

RESEARCH AND POLICY AGENDA ON PLACES AND CHILDREN'S HEALTH:

A COPRODUCED CROSS SECTOR VISION



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Foreword

Professor Rich Mitchell, Places and Health Programme Leader

Childhood is a time when our bodies and minds develop. Children's bodies and minds are sensitive to the environments that they are growing in; the things they see, the things they hear, the air they breathe, the places they play, where they feel scared and where they feel safe – all these have an impact on health, and all are strongly influenced by the place they are growing up in. We know these impacts can last a lifetime and so when we think about improving population health as a whole, we need to be

focused on children's health in particular. You can think about neighbourhoods as being a bit like fields and children as the crops growing there. If the field is good, with great soil and the crops are well looked after, they grow strong and healthy and, crucially, the same good field can produce strong healthy crops, year after year. However, if we get the field wrong – maybe the soil is bad and we don't tend it well, we get weak crops again and again, generation to generation. Some children do grow up in great places which promote and protect their health, but many do not. Place plays a big role in creating and perpetuating health inequalities.

This is why the Medical Research Council and Chief Scientist Office fund our Places and Health research programme. If we can understand the ways in which people and places interact to impact health, we can design, plan, build and manage places which protect and improve children's health and reduce inequality.



Executive summary

Over 70 delegates from research, policy, planning, and practice participated in a workshop focused on how **place impacts children's health**. The workshop included presentations on key policy and research findings in this area, followed by breakout sessions where stakeholders identified, synthesised, and prioritised pressing public health issues related to place and children's health. The workshop findings were then used to inform this report which distils the event into a research-policy agenda, summarising and highlighting the most pressing research needs. We hope this agenda acts as a catalyst for new and innovative joint work by researchers and policymakers to shape places which improve children's health and reduce health inequalities.

Key recommendations

Recommendation 1 – Focus research on understanding the multiple levels of influence on children's health including individual, social, environmental, and policy factors. This will offer greater understanding of where best to intervene for the greatest impact on childhood health.

Recommendation 2 – Improve our understanding of impacts of place over time. This could be related both to how children's interaction with place changes as they mature, and how their use of and interactions with place in childhood impacts their health later in adulthood.

Recommendation 3 – Improve our understanding of mechanisms by which characteristics of places either widen or narrow inequalities in children's health. By combining this with understanding more about the long-term impacts (Recommendation 2), we'll be able to understand how to change the environment to reduce health inequalities.

Recommendation 4 – Actively involve children and young people throughout the design, conduct and reporting of research. This could be by seeking their input on the research questions they deem most pressing, as well as involving them as active participants in the research itself. Ensuring that their perspectives are understood and reflected upon will increase the quality and impact of our research.

Recommendation 5 – Embed an inequalities lens into all research on how places affect children's health and ensure seldom heard groups are visible and included (e.g. children with disabilities or care experienced children etc.). This will help us to understand more about what works, for whom, in which circumstances and, ultimately reduce place-based childhood health inequalities.

Policy and research context

Policy

Scotland has a well-defined policy framework around the connection between place, planning, and children's health. The implementation of the National Planning Framework 4 (NPF4) is a significant development, setting out the Scottish Government's priorities and policies for the planning system until 2045. Aligned with the UN Sustainable Development Goals and national outcomes framework, NPF4 aims to create a sustainable and liveable Scotland which also achieves net-zero. These objectives are pursued through three key principles: sustainability, liveability, and productivity in urban areas. Focus areas include the concept of local living and 20-minute neighbourhoods, thoughtful place design, the development of blue and green infrastructure, provision of spaces for play, recreation and sport, and the preservation and enhancement of natural areas and heritage. Two useful resources support the NPF4: the Place Standard Tool and Play Sufficiency Assessments. The Place Standard Tool for Children and Young People enables assessment of place quality and encourages meaningful conversations with children and young people about how to enhance places. Its objective is to understand their experiences, foster active participation, and shape inclusive environments for children. Likewise, Play Sufficiency Assessments aim to ensure adequate access to play opportunities for children. These assessments evaluate the availability, quality, and accessibility of play spaces, striving to establish safe, inclusive, and engaging play environments.

