



**FACULTY OF
PUBLIC HEALTH**

Building Environmental Sustainability into UK Public Health Research workshop

Report

Wednesday 9th October 2019

Faculty of Public Health: Sustainable Development Special Interest Group

Hosted by Strathclyde University – Glasgow

Introduction: Maggie Rae, President of the Faculty of Public Health

Health research traditionally focuses on building on the evidence base. The evidence base around climate change is that; *“Human-induced climate change is caused by the emissions of carbon dioxide and other greenhouse gases (GHGs) that have accumulated in the atmosphere mainly over the past 100 years. The scientific evidence that climate change is a serious and urgent issue is now compelling. It warrants strong action to reduce greenhouse gas emissions around the world to reduce the risk of very damaging and potentially irreversible impacts on ecosystems, societies and economies. With good policies the costs of action need not be prohibitive and would be much smaller than the damage averted.”*¹

The independent Stern Review was referring here to financial costs, however the same applies to the health of the population; *“...all the evidence – from detailed studies of regional and sectoral impacts of changing weather patterns through to economic models of the global effects – shows that climate change will have serious impacts on world output, on human life and on the environment. All countries will be affected. The most vulnerable – the poorest countries and populations – will suffer earliest and most, even though they have contributed least to climate change. The costs of extreme weather, including floods, droughts and storms, are already rising, including for rich countries.”*²

Since the Stern Review, both the UK and the Scottish Governments have committed to achieving net zero carbon emissions in order to reduce greenhouse gas emissions and human induced climate change. Transdisciplinary research is now urgently needed into the preservation and amelioration of planetary health, mitigation of the impact of inevitable change, the links between planetary health and human public health, finding effective sustainability focused interventions to ill health and the incorporation of measures of environmental sustainability into all public health research.³

The Faculty of Public Health is committed to improving the health and wellbeing of local communities and national populations. This includes developing a whole systems approach to health and care services and good health through engagement with the natural environment. We achieve more in partnerships with alliances to achieve positive, sustainable development and management pro-actives that take account of the limits of the Earth's resources and that reduce our impact. With these aims in mind, the [Faculty's Special Interest Group on Sustainable Development](#)⁴ delivered two workshops to address how environmental sustainability can be built into public health research and how to generate researchable questions that span the Public Health and Sustainability agendas. The first workshop held in London, and the second, thanks to partnership working with Strathclyde University in Glasgow, offered opportunities to stimulate collaborations between professionals undertaking research and in practice, that improve public health and are informed by knowledge about climate change and sustainability. Both workshops had distinguished speakers and utilised a World Café workshop approach to exploring key questions for the participants.

This report of the second workshop, provides a summary of the key issues for Public Health and the opportunities for research funded through National Institute for Health Research. It explores the specific steps that should be taken by NIHR and other commissioners and practitioners of public health research to build considerations of environmental sustainability into their work. It examines researchable questions relating to seven themes that NIHR could take forward and the potential collaborations for undertaking research and practice that improves public health and is informed by knowledge about climate change and sustainability. We hope that the report stimulates researchers to collaborate to account for the environmental costs and benefits in order to provide a true account of the benefits to population health, now and in the future.

The workshops, and other initiatives on sustainable development, have led to the Faculty of Public Health's Declaration on Climate Change Emergency.

¹ Nicholas Stern *The Economics of Climate Change The Stern Review* 2008 page xiii

² Nicholas Stern *The Economics of Climate Change The Stern Review* 2008 page iv

³ Taken from the FPH SD SIG *Environmental Sustainability in Health and Public Health Research – a call for action* March 2019

⁴ <https://www.fph.org.uk/policy-campaigns/special-interest-groups/special-interest-groups-list/sustainable-development-special-interest-group/>

Summary of Key “Take Home” Messages and Questions

- 1 Both UK and Scottish Governments have committed to net zero carbon emissions. This is now a given rather than an option. We need to get radical. Changing to net zero requires industrial de-carbonisation, a policy shift and engagement with the wider community to find out what the key challenges are.
- 2 Public Health has a key role to play in this work, especially in engaging the community and informing policy makers about the health benefits of the forthcoming changes.
- 3 We work within complex, living systems that are unpredictable & difficult to change. The Mental Model Challenges provides a way of understanding the challenges to change which can be applied to Public Health and Climate Change.
- 4 We need to develop research that helps us to prevent catastrophic climate change which affects the poorest first, adding to injustice. Whole system change is needed requiring a paradigm shift. The cost benefit analysis is a no brainer. This opportunity for Public Health can only be tackled in a robust manner through a partnership approach leading to practical action.
- 5 NETSCC funds 4 main programmes which, together spend approximately: £100 million pa on research.
- 6 The impacts of public health interventions are often complex and wide-reaching. Studies should acknowledge this by adopting a broad perspective, taking account of costs and benefits to all relevant sectors of society. - An appropriate health economic analysis to inform cost effectiveness, affordability or return on investment should be included where appropriate. Sustainability - health, economic and environmental - are also of interest.
- 7 <https://phinder.ning.com> – connects public health practice with research tweet @researchphinder
- 8 Funding is for the costs of the evaluation of interventions. It does not cover intervention costs.
- 9 Planetary health does not sit in isolation. There is no human health without planetary health
- 10 Public Health Scotland will create new and ambitious leadership for public health research, innovation and applied evidence through SPHERIA, in order to meet the complex challenges confronting health systems in the 21st century. An engagement hub facilitates research being translated into practice.
- 11 All aspects of research need to support a massive change to address the causes and effects of climate change.
- 12 A systems approach is needed: Patient pathways to be developed - including health and sustainability co-benefits - to meet net zero carbon emissions targets.
- 13 Scotland has declared a climate emergency – environmental priorities to be at the centre of the Public Health Framework.

