

# What is health equity and why do children need it now more than ever?

Abigail Knight  
 Dhanya Gardner  
 Cat Crook  
 Elizabeth Crabtree  
 Nicola Ennis  
 Douglas Simkiss  
 Jessica Allen

## Abstract

Health equity enables everyone to have the best possible opportunity for good health regardless of their social circumstance. In this article we set out why it is so vital that this begins in childhood, particularly at a time when increased costs of living in many countries are exacerbating health inequities further. We examine the impact of addressing the social determinants of health at individual, population and systems levels, and why this is the business of all partners involved in the local health economy. In the UK, integrated care systems (ICS) are early in their development. In this short article, we describe the work of the Children and Young People's Health Equity Collaborative: a collaboration between children's charity Barnardo's, the Institute of Health Equity, Birmingham and Solihull ICS, Cheshire and Merseyside ICS, and South Yorkshire ICS. This details a three-year programme designed to establish enablers for this whole systems approach. This includes a Children and Young People's Health Equity Framework, a dynamic data measurement tool to direct action for longer term outcomes and

**Abigail Knight** BA (Hons) MA (Oxon) MSc MFPH Strategic Programme Lead, Integrated Child & Family Health, Barnardo's, London, UK. Conflicts of interest: none declared.

**Dhanya Gardner** BSc (Hons) MSc MSc GMBPSS MFPH Public Health Speciality Registrar, Institute of Health Equity, University College London, London and South West Public Health Training Programme, UK. Conflicts of interest: none declared.

**Cat Crook** BA (Hons) Programme Manager, Barnardo's, London, UK. Conflicts of interest: none declared.

**Elizabeth Crabtree** BSc (Hons) HCPC Registered Programme Director, Cheshire and Merseyside ICS, Alder Hey Children's Hospital Trust, Liverpool, UK. Conflicts of interest: none declared.

**Nicola Ennis** BA (Hons) PsychD HCPC Programme Lead, South Yorkshire ICS, Sheffield Children's NHS Foundation Trust, Sheffield, UK. Conflicts of interest: none declared.

**Douglas Simkiss** PhD FRCP (Ed) FRCPCH FHEA Consultant Paediatrician, Chief Medical Officer and Deputy Chief Executive, Birmingham Community Healthcare NHS Trust, UK. Conflicts of interest: none declared.

**Jessica Allen** BSc (Hons) MSc PhD Deputy Director, UCL Institute of Health Equity, London, UK. Conflicts of interest: none declared.

supporting child health equity interventions. Children and young people's voice is central to our work, combining academic evidence with lived experience of what really matters to them.

**Keywords** Children; health equity; health inequalities; integrated care systems; social determinants; whole-systems; young people

## What is child health equity?

In its simplest form, child health equity is about ensuring every child has the best start in life and has the opportunity to live a long and healthy life, regardless of their social circumstances.

Up to 85% of our health is determined by where we are born, grow, live, work and age – these are the 'social determinants of health', (SDH), which form the 'building blocks of health'.<sup>1</sup> Despite the ambition of many countries, including the UK, to provide universal services there are inequalities in access to and quality of education and health care, and inequalities in income – these drive the SDH and can reinforce rather than mitigate unequal outcomes (inequity). The SDH include discriminatory practices and are driven by structural inequalities in access to money, power and resources.

