



Anna Reynvaan Event Sustainable Nursing Keynote

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sustainablehealthcare.org.uk

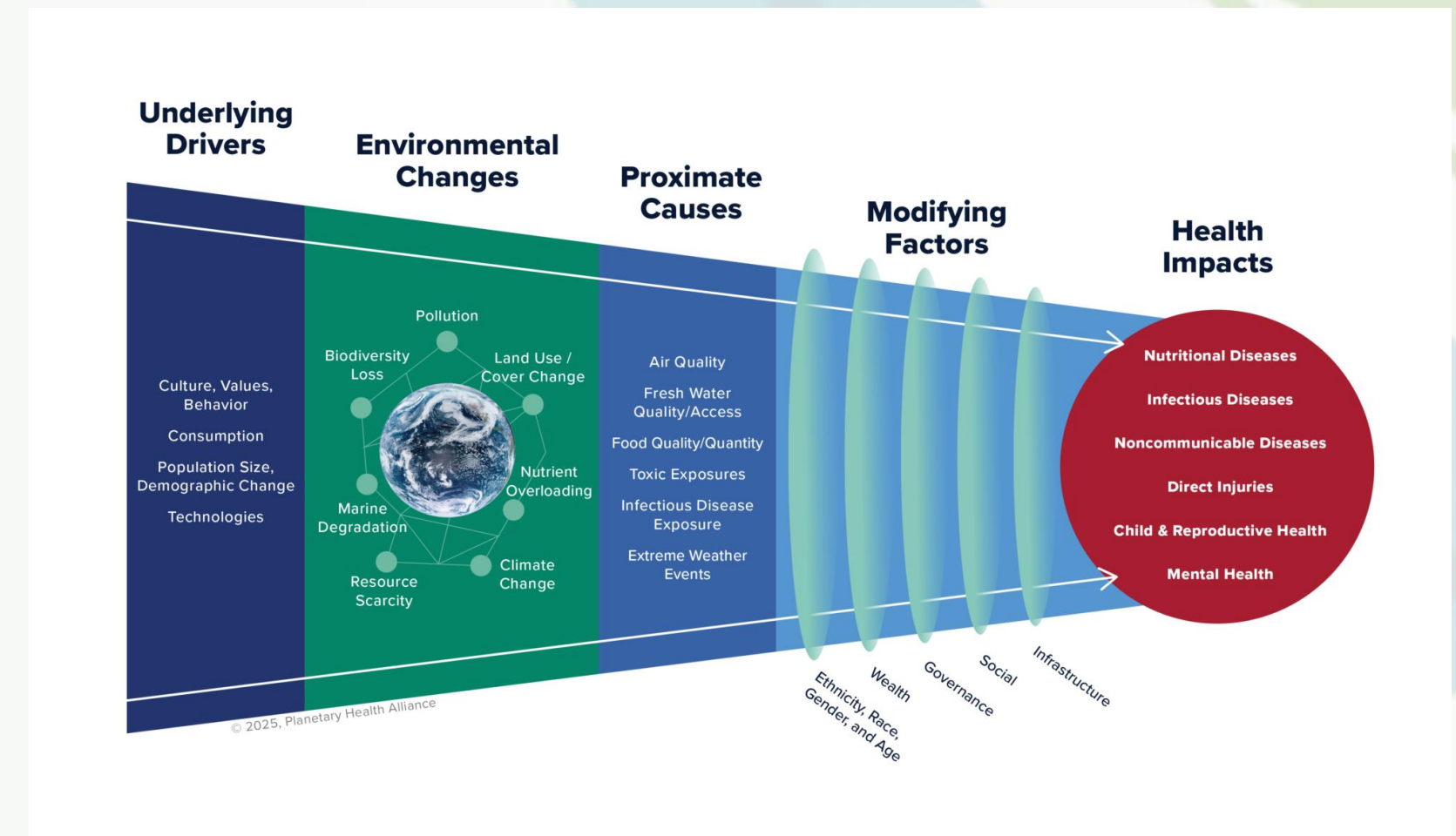


@sushealthcare

What is Sustainable Healthcare?

The ability to provide healthcare to meet the needs of the present **without compromising the health of future generations**

Understanding that our health and the environment are intrinsically linked and act in a way that supports both **people and planetary health**



[Planetary Health Schematic - Planetary Health Alliance](#)

The 2020s are the most important decade humanity has ever faced

In the next 4 years we will choose our future

In 2024 the earth was c.1.5 degrees hotter than pre-industrial levels

“Any further delay ...will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all.”