Key Questions

- 1 How will the Government targets for net zero carbon by 2045 and 2050 affect and change the direction of the NIHR funding programmes?
- 2 How do you change people’s behaviour as you live, move and consume to deliver the triple win of health and wellbeing, sustainability and equity? (sustainable development goals).
- 3 How can the NIHR programme:
 - engender true interdisciplinary efforts to secure health equity and a sustainable planet for human health to flourish?
 - embed an environmental conceptualisation of public health going forward that addresses the causes and effects of climate change?
 - help navigate complexity to produce coherent answerable research questions that simultaneously improve health, health equity and sustainability? Use of complexity and social models with a return to making the environment at the heart of Public Health.
 - Apply cost benefit analysis to environment and equity as well as health and £. e.g. Water management in Lanarkshire to avoid downstream flooding.
- 4 How does the NHS need to change to deliver health services in a way that meets net zero carbon emissions?
- 5 What would Lancet EAT diet look like in Scotland (with local food)? – What is a sustainable diet in Scotland?
- 6 How can we implement active travel rather than research the benefits?
- 7 How can we shift staff from being stuck into carbon intensive commuting patterns into active travel and public transport patterns?

Welcome: Professor Karen Turner – Strathclyde University



Professor Karen Turner's key point was that both UK and Scottish Governments have committed to net zero carbon emissions and that this is now a given rather than an option. We need to get radical. Changing to net zero requires industrial decarbonisation, a policy shift and engagement with the wider community to find out what the key challenges are.

As a member of the [Just Transition Commission in Scotland](#), Karen explained that the overall aim is for a net-zero economy that is fair for all. We are committed to growing an inclusive, net-zero economy.

Scotland's Economic Strategy sets out the ambition to create a more cohesive and resilient economy that improves the opportunities, life chances, and wellbeing of every citizen in our country, and the Climate Change Bill commits us to ending our contribution to climate change by 2045 at the latest.

The principles outlined by the Just Transition Commission can be summarised as:

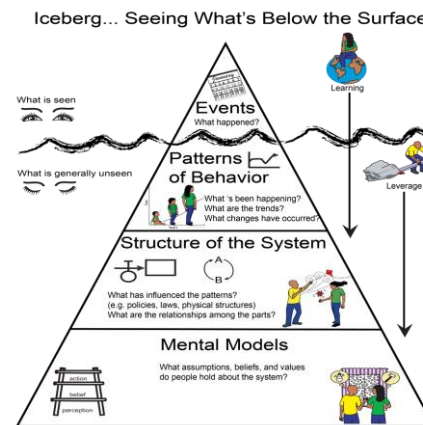
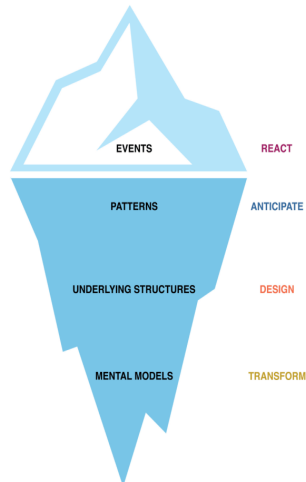
- plan, invest and implement a transition to environmentally and socially sustainable jobs, sectors and economies, building on Scotland's economic and workforce strengths and potential
- create opportunities to develop resource efficient and sustainable economic approaches, which help address inequality and poverty
- design and deliver low carbon investment and infrastructure, and make all possible efforts to create decent, fair and high value work, in a way which does not negatively affect the current workforce and overall economy⁵

Public Health has a key role to play in this work, especially in engaging the community and informing policy makers about the health benefits of the forthcoming changes.

⁵ <https://www.gov.scot/groups/just-transition-commission/>

Aims of the workshop: Lynne McNiven Interim Director of Public Health (Joint) - NHS Ayrshire and Arran & Faculty of Public Health Sustainable Development Special Interest Group (SIG)

Lynne introduced the aims of the workshop by explaining that we work within complex, living systems that are unpredictable & difficult to change. The *Mental Model Challenges* provides a way of understanding the challenges to change which can be applied to Public Health and Climate Change⁶:



Lynne explained that we need to develop research that helps us to prevent catastrophic climate change which affects the poorest first, adding to injustice. Whole system change is needed requiring a paradigm shift. The cost benefit analysis is a no brainer. This opportunity for Public Health can only be tackled in a robust manner through a partnership approach leading to practical action. This workshop offers an opportunity to get action focused. The Faculty of Public Health's Sustainable Development Special Interest Group is therefore delighted to build on the outcomes of our first workshop held in London in October 2018 to:

1. discuss how environmental sustainability can be built into public health research
2. generate researchable questions that span the Public Health and Sustainability agendas.
3. stimulate collaborations between professionals undertaking research and in practice that improves public health and is informed by knowledge about climate change and sustainability.

Building relationships & shared values is very important. Academics from all disciplines, Public Health Consultants, practitioners and registrars with an interest in each of the themes need to work together through discussion across all of our systems to deliver practical action.

The themes of the workshop are as follows:

1. Health, climate change and action to tackle climate change
2. Sustainable development, sustainable economies, health inequalities and health
3. Sustainable food
4. Natural capital
5. Energy and affordable warmth
6. Transport and active travel
7. Sustainable commissioning and procurement

⁶ <https://www.watersfoundation.org/resources/iceberg-graphics/>

National Institute for Health Research (NIHR) priorities: Dr Helen Walters, Consultant in Public Health / Consultant Advisor, NIHR Evaluation, Trials & Studies Coordinating Centre (NETSCC)

Dr Helen Walters gave her presentation by Skype for Business to avoid the need to fly to Glasgow from Southampton which would have resulted in using the equivalent of approximately 2.2 tonnes of Carbon dioxide.



Dr Helen Walters provided an overview of research funded through NIHR and the NIHR Public Health Research Programme. She gave examples of calls for sustainability and tips and hints for applying for research funding. NETSCC funds 4 main programmes which, together spend approximately: £100 million pa on research. The NETSCC programmes presented on the slide presentation included:

- **Efficacy and mechanism evaluation** - earlier stage evaluation of efficacy of healthcare interventions & to improve understanding of mechanisms of action. Functional imaging
- **Health Services and Delivery Research** – how health services are organised - research to improve the quality, accessibility and organisation of health services
- **Health Technology Assessment:** clinical and cost-effectiveness of healthcare treatments and tests for the NHS (inc. QoL)
- **Public Health Research** – (Public Health is located in Local Government in England, in the NHS in Scotland).
- £13m per year - To research health and health inequality outcomes of non-NHS interventions. Evaluation of non-NHS interventions to improve health and reduce inequalities.
 - UK wide
 - Keen to research complex systems
 - Wider determinants of health
 - Population level
 - Complex systems
 - Trans-disciplinary – e.g. for air quality research
 - Local/ regional / national level

The generic guidance includes the following statement

“The impacts of public health interventions are often complex and wide-reaching. Studies should acknowledge this by adopting a broad perspective, taking account of costs and benefits to all relevant sectors of society. An appropriate health economic analysis to inform cost effectiveness, affordability or return on investment should be included where appropriate. **Sustainability - health, economic and environmental - are also of interest.**”

Two ways of applying –

1. Commissioned work stream: Calls for research on specific topics or themes, as identified by the programme.
 - commissioning briefs advertised on www.nihr.ac.uk
 - “Highlight notices” / “themed calls” used to promote areas of need.