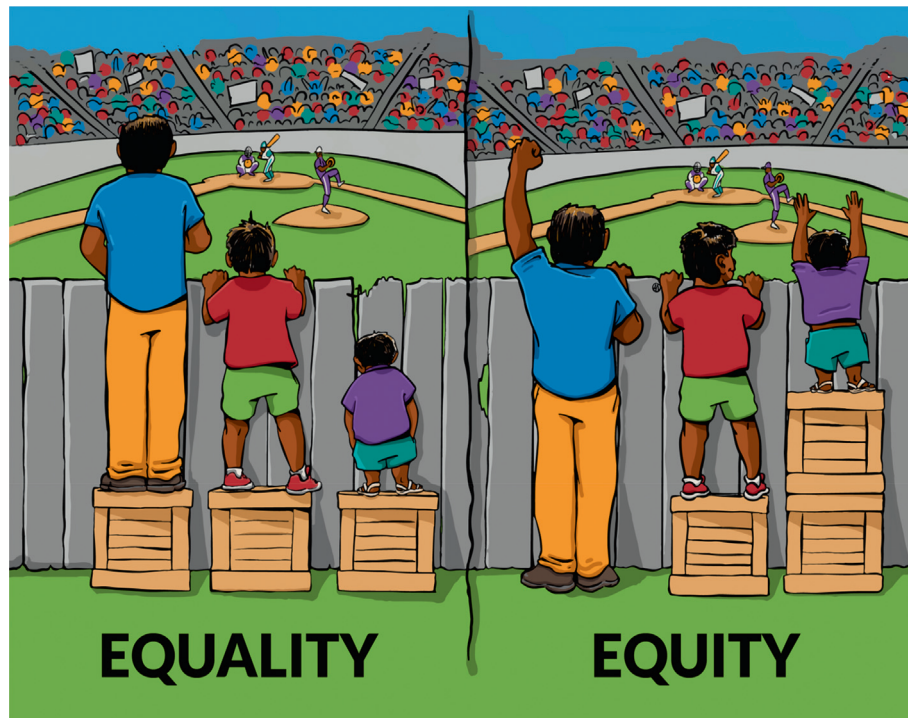
Health systems have a role in tackling health inequalities but need to work in partnership as most health inequities are driven by these SDH. As illustrated in [Figure 1](#), if healthcare services only aim to intervene equally in accordance with clinical need, differences in health outcomes will remain and inequalities will worsen. Attempts to prevent or reduce these inequalities must therefore address resource allocation – available to all but proportionate to need such that they also address the underlying causes of health, 'proportionate universalism'.

This rebalancing of power and resources needs to begin at the start of life to achieve long-term benefits. The effects of child neglect on brain development, for instance, are significant, as depicted in [Figure 2](#). Early multidisciplinary intervention can help ameliorate these circumstances and support onward healthy development. Ultimately this would require a rebalancing of resources towards interventions that create the conditions for healthy childhood upbringing.

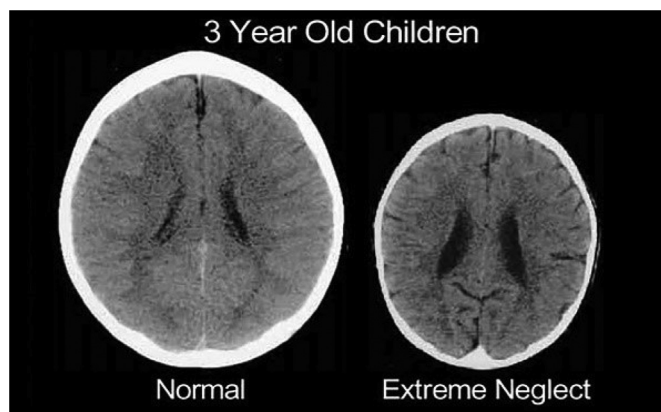
The founder of children's charity Barnardo's, Dr Thomas Barnardo, was a young doctor in Victorian London at a time when poverty and disease were so widespread that one in five children died before their fifth birthday. He witnessed first-hand the impact that poor living conditions had on child health. He resolved to refocus his career to address basic and essential needs first through provision of warmth, shelter, an education, apprenticeships and more. His actions foreshadowed the eight Marmot principles some 150 years later:

1. Give every child the best start in life
2. Enable all children, young people and adults to maximise their capabilities and have control over their lives
3. Create fair employment and good work for all
4. Ensure healthy standard of living for all
5. Create and develop healthy and sustainable places and communities
6. Strengthen the role and impact of ill-health prevention
7. Tackle discrimination, racism and their outcomes
8. Pursue environmental sustainability and health equity together

The Children and Young People's Health Equity Collaborative brings together the evidence base in local councils, the NHS and



**Figure 1** Equity v. equality. Reproduced from the Interaction Institute for Social Change (<https://interactioninstitute.org/illustrating-equality-vs-equity/>) under Attribution-ShareAlike 4.0 International (CC BY-SA 4.0).



**Figure 2** Brain development in a 3 year old experiencing extreme neglect compared to a 'normal' 3 year old. Reproduced from reference <sup>2</sup>.

the voluntary sector with the experience of the Institute of Health Equity, Barnardo's child-centred approach, and the practical experience and stewardship of Birmingham and Solihull Integrated Care System (ICS), Cheshire and Merseyside ICS and South Yorkshire ICS.

