

Education for sustainable healthcare



Developing and embedding a curriculum for medicine
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About me...



New medical school

Starting over

Future of healthcare

Preparing students

Why education for sustainable healthcare? Why is it important?

Human health is intrinsically linked with our environment

Climate change is the biggest threat to human health

Biodiversity loss

Issues of inequity and environmental injustice

Deterioration of our environment causes harm to health

Modern healthcare practices also degrade the environment

NHS services themselves vulnerable to effects of climate change

AIR - an ode to trees

Produce oxygen, absorb and sequester carbon dioxide

Produce phytoncides - when we breathe in - immune, hormonal, circulatory and nervous system actions

Relieve anxiety and depression

Remove particulate pollutants from air

Act as a noise barrier

Stabilise soil and provide flood defences

Offer shade and shelter from heat

Share nutrients with other plants via the mycelial network contributing to biodiversity

Source of medicine



Health effects of air pollution

short-term effects

exacerbation of asthma

cough, wheezing and shortness of breath

episodes of high air pollution increase respiratory and cardiovascular hospital admissions and mortality

long-term effects

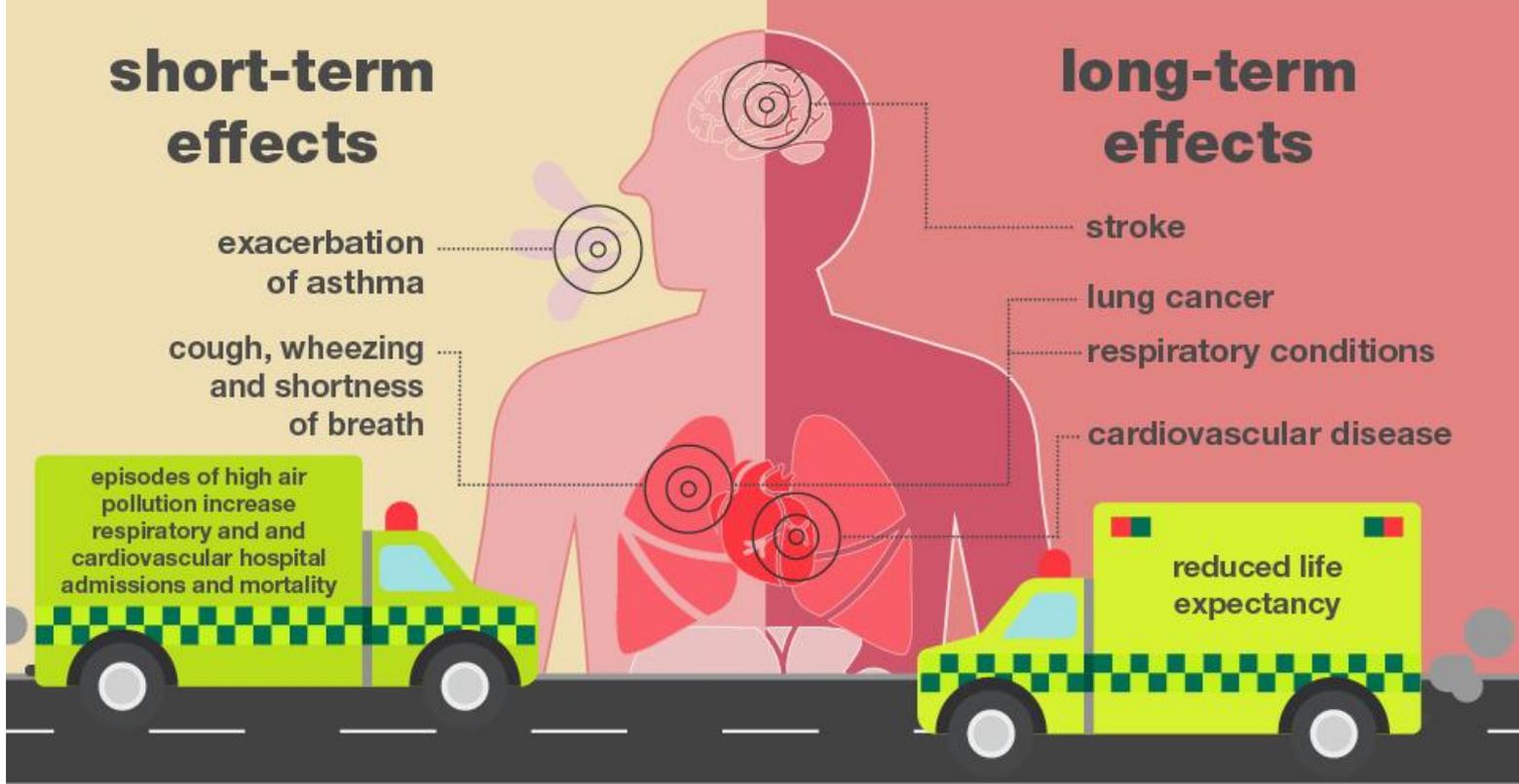
stroke

lung cancer

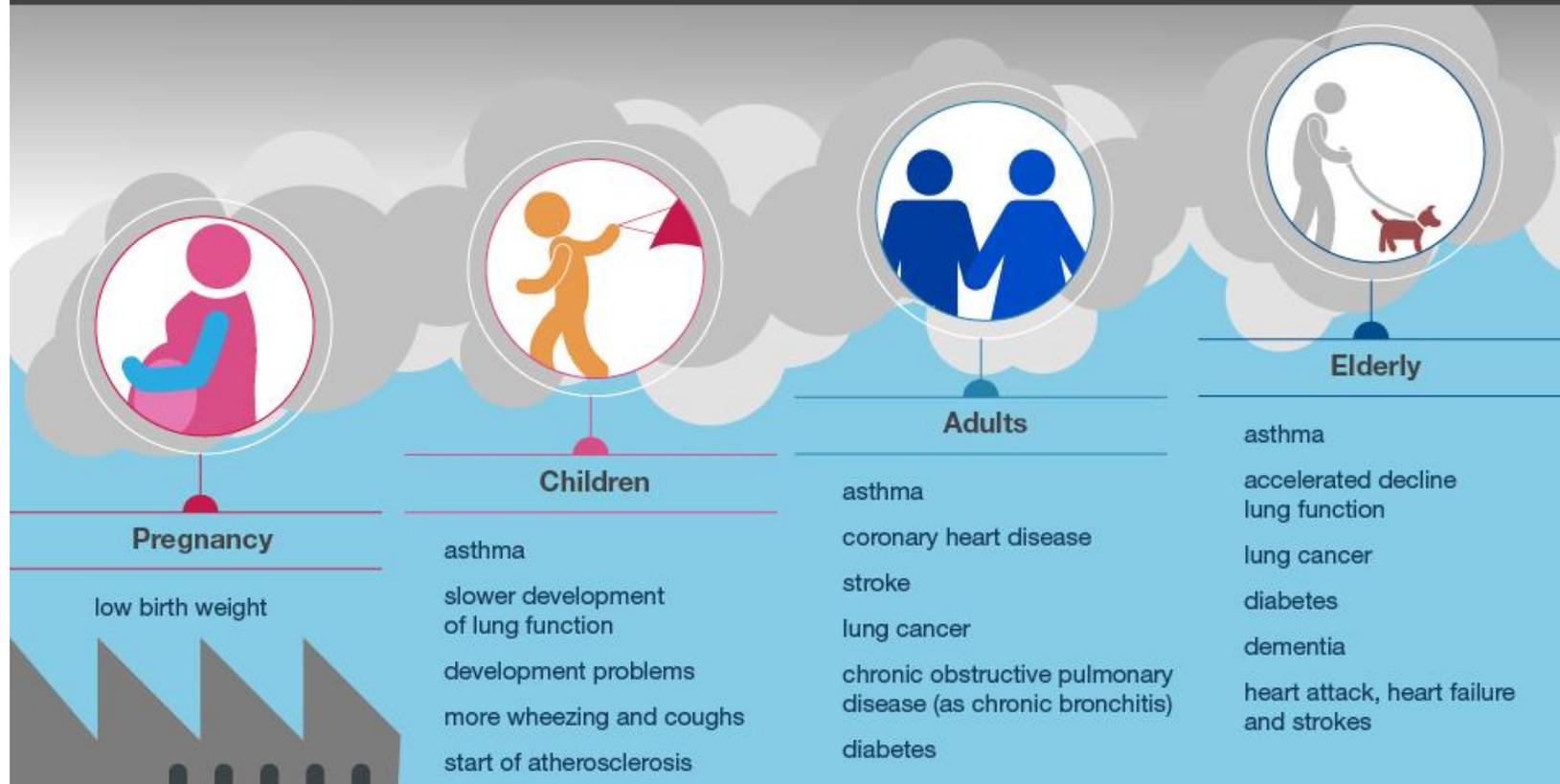
respiratory conditions

cardiovascular disease

reduced life expectancy



Air pollution affects people throughout their lifetime



Is healthcare sustainable?

Inhalers

Incineration of waste

Procurement

High business mileage Fleet vehicles (90% low emission by 2028)