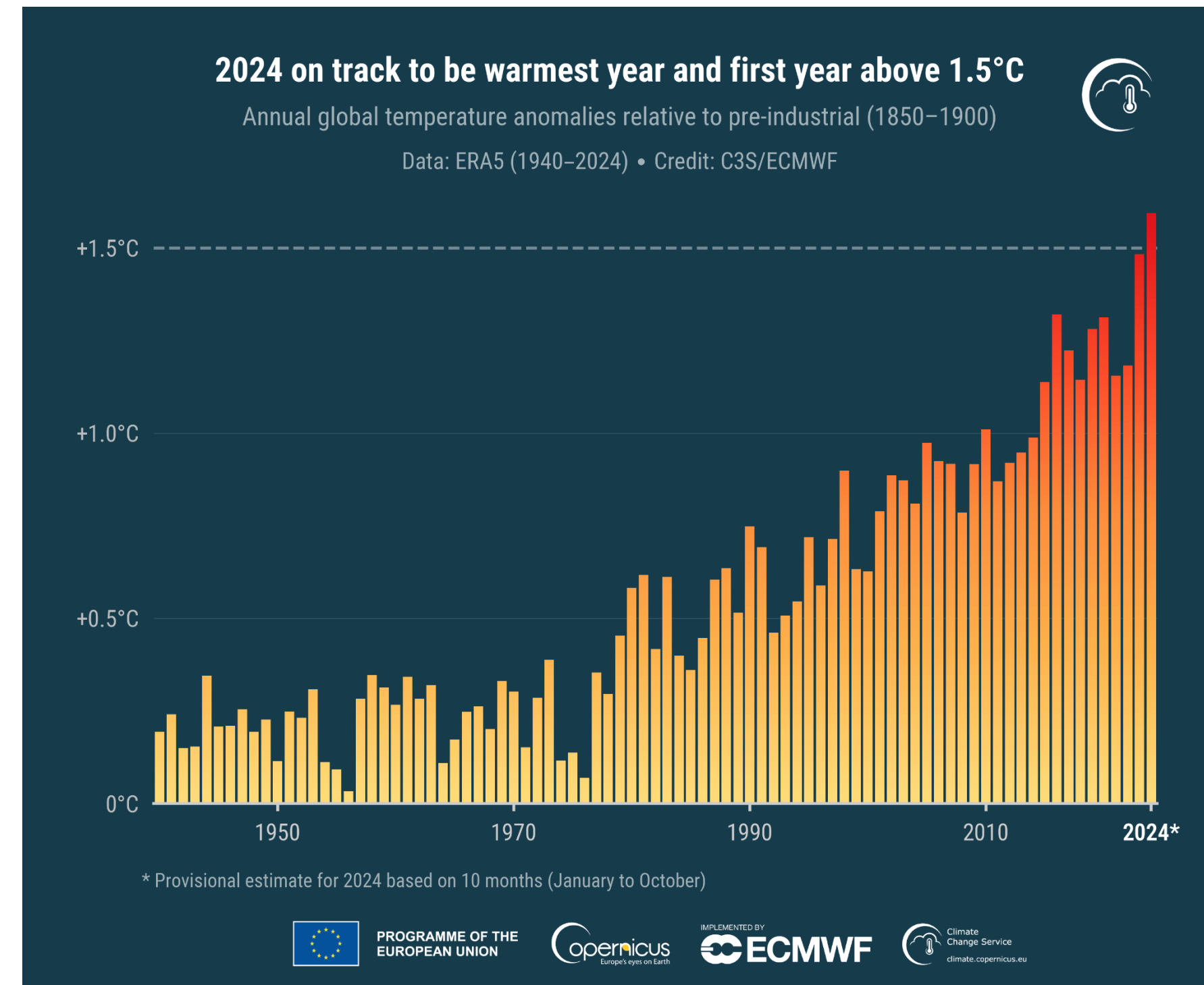
IPCC 2024

Every fraction of a degree matters

Every Month Matters

Every Choice Matters

[Health - Prof Hugh Montgomery OBE | National Emergency Briefing](#) –
Chair of the UKHACC, Consultant Intensivist, Founder of Real Zero



Air Pollution & Increasing Allergens

Asthma, allergies, cardiovascular and respiratory diseases

Extreme Heat

Heat-related illness and death, cardiovascular failure

Drought

Water supply impacts, dust storms, Valley Fever

Environmental Degradation

Forced migration, civil conflict, loss of jobs and income

Wildfires & Smoke

Injuries, fatalities, loss of homes, cardiovascular and respiratory diseases

Degraded Living Conditions & Social Inequities

Exacerbation of racial and health inequities and vulnerabilities, loss of employment