Here, we set out why this work is so badly needed at this time and describe the contribution this Collaborative seeks to make. In Professor Sir Michael Marmot's words: 'Why treat people and send them back to the conditions that made them sick?'<sup>3</sup>

### What does child health equity mean for our society?

Four million children live in poverty across the UK, and this is expected to increase to five million by the end of the decade. Employment no longer offers the protection from poverty it once

did; 75% of children living in poverty have at least one parent in work.<sup>4</sup> The RCPCH states that childhood poverty disproportionately impacts lone parent families, households which include someone with a long-term condition, and Black, Asian, mixed and minority ethnic families. Rising costs of living and home ownership unaffordability have broken the unwritten intergenerational pact of future generations having a better standard of living than their parents: a survey of most European countries stated that adults feared that their children would have worse life outcomes than they and their parents had.<sup>5</sup> The consequences for the long-term health of future generations will be considerable.<sup>6</sup>

When we look at children living in areas of higher deprivation, or in low-income households, we see higher levels of long-term illness, childhood obesity, dental issues and visible tooth decay, preventable child injury, and lower levels of school readiness and educational attainment. Adverse childhood experience (ACE) has a linear association with deprivation. Children who experience ACEs, particularly in the first three years of life, can have their development impacted and can go on to develop stress related health conditions affecting multiple systems and both physical and mental health. Preventing ACEs in future generations could reduce levels of violence perpetration by 52%, heroin use by 59%, unintended teenage pregnancies by 38%, smoking by 16%, binge drinking by 15% and poor diet by 14%.<sup>7</sup>

However, it is also important to recognise the impact of wider structural inequalities on cohorts of children with protected characteristics. For instance, racism and discrimination can have a negative impact on the physical and mental health of children and adults from ethnicity minority groups, due to their differential experiences in housing, employment and criminal justice systems. Ethnic minority groups can also face barriers to

accessing health information and health services. A particularly stark example is that Black women are four times more likely to die while pregnant or just after childbirth than white women.<sup>8</sup>

### What does child health equity mean for individuals?

Inequalities may be identifiable at a clinical level; a responsive approach to personal and social circumstance are critical to optimising care and treatment. The following three case studies illustrate the different ways poverty and inequalities impact on childhood development.

#### Case study 1: epigenetics and the home environment

Hyperphagic short stature (HSS) in children is characterised by a growth failure and hyperphagia (excessive eating) does not have a known cause. It may be easy to conclude that such conditions are a result of genetic pre-disposition and are unavoidable, but that would only offer a partial explanation.

In a follow up study of 65 children referred for specialist treatment for HSS, 41% of children were found to have experienced physical or sexual abuse. In a small longitudinal study of outcomes, children with HSS who were moved away from stressful home environments to more nurturing ones, showed signs of growth failure reversal as well as improvement in a broad spectrum of other outcomes such as physical, psychological, eating behaviour, educational attainment, employment, relationships and parenting.<sup>9</sup>

The benefits of a nurturing and supporting home environment to reduce the risk of health inequalities cannot be underestimated. Identifying and acknowledging such protective or aggravating factors are an essential component of mitigating health inequalities and effective treatment.

#### Case study 2: complex social needs and system-induced health inequalities

A case study from within our Collaborative highlights how proactive health support for children with complex social needs can often be overlooked and are not easily accommodated within pre-determined eligibility criteria. This is an important driver of health inequalities.

Child A was medically assessed upon adoption at the age of four and was considered likely to present with attachment difficulties and developmental immaturity. No other physical or neurodevelopmental needs were identified. As they were now outside the social care system, they were ineligible to access mental health support offered to children on the adoption list, despite having the same risk factors as siblings who remained in care.

The adoptive parents found child A to have limited bladder and bowel control, including not knowing when they were wet or when they needed to go. They were always hungry and could not tell when they were full. They could not tell if they were hot or cold, dressing inappropriately for the weather. They could not identify when they were experiencing pain when hurt, and did not have a reciprocal smile. The child had fixed interests, often limiting conversation to these topics, and used a singsong 'baby' voice, especially when uncomfortable or anxious. They had some difficulties with movement, struggling to get up from lying down or to walk extended distances, and struggled to sit still through mealtimes. They struggled with transitions within the

day, and in building positive relationships with peers, often having meltdowns and tantrums, leading to difficulties within school.

