

Making it Core:

Education for Sustainable Healthcare at Lancaster Medical School

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Climate change - the biggest health threat facing humanity

- Health Sector late to act.
- Health professionals inadequately prepared with skills needed to address the challenges.

Making it CORE Curriculum:

- What we have done at Lancaster Medical School (LMS)
- What we still plan to do.... A work in progress..
- What has helped?
- What has hindered?
- How have we overcome?



<https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

General Medical Council

“Newly qualified doctors **must** be able to **apply** the **principles, methods and knowledge** of population health and the improvement of health and **sustainable healthcare** to **medical practice**”

In the UK, the medical regulator now requires education for sustainable healthcare both in order to graduate as a medical professional, and within continuing professional training.



Acknowledging the work that has gone on before:



CENTRE for
SUSTAINABLE
HEALTHCARE
inspire • empower • transform

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Educating for Sustainable Healthcare - Priority Learning Outcomes

1. Describe how the environment and human health interact at different levels.
2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.

<https://sustainablehealthcare.org.uk/priority-learning-outcomes>

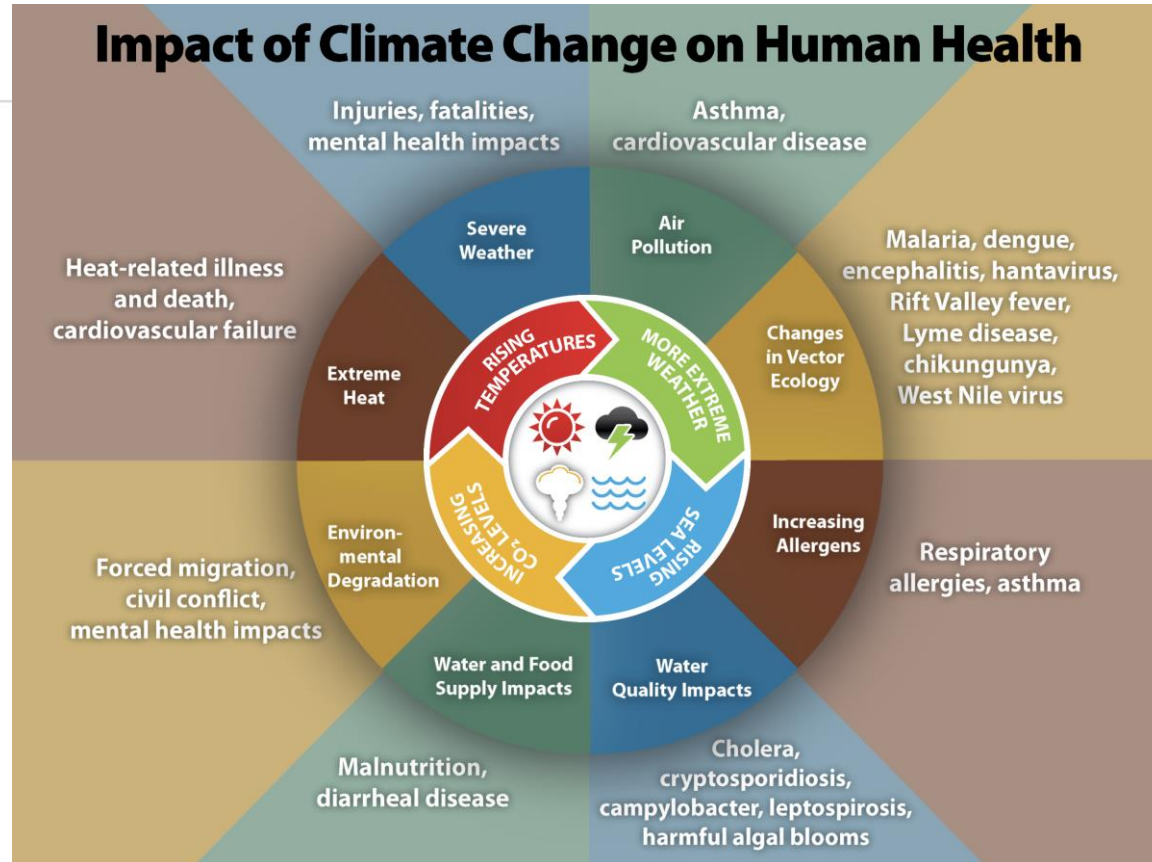
Summer 2018- 2019: Large piece of work

- Curriculum Mapping: **using ESH Priority Learning Outcomes**
- Faculty Learning and Teaching Committees, University processes
- Liaising with theme and year leads
- New resource development