Changes In Vector Ecology

Lyme disease, West Nile Virus, hantavirus, malaria, encephalitis

Food System Impacts

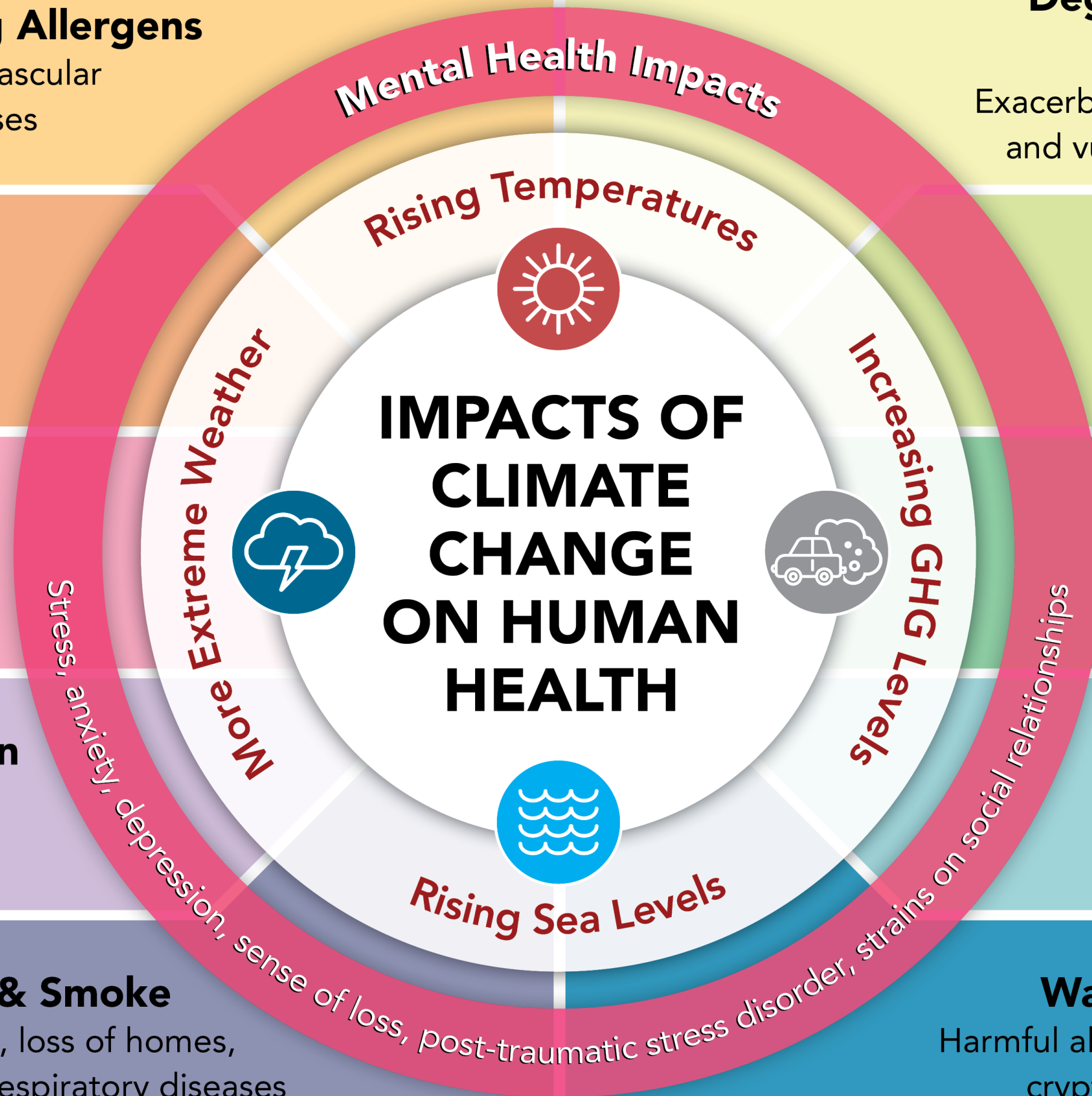
Malnutrition, food insecurity, higher food prices, foodborne illness

Severe Weather & Floods

Injuries, fatalities, loss of homes, indoor fungi and mold

Water Quality Impacts

Harmful algal blooms, campylobacteriosis, cryptosporidiosis, leptospirosis



United Nations Sustainable Development Goals



High quality care is low carbon care

Charlotte McArdle, Global nurse consultant.