By year 2 of primary school, this was causing the child to be sent to the headteacher for their behaviours during the school day and they displayed inattention to work, difficulty making friends, and a failure to receive rewards within the school day. The Adoption Social Worker suggested therapy in response to previously identified attachment difficulties and emotional immaturity. A 10-week course was funded, after which they would need to reapply the following year. To address such issues within a 10-week period felt unrealistic, and having to stop at that point left the family struggling and issues were allowed to escalate in the meantime.

By year 4, the parents suspected that child A may have ADHD; they requested a GP referral for assessment which had a wait time of 18 months. They requested a conversation with the school's Special Educational Needs and Disabilities Co-ordinator (SENDCO): their first interaction with the SENDCO. The SENDCO suggested Child A may also have Autism, which had not been raised until then. The parents asked the GP for joint referral for a combined Autism and ADHD assessment, for which there was still a 1-year wait. Out of desperation to support their child, the parents paid for a private assessment and received a positive diagnosis. This triggered additional educational support in school, and a medication trial improving concentration and behaviour during the school day. By the end of primary school, Child A was performing 'as expected' in all areas rather than 'working towards' the assigned goals.

Child A's progress was put at further risk on transition to secondary school, when they were informed that they were unlikely to be awarded an Education Health and Care Plan (EHCP) because the child was 'not severe enough nor disruptive enough'. The parents had to gather evidence and apply for the EHCP themselves to ensure their child had ongoing support, which was successful and longer term SEND support was provided within mainstream education.

#### Case study 3: service effectiveness and whole systems solutions

Childhood obesity places a significant and increasing burden on the NHS, with one in four children in England being overweight or obese; rates are twice as high among children living in the most deprived areas.<sup>10</sup> This brings a number of complications, such as managing any resulting comorbidities e.g. Type 2 diabetes, liver disease and early heart disease, as well as the impact of excess weight on quality of life, and mental health.

NHS England has recently invested significantly in Tier 4 Complications of Excess Weight (CEW) clinics, which expect to treat 1,000 children per year, between the ages of two and 18, experiencing severe obesity related complications. The programme looks to treat children holistically with equal consideration for mental health, physical health and social needs, and with multidisciplinary team involvement to reduce the need for invasive treatment. Areas which have integrated voluntary, community and social enterprises (VCSE) sector partners have been enabled to embed cultural responsiveness and personalising the approach to maintaining behavioural change in the context of the whole family.

The CEW clinic approach described acknowledges the complexity of obesity, as set out by the system map from the Foresight Report (Figure 3). It's anticipated that demand for this service will grow, and its effectiveness will likely warrant its continued investment. We do need to question whether resource, elsewhere invested, could help us move away from 'the rescue principle' on a systems level. Plymouth City Council's 'Compassionate Approach to Children and Young People Health and Weight: A Strategic Plan 2023-33' is an example of this way of working upstream, in practice.

Children and young people whose weight was at or above the 91<sup>st</sup> centile for BMI, were engaged to explore what issues were most relevant to their weight and health. Most cited were the effects of poverty, such as adverse childhood experiences, parental emotional health and wellbeing, basic needs not being met, or existing multiple professional involvement. In fact, weight was low on their list of concerns.

The resulting strategy acknowledged this wider context for children and young people, and the multiple stakeholders across the system who are part of their lives and therefore may have a role in addressing health and weight in the longer term. It takes a

phased approach to delivery – focussing initially on bringing together whole systems in the shared endeavour, creating building blocks and quick wins. The second phase would normalise and embed this way of working as business as usual before the system redesign of phase three. The council is in its first phase of this delivery. The quick wins cannot necessarily be predicted but are numerous. One school in an area of high deprivation and situated in a desert of available facilities was able to overcome the restrictions imposed by their Private Finance Initiative contract to host activities in another part of the school and receive inward investment. A GP surgery which was disconnected from other parts of the community had decided to employ a Paediatrician for set clinics. This Paediatrician then linked with the school health team to set up cooking groups and different classes or resources which children and families could choose which part they would like to engage in. The public health team supported community organisations to put in bids for funding from diverse grants, while considering the potential impact on child health and weight. All acts, delivered at scale, are the sign of a healthy system: the prerequisite of healthy children and young people.