2. Researcher-led work stream: Research topics/questions directly proposed by researchers e.g. air quality & fracking (fracking is not taking place in Scotland)
 - Applications prioritised by advisory panels/boards.

PHR has a Rapid funding scheme available for grants of up to £50,000 to measure baselines. For capturing baseline data in natural experiments. Expectation of full application to follow. Short, speedy application process

Recent research calls where sustainability could play a part:

- Air Quality
- Fracking
- Road Infrastructure and physical activity
- Contractual levers in local government
- Functional Imaging (EME)
- Laparoscopic Hysterectomy (HTA)

Tips for success: -

Clear well-defined PICO: -

P - Patient, Problem / Population

I – Intervention

C – Comparison, control or comparator^[4]

O – Outcome(s) (e.g. pain, fatigue, nausea, infections, death) Hypothesis / problem that is to be addressed

- Some support from evidence – both positive and negative about the impact on health
- Important to NHS and public health
- Timely i.e. research will be relevant at completion of study
- Research should offer value for money
- Don't have an upper limit

Pitfalls : No plausible hypothesis, Research not feasible e.g. Effect size, Study duration, Answer already known - e.g. Widely used technique, Transferable research, Ongoing research.

- Use proxy outcomes for long term – no need to prove what has already been proven
- Explain: Why is your research important? What is the health outcome?
- Feasibility / Pilot studies can be funded, need clear progression criteria
- Have the right team: We need value for money and we are interested in joint funding with other organisations
- Needs to be transferable – e.g. relevant in Wales, Strathclyde and London
- PM2 = a proxy for a health outcome
- Pilots and feasibility
- Trans disciplinary teams

<https://phinder.ning.com> – connects public health practice with research
tweet @researchphinder

Funding is for the costs of the evaluation of interventions and does not cover the costs of the intervention themselves.

Question from the floor; How will the Government targets for net zero carbon by 2045 and 2050 affect and change the direction of the NIHR funding programmes?

For more information visit: www.nihr.ac.uk/phr Enquiries welcome: phr@nihr.ac.uk
or +44 (0)23 8059 9697 (24 hour answer phone).

Phil Mackie - Scottish Public Health Network: What's LPHRIAE got to do with this?



Phil Mackie thanked Ann Conacher, Rebecca Campbell, Millie Stephenson and Jess Baker for their contributions to developing this collaborative presentation.

The Leadership for Public Health Research Innovation and Applied Evidence (LPHRIAE) Commission was set up to identify options for Public Health Scotland in relation to Research, Innovation and Applied Evidence:

- What should it be doing as part of its own work?
- Should it work to support others in the wider public health landscape? and
- Should it use its position to influence external agencies and functions in Scotland and beyond?

Key points about research, public health and sustainability

Key question when planning research: Does this translate into actionable change?

Planetary health does not sit in isolation. There is no human health without planetary health as illustrated in this WHO infographic:



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Scotland is very good at undertaking research – being research active – linking research with action to effect change in practice for improving health.

Phil explained that the Wider Public Health System

- Creates public health research and evidence for application;
- Synthesises/analyses research outputs to inform practice change and improve effectiveness;
- Develops / exploits new technologies that support research or applied evidence creation;

⁷ <https://www.who.int/topics/sustainable-development-goals/test/sdg-banner.jpg?ua=1>

- Investigates / evaluates itself to understand how to improve;
- Transforms research into actionable knowledge for developing policy, services, and public health practice.

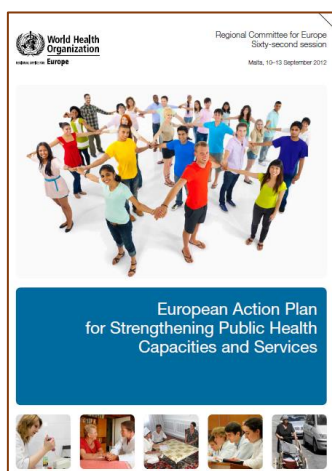
The WHO provides a clear set of competencies: The fundamental research functions of public health system in Scotland adopted the WHO European Essential Public Health Operation 10 (EPhO10) as the basis for how it develops its role in relation to public health research in Scotland. EPhO10 recognises that research in all its forms -descriptive; analytical; experimental; or experiential –is fundamental to informing policy development and service delivery. The main aims of EPhO10 are to develop and maintain a system that:

- uses research to enlarge the knowledge base that supports evidence-based policy-making at all levels;
- develops new research methods, innovative technologies and solutions in public health;
- establishes and sustains partnerships with research centres and academic institutions to conduct timely studies that support decision-making at all levels of public health.

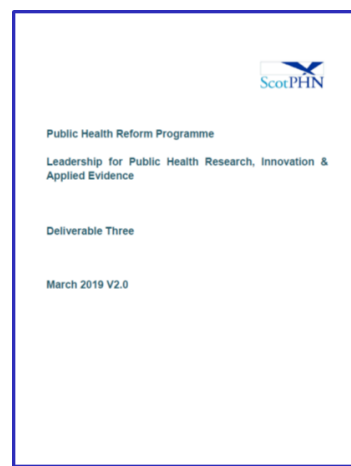
The Strategic Landscape for Research: key documents -



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Research – who with what purpose? – commissioners and collaborators.