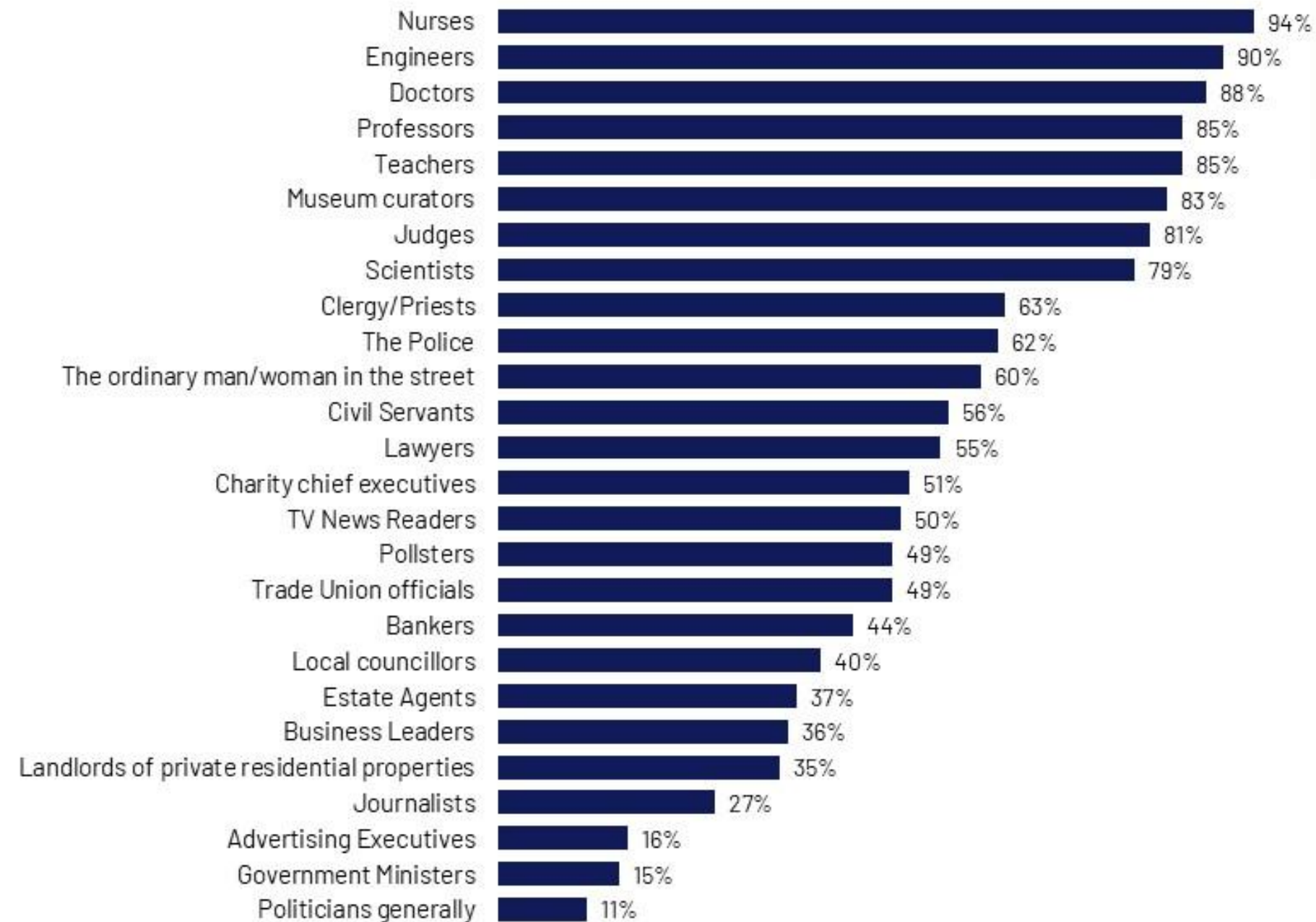
Influencing Change

Veracity Index 2024

All professions

“Now I will read you a list of different types of people. For each would you tell me if you generally trust them to tell the truth, or not?”

% trust to tell the truth



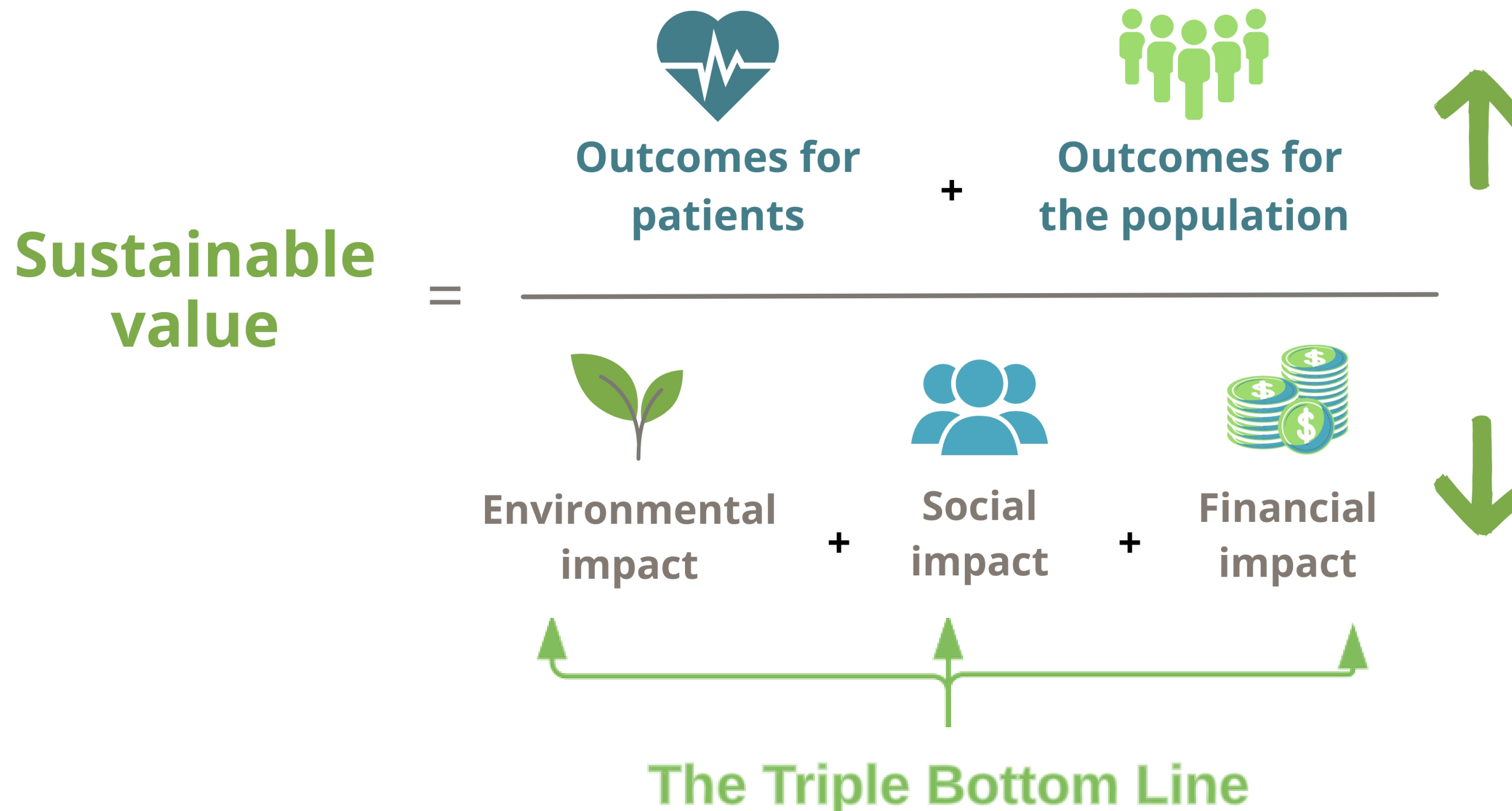
Base: 1,015 British adults aged 16+, interviewed by telephone 9 - 15 October 2024