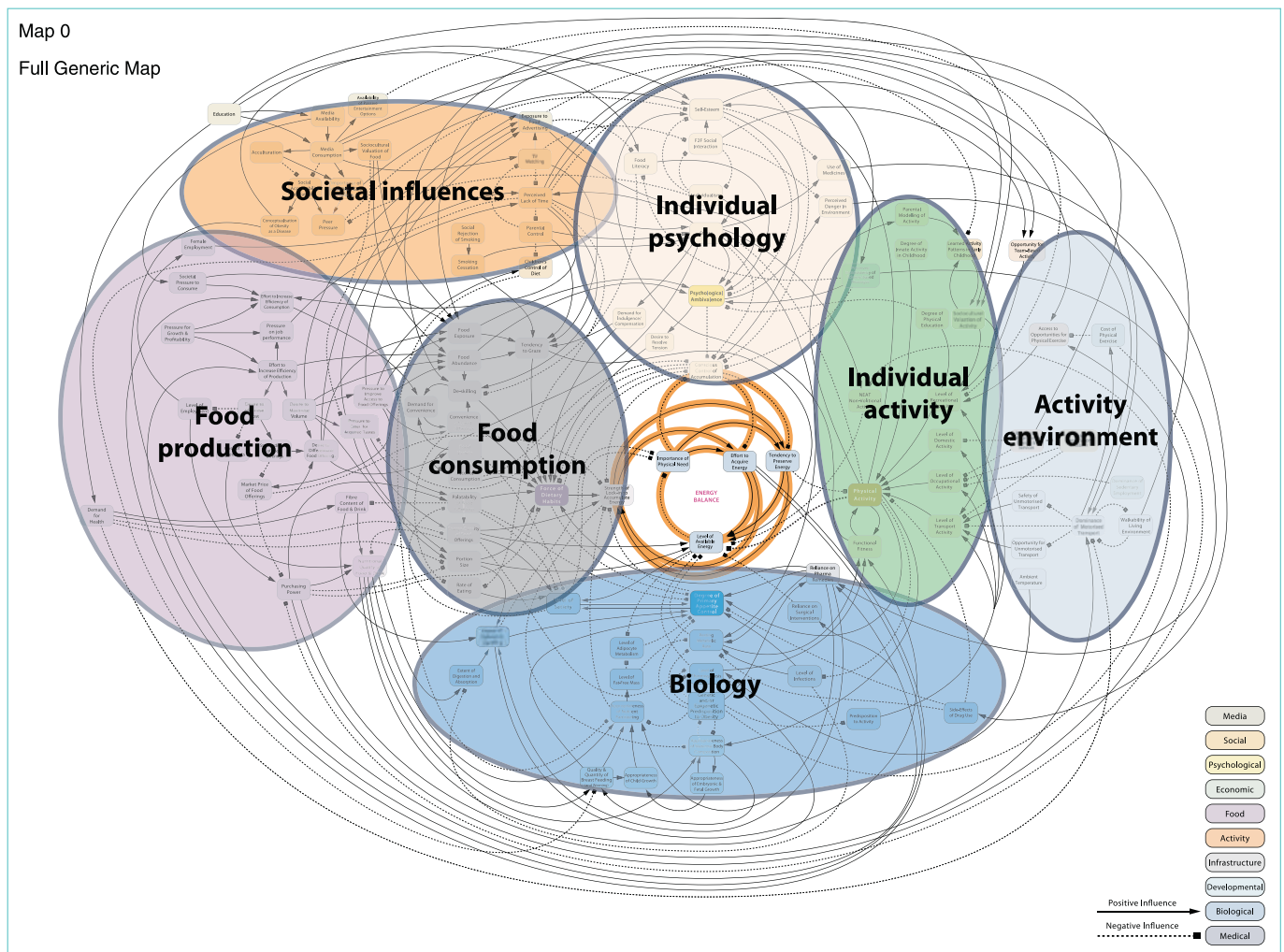


Figure 3 The full obesity system map with thematic clusters. Reproduced from the *Tackling Obesities: Future Choices* report under the Open Government Licence.

## What does this mean for health services and health systems?

Whilst inequity is predominantly driven by factors outside of health systems, the NHS is an essential social safety net. Without the state-funded NHS, health inequalities would widen further. For most children, interactions with the NHS are limited to periods of acute illness or injury. However, we cannot ignore that the development of long-term conditions is closely tied to inequality starting in childhood and continues throughout a person's life.