The Scottish policy environment recognises the significant impact places have on children's health and seeks to create environments which support and promote healthier, safer, and more supportive places for children to thrive. **By actively involving children in the planning decision-making processes, Scotland strives to enhance the quality of places and ultimately improve the lives of children and young people.**

Research

Our flagship study, [SPACES](#), is a Scotland-wide, long-term, project which explores how young people use, experience, and move within their environments. SPACES combines GPS and accelerometry data from wearables to track the whereabouts and activities of young people. It specifically focuses on participants from the [Growing Up in Scotland](#) (GUS) birth cohort, which follows the lives of thousands of children and their families from birth into adulthood. The SPACES study commenced in 2015/2016, initially collecting GPS and accelerometry data when the participants were 10/11 years old. Recently, we revisited the same individuals who are now 17/18 years old to gather updated data. By analysing the GPS and accelerometry data, we gain insights into the locations visited and activities engaged in by these young people. Moreover, since they are part of the

GUS cohort, our findings can be linked to an extensive range of information concerning their lives, family, opinions, experiences, and health. The [SPACES webpage](#) provides more detail about the research project as well as its significant impact on research, policy and practice to date.

Collaboration with stakeholders is vital for the SPACES study data to yield maximum public benefit. This collaboration serves three key purposes: i) identifying knowledge gaps related to the impact of places on childhood health, ii) determining place-based public health priorities across different sectors, and iii) devising a coherent strategy to address the structural factors which contribute to health inequalities. Engaging with policy, planning and practice stakeholders brings insights that we cannot get from within a University. If we can grasp these nuances and then utilise the SPACES dataset effectively, we can make a more significant impact on policy and practice. The Places and Children's Health Workshop was planned to help us achieve those aims.



Workshop background

The Places and Children's Health participatory workshop took place on Wednesday, May 3rd 2023, with an attendance of over 70 stakeholders from various fields such as policy, planning, research and practice. The workshop explored the role of place in improving health and reducing childhood (birth to 18 years) health inequalities and provided a platform for engaging and collaborative discussions among key leaders in the field, passionate about leveraging the power of place to improve the well-being of children. The workshop started with four presentations from experts. They shared current Scottish policy and research related to places and children's health and discussed the importance of multidisciplinary and sectoral wide collaborations. We then moved into four themed breakout rooms that reflect our research priorities: physical activity, active travel and play; mental health; 20-minute neighbourhoods; and unhealthy commodities. In each, attendees worked collaboratively to identify and prioritise research and policy questions related to the role of place on children's health.

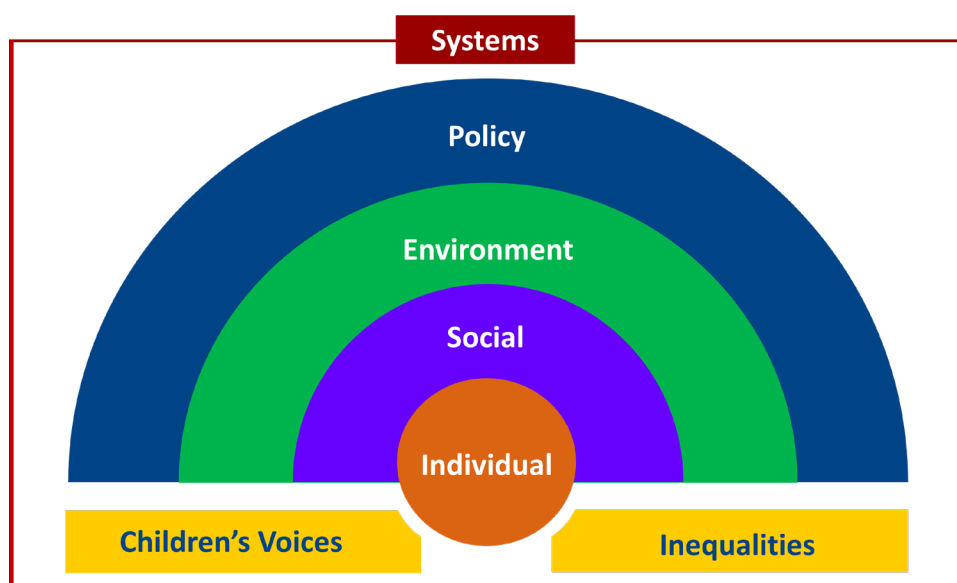
This report shares what the workshops decided. We have synthesised and prioritised the workshop's discussions and decisions, to present a co-produced research-policy agenda. This report should act as a catalyst for further research and policy development aimed at improving and equalising children's health.



