



**SUSTAINABILITY
ACTION**
Our NHS Our People Our Planet

Towards a Net-Zero NHS

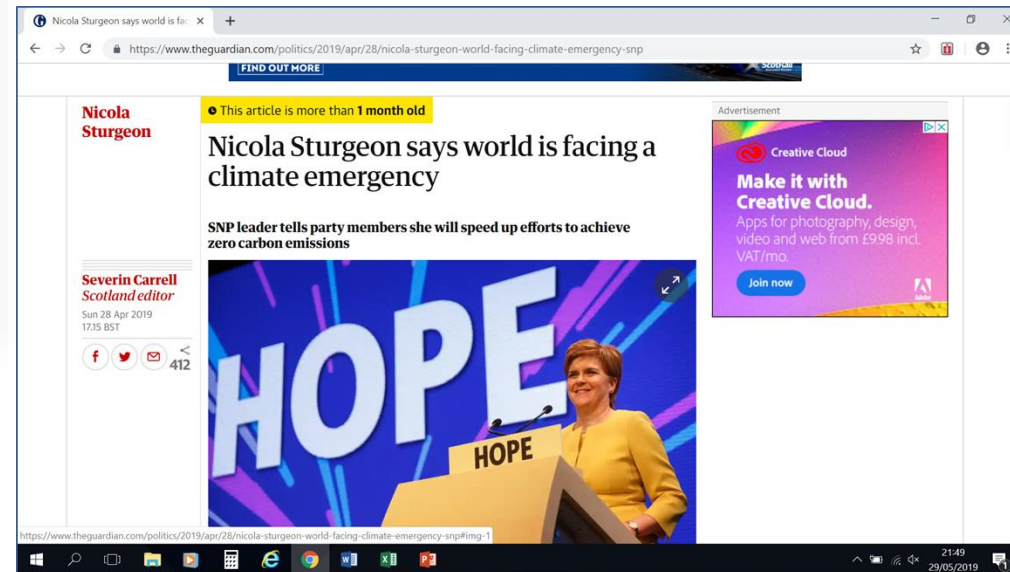
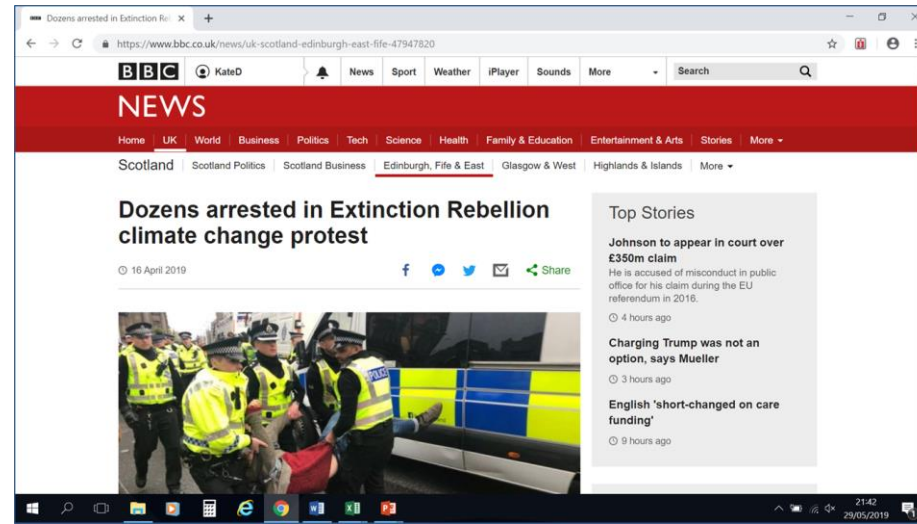
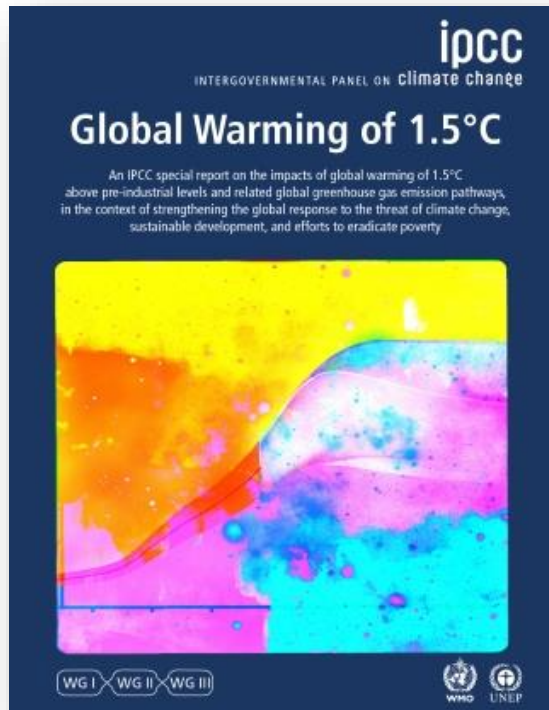
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Why 'Net-Zero'?