Air quality, for example, has a multiplicative effect on children living in poverty: they are both more likely to live in areas of poor air quality, and are more likely to experience greater harmful impacts on their health due to poverty-induced inflammatory dysfunction. This is shown to result in greater prevalence of respiratory conditions, cardiovascular disease and mental health in adulthood. One in four adults has at least two health conditions, and the Government's Major Conditions Strategy sets out plans to address these. The most effective, and cost-effective solutions to address this burden of morbidity are through action taken during childhood. For example, more than half of all mental disorders in adulthood begin in childhood or adolescence. However, children and adolescents with symptoms that do not fully meet the criteria for diagnosis of a mental health disorder are at increased risk for impaired mental health in adulthood.<sup>11</sup>

ICSs were created in July 2022, bringing together new and pre-existing partnerships for health and presenting new opportunities to rethink the status quo. Integrated Care Partnerships, and more specifically Place-Based Partnerships, carry the legal requirement to bring together NHS, local authority and voluntary and community sector partners. This is important, as whole systems issues such as those described above, require whole systems solutions.

The tragic death of two-year-old Awaab Ishak from environmental mould exposure in December 2020 is a reminder of the consequences of inaction. The coroner's report highlighted both housing policies and the lack of systems in place for healthcare professionals to share concerns about the impact of poor housing on the health of their patients.<sup>12</sup> Health systems should work across whole systems partnerships with the key organisations that influence health inequalities. NHS organisations have a fundamental leadership role within partnerships, both through highlighting the health consequences for children and contributing to identifying and implementing whole system solutions.

Guidance produced for place-based partnerships set out recommended activities including system resource allocation, population health management, connecting support in the community and the promotion of health and wellbeing. As we have seen in the case of social prescribing and other initiatives, the focus of these areas often starts with adults and children and young people's needs are not prioritised. A long-term and holistic diabetes preventative management approach involves improving knowledge and awareness in younger generations. However, incentives and funding in health systems are aligned to urgent needs, such as elective care waiting lists and A&E admissions. Prevention and whole systems approaches to improve child health equities will struggle to be priorities as long as the systems only reward actions in urgent adult care.

## The Children and Young People's health equity collaborative

The Children and Young People's Health Equity Collaborative was established to capitalise on the creation of ICSs to provide evidence to increase and embed resource allocation towards services and approaches to improve child health equity. Systems levers, such as place-based partnership guidance, exist to provide the conditions for this work; the Collaborative was formed to demonstrate how to capitalise on these conditions in a new way of working. We have also engaged senior change-makers in our programme to consider how the wider system may be incentivised and supported to adopt child equity practice. Central to this work is the voice and influence of children and young people, and our practice is led by what matters most to them and what makes them feel that they matter, as they articulate in [Video 1](#) (Videos can be found at <https://doi.org/10.1016/j.paed.2023.12.002>).

Over a three-year programme, we are working towards establishing a Children and Young People's Health Equity Framework, the creation of a dynamic data measurement tool, and piloting and evaluating child health equity intervention.

The Children and Young People's Health Equity Framework is based on the WHO social determinants framework. It illustrates the interconnected nature of (i) social position, or circumstances of birth, such as income, (ii) living conditions arising from social position, such as housing or social capital, (iii) health and wellbeing, (iv) the availability of a social safety net and (v) the intersecting characteristics related to e.g. ethnicity, care experience or neurodiversity. Collectively these factors set out what are some of the most pressing issues resulting from poverty for children and young people, and who may be disproportionately affected within an ICS footprint. These factors, and resulting data metrics, are determined by combining the existing evidence base with children and young people's perspectives on what matters for their health and wellbeing. This framework will be used by ICSs to prioritise a particular aspect of child health equity which is of greatest concern and consequence to them.

The dynamic data measurement tool will allow a deeper dive into that prioritised area, and across insights held by all parties involved in a whole systems approach. It is designed to capture non-statutory sector, (particularly those from VCSE) insights on a topic alongside statutory sector data. VCSE organisations are often closer to the reality of children and young people's lives than the statutory sector is able to be. It is important to harness these trusting relationships and insights as part of any health equity response. However, the asymmetry in data availability between sectors can lead to this being undervalued. The proposed data tool will monitor respective contributions from the resulting guiding principles for this workstream. It will also measure what matters to facilitate recognition of respective contributions and corresponding resource across whole systems, especially smaller community organisations.