- Key organisations involved in developing the strategic landscape include: -
The Association of Scottish Universities include the following Universities (with some gaps): - Highlands and Islands, Aberdeen, Robert Gordon University, Dundee, Abertay, St Andrews, Edinburgh, Heriot Watt, Edinburgh Napier, Queen Margaret, the West of Scotland, Glasgow, Glasgow Caledonia, Strathclyde and Stirling
- **Other:** IOM, SHILL, The Data Lab, HIE, The Farr Institute Scotland (now part of UK data), Scottish Enterprise, BRE and Scottish Water

It is essential to create and translate facts into practice (see the report for more detail) and clearly, we now need to **get specific** about what this means:

Research & Innovation “Office”
Knowledge Service

- **Ambitious** services that support Public Health Scotland **AND** the wider public health system/landscape
Transdisciplinary and Transformational

The Public Health Reform Programme LPHRIAE Deliverable 3 Report March 2019 sets this out for Scotland ¹¹
The LPHRIAE Commission developed proposals for a public health system in Scotland that is fit for purpose and where:

- actions and interventions (national, regional and local) are informed by the best possible public health intelligence with strong connections into the research and evidence functions;

⁸ <https://acmedsci.ac.uk/file-download/41399-5807581429f81.pdf>

⁹ http://www.euro.who.int/_data/assets/pdf_file/0005/171770/RC62wd12rev1-Eng.pdf?ua=1

¹⁰ <https://www.scotphn.net/projects/public-health-reform/commissions-lphriae/> - Deliverable 3 – March 2019

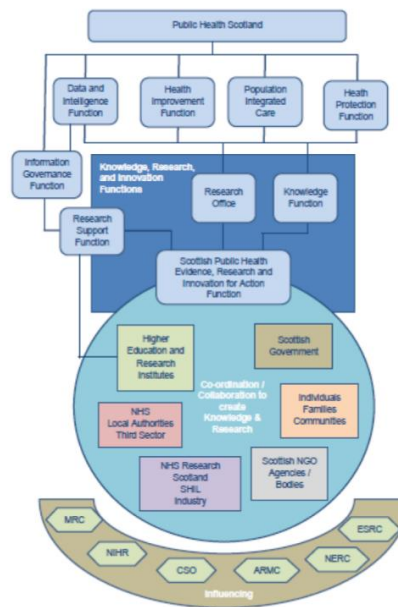
¹¹ <https://www.scotphn.net/projects/public-health-reform/commissions-lphriae/>

- health is improved as decisions move to preventative measures based on strong research evidence and data;
- collaboration is strengthened between multiple academic disciplines, practitioners, and policy-makers across the NHS, local government and the public, whose diversity of knowledge, experience, and perspectives maximise the potential for scientific and translational innovation and impact.

By creating SPHERIA and services that can support and sustain its operation, Public Health Scotland will create new and ambitious leadership for public health research, innovation and applied evidence in order to meet the complex challenges confronting health systems in the 21st century.

By creating an engagement hub research can be translated into practice:

Diagram: The Scottish Public Health Evidence, Research and Innovation for Action (SPHERIA) Hub ¹²



Scottish Managed Sustainable Health Network (SMaSH) ¹³ and Research: - An active public health network which works collaboratively with wider partners to lead and motivate change at a pace and scale that improves sustainability, and in a way, which maximises health and equity.

Aims to promote public health action on health and climate change by increasing the consideration of health and climate change in relevant research

- Possible Action in Scotland: Develop a “call to research action”
- Reach out to relevant: academic partners (to build collaborations) and Public Health system partners (identify shared goals)
- Build horizon scanning SMaSH working

SMaSH acts as a focus for turning research into practice. All aspects of research need to support a massive change to address the causes and effects of climate change. Currently finance predominates.

- How do we create researchable questions to deliver an environmental and Public Health dividend?
- We need to add value and find ways of making research applicable to improving health and the environment.
- How do we bring the environment back into Public Health? – inequalities, impact of environment on health, interaction between environment and health.

¹² <https://www.scotphn.net/projects/public-health-reform/commissions-lphraie/> final report page 12

¹³ <https://www.scotphn.net/networks/scottish-managed-sustainable-health-network/introduction/>

World Café Workshops

Key questions for the group work

1. What specific steps do you think that NIHR and other commissioners and practitioners of public health research should take to build considerations of environmental sustainability into their work?
2. What two researchable questions, relating to your specified theme, can you suggest that NIHR should take forward?
3. Who could you collaborate with to undertake research and practice that improves public health and is informed by knowledge about climate change and sustainability?

The themes of the world café workshops were:

1. *Health, climate change & action to tackle climate change*
2. *Sustainable development, sustainable economies, health inequalities & health*
3. *Sustainable food*
4. *Natural capital*
5. *Energy and affordable warmth*
6. *Transport and active travel*
7. *Sustainable commissioning & procurement*

The intention was to use the World Café workshop process outlined at Appendix 2. However due to limited time the process was adapted to include 2 rounds of conversation for each of the small groups seated around a table lasting thirty minutes each. Participants were encouraged to note key ideas on post-it notes and attach them to the flipcharts on the tables. At the end of the time, each member of the group was encouraged to move to a different theme.

Feedback from the world café themed workshops

1. Health, climate change & action to tackle climate change

Phil Mackie, - Elaine W H – student – global health MSc – University of Glasgow, chris.mcguigan@nhs.net

What specific steps do you think that NIHR and other commissioners and practitioners of public health research should take to build considerations of environmental sustainability into their work?

1. NIHR research guidance – research into realistic Public Health consequences of climate inaction – what narratives are needed to motivate politicians?
2. Show how public health policies are also good for addressing climate change.
3. Credible evidenced narrative needed about the realistic consequences of climate change.
4. Pilot climate positive practice e.g. reduce meat/animal products.
5. As Net Zero carbon emissions is a Government target for all, does the NHS just need to focus on its own emissions?
6. A systems approach is needed.
 - Patient pathways to be developed - including health and sustainability co-benefits - to meet net zero carbon emissions targets
 - Scotland has declared a climate emergency – environmental priorities to be at the centre of the Public Health Framework.
 - Apply cost benefit analysis to environment and equity as well as health and £. e.g. Water management in Lanarkshire to avoid downstream flooding.
 - Create a positive vision. Nature based solution.
 - Think about the ‘here and now’ and the connection to the ‘there and then’ and then operationalise and evaluate it
 - Alternatives to GDP that better reflect wellbeing and a good environment.
 - What motivates the decision makers? Narratives immediate benefits?
 - Subtle changes to make positive public health and climate choices easy

- More plants and trees!
- Primary aim – How to make the world a better place – i.e. have climate change as a by-product.
- Cash strapped NHS pilot ideas that better for patients, better for environment – cheaper alternatives e.g. less meat in hospital food, reusable equipment.