Workshop findings

Over 160 questions were gathered across the four breakout rooms. After the workshop, we brought all questions together and further synthesised and coded questions. It was recognised during the synthesis phase that the questions could be coded to the key levels of **social determinants of health**, originally developed by Dahlgren and Whitehead, to recognise the different levels of influence across the questions. Key evidence gaps under each of the five levels were then identified from the questions. The five key factors are:

1. **Individual factors** – questions which focused on individual behaviour, knowledge, motivations, barriers and facilitators.
2. **Social factors** – questions about the role of parents, siblings and/or peers.
3. **Environment factors** – questions which focused on the built or natural environment.
4. **Policy factors** – questions about local or national level laws, legislation or funding. These factors often have population-wide impact.
5. **System factors** – questions that related to multiple layers.



In addition, two themes were identified that cut across all levels. These were **children's voices** and **inequalities**. Stakeholders reflected the need to embed these throughout the research process.

The subsequent sections delve into each of these layers in greater detail. The tables highlight the evidence gaps, the priority according to stakeholders and brief research plan. Some evidence gaps highlighted were out of the remit of our research programme (highlighted in grey), however these have been included as they are important areas of investigation for places and children's health more broadly.

1. Individual factors

Evidence Gap	Stakeholder Priority	Example question(s) posed by delegates	Brief research plan
<p>What are the motivations of children for using health protective and/or harmful aspects of place?</p>	<p>High</p>	<p>What aspects of place motivate teenage girls to be more active?</p> <p>How can we create healthy 20-min neighbourhoods that children will be motivated to engage in?</p> <p>How do we motivate children to actively travel to school and within their communities?</p>	<p>A qualitative study to explore children's motivations and barriers for engaging with different aspects of places. For example, does active travel infrastructure really play a role in children's decision making over how they move around?</p>
<p>What health promoting or health harmful places do children have access to, where are they spending their time, and has this changed over time?</p>	<p>Medium</p>	<p>Do children have access to sports facilities near their home and does this vary by gender, age etc.?</p> <p>What do teenagers do with their time when they come home from school?</p> <p>At what age are children exposed to unhealthy commodities and has this changed over time? What is the subsequent impact on behaviour and does this vary by SIMD?</p>	<p>Utilise SPACES GPS data to understand where children spend their time, how long for, and how this has changed as they age. Link these data to Growing Up in Scotland (GUS) health behaviour data to understand whether exposure to certain environments impacts behaviours such as alcohol consumption etc.</p>

2. Social factors

Evidence Gap	Stakeholder Priority	Example question(s)	Brief research plan
Do the important gatekeepers (e.g. parents/peers) influence children's future behaviour and health outcomes?	Medium	<p>How do young people's peers' behaviour and relationships influence their mental wellbeing?</p> <p>How does parental alcohol use influence children's health and alcohol use and is this equal? (e.g. affected by deprivation)</p>	Utilise SPACES and GUS data to explore the long-term relationship between childhood experiences and subsequent health-related behaviours and outcomes.
*How and why do perceptions of risk differ between children, young people and adults?	Low	What are the differences in perceptions of risk in children versus adults?	We suggest a mixed-methods study with young people and adults to assess perceived risks of different environments and subsequent health-related behaviours.

*Evidence gap is out of scope for our research programme.

