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About the Hub

- 1 of 7 National Hubs established under the UKRI Building a Greener Futures theme.
- Realising the health co-benefits of the transition to net zero.
- The programme's stated aims were to establish 7 transdisciplinary research hubs that provide policy-relevant evidence and deliver high impact, solutions focused research, to protect and promote the physical and mental health of the UK population as part of the UK's transition to Net Zero.



Funding

The Sustainable Health Systems Hub: Creating Sustainable Health and Social Care Pathways is supported by UK Research and Innovation Building a Green Future strategic theme, The National Institute for Health and Care Research (NIHR), Medical Research Council (MRC), Natural Environment Research Council (NERC) and Engineering and Physical Sciences Research Council (EPSRC) **APP29811 MR/U506692/1**



Vision

- Over the funding period, we aim to publish a toolkit, develop expertise, and establish a self-sustaining centre of excellence for environmentally sustainable healthcare innovation.
- Beyond the funding period, the Hub will support NHS decarbonisation efforts, facilitate green clinical research, adapt frameworks for international health systems, and build capacity across health systems.
- Our approach provides a comprehensive framework for analysing carbon emissions and other pollutants impact on patient pathways, contributing to improved healthcare delivery, leaner services, increased industry engagement, streamlined care pathways, and adaptable findings for international healthcare systems.



Mission

'to improve patient centric healthcare through a decarbonised, environmentally friendly system that is firmly rooted in healthcare economics and sustainable decision making'



About the logo

- Rod of Asclepius
- Sun wheel/Astronomical Earth
- Multi-layered complex systems
- Time is ticking
- Challenges to close the circles



Partners

• LP01	UoE	UNIVERSITY OF EXETER
• PP02	CPNFT	CORNWALL PARTNERSHIP NHS FOUNDATION TRUST
• PP03	NHSE	NHS ENGLAND (GIRFT – Getting It Right First Time)
• PP04	GCU	GLASGOW CALEDONIAN UNIVERSITY
• PP05	ICRRCH	INSTITUTE OF CANCER RESEARCH, ROYAL CANCER HOSPITAL
• PP06	JHI	JAMES HUTTON INSTITUTE
• PP07	NHSH	NHS HIGHLAND
• PP08	QUB	THE QUEEN’S UNIVERSITY OF BELFAST
• PP09	RCGPS	ROYAL COLLEGE OF GENERAL PRACTITIONERS SCOTLAND
• PP10	RCSI	ROYAL COLLEGE OF SURGEONS IN IRELAND
• PP11	RDUHNFT	ROYAL DEVON UNIVERSITY HEALTHCARE NHS FOUNDATION TRUST
• PP12	UCUoA	THE UNIVERSITY COURT OF THE UNIVERSITY OF ABERDEEN
• PP13	UoL	UNIVERSITY OF LIVERPOOL
• PP14	USW	UNIVERSITY OF SOUTH WALES
• PP15	VC	VOLUNTEER CORNWALL



UK wide research



WP01 Deep dive into low-emission interventions in community and primary mental healthcare.

- Led by the James Hutton Institute in Aberdeen builds on NHS's OHBP.
- We aim to model emission reduction in the community and primary care pathway.
- This is achieved by taking transformative approach in re-imagining the mental healthcare pathway (MHCP) through social-prescribing/NCI's.
- Our pilot focus is on mild to moderate mental health conditions.
- Pilot locations in Scotland and England.
 - Different patient groups
 - Different systems
- Evaluations – Patient outcomes/Health economics/Environmental impacts (reduced CO2)



Challenges

- No typical mental healthcare pathway.
- Poor evidence that NCI's are environmentally friendly.
- Patient group engagement can be difficult (e.g. Access homelessness)
- Data extraction from GP records is time consuming and badly coded.
- Aggregated data sets are also costly to access and do not contain NCI data.
- Patient engagement is hard to track, and small sample sizes create problems for the SROI evaluations and patient surveys.
- The role of community link workers has shifted since their introduction.



WP02 Rapid Action (rapid assessment and implementation in clinical areas like urology and trauma & orthopaedics)

- Led by NHS Getting it right first time (GIRFT) Academy.
- WP2 aims to embed quality sustainable decarbonised healthcare within routine delivery at a pace and scale that matches the threat posed by the evolving climate crisis.
- Build on the ELLA framework.
- Focus on 8 clinical pathways inc. Bladder, Hip ,Knee, Stones, Dermatology, Cancer
- Fund GIRFT Academy fellows to adopt the framework and apply to specific pathway
- Evaluations–Patient outcomes/Health economics/Environmental impacts (CO2)



Challenges

- No go to carbon footprint/LCA methodology (working groups).
- Carbon emission factors need to be developed.
- NHS England infrastructure affects ability to spend the grant (Hub provides a facilitated infrastructure for PPIE and contract research)
- Implementation, rollout and impact monitoring need to be developed.



Cross-cutting themes

1. PPIE led by the University of Exeter.
2. Policy and Geography led by University of South Wales.
3. Methods and Frameworks led by University of Exeter.



Deliverables

- **Toolkit and Frameworks** covering clinical and environmental impact assessments, rapid evidence acquisition, evaluation of environmental impact assessment data, development of delivery guidance, contextual factors to implementation, and a national audit framework for ongoing monitoring of sustainability metrics.
- These outputs aim to support decarbonisation efforts across health system, improve population health, and minimize unintended consequences



Summary

- Building infrastructure and capacity.
- Developing model pathway emission reduction plans in primary and secondary care
- Implementing and adapting ERP at different primary and community UK pilot locations to study outcomes and feedback into guidelines.
- Developing greener clinical pathways with implementation plans and national rollout.
- Establishing a blue-print for pathway decarbonization in different geographical, policy, and system settings through the production of frameworks and a toolkit.



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Thanks for
listening

