health, and how we think, feel and act, shaping our mental health, physical health and wellbeing.

Fig 1. Social Determinants of Health
Dahlgren G, Whitehead M (1993)
A vision for population health- The King's Fund

[1] https://www.england.nhs.uk/about/equality/equality-hub/resources/
[2] Marmot Review 10 Years On - IHE (instituteofhealthequity.org)
[3] Public Health England. 'Disparities in the risk and outcomes of COVID-19.' August 2020
[4] Levelling Up the United Kingdom - GOV.UK (www.gov.uk)
[5] Health and Care Bill - Parliamentary Bills - UK Parliament

Health inequalities can be analysed by measuring differences in health outcomes across different groups of people. For example, in England, life expectancy varies depending on where people live. There are disparities in life expectancy between people living in the most deprived and least deprived areas in England, with those living in the most deprived areas having a lower life expectancy compared to those living in the wealthier areas. Before the COVID-19 pandemic, the gap in life expectancy between the most and least deprived communities was nearly ten years. In the East of England, there are a number of pockets of deprivation, with 7 out of the 123 of the Government's Priority 1 areas for Levelling Up funding located in the East of England (Great Yarmouth, Harlow, King's Lynn and West Norfolk, Luton, Peterborough, Southend-on-Sea and Tendring). Indeed, Tendring is the most deprived area (Lower Layer Super Output Areas (LSOA)) in England[6]. In the East of England in 2017-2019, females in the most deprived areas were expected to live almost 7 years less than those in the least deprived areas (**Fig 2**), while for men the observed gap is almost 9 years.

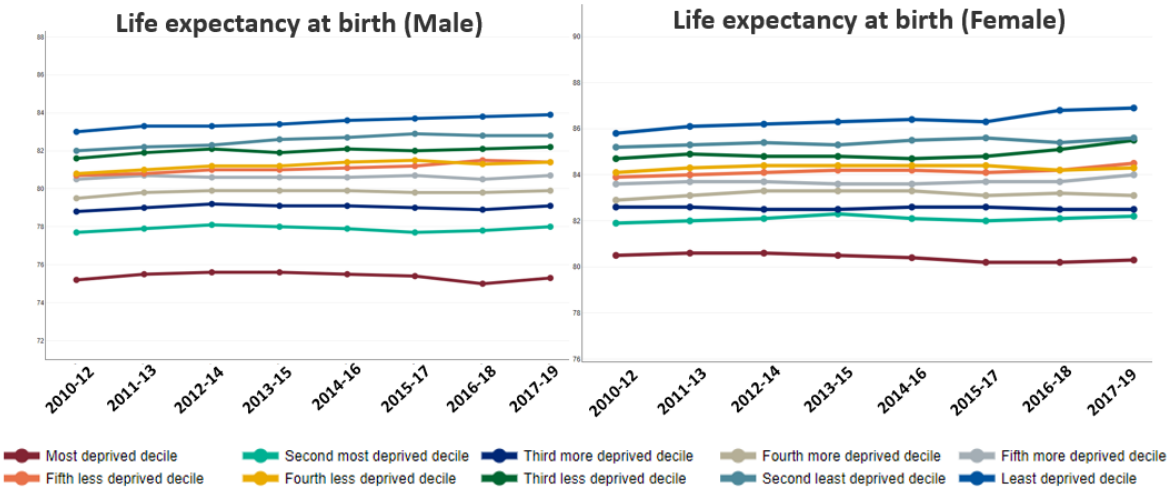

Fig 2. Life expectancy at birth East of England: Disparities between the most and least deprived deciles (PHE Health Inequalities Dashboard https://analytics.phe.gov.uk/apps/health-inequalities-dashboard/)

To tackle health inequalities, system wide improvement to the socio, economic, and environmental determinants such as poor housing, food quality, communities and place, employment, racism and discrimination, transport and air pollution is required in parallel with an improvement in services delivery and integrated care systems. Anchor Institutions (eg. local authorities, NHS trusts, universities, large local businesses, the combined activities of the community and voluntary sector and housing associations) are in a unique position to utilise their location and resources to address health inequalities in their regions. At a national level, NHS England is working with the Health Foundation to promote ways in which the NHS and other public sector bodies can improve socio-economic factors and outcomes in their local communities[7]. EELGA and the NHS in the East of England are collaborating on this agenda to share learning across the region. Public services that are vital for enabling everyone to lead a healthy life will require investment if inequalities are to be narrowed and the financing of public health and the wider determinants should be a key focus for the Office for Health Improvement and Disparities.

What can local authorities do to address the determinants of health, such as a decent home, a good education, a stable job, green spaces and clean air? Local authorities have a major role to play in reducing health inequalities and improving public health through their responsibilities for housing, planning, transport, education, skills and employment. Local authorities, working with the wider health system, should drive forward programmes that create healthier places, reduce health inequalities and aid pandemic recovery. To do this public health funding for local authorities needs to be commensurate to local population need. From

[6] The English Indices of Deprivation 2019 (publishing.service.gov.uk)
[7] The NHS as an anchor institution (health.org.uk)

2009 to 2020, net expenditure per person in local authorities in the 10% most deprived areas fell by 31%, compared with a 16% decrease in the least deprived areas[2]. Overall, public health grant allocations have fallen in real terms from £4.2 billion in 2015–16 to £3.3 billion in 2021–22. Per head that equates to a 24% cut since 2015–16[8]. There are also disparities in public health funding allocations between regions - in the East of England, £25.5 million of public health funding was allocated in 2020-21, an average of £49.30 per head in contrast with £519 million in the North West, an average of £75.65 per head[9].