© Ipsos | Veracity Index 2024 | November 2024 | Version 1 | Public

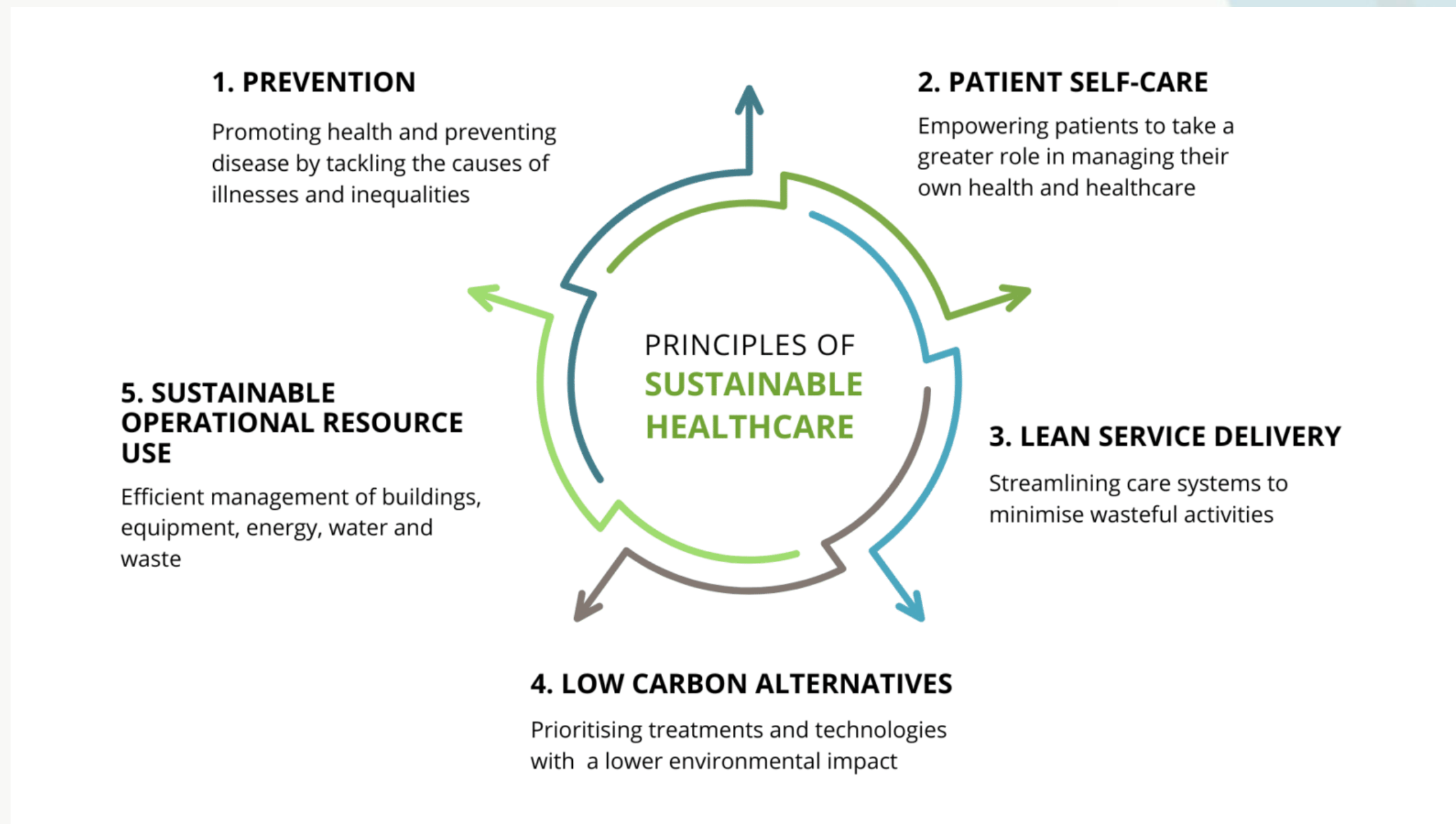


The Sustainable Value Equation

“deliver care in a way that maximises positive health outcomes through best use of environmental, social and financial resources”