What two researchable questions, relating to your specified theme, can you suggest that NIHR should take forward?

1. How does the NHS need to change to deliver health services in a way that meets net zero carbon emissions?
2. How do you create a way to address gaps in policy, knowledge, and degree of certainty with respect to climate change and public health?
3. Co-benefits of environment, health and well-being and equity: who checks evaluation and untoward consequences?
4. Zero carbon – pathway matters, - what to do first?
5. How do we reduce CO₂ and increase bio mass / carbon capture?
6. How do we make more correct decisions easier? Subtle change of perspective.

2. Sustainable development, sustainable economies, health inequalities & health (Ronan McCabe r.mccabe.1@research.gla.ac.uk)

1. Sustainability as the “golden thread” but do we have the evidence to support this approach?
2. How can evidence be used to ensure that sustainable policies that reduce / do not increase carbon emissions simultaneously lead to equality/reduce inequalities.
3. Limiting consumer choice is necessary. Does this always need to be seen as negative?
4. Intermediate technology has implications for us in building a sustainable economy here. Could we strengthen / collate the evidence?
5. We need “qualitative research with staff about how addressing sustainability can improve morale more generally.”
6. We need to embed sustainability in the values of the NHS
7. Need to include wider agencies in planning research via CPPs and H + SCPs. Public Health needs to be a voice in partnerships to include sustainability as a uniting value which also addresses e.g. poverty / inequality / prevention etc.
8. Public perception – how to create knowledgeable populace and sense of urgency?
9. Deniers – What makes them? What is the antidote?
10. Extractive economies
11. How to create economy for the many not the few?
 - Urban –
 - community development
 - Nutrition deserts – lack of healthy and sustainable food choices at local level.
 - Inequalities.
 - Rural –
 - Economic evaluation of rural economics
 - Various models of use of Scotland’s land in terms of jobs, £, carbon balance and inequalities

3. Sustainable food – Rebecca & Lynne

Barriers to implementation of these things in Scotland:

Procurement barriers and finance being a driver.

Finance is driving decision making – ethical and environmental issues low down.

What would Lancet EAT diet look like in Scotland (with local food)? – What is a sustainable diet in Scotland?

Does beef from Scotland have a higher carbon footprint than vegan food from far afield?

Meat free NHS? Flexitarian NHS → waste?

Research impact of Brexit on local food use?

Evaluating health benefits of different diets (think this exists)

How can we support local and community food growing of sustainable food and explain the benefits?

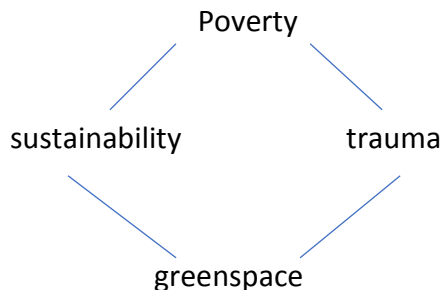
How can we utilise?

Use available land to grow / skills development

Is local food more sustainable than food from further afield?

How do you change the food system?

Confusing evidence re greenhouse gas emissions of different foods. What are these in Scottish context / not global?



4. Natural capital and

5. Energy and affordable warmth – didn't run

6. Transport and active travel

How can we implement active travel rather than research the benefits?

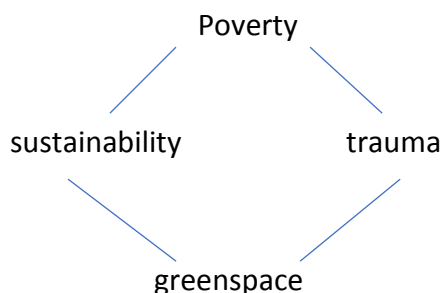
How can we shift staff from being stuck into carbon intensive commuting patterns into active travel and public transport patterns?

7. Sustainable commissioning & procurement – Rebecca & Lynne – Lynne.McNiven@aapct.scot.nhs.uk

How do we phrase policies that influence NSS + SG + local

+ **sustainable real health benefits of community organisations.**

- Financial, psychological, physiological benefits
- Linking with poverty agenda e.g. community wealth building



Scope 3 and scope 2 emissions

NHS scope 3 emissions currently unknown + 75% of carbon footprint

Vehicle emissions also unknown

How do we influence NSS?

Greenhouse gas emissions what are the global emissions in a Scottish context?

Barriers to implementation:

Commissioning:

- Scoring: Quality needs to be higher and ethical
- Procurement currently based on finance only (sustainability not high priority)
- National work which contradicts local – e.g. food.
- Human welfare costs of supply chains – need to examine this for Scotland.

- Some health boards don't procure any food from Scotland

Enablers to purchase locally

- Locally grown / produced items readily available → enablers
- Travel contracts – probably more expensive → **social audit of NHS decisions and supply chain** e.g. welfare of workers.

8. Additional theme – free ranging

What researchable questions, relating to your specified theme, can you suggest that NIHR should take forward?

1. How does the NIHR research programme help navigate complexity to produce coherent answerable research questions that simultaneously improve health, health equity and sustainability? Use of complexity and social models with a return to making the environment at the heart of Public Health.
2. How do you change people's behaviour as you live, move and consume to deliver the triple win of health and wellbeing, sustainability and equity? (sustainable development goals).
3. How can the NIHR programme engender true interdisciplinary efforts to secure health equity and a sustainable planet for human health to flourish?
4. How can NIHR research programme embed an environmental conceptualisation of public health going forward that addresses the causes and effects of climate change?