The pilot child health equity intervention(s) will be co-designed with children, young people and families. We will recruit children and young people to become Child Health Equity champions in each ICS to advise on our approach and ensure our work is fully inclusive and representative of the local population of children and young people. Pilots may focus on improvements to housing conditions, access to and use of green space, and

connections between neighbourhood level community support, for instance. Their evaluation shall focus on early indicators of impact on health, and how the overall work of the Collaborative has informed the structures within ICS.

Most importantly, our Collaborative is designed to guide action. The three ICSs within the Collaborative are forward thinking in their approach to child health equity and recognise that it is the right thing to do. Here, they share their views on child health equity and why this work is needed now more than ever.

Douglas Simkiss, Birmingham and Solihull ICS:

Childhood is full of fun, laughter, joy, curiosity and flourishing children are wonderful to watch. Children who thrive are more likely to grow up to be healthy adults, the benefits promote a long and full life. But this experience of childhood is not universal and children from families who are living in poverty and/or on low incomes are more likely to have difficult childhoods; there is an important link between health and wealth. The Children and Young People's Health Equity Collaborative is really important because *'this link between social conditions and health is not a footnote to the 'real' concerns with health – health care and unhealthy behaviours – it should become the main focus'* and we know that the *'giving every child the best start in life'* will have the greatest impact on breaking the close links between early disadvantage and poor outcomes throughout life.

I work as a Paediatrician in a young and super-diverse city where half of our children live in families on the lowest of incomes and therefore in a state of deprivation. I am proud that we can contribute the insights of children, their families and the communities in our Integrated Care System to bring lived experience to the social determinants of health and health inequities framework, provide insights from NHS data and develop interventions to enable all childhoods to be full of fun, laughter, joy, curiosity and flourishing.

Elizabeth Crabtree, Cheshire and Merseyside ICS:

The health inequalities experienced by our population in Cheshire and Merseyside are long-standing, many of our children experience a difficult start to life and this impacts on their ability to reach their potential. Inequalities have been exacerbated by the Covid pandemic and the ongoing impact of the cost-of-living crisis, especially as many children and young people in our population experienced longer lockdowns so children were out of formal education for longer periods of time compared to the national average. This Collaborative places the child's voice at the centre of our work to create a legacy to improve young lives and their chances in later life. By using their insight, we can target resources and develop effective ways to benefit the populations who are most in need.

Nicola Ennis, South Yorkshire ICS:

In South Yorkshire economic and population changes over the years now mean that 40% of our children and young people are living with poverty. We know that many of our children will live the second half of their life with chronic disease and this is more likely to happen if you are poor. Being part of the health equity collaborative is driving us to get to the heart of

what really matters to children and their families which will provide us with a powerful lever to influence changes across the whole system. The collaborative is also supporting us to work in close partnership with our VCSE sector, who already know and understand their communities. Ultimately, we want to ensure a positive healthy heritage to pass on to the next generation.

We look forward to publishing our findings in 2025. We hope other ICSs throughout the country will adopt this programme and approach in due course. Emergent findings and outputs will be available on Barnardo's website during the programme: <https://www.barnardos.org.uk/health-equity-collaborative>.

## Conclusion

Integrated Care Systems were established in July 2022 with a huge agenda and competing urgent priorities. Their ambition for place-based partnerships and acting through whole systems approaches could leave the greatest legacy for future generations. Integrated considerations of the social determinants of health within health interventions can vastly improve their effectiveness and appropriateness for children with more complex social needs. However, investment in, and collective actions towards, these social determinants will have even greater impact when sufficiently prioritised.

The Children and Young People's Health Equity Collaborative can offer a roadmap for how Place-Based Partnerships can address child health equity. As Rukshana Kapasi, Director of Health at Barnardo's explains: "It is a programme sponsored by Barnardo's over three years because we believe that good health and wellbeing for children and young people is fundamental to their journey towards a positive future. We know from our work across the UK that that there are wide disparities in health outcomes experienced by children depending on their circumstances, and that the basic conditions needed for good health and access to essential services are not guaranteed for many. So, investing in creating this type of sustainable change is vital to the legacy we want to leave for future generations as a charity."

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