Patient travel

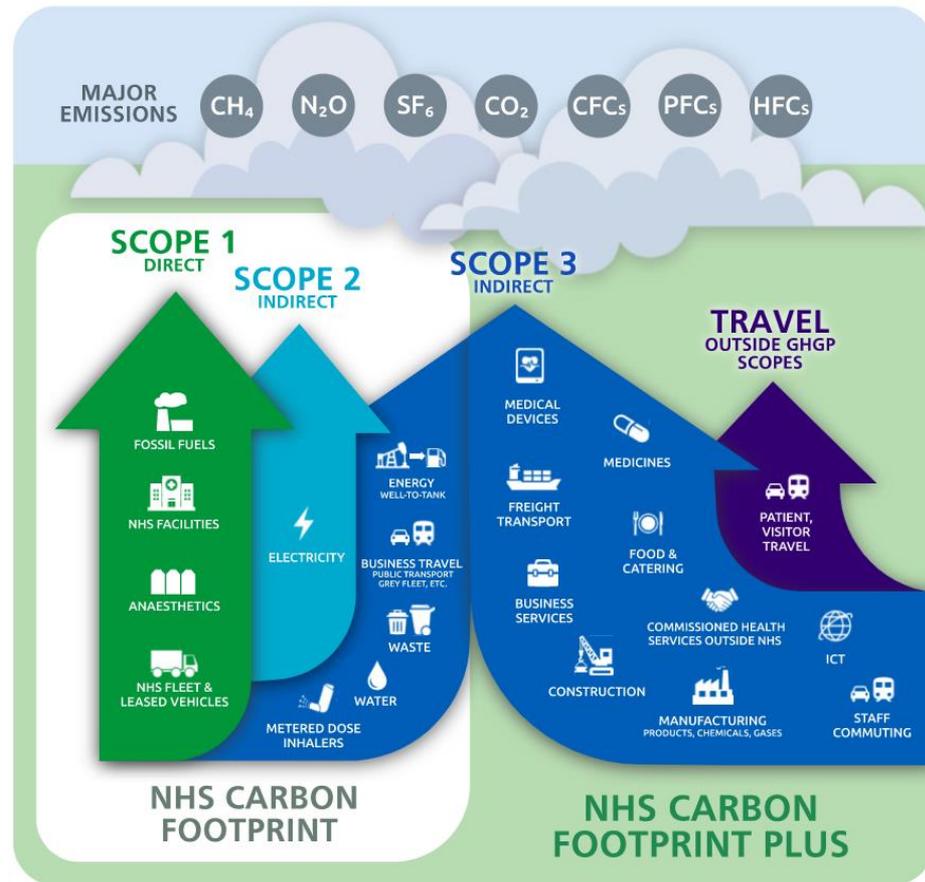
Crisis management vs prevention

Unsustainable workforce

Unsustainable practice -over-medicalisation excess waste

Energy Usage on NHS estates (concrete jungles with little green space)

Antiquated technology and buildings



And this is just trees....

Clean water

Ocean life

Temperature

Food

Woodlice

Red squirrels...



Climate change, biodiversity loss and environmental degradation has impacts on every bodily system, and is therefore relevant to every medical and surgical specialty and therefore every healthcare professional

Do healthcare professionals know anything about the planet?



Sustainable healthcare - a curriculum

Build/complement existing resources

Advise medical schools

Be informative, not prescriptive - no “level” statements

Working group of sustainability educators

What we have learned from creating this

-explaining to patients

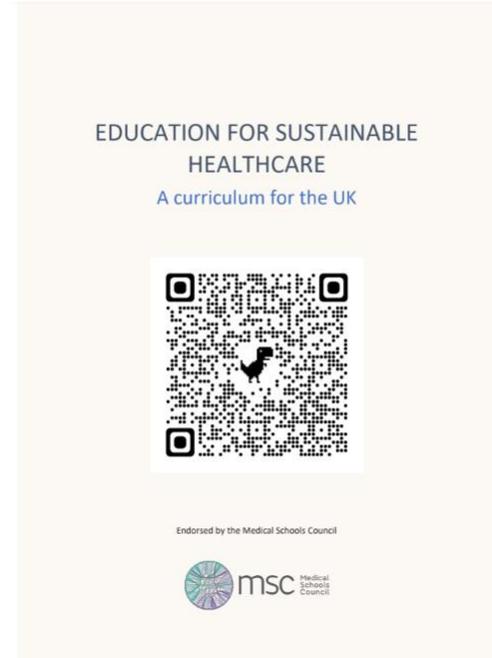
-personal responsibility

Documents - are made to be used

Embedding in curricula

Network of educators

Guidance to allied health professionals (HEE)



Integration into new school curricula... a perspective

One of 30 additional advisory documents to medical schools

General
Medical
Council

Outcomes for graduates: Further reading

The following documents are published by bodies to inform and assist the delivery of undergraduate medical education. They are not formally endorsed by the GMC.

- 1 Academy of Medical Royal Colleges Intercollegiate Group on Nutrition. [UK Undergraduate Curriculum in Nutrition](#) (pdf) and [accompanying notes](#) (pdf). 2013.
- 2 Smith C.F., Finn G.M., Stewart J., et al. [The Anatomical Society core regional anatomy syllabus for undergraduate medicine](#). Journal of Anatomy. 2016. 228; 1: 15–23.
- 3 Behavioural and Social Sciences Teaching in Medicine (BeSST). [A core curriculum for psychology in undergraduate medical education](#) (pdf). 2010.
- 4 Behavioural and Social Sciences Teaching in Medicine (BeSST). [A core curriculum for sociology in UK undergraduate medical education](#) (pdf). 2016.

Year 1

Year 2

Year 3

Year 4

Patient,
Population
and planet