Summary of the discussion and way forward - Sir Harry Burns – Strathclyde University

Sir Harry Burns described his recent trip to New York where he found himself in the middle of a large crowd of schoolchildren walking across the Brooklyn Bridge. They were on their way to join 200,000 others in listening to Greta Thunberg¹⁴ speak about the climate emergency. It was an impressive sight and it made him think. Sir Harry's key points were as follows:

- There is very little that says what the impact of Climate Change is going to be on health.
- We do not have a narrative that explains to ordinary people what the effects of climate change are going to be.
- Major change happens when the children of the rich are impacted.
- We need to sit down as a Public Health community to think about how our health will be affected – what is going to happen? For example; - the American journals are reporting the evidence that there is no impact of red meat on health. It may not kill you however, according to “Cowspiracy” 51% of our carbon footprint is from milk and meat compared with travel at 11%. How do we translate this into a narrative that gives permission to politicians to change their policies and take robust action? Sir Harry's article in the Scotsman contributes: -

*Meat and dairy production is estimated to be responsible for 25-50 per cent of gases implicated in climate change. Environmental scientist Joseph Poore of Oxford University suggests that “a vegan diet is probably the single biggest way to reduce your impact on planet Earth... It is far bigger than cutting down on your flights or buying an electric car”.*¹⁵

Addressing Climate Change is a very difficult challenge. The evidence is real however, reversing it will be difficult with our “economy first ministers and advisors”. We need alternatives to GDP, and a Well-being alliance. Think about climate change with everything you produce and consume. He referred to examples such as; -

- Growth that lifts everyone out of poverty – climate sensitive.
- Community based development to produce local products for local people.
- Legally companies have a duty to shareholders to pay a good share of profit so think about ethical financing
- In Scotland, improvement sites – methods for making them happen.
- People in frontline.
- Improvement collaborative – local sustainable groups.

Sir Harry referred to the quote by Robert Kennedy; -

“.... Our Gross National Product, now, is over \$800 billion dollars a year, but that Gross National Product – if we judge the United States of America by that – that Gross National Product counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage. It counts special locks for our doors and the jails for the people who break them. It counts the destruction of the redwood and the loss of our natural wonder in chaotic sprawl. It counts napalm and counts nuclear warheads and armoured cars for the police to fight the riots in our cities. It counts Whitman's rifle and Speck's knife, and the television programs which glorify violence in order to sell toys to our children.

*Yet the gross national product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything in short, except that which makes life worthwhile. And it can tell us everything about America except why we are proud that we are Americans.”*¹⁶

Sir Harry finished by encouraging delegates to keep this conversation going – develop a Whats App group to take this forward? Share ideas – e.g. Naomi Kline's – Extractive Growth – keep it local.

¹⁴ <https://www.ebooks.com/en-gb/209674871/no-one-is-too-small-to-make-a-difference/greta-thunberg/>

¹⁵ <https://www.scotsman.com/news/opinion/columnists/frustrated-by-red-meat-health-advice-there-s-another-key-factor-harry-burns-1-5020629>

¹⁶ <http://www.forastateofhappiness.com/robert-f-kennedy-measure-what-makes-life-worthwhile/>

Appendix 1: Agenda

Time	Item	Lead
12	Registration	Rebecca Campbell (FPH)
	Light lunch	Evelyn Tonner – Strathclyde University
12.40	Welcome and introductions	Professor Karen Turner - Strathclyde University
12.50	Aims of session	Lynne McNiven/ - Faculty of Public Health Sustainable Dev SIG
13.00	NIHR	Helen Walters
13.40	What's LPHRIAE got to do with this?	Phil Mackie – Scottish Public Health Network
14.00	Comfort Break	Evelyn Tonner
14.20	World Café Workshop 1 Themes 1. Health, climate change & action to tackle climate change 2. Sustainable development, sustainable economies, health inequalities & health 3. Sustainable food 4. Natural capital 5. Energy and affordable warmth 6. Transport and active travel 7. Sustainable commissioning & procurement 8.	lead contact for each workshop / Helen Ross
14.50	World Café - Workshop 2	all
15.30	Feedback and actions	Spokesperson from each table
15.50	Summary and way forward	Sir Harry Burns – Strathclyde Uni
16.15	Finish	

Appendix 2:

The World Café Workshop, Meeting and Facilitation Method and Principles

This methodology fosters an environment that develops good conversations. The approach is designed to get authentic dialogues started in order to encourage the sharing of ideas in a relaxed, informal and creative atmosphere. The World Cafe system is facilitator led and is based upon a specific method and 7 design principles. By applying this tried and tested method, there is an excellent chance of producing innovative ideas and sharing knowledge that can be put into practice. When run properly, with the right balance of informality and structure, the World Cafe is a very effective way of facilitating a workshop that produces a rich and innovative output. Here is the method, the 7 design principles and the etiquette for The World Cafe system:

The World Café Method

1. **Setting:** Create a “special” environment.

- This is most often modelled after a café, i.e. small round tables (preferably with paper that can be drawn/written upon).
- You can add some extra paper and post-it notes, coloured pens, and perhaps a point of interest such as a vase of flowers.
- You can also use an optional “talking stick/spoon” item if you want to control contributions. By agreeing that only people holding the spoon can talk, and by sharing the spoon around equally, everyone gets to contribute without interruption. Ideally there should be four to six chairs at each table. Although it is possible to have more it can become harder to facilitate.

2. **Welcome and Introduction**

- The overall host/facilitator begins with a warm welcome and an introduction to the World Café process.
- They set the context, share the Cafe Etiquette, and put participants at ease.

3. **Small Group Rounds**

- The process begins with the first of three or more rounds of conversation for each of the small groups seated around a table lasting twenty to thirty minutes each.
Note: We only have time for 2 rounds.
- Participants are encouraged to write, doodle and draw key ideas on their tablecloths and note key ideas on large post-it notes (or something similar) in the centre of the group.
- At the end of the time, the overall facilitator gets each member of the group to move to a different new table. They may or may not choose to leave one person as the “table host” for the next round.
- The table host welcomes the new guests and briefly shares the main ideas, themes and questions of the initial conversation.
- They then encourage guests to link and connect ideas coming from their previous table conversations; listening carefully and building on each other’s contributions.
- By providing opportunities for people to move in several rounds of conversation, ideas, questions, and themes begin to link and connect. This helps to develop a broad and divergent discussion of each topic.

4. **Questions**

- Each round is prefaced with a question designed for the specific context and desired purpose of the session.
- Therefore, the questions or issues that are chosen for each table should genuinely matter to the life, work or community that participants are engaged in.
- Consequently, the same questions can be used for more than one round, or questions can be built upon each other to focus the conversation or guide its direction onwards.

5. **Harvest**

- Next individuals are invited to share insights, or other results from their conversations, with the rest of the large group. This will happen after the small groups.
- This period of sharing discoveries is initiated so that insights can be highlighted to the whole group. Furthermore, these whole group conversations help in the cross-fertilization of ideas and patterns are identified, collective knowledge grows, and new possibilities for action emerge.