Health Impacts

- Fuel poverty: £80M p.a. to NHS
- Poor air quality: £2 billion cost p.a. to NHS; 2,000 deaths p.a.
- Physical/ mental health impacts of adverse climate events
- Procurement costs: £1.7 Bn on pharmaceuticals, plus ethical / moral responsibility
- Social costs: rising health inequalities
- Climate change impacts on health service delivery and reputational risks

Glasgow's major roads, railways and hospitals at risk from climate change – study

Exclusive: Storms, flooding and heatwaves could severely impact the city by 2050, an in-depth study reveals



▲ Up to 1.8 million people in the Glasgow area could be affected by regular heatwaves and heavy winter flooding in future, according to the study. Photograph: Henri Martin/Alamy

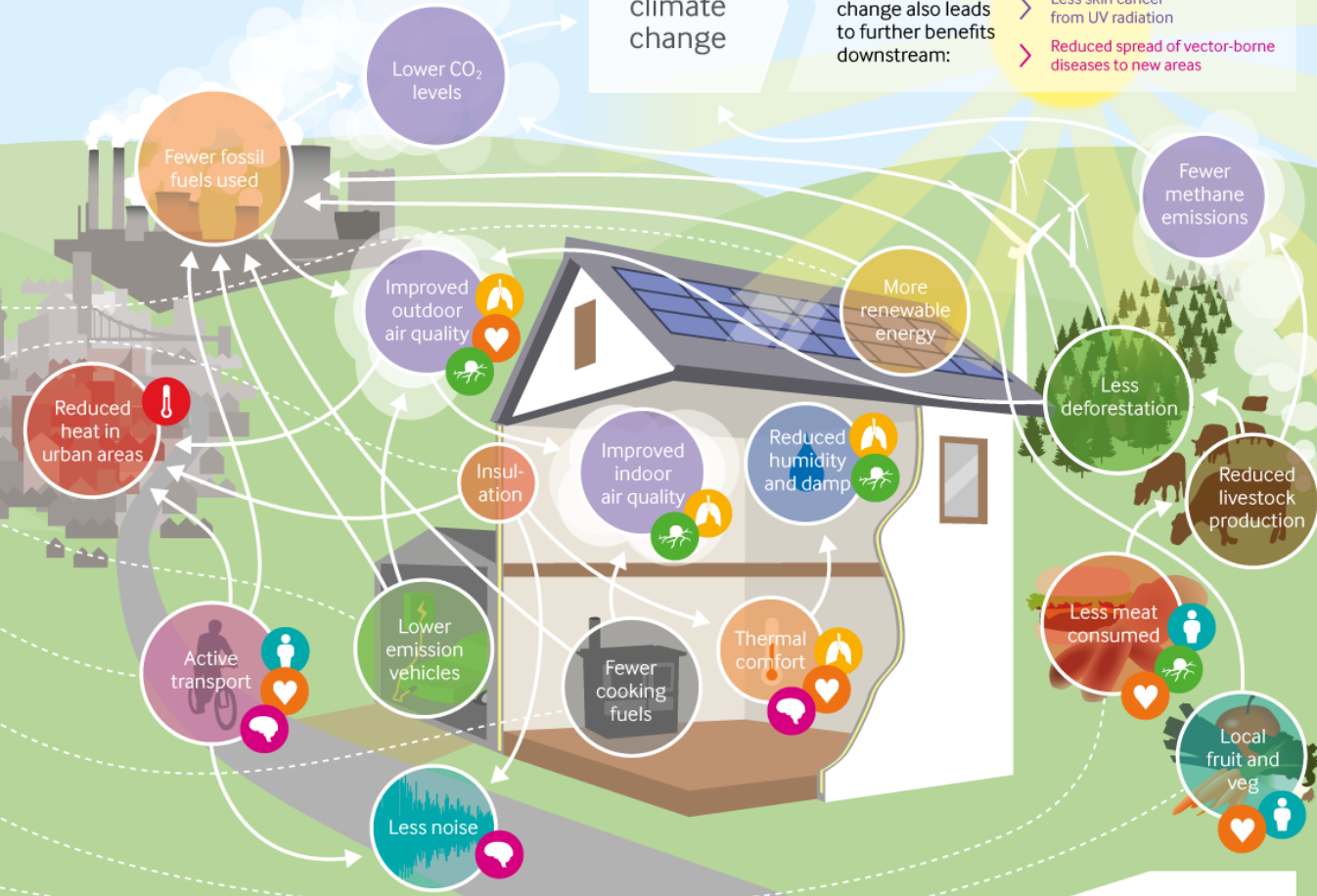


Health and climate: co-benefits

Example interventions

These interventions have benefits both for health and for reducing climate change (also known as *mitigation*)