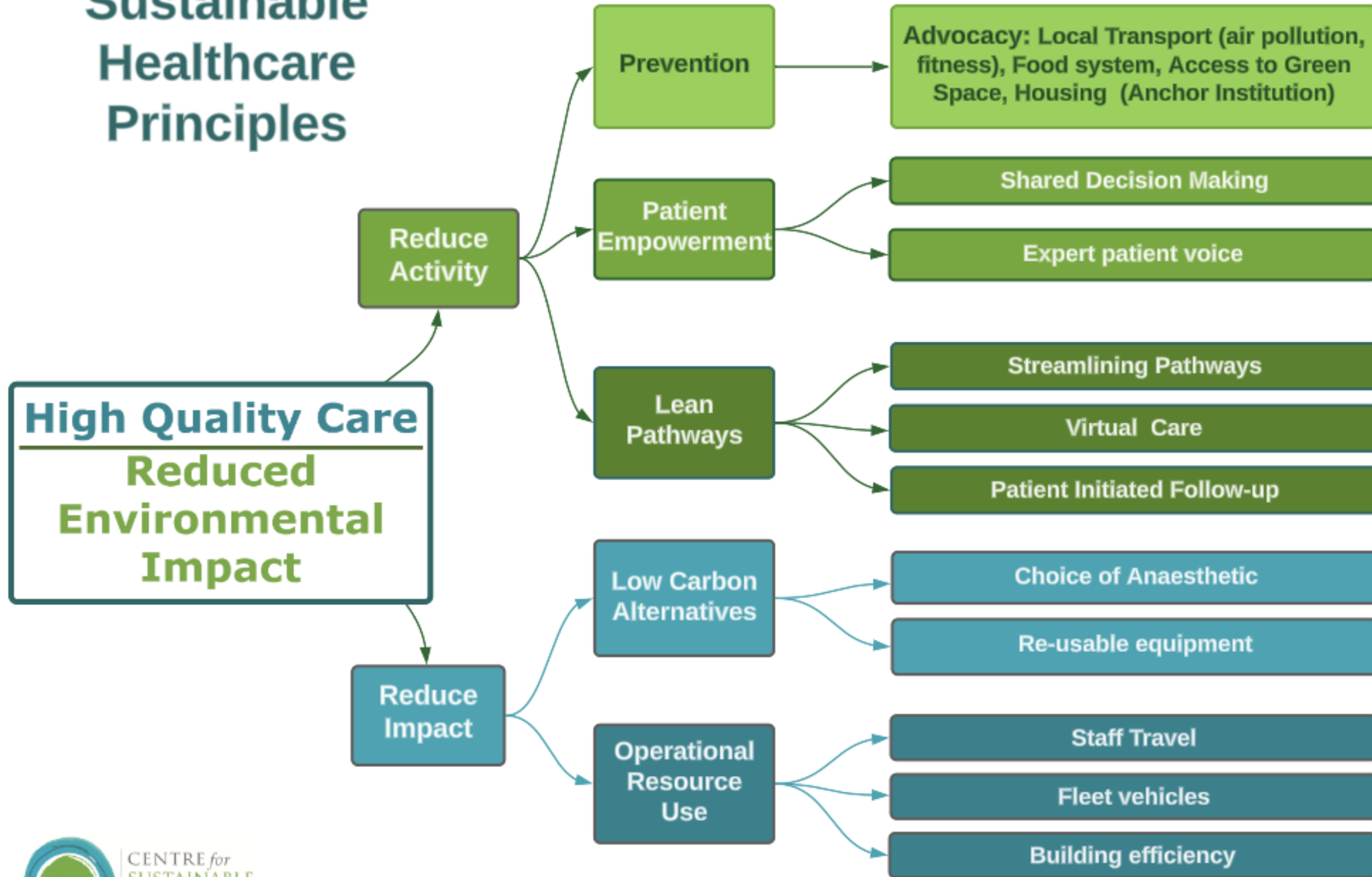


Principles of Sustainable Clinical Practice



Mortimer, F. The Sustainable Physician. Clin Med 10(2). April 1, 2010. D110-111

Applying Sustainable Healthcare Principles



Change ideas



Green Nursing and Maternity 2025 Challenges

The combined Nursing Challenge projects have projected annual savings of

£691,844 and 77,398 kgCO₂e

which is the equivalent of

227,708 miles in an average car

284 trips between London and Edinburgh



OR

The carbon absorbed by **3,096 mature trees**



The combined Maternity Challenge projects have projected annual savings of

£860,669 and 101,263 kgCO₂e

which is the equivalent of

298,367 miles in an average car

453 trips between London and Edinburgh



OR

778,978 disposable nappies



[Green Nursing Challenge 2025 — Sustainable Healthcare](#)

[Maternity care project — Sustainable Healthcare](#)



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Reducing the impact of nausea and vomiting in pregnancy - an ambulatory approach, Norfolk and Norwich University Hospitals NHS Foundation Trust



GREEN MATERNITY CHALLENGE

Aim: To reduce the physical, psychological, and social impact of Nausea and Vomiting in Pregnancy (NVP) and Hyperemesis Gravidarum (HG) through a virtual telephone clinic and a virtual ward pathway, allowing access to IV fluids and antiemetics at a hub or home.

Outcome: Projected annual impact based on comparisons of data from the month before and after implementation.