3. Environment factors

Evidence Gap	Stakeholder Priority	Example question(s)	Brief research plan
How do exposure to advertisements and/or environmental bads (alcohol, tobacco, pollution) in childhood impact behaviour throughout the life course?	High	<p>What is the relationship between exposure to alcohol/ tobacco and behaviour?</p> <p>What is the impact of alcohol availability on children?</p> <p>How can we measure and reduce air pollution along active travel routes to school?</p> <p>Is spatial availability of alcohol, tobacco etc. related to drinking, smoking, diet/BMI etc in young people?</p>	Utilise longitudinal GPS data of SPACES to understand key exposures (alcohol/ tobacco outlets, pollution) and link to health behaviour data collected by GUS to understand whether and how exposure impacts behaviours (such as alcohol consumption, active travel etc.) into adolescence and adulthood.
What are the barriers and facilitators to using greenspace and does engagement with greenspace impact childhood health?	High	<p>What enables people from hard-to-reach areas to use greenspace and what can be done to support those to use it?</p> <p>How can we support positive nature connection and stewardship?</p> <p>How can we encourage growing spaces/ allotment use for schools/children?</p>	A mixed-methods study involving a: i) qualitative study to explore children's motivations and barriers to using greenspace; and ii) quantitative study using SPACES data to explore how time spent in greenspace impacts children's physical, social and emotional health.
How do perceived and actual levels of crime impact engagement with greenspaces and the wider community?	High	<p>What is the difference between actual levels of anti-social behaviour and perceived levels of anti-social behaviour in greenspaces?</p> <p>Is crime and safety within a 20-min neighbourhood associated with use and behaviours (cycling/walking)?</p>	Use crime level and neighbourhood perceptions data (GUS) to understand whether these are associated with greenspace and wider neighbourhood use (SPACES).

Evidence Gap	Stakeholder Priority	Example question(s)	Brief research plan
*How do housing type and tenure impact use of local environment and children and young people's health?	High	<p>Are the care experienced population represented within the data? How do we mitigate impact of moving house/places throughout childhood?</p> <p>How does unstable housing influence young people's mental wellbeing?</p> <p>Why are people in social housing not accessing green spaces?</p>	We suggest a mixed-methods study to explore how housing type and tenure impacts use of local environment and on children and young people's physical, social and emotional health.
*How do differential levels of quality impact childhood health?	Medium	<p>What is the association between quality space for young people and anti-social behaviour?</p> <p>What contributes to quality space? How much quality space exists currently?</p>	We suggest mapping of factors children consider as important quality indicators of their place. Use this to develop a quality index across aspects of place that can be linked to existing health and behaviour datasets.

*Evidence gap is out of scope for our research programme.

4. Policy

Evidence Gap	Stakeholder Priority	Example question(s)	Brief research plan
<p>How can policies within place settings (e.g. schools, shops) be used to develop a healthy environment to improve children’s health and wellbeing?</p>	<p>Low</p>	<p>How can we restrict unhealthy commodity presence in school?</p> <p>What are the most impactful actions that can be taken locally to reduce children’s exposure to unhealthy commodities?</p> <p>How can we develop a “School Health Index” to compare risk from unhealthy commodities between areas and track progress over time?</p>	<p>Systematic review focusing on the factors that influence a healthy place-based environment (e.g. unhealthy commodities near school) and how these impact childhood health.</p>
<p>*Understanding which place-based interventions provide most cost related benefit for children’s health.</p>	<p>High</p>	<p>What is the best value for money in relation to places and children’s mental health?</p> <p>Is the money/ funding being spent in the right area? Did it work? Why/ why not?</p>	<p>We suggest a cost-benefit analysis of place-based policies for child health outcomes.</p>
<p>*What laws, restrictions and policies are most effective to reduce access to unhealthy food and beverages in places where children spend their time?</p>	<p>Medium</p>	<p>Could you model the impact of policy options e.g. restricting fast food density, increase play spaces etc?</p> <p>Restricting unhealthy commodity presence in school?</p>	<p>We suggest a policy scenario modelling of place-based restrictions of unhealthy commodity retailers.</p>

*Evidence gap is out of scope for our research programme.