- These results are reflected visually in a variety of ways.
- After the last round of conversation, people can return to their home (original) tables to synthesize their discoveries.
- Sometimes, after the last planned round, the facilitator may choose to introduce a new question that helps to deepen the exploration for a final round of conversation.

The World Cafe Design Principles

- 1. Clarify the Context:** It is important to clarify the purpose and broad parameters within which the dialogue will unfold.
- 2. Create Hospitable Space:** Ensure the welcoming environment and psychological safety that nurtures personal safety and mutual respect.
- 3. Explore Questions That Matter:** Make sure you focus the collective attention on powerful questions that attract collaborative engagement.
- 4. Encourage Each Person's Contribution:** Enliven the relationship between the "me" and the "we" by inviting full participation and mutual interaction.
- 5. Cross-pollinate and Connect Diverse Perspectives:** Intentionally increase the diversity and density of connections between perspectives while retaining a common focus on core questions.
- 6. Listen Together for Patterns, Insights, and Deeper Questions:** Vitally, encourage shared attention in ways that nurture coherence of thought without losing individual contributions.
- 7. Harvest and Share Collective Discoveries:** Make collective knowledge and insight visible and actionable.

The World Cafe Etiquette: In addition to the design principles there are some simple rules of etiquette that help to get the most from a World Café workshop:

- 1. Focus on What Matters**
- 2. Contribute Your Thinking**
- 3. Speak Your Mind and Heart**
- 4. Listen to Understand**
- 5. Link and Connect Ideas**
- 6. Listen Together for Insights and Deeper Questions (*Playing, Doodling, Drawing are all encouraged!*)**
- 7. Have Fun!**

The bit that is most important (and people most struggle with) is the listening part. Those bursting to share their ideas often find it hard to listen properly! If you would like to read more about effective listening then check out this post entitled [Are You Really Listening?](#)

Source: Based on information provided at <https://therightquestions.co/the-world-cafe-workshop-facilitation-method/> accessed 3/10/19

Appendix 3: Information about participating organisations

Organisation	Aims	Website link
Faculty of Public Health	The Faculty of Public Health (FPH) is a membership organisation for nearly 4,000 public health professionals across the UK and around the world. We are also a registered charity. Our role is to improve the health and wellbeing of local communities and national populations.	https://www.fph.org.uk/about-fph/
FPH Sustainable Development Special Interest Group	The Sustainable Development SIG has been established to drive forward strategic action to embed the principles of sustainable development into all FPH does and stands for, in order to create a healthy, equitable, and sustainable future. The SIG will work to inform and develop FPH's approach to sustainable development and climate change through developing, promoting, and advocating for: <ul style="list-style-type: none"> • Whole systems approach to health and care services • Partnerships with alliances that achieve positive, sustainable development • Good health through engagement with the natural environment • Management proactives that take account of the limits of the Earth's resources and that reduce our impact • 	https://www.fph.org.uk/policy-campaigns/special-interest-groups/special-interest-groups-list/sustainable-development-special-interest-group/
National Institute for Health Research	<ul style="list-style-type: none"> • Government funder of health and care research that translates discoveries into practical products, treatments, devices and procedures, involving patients and the public in all our work. • Ensures the NHS is able to support the research of other funders to encourage broader investment in, and economic growth from, health research. • Works with charities and the life sciences industry to help patients gain earlier access to breakthrough treatments • Trains and develop researchers to keep the nation at the forefront of international research. 	https://www.nihr.ac.uk/about-us/our-purpose/
Strathclyde University	<ul style="list-style-type: none"> • The University of Strathclyde is situated in the heart of Glasgow – one of the UK's largest cities. It has a vibrant, international community including more than 23,000 students from over 100 countries. It is a public research university. Founded in 1796 as the Andersonian Institute, it is Glasgow's second-oldest university, receiving its royal charter in 1964 as the first technological university in the United Kingdom. It takes its name from the historic Kingdom of Strathclyde. 	https://www.strath.ac.uk/

Appendix 4: Speakers, organisers & contributors

Name	Title, Role and short biography
Anna Brook Co-organiser	Public Health Specialty Registrar and member of the FPH Sustainable Development SIG Previous experience in fields of social justice both in the voluntary sector (Crisis) and public sector (Sheffield City Council). Personal interest in sustainability and tackling climate change and volunteer with local campaigning group Sheffield Climate Alliance and the Youth-Led Education for Social Change movement Woodcraft Folk
Helen Walters	Dr Helen Walters is Public Health Consultant Advisor to the Public Health Research Programme for NIHR working at the national coordinating centre in Southampton. She particularly focuses on the identification, prioritisation and commissioning of research that is relevant to Public Health practice. Helen brings extensive experience of coal-face Public Health practice having led the Health Team in the Mayor of London's office. Prior to this she was Director of Public Health for the City of Westminster, jointly appointed between the City Council and the NHS Primary Care Trust. Helen was a Consultant in Public Health in Portsmouth, has been a GP partner and served as an elected member in her district council. Helen is the Tobacco lead for the Faculty of Public Health and a trustee of ASH and of St Mungo's.
Sir Henry (Harry) Burns	Sir Henry Burns known generally as Harry Burns, is the professor of global public health, University of Strathclyde, having been the Chief Medical Officer for Scotland from September 2005 to April 2014. He has become known for his work to address health inequalities and is a member of the Council of Economic Advisers in Scotland.
Helen Ross Workshop lead	As a Master of Public Health, Helen has 20 years' experience of work in Public Health specialising in climate change and sustainable development in Nottingham and the East Midlands. She engaged nationally and at UK level as a Public Health climate change champion through partnership work with the Sustainable Development Unit (England) and the Faculty of Public Health (UK). Helen is a founder member and Vice Chair of the Faculty of Public Health's Sustainable Development Special Interest Group.
Professor Karen Turner	Karen is Director of the Centre for Energy Policy at the University of Strathclyde International Public Policy Institute. She has previously held academic posts at in the Economics Departments at Heriot-Watt, Stirling and Strathclyde Universities and was one of six ESRC Climate Change Leadership Fellows. Her main research interests lie in considering and modelling the economy-wide and macroeconomic impacts of energy policy and industry developments. The main focus of her current work is considering the wider economic and societal value proposition for a range of low carbon energy solutions, including energy efficiency, electric vehicles, industrial decarbonisation and CCUS, through projects funded by UKRI and various government and industry bodies. Karen is currently a member of the Scottish Just Transition Commission, was a member of the committee delivering the Royal Society of Edinburgh's inquiry on Scotland's Energy Future and is leading a cross-cutting sub-group of a new Royal Society (London) study on the long-term role of energy storage.
Lynne McNiven	Lynne McNiven is joint interim Director of Public Health for NHS Ayrshire and Arran. She has extensive experience of work in Public Health and is a member of the Faculty of Public Health.
Phil Mackie	Phil heads the Scottish Public Health Network, which links together all Health Board and national public health functions across Scotland. ScotPHN is there to do those things for which there is a recognised national need, but for which there is no national capacity. He also is a co-founder of the Scottish Managed Sustainable Health Network, which is part of ScotPHN. (See: www.scotphn.net) Previously, Phil held public health service appointments in Lothian and in the north of England, covering a very wide range of health and social care remits and the commissioning and evaluation of priority and community services, and more recently sustainability. Before coming into Public Health, he had an academic career which spanned Paediatric Epidemiology (Newcastle Medical School) and Behavioural and Decision Sciences (Huddersfield Polytechnic). In his spare time is Co -Editor in Chief of the international, peer-reviewed journal <i>Public Health</i> .
Rebecca Campbell – co-organiser	Specialty Registrar in Public Health (ST4) and Co-Chair, SMaSH – Scottish (Managed) Sustainable Health Network (part of ScotPHN). Rebecca has been a Specialty Registrar in Public Health since 2016 and is currently on attachment with the Scottish Managed Sustainable Health (SMaSH) network. Previous to this, she worked in Health Improvement for 13 years in NHS Greater Glasgow & Clyde, predominantly Tobacco Control.