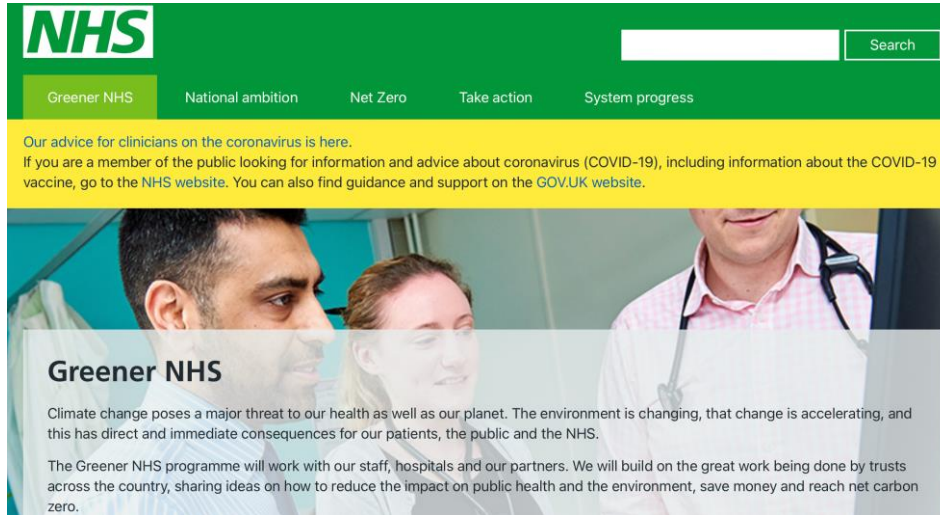
- Threaded many of the ESH themes through teaching which already existed
- Developed two new modules in year 3 and 5

- **Spiral Curriculum Approach**

What do we teach?



Impact of Healthcare Systems.... Sustainable Healthcare



NHS

[Greener NHS](#) [National ambition](#) [Net Zero](#) [Take action](#) [System progress](#)

Our advice for clinicians on the coronavirus is here.
If you are a member of the public looking for information and advice about coronavirus (COVID-19), including information about the COVID-19 vaccine, go to the NHS website. You can also find guidance and support on the GOV.UK website.

Greener NHS

Climate change poses a major threat to our health as well as our planet. The environment is changing, that change is accelerating, and this has direct and immediate consequences for our patients, the public and the NHS.

The Greener NHS programme will work with our staff, hospitals and our partners. We will build on the great work being done by trusts across the country, sharing ideas on how to reduce the impact on public health and the environment, save money and reach net carbon zero.

Delivering a 'Net Zero'
National Health Service



<https://www.england.nhs.uk/greenernhs/a-net-zero-nhs/>

Net zero healthcare:

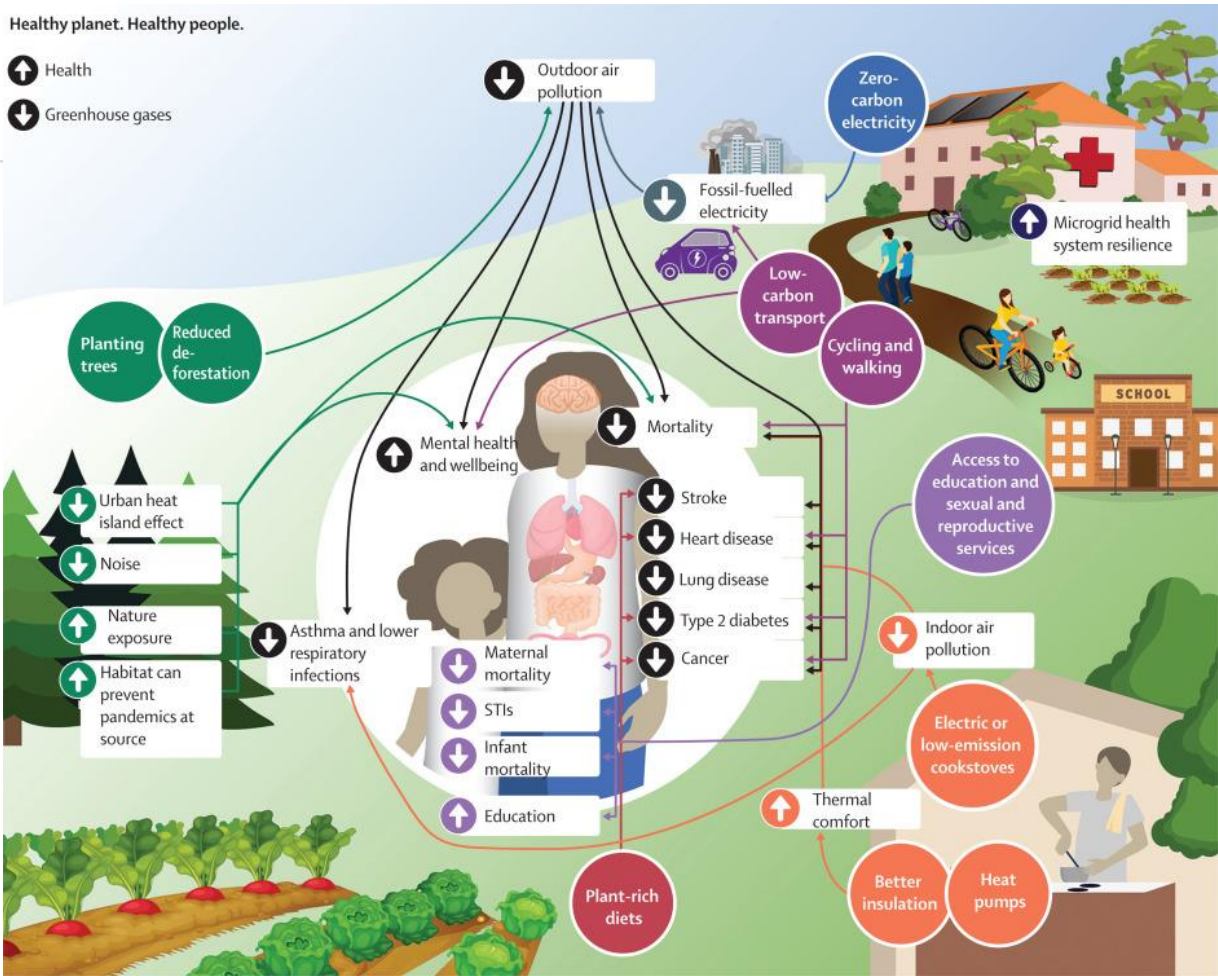
a call for clinician action

BMJ

Doctors' role as advocates



Health co-benefits of measures that decrease greenhouse gas emissions

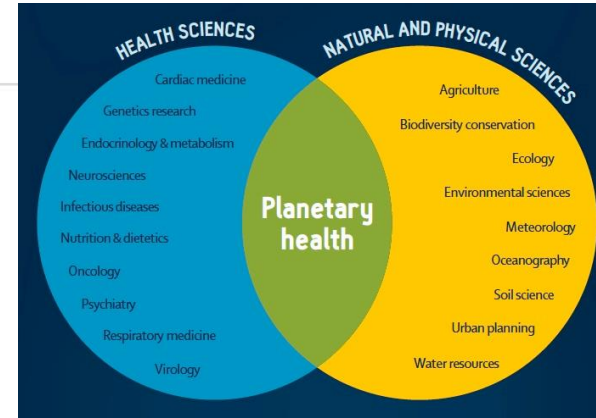


Learning to treat the climate emergency together: social tipping interventions by the health community
 Howard, Courtney et al.
 The Lancet Planetary Health, Volume 7, Issue 3, e251 - e264