Tackling Health Inequalities through Innovation

Integration and Innovation - Integrated Care Systems

The ambition to reduce inequalities and support people to live longer, healthier and more independent lives demands bold, joint and cohesive efforts. The 2021-22 Health and Care Bill sets up a series of Integrated Care Systems (ICSs) to promote collaboration and innovation in the health system. ICSs bring together providers and commissioners of NHS services across a geographical area with local authorities and other local partners to collectively plan health and care services to meet the needs of their population. There are 42 ICSs in England with 6 located in the East of England.

East of England ICSs:

Bedfordshire, Luton and Milton Keynes
ICS chair and ICB chair designate: Dr Rima Makarem

Norfolk and Waveney
ICS chair and ICB chair designate: Patricia Hewitt

Hertfordshire and West Essex
ICS chair and ICB chair designate: Paul Burstow

Suffolk and North East Essex
ICS chair and ICB chair designate: Professor William Pope

Cambridgeshire and Peterborough
ICS chair: Mike More ICB chair designate: John O'Brien

Mid and South Essex
ICS chair and ICB chair designate: Professor Michael Thorne CBE

ICSs are intended to bring about major changes in how health and care services are planned, paid for and delivered, and are a key part of the future direction for the NHS. They aim to support joint health and care workforce planning at place level, working with both national and local organisations. ICSs have the potential to drive improvements in population health and tackle health inequalities by reaching beyond the NHS to work alongside local authorities and other partners to address social and economic determinants of health.

To what extent can ICS focus on tackling health inequalities with the unprecedented pressures faced as result of the pandemic? Prior to the pandemic, the country was already facing widening health inequalities placing a considerable burden on the health service. The pandemic has, and will continue to cause, profound effects on healthcare systems and has exacerbated existing health inequalities. A key challenge for ICSs will be to drive changes to health and care services while also dealing with the challenge of restoring and recovering services after the pandemic.

How can we overcome the challenges of integrating the health, social care and NHS workforces? The challenges for integrating workforces are considered in the Government's Integration White Paper[10]. The gaps in pay and career structure and culture between the NHS and social care makes integrating the two

[8] Public health grant allocations represent a 24% (£1bn) real terms cut compared to 2015/16
[9] Public health grants to local authorities: 2020 to 2021 - GOV.UK (www.gov.uk)
[10] Health and social care integration: joining up care for people, places and populations - GOV.UK (www.gov.uk)

workforces problematic and long-term investment is needed to address these gaps. The 'East of England integrated workforce planning and transformation strategic forum' (IPaT) was launched in February 2022 and aims to provide strategic direction to delivering the vision of a 'one workforce' across ICS in the region.

Technical Innovation

Do data-driven technologies hold the key for addressing health inequalities? What are the challenges of using data-driven technologies in healthcare? The application of data-driven technologies offers great potential for the delivery of health care and public health and could play a role in helping to reduce health inequalities. In the context of health 'data-driven technology' describes technologies that work by collecting, using and analysing data, including patient health and care data, to support the care of individuals and patients, the functioning and improvement of health services and public health, and the development of medical research and innovation. Artificial intelligence (AI) is a data-driven technology that performs tasks by learning rules from the data it has access to. AI in healthcare can produce powerful models to automate prevention, detection, diagnosis and treatment. Although AI has tremendous potential for healthcare system delivery, it has the potential to exacerbate existing health inequities. The population health data available to 'train' these models is often not representative and care must be taken to incorporate data from diverse populations. The Government has produced a Draft National Strategy for AI-driven technologies in Health and Social Care[11] addressing issues around the development/deployment of AI in health and adult social care and a White Paper on governing and regulating AI is expected in 2022.

Partnerships for Innovation

The region's Universities offer opportunities for regional and national stakeholders to draw on expertise in public health and the use of data-driven technologies in healthcare and other contexts and have established strong relationships with organisations in the region, including county and borough councils, NHS Trusts, businesses, and charities. Some examples of initiatives include:

- The University of Essex Institute of Public Health and Wellbeing works collaboratively with local, national and international stakeholders to tackle the root causes of ill health.
- The University of Essex Business and Local Government Data Research Centre forges links with stakeholders to help them use data to support innovation and the Chief Scientific Advisor to Essex County Council applies the University's expertise in data-driven technologies to inform policy development.
- 'Understanding Society' at Essex is the largest longitudinal household panel study, providing data on all aspects of family life, used by regional and national decision-makers to shape policy.
- Essex's Human Rights, Big Data and Technology Project considers the challenges and opportunities presented by data-driven technologies from a human rights perspective.
- UEA Health and Social Care Partners (UEAHSCP) brings together researchers across health and social care organisations in Norfolk, Suffolk and North East Essex to conduct collaborative research that addresses the most pressing health challenges.
- Norwich Institute for Healthy Ageing, a partnership between Norwich City Council, UEA Health & Social Care Partners, Norfolk County Council, and various research institutes, develops and implements strategies to improve physical and mental wellbeing.
- Cambridge Public Health is a membership organisation for public health academics and external health partners, established to tackle society's most pressing public health problems.

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[11] Health and social care integration: joining up care for people, places and populations - GOV.UK (www.gov.uk)