Appendix 5: Attendance

Themes: 1 Health, climate change and action to tackle climate change, 2 Sustainable development, sustainable economies, health inequalities and health 3 Sustainable food 4 Natural capital (didn't run) 5 Energy and affordable warmth (didn't run) 6 Transport and active travel 7 Sustainable commissioning & procurement 8 open space

F = Feedback for group.

No	Pref.	Name	Surname	Organisation / Role	Area	Theme	Attended
1.		Helen	Walters	NIHR - Speaker	UK	—	By Skype
2.		Nerys	Edmonds			—	By live streaming
3.		Chris	McGuigan	PH Consultant,	NHS Fife	2 & 1	Yes
4.		Dermot	Gorman	PH Consultant,	NHS Lothian	6 & 3	Yes
5.		Elaine	Witt			2 & 1	Yes
6.		Emily	Broadis	SpR Public Health	NHS A&A	7 & 2	yes
7.		Emma	Witney		Lothian	1 & 2	Yes
8.		Evelyn	Tonner	University of Strathclyde	Glasgow		yes
9.		Frederike	Garbe			2 & 1	Yes
10.		George	Morris			1 & 8	Yes
11.		Helen	Ross	FPH SD SIG Vice Chair – Workshop lead	Arran/UK	1 & 8	Yes
12.	Sir	Henry (Harry)	Burns	Professor of Global Public Health, Centre for Health Policy, Strathclyde University	Academic - Glasgow	2 & 1	Yes
13.	Dr	Iain	Beverland	University of Strathclyde		6 & 1	Yes
14.		Jessica	Baker	PH Consultant, HPS		6 & 1	Yes
15.		Kai	Wan			2 & 1	Yes
16.		Kaori	Tsushima			1 & 2	Yes
17.		Karen	Turner	Speaker: Professor at Strathclyde University & Director of the Centre for Energy Policy.	Academic. Glasgow	—	Yes
18.		Lynne	McNiven	Meeting chair Director of Public Health	NHS Ayrshire & Arran	7 & 3	Yes
19.		Nora	Dornis			1 & 3	Yes
20.		Phil	Mackie	Speaker - PH Consultant, ScotPHN, SMaSH & FPH SD SIG	Glasgow	1 & 2	Yes
21.		Rebecca	Campbell	Registration & workshops SpR Public Health, SMaSH		7 & 3	Yes
22.		Ronan	McCabe			1 & 2F	Yes
23.	Prof	Simon	Tett	University of Edinburgh		1 & 6	Yes
24.	Dr	Tara	Beattie	University of Strathclyde		2 & 1	Yes
25.	Dr	Zhiqiang	Feng	University of Edinburgh		6 & 2	Yes
1.		Ellen	McMaster	Arran			Apol.s
2.		Louise	Rennick	Public Health Advisor			Apol.s
3.		Lynda	Fenton	StR			Apol.s
4.		Michele	Hilton Boon	Glasgow University			Apol.s
5.	Prof	Richard	Quilliam	University of Stirling			Apol.s
6.	Prof	Adrian	Davis	Napier University			No
7.		Ala	Al Dwairi				No
8.		Cameron	Schwartz				No
9.	Dr	Heather	Price	University of Stirling			No
10.		Julia	Wiedemann				No
11.		Lingzhi	Zhang				No
12.		Nuha	Ashaibi				No

Appendix 6:

References and websites referred to in this report (in page order)

- Page 1: Faculty of Public Health – Sustainable Development Special Interest Group – resources on Sustainable Development and Climate Change <https://www.fph.org.uk/policy-campaigns/special-interest-groups/special-interest-groups-list/sustainable-development-special-interest-group/resources-on-sustainable-development-and-climate-change/>
- Page 2: Nicholas Stern *The Economics of Climate Change The Stern Review* 2008 page xiii Cambridge University Press
Nicholas Stern *The Economics of Climate Change The Stern Review* 2008 page iv
The FPH SD SIG *Environmental Sustainability in Health and Public Health Research – a call for action March 2019*
- Page 4: <https://www.gov.scot/groups/just-transition-commission/>
- Page 5: <https://www.watersfoundation.org/resources/iceberg-graphics/>
- Page 6: www.nihr.ac.uk
- Page 7: <https://phinder.ning.com>
phr@nihr.ac.uk
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<https://www.strath.ac.uk/>

This report was written by Helen Ross – Faculty of Public Health Sustainable Development Special Interest Group - for the benefit of current and future generations. With thanks to all who have contributed.

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