- Produce more renewable energy
- Improve insulation in homes
- Encourage use of lower emission vehicles
- Promote active transport
- Reduce solid fuels used for cooking
- Less food from animal sources
- Encourage locally produced fruit and veg



Reduced climate change

Indirect benefits
 Reducing climate change also leads to further benefits downstream:

- > Fewer deaths and injuries from extreme weather events
- > Less skin cancer from UV radiation
- > Reduced spread of vector-borne diseases to new areas

Health benefits	Better mental health	Fewer deaths from extreme heat	Less cardiovascular disease	Less respiratory disease	Lower rates of cancer	Lower rates of obesity
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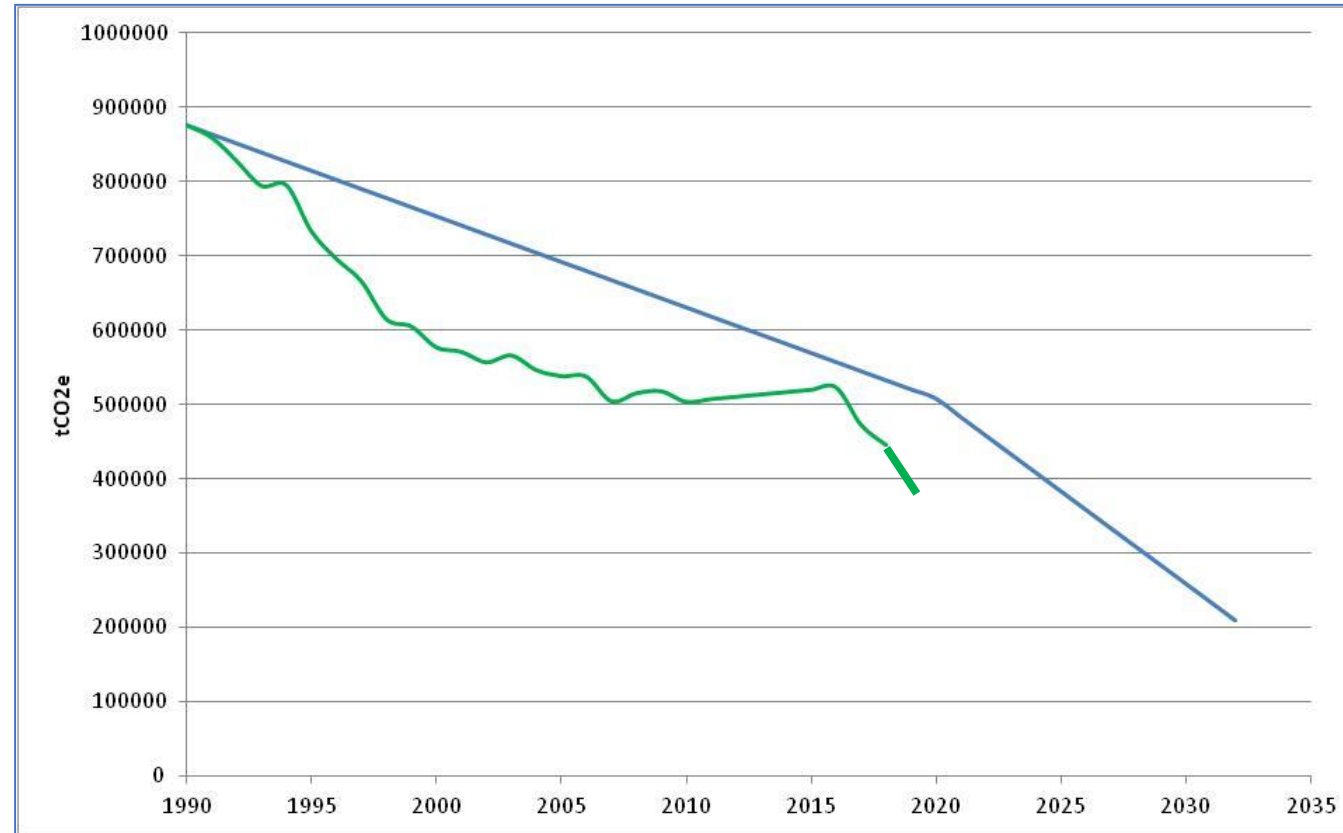
Designed by: Will Stahl-Timmins
 Content: Nick Watts
 Thanks to: Soledad Cuevas, Duncan Jarvie, John Waring