Clinical

- Women are heard and receive tailored treatment based on their needs and care location
- Better support with appropriate follow-ups and optimised medication plans
- Women with diabetes can continue their usual medication seamlessly



Environmental

6,462 kgCO₂e, equivalent to driving 19,040 miles in an average car



Financial

£762,044



Social

- Less disruption to work, family, and daily activities
"Having IV fluids at home has meant I can participate in family life."
"My husband is able to go to work, and my son has his mummy back."
- Increased staff confidence and satisfaction
"We are buzzing with the difference we are able to make for patients now..."



Postnatal Hypertension Made Simple and Sustainable, Imperial College Healthcare NHS Trust



GREEN MATERNITY CHALLENGE

Aim: To reduce unnecessary inpatient stays, prevent readmissions and reduce medication waste through improving the postnatal hypertension protocol and reducing prescribing heterogeneity.

Outcome: 53 women were included in the pre-intervention group and 14 women were included in the post-intervention group. Annual savings below have been extrapolated to an average of 500 women with hypertension seen in the service per year.



Clinical

- Postpartum stay was 2.6 days shorter with 2.92 fewer sets of blood tests per patient
- No patients were discharged on more than one anti-hypertensive, compared to 28% before.
- No unplanned reviews or readmissions compared to 10 in the pre-intervention group



Environmental

58,645 kgCO₂e, equivalent to driving 172,795 miles in an average car.



Financial

£165 on discharge hypertension prescriptions and £14,300 from reducing the number of blood tests. No saving from reduced length of stay due to block contract.



Social

- "we felt there was more consistency in care, and we quickly came to a routine of medication in order to be able to leave"*
- Discharging sooner supports in reducing poor sleep in hospital, pain from tests, feeling isolated from family, and feelings of being in hospital impacting bonding.
 - 100% resident doctors surveyed found the new guideline 'useful' and there was an 82% increase in those feeling 'confident' in managing postpartum hypertension.

Trial Without Catheter (TWOC) - a structured approach



GREEN NURSING CHALLENGE

Aims: 1. Optimise TWOC success rates, by implementing a TWOC classification & corresponding strategies. 2. Reduce catheter related complications & provide an integrated catheter care pathway.

Outcome: TWOC referrals are now formally reviewed by the Bladder, Bowel & Pelvic Health team, following introduction of a Band 7-led classification and triage system. Next steps include developing more comprehensive guidelines and district nurse follow-up for patients. The below results are based on an average of 6.6 TWOC referrals per month.



Clinical

- Catheter-related ambulance call outs reduced by 25%, admissions by 12.5% & hospital stays by 32%, indicating more timely community interventions.
- Zero catheter associated Urinary Tract infections and adverse events.
- Improved equity of access with vulnerable patients being managed at home.
- Several referrals redirected to appropriate services (e.g. urology).



Environmental

- **42,156** kgCO₂e per year, equivalent to driving 124,026 miles in an average car.



Financial

- **£441,708** per year



Social

- Improved catheter management reduces patient distress, enhancing patients' emotional wellbeing.
- Increased opportunity for patient self-management.
- Improved efficiency of assessing patients for TWOC & reduced staff workload.



Switching from IV to oral potassium and paracetamol, and standardising the hanging times of IV giving sets for potassium and paracetamol



GREEN NURSING CHALLENGE

Aims: 1. Encourage oral administration of potassium & paracetamol instead of IV. 2. Standardise IV giving set hanging times to 72 hours (instead of more frequent changes).

Outcome: 8 staff acted as green champions, delivering micro-teaching across a 30-bed Cardiac Critical Care Unit. The pharmacy team supported safe switching and monitored medication usage. IV line labelling was introduced and tracked to improve compliance with hanging times. More time is required to collect outcome data. The below savings are modelled on an assumption that 1/3rd of IV medication will be replaced with oral. Changes to IV hanging times have been excluded.



Clinical

- Improvement in patient comfort & dignity by removing need for infusion lines.
- Removing lines enhances mobility enabling visits to therapeutic spaces like the Critical Care Garden.
- No increased infection risks
- No change in pain management according to literature and pain team



Environmental

- **2,710 kgCO2e** per year, equivalent to driving 7,973 miles in an average car.



Financial

- **£56,148** per year



Social

- Improved staff learning of drug efficacy
- Reduced nursing workload and freeing time for higher value patient care.

Comprehensive reviews for patients on insulin, including the use of continuous monitoring technology



GREEN NURSING CHALLENGE

Aims: 1. To establish a review clinic to assess and optimise insulin regimens for all District Nursing patients with Type 2 diabetes, using continuous or flash glucose monitoring to guide safe, individualised care. 2. Support equity of care for both patients with diabetes and those with different needs (e.g. wound care) by freeing nursing capacity to reduce unmet needs (deferral rates).

Outcome: Joint District Nurse and Diabetic Specialist Reviews carried out for patients with 3 GP trial sites. Impacts below based on 30 patients, potential to scale to 300.