[https://doi.org/10.1016/S2542-5196\(23\)00022-0](https://doi.org/10.1016/S2542-5196(23)00022-0)

Planetary Health as a key foundation of ESH

Planetary health is a **solutions-oriented**, transdisciplinary field and social movement focused on analyzing and **addressing** the impacts of human disruptions to Earth's natural systems on **human health** and **all life on Earth**



<https://www.planetaryhealthalliance.org/planetary-health>



Planetary Health Alliance Educational Framework

Foundational Domains:

1. Interconnection with Nature
2. The Anthropocene and Health
3. Equity and Social Justice
4. Movement Building and systems change
5. Systems thinking and complexity



<https://www.planetaryhealthalliance.org/education-framework>

Nuts and Bolts....

What have we done here at LMS? From 2019-20

Year 1

- Integrated new environmental ILOs into existing **PBL Scenarios** to introduce the subject and concepts
- **Lecture** on Environmental Ethics
- Year 1 **student selected module (SSM)** on environmental ethics

Year 2

- Integrated new environmental ILOs into existing **PBL Scenarios**
- Added a climate change angle to the **Health Inequalities module**.
- Added a climate change angle to the **Health Promotion in Schools** module: students deliver a lesson to Year 6 primary school pupils about healthy and low carbon lifestyles affecting cardiovascular health.
- Year 2 **student selected module (SSM)** on Sustainable Healthcare and Planetary Health

Y3 Module: Planetary Health and Sustainable Healthcare

Managing Long Term Conditions Rotation

- **Plenary Lecture:** Introduction to Planetary Health and Sustainable Healthcare
- 1 week to complete **coursework/VLE pre-reading** exploration of scenarios and resources
- Half day **Small Group Workshops** facilitated by GP Clinical Teaching Fellows in Primary Care Clinical Teaching:

Scenarios:

1. Health Benefits of Low Carbon Lifestyle
2. Principles of Sustainable Clinical Practice
3. Waste: pharmaceuticals, clinical waste, food
4. Climate Change Advocacy: what is the doctor's role?

Year 5

GP and Primary Care Rotation

- Small group teaching
- GP Clinical Teaching Fellow 1.5 hour facilitated group discussion

<https://www.greenimpact.org.uk/giforhealth>

<https://www.greenerpractice.co.uk/>



The screenshot shows the 'Welcome to Green Impact for Health' page. At the top, there are logos for 'nus green impact' and 'RCGP Royal College of General Practitioners'. A navigation menu on the left lists various topics: Intro, Water, Prescribing, Travel and Exercise, Quality Improvement, Zero Carbon, News & Communication, Food & Drinks, Vulnerable Groups, and Energy Saving. The main content area features a 'Welcome to Green Impact for Health' heading, followed by instructions for new users to contact 'giforhealth@sos-uk.org' and a paragraph explaining the toolkit's purpose for general practitioners. Below this, there is a quote from the Lancet Countdown 2019 report about climate change's impact on health.



Student Evaluation.. The good, the bad and the ugly...

- Overall excellent engagement and feedback from majority of students
- In significant majority of students- Increased:
 - understanding of impact
 - motivation to advocate
 - equipped with skills to address climate change
- Student appreciate:
 - Summary of main issues
 - Small group discussions to explore different perspectives, complexity and ideas
 - Practical examples of good practice
 - Self study time to explore resources
 - Time to consider if part of doctor's duty

Evaluation.. The good, the bad and the ugly...

- “Don’t see the relevance to us as medical students as we have no time to act given how much else we have on”
- “Unrelated to the MBChB course”
- “Would prefer to have more medical sciences teaching”

The fruits so far....