Progress to Date



NHSScotland Estate GHG Emissions 1990 - 2019



Since 1990, energy consumption down >41% and CO₂ down >60%



How Have We Done It?

Fuel Change/ Energy Centres



Energy Efficiency



Low/ Zero Carbon Design



Greenspace



Circular Economy



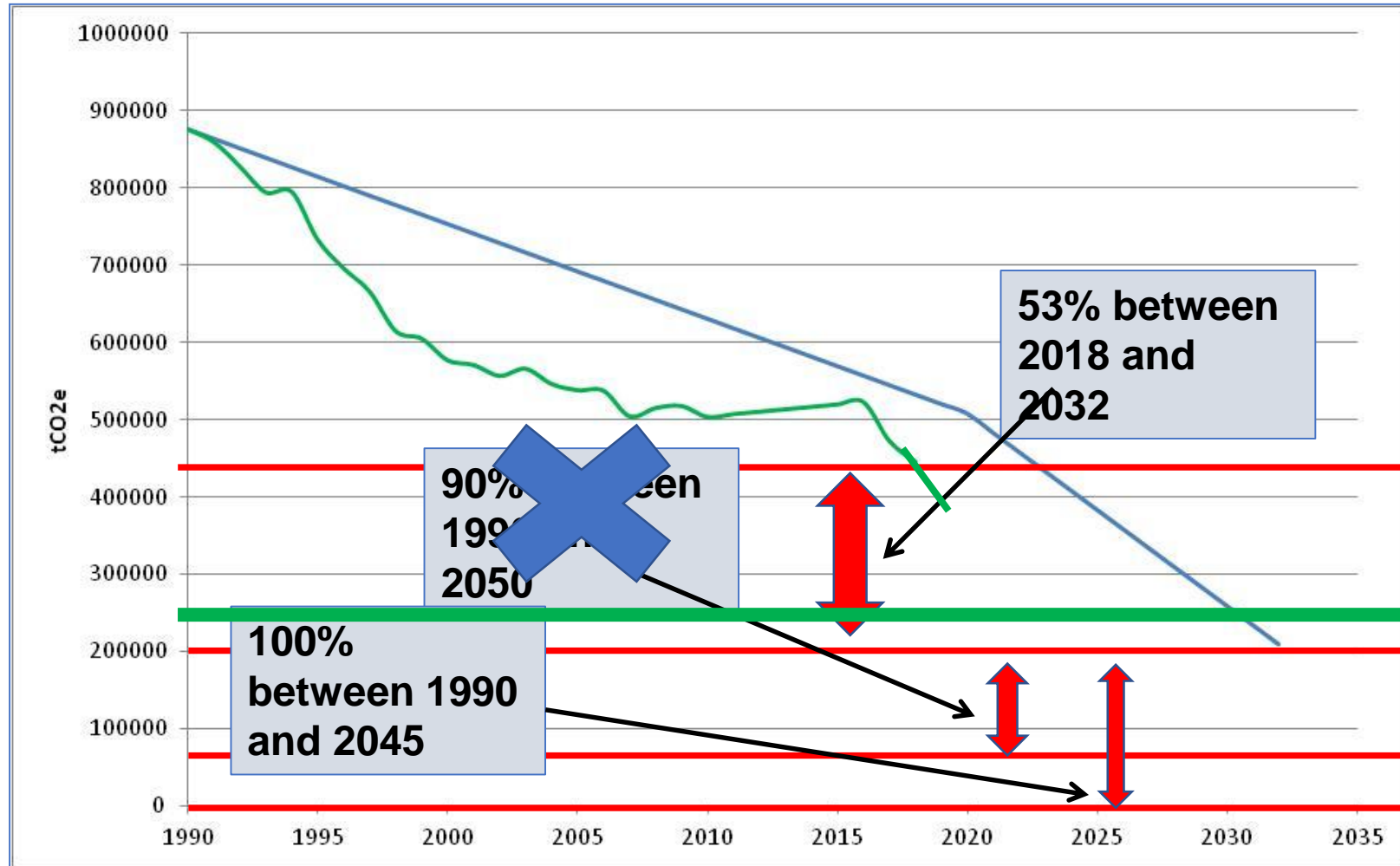
Anaesthetic Gases



The 'Net-Zero' Challenge



NHSScotland Estate GHG Emissions 1990 - 2045



Initial Climate Change Commitments

1. NHSScotland will be a **'net-zero' GHG organisation by 2045 *at the latest***
2. All NHSScotland **new buildings and major refurbishments** to be designed to have net-zero GHG emissions **from April 2020**
3. Each NHSScotland Board should undertake a **Climate Change Risk Assessment** covering all operational areas and will produce a **Climate Change Adaptation Plan** to ensure resilience of service under changing climate conditions.
4. NHSScotland transport GHG emissions from its owned fleet (small/ medium vehicles) will be **net-zero by 2025**
5. The NHS **supply chain** will be reviewed to determine the extent of associated GHG emissions and environmental impacts. Once the extent of environmental impacts is established, a programme of work will be undertaken to minimise these impacts.
6. Each NHSScotland Board will establish a Climate Change/ Sustainability **Governance** Group to oversee their transition to a net-zero emissions service.