Clinical

- Previously unknown hypoglycaemic episodes for 8 (27%) and hyperglycaemic episodes for 13 (43%) of patients
- 24 (77%) patient insulin regimes changed, supporting safety and individualised care
- 24 (77%) patients had reduced risk of harm/hospital admission
- Equity of care for those with diabetes who couldn't access GP review, now reviewed to national standard
- Reduced deferral rates for patients with other needs due to 12.5% drop in demand on diabetes caseload.



Environmental

- **6,707 kgCO2e per year**, equivalent to driving 19,732 miles in an average car.



Financial

- **£37,656 per year**



Social

- 2 (7%) patients became fully independent with diabetes management
- Improved staff knowledge around diabetes management
- Improved collaboration between District nursing and practice nursing teams.
- Patient safety and environmental sustainability benefits of the project were important to staff.

“very pleased as this has supported me to understand better my diabetes”.

Combined multidisciplinary Pregnancy and Inflammatory Bowel Disease Clinic



GREEN NURSING CHALLENGE

Aim: Improve care for pregnant women with Inflammatory Bowel Disease (IBD) by integrating maternity and gastroenterology services into a single, joint clinic, to reduce fragmented care, delays, and duplication of appointments.

Outcome: A monthly multidisciplinary clinic was launched, embedding gastroenterology and IBD nurse reviews into the existing maternal medicine pathway clinic slots. Impact below is based on 15 women per year requiring care from both services.



Clinical

- Improved maternal health and IBD disease-control
- Improved continuity of care and access to timely and consistent advice
- Reduced inpatient admissions, bed days and IV therapies
- Reduced pregnancy-related complications & neonatal admissions



Environmental

- **5,216 kgCO₂e** per year, equivalent to driving 15,345 miles in an average car.



Financial

- **£77,623** per year



Social

- Reduced duplicated appointments
- Improved staffing efficiency and capacity in gastroenterology and nursing services
- Enhanced collaboration, learning, confidence amongst staff

Switch to Sustain: Navigating the challenge from Single-Use to Reusable Kidney Dishes



GREEN NURSING CHALLENGE

Aims: 1. Pilot reusable kidney dishes in the 6 bed Progressive Care Unit (PCU). 2. Identify challenges and plan for trust-wide rollout.

Outcome: Reusable kidney dishes were implemented in PCU with stakeholder engagement from clinical, infection prevention control, procurement, finance and senior leadership teams. A standard operating procedure was developed. The team are planning for wider implementation.



Clinical

- Improved patient safety.
- Reduce healthcare associated infections.
- Support antimicrobial stewardship.



Environmental

- **203 kgCO₂e** per year, equivalent to driving 597 miles in an average car.
- Potential to save 14,873 kgCO₂e, equivalent to driving 43,757 miles, if scaled Trust-wide.



Financial

- **£709** per year.
- Potential to save £41,271 if scaled Trust-wide.



Social

- Tidier, safer work space.
- Improved usability & function.
- Addresses staff frustrations with wasted disposables & empowers staff to make future sustainable changes.



Reusable tourniquets for sustainable phlebotomy, South Yorkshire Regional Service (SYRS)



**GREEN TEAM
COMPETITION**
CENTRE FOR SUSTAINABLE HEALTHCARE

Aim: To replace single use tourniquets with reusable ones in Cardiothoracic Services and Vascular and Renal Outpatient Departments using SusQI methodology. Long-term to support uptake of this change Trust-wide.

Outcome: Use of reusable tourniquet (Daisygrip) have been successfully implemented in SYRS services.



Clinical

- Addressed staff concerns of patient harm: *"Trying to remove it [single use tourniquet] while needle still in the arm can cause trauma in the vein..."*
- Reduced variation in practice, beneficial for infection control and safety
- *"We need a better-quality tourniquet to help us do our job well"*



Environmental

1,058 kgCO₂e per year, equivalent to driving 3,124 miles in an average car. Will increase to 24,885 kgCO₂e if implemented trust wide.



Financial

£6,632 per year, increasing to £35,868 if implemented trust wide



Social

- Positive feedback that tourniquets are easier to use and more comfortable
- Patient comments *"Comfy and better for the planet". "What's not to like!"*

Networks and Resources

About the Sustainable Healthcare Networks Hub

The Networks hub, developed by the Centre for Sustainable Healthcare, provides a platform for sharing resources, knowledge, and ideas, and connecting with like-minded individuals from around the world.

User guide



CSH NETWORK

[Nursing and Midwifery Sustainability Network](#)

648 members

[Read more](#)



Activity overview



39

networks



9494

members



2696

topics



1553

resources



578

events

Resource library

Access our full collection of sustainable healthcare resources, such as toolkits, case studies, publications and more shared across the hub, or use the search option to easily find and access specific resources. You can also add a new resource to the library.

Includes
Case Studies



[Home | Sustainable Healthcare Networks Hub](#)

[Resource library | Sustainable Healthcare Networks Hub](#)



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The Future of Health & Social Care Project

Fully funded course series for nurses & midwives internationally, developing:

- Knowledge of climate-health links
- Tools to develop and lead a Sustainable Quality Improvement project in your workplace
- Delivered in three tiers for nurses & midwives at all levels



Information & registration



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 Burdett Trust for
NURSING

It's up to us to save the world for tomorrow: it's up to you and me.

Jane Goodall

quote fancy

Thank you

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