- Student engagement- student sustainability group
- Student conference attendance and poster presentation
- Sustainability Medical Education ACF
- Sustainability working groups: LMS and Faculty and University-wide
- Interdisciplinary/interfaculty collaboration- early stages
 - Linking research/education/other faculties/external partners/NHS colleagues/students
- Workshops at medical school education days



What have been the challenges?....

- Capacity and time: Full curriculum: competing areas of importance.
- ESH has cross cutting themes across all clinical and academic areas
- Some academic colleagues and clinicians: “not my area”
- A felt lack of expertise at times... and spread thinly
- Resistance from tutors delivering unfamiliar content
- Tutor learning just ahead of, or jointly with, students in some areas: unease among some tutors. Required support, coproduction
- Students’ experience on clinical placements: does not reflect their university learning: student frustration- a need to explain
- Division of labour for **assessment writing and wider developmental/ evaluation work**
- **Challenge of assessing ESH:** doesn’t fit many current modes of assessment

What's helped?.....

- Senior faculty lead and buy-in
- Familiarity with overall curriculum and faculty processes
- GMC OFG provided leverage
- CSH Education day/ESH networks sharing practice
- *Fulfilling a New Obligation* (Tun, 2019)
<https://www.tandfonline.com/doi/full/10.1080/0142159X.2019.1623870>
- Tapping into wider faculty expertise
 - Environmental/Medical ethics
 - Sustainable Anaesthesia
 - Social science
 - Global Health
- Resourcing: No new staff required for workshops
 - Teaching time in GP course
- Coincided with RCGP UG/PG curriculum sustainability ILOs
- GP tutors adaptable, generalists, crossover themes
- University Green Strategy
- Small school- ability to be adaptable
- Student engagement

Future Plans

LMS Curriculum Review Process ?Sustainability as a curriculum theme

LU Curriculum Transformation: Embedding Signature Values

- Integrate Sustainable QI to teaching
- Pharmacology: sustainable prescribing and environmental impact of pharmaceuticals
- Cross Specialty involvement and engagement
- Communication Skills- talking to patients about low carbon lifestyles and green prescribing: information giving/environmental exposure history
- Clinical Skills teaching: waste

Ongoing Assessment work

- OSCE, SAQ, more SBAs, SSMs, **MLA**
- Threading Sustainability Themes throughout assessment

Support, engagement, development, resourcing of academic and clinical staff:

Build in resilience and sustainability of changes

Education for sustainable healthcare: An innovative planetary health and sustainable healthcare curriculum adaptable for all health professions

EDUCATION FOR SUSTAINABLE HEALTHCARE

A curriculum for the UK



Endorsed by the Medical Schools Council



Useful resources/links

- *Fulfilling a New Obligation* (Tun, 2019) <https://doi.org/10.1080/0142159X.2019.1623870>
- *Education for sustainable healthcare: An innovative planetary health and sustainable healthcare curriculum adaptable for all health professions* <https://doi.org/10.21955/mep.1115292.1>
- <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>
- <https://www.gmc-uk.org/education/standards-guidance-and-curricula/standards-and-outcomes/outcomes-for-graduates/outcomes-for-graduates/outcomes-3---professional-knowledge#health-promotion-and-illness-prevention>
- <https://sustainablehealthcare.org.uk/priority-learning-outcomes>
- <https://www.england.nhs.uk/greenernhs/a-net-zero-nhs/>
- <https://www.bmj.com/content/374/bmj.n1323> *BMJ* 2021;374:n1323
- *Learning to treat the climate emergency together: social tipping interventions by the health community* Howard, Courtney et al. *The Lancet Planetary Health*, Volume 7, Issue 3, e251 - e264 [https://doi.org/10.1016/S2542-5196\(23\)00022-0](https://doi.org/10.1016/S2542-5196(23)00022-0)
- <https://www.planetaryhealthalliance.org/planetary-health>
- <https://www.planetaryhealthalliance.org/education-framework>
- <https://www.greenimpact.org.uk/giforhealth>
- <https://www.greenerpractice.co.uk/>
- <https://phreportcard.org>

Thank you for listening....

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