Q1: Are these commitments realistic?



Q2: How do we define 'net-zero'?



Current GHG Reporting

Scope 1

Building direct
burned fuel (gas, oil,
LPG, biomass, etc)

Owned fleet fuel
(petrol, diesel)

Anaesthetic gases
F-gases

Scope 2

Building electricity
Building purchased
heat and steam

Owned fleet
(electric)

Scope 3

Water consumption
Waste water
treatment

Waste arisings
Business travel

Staff commuting
Patient travel
Supply chain



Recommendation

Scope 1

Building direct
burned fuel (gas, oil,
LPG, biomass, etc)

Owned fleet fuel
(petrol, diesel)

Anaesthetic gases
F-gases

Scope 2

Building electricity
Building purchased
heat and steam

Owned fleet
(electric)

Scope 3

Water consumption
Waste water
treatment

Waste arisings
Business travel

Staff commuting
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Supply chain



Q3: How do we offset residual emissions?



NHSScotland Residual Emissions

Scope 1 - residual

Backup generation
(e.g. diesel generators)
Anaesthetic gases
F-gases
+ Interim other

Scope 2 - residual

Purchased heat steam
(non-renewable)
+ Interim other

Scope 3 - residual

Water consumption & treatment
(unless decarbonised)
Waste arisings
Business travel
+ Other





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Thank you

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