5. Systems

Evidence Gap	Stakeholder Priority	Example question(s)	Brief research plan
What are the mechanisms of how places impact children's physical, social and emotional health?	Medium	<p>What place-based factors influence young people's engagement with mental health promoting behaviours?</p> <p>How can public spaces be used for children and young people to aid recovery from mental health problems?</p>	Use longitudinal SPACES GPS and physical activity data linked to relevant GUS data to explore possible mechanisms. For example, does greenspace use over time impact mental health and physical activity trajectories.
Should place-based interventions to improve healthy behaviours be conducted in isolation or part of a wider systems intervention?	Low	<p>What are the most impactful actions that can be taken locally to reduce children's exposure to unhealthy commodities?</p> <p>What is the evidence for the factors that affect independent active travel in children?</p>	Conduct a systems mapping exercise of place-based interventions within context of wider framework.
*At which point within a child's life course trajectory should we intervene to improve healthy behaviours?	High	What age is the "optimal" age of children to intervene to address/ improve child's diet and weight?	We suggest a systematic review of place-based interventions to improve children's diet and weight.

*Evidence gap is out of scope for our research programme.

Underpinning themes – Children’s Voices and Inequalities

Throughout the workshop two main themes were highlighted by stakeholders: **children’s voices and inequalities**. Stakeholders emphasised the integration of these themes throughout the research process. They strongly believed that **children’s voices** should be incorporated into the research by seeking their input on which research questions they deem most pressing and involving them as active participants in the research itself. In addition to prioritising children’s voices, stakeholders also highlighted the need to integrate an **inequalities lens**. They expressed a strong desire to gain a deeper understanding of differential impacts across gender, socio-economic status, and urban versus rural contexts. Furthermore, there was a particular emphasis on understanding seldom heard populations, for example, individuals with disabilities, care experienced children, or those from diverse ethnic backgrounds. By adopting an inequalities lens, the research will uncover and address the unique challenges and needs faced by marginalised groups.

By incorporating children’s voices and embedding an inequalities lens, the research will strive to understand more about **what works, for whom, and in what circumstances and ultimately have a greater impact on reducing childhood health inequalities resulting from place.**



Conclusion

Stakeholders identified many evidence gaps across the different individual, social, environmental, and political factors that influence childhood health. We aim to address many of these interlinked evidence gaps as we plan our future research agenda and funding applications. Leveraging SPACES, as well as other newly emerging data, such as those stemming from mobile phones, will help **address these evidence gaps**, leading us to understanding how these **new discoveries** can be **translated** into interventions that have population wide reach.

To gain a better understanding of how place affects childhood, it is crucial that we continue to strengthen relationships with key multisectoral stakeholders, including policymakers, planners, practitioners, and most importantly, children and young people themselves. By incorporating children's perspectives, we can develop policies and plans that are better tailored to their specific needs. By adopting a more collaborative approach, we hope to find more impactful solutions for improving childhood health.

Ultimately, through collaboration with multisectoral stakeholders, our goal is to develop a programme of connected and related research projects that collectively contribute to the creation of healthier environments where children live, play and grow up.



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Arup	Play Scotland
City of Edinburgh Council	Police Scotland
Cycling UK	Public Health Scotland
Glasgow Caledonian University	Queen Margaret University
Glasgow City Council	The Royal Conservatoire of Scotland
Glasgow City Health & Social Care Partnership	Renfrewshire Health & Social Care Partnership
Glasgow Life	Scottish Centre for Social Research
Greenspace Scotland	National Centre for Social Research
Health and Care News Scotland	Scottish Government
Healthy Ireland Local Government	Sport Aberdeen
Heriot-Watt University	Scotland's Rural College
Improvement service	Sustrans
Inspiring Scotland	University of Aberdeen
Inverclyde Health & Social Care Partnership	University of Edinburgh
Kaduna State University	University of Glasgow
Makerere University Kampala	University of Stirling
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Please get in contact if you would like to hear more about the workshop or discuss potential collaborations:

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