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*Public Health Register*

Protecting the public – improving practice

# UK Public Health Register

*Public health and climate change*

David Kidney, Executive Director  
Staffordshire University 19 March 2015

# Climate change evidence

## Cyclone Pam: disaster response teams travelling to Vanuatu as dozens feared dead

Aid agencies [say the immediate priorities are shelter, clean water and sanitation for thousands of people left homeless in aftermath of category five cyclone](#)



Photograph: Handout/Reuters

# IPCC 5<sup>th</sup> Assessment Report

*Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history.*

*Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen.*

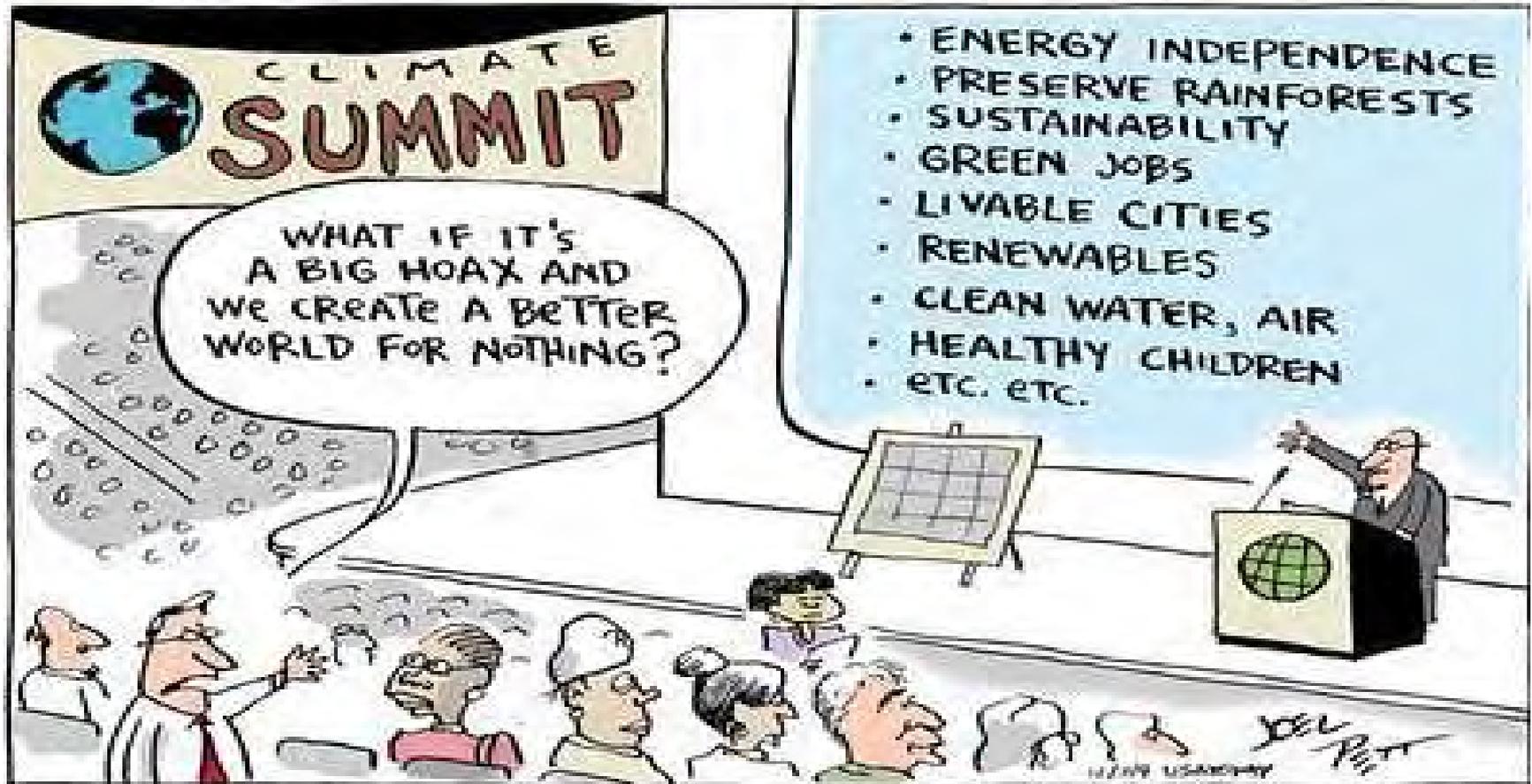


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# It doesn't have to be bad



# Why public health is needed

- ▶ Population based
- ▶ Addresses wider determinants of health
- ▶ Is multi-disciplinary
- ▶ Requires collective approach
- ▶ Empowers communities and individuals
- ▶ Intervenes at many levels
- ▶ (Should) make every contact count

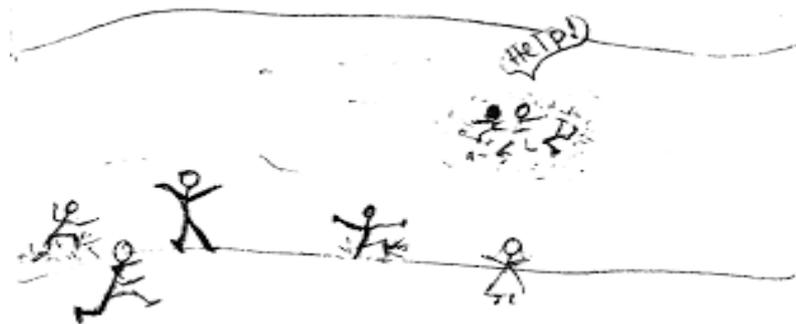


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# Going upstream



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# The Chief Medical Officer's 10 tips for better health

- Don't smoke. If you can, stop. If you can't, cut down
- Follow a balanced diet with plenty of fruit and vegetables
- Keep physically active
- Manage stress by, for example, talking things through and making time to relax
- If you drink alcohol, do so in moderation
- Cover up in the sun, and protect children from sunburn
- Practise safer sex
- Take up cancer screening opportunities
- Be safe on the roads: follow the Highway Code
- Learn the First Aid ABC: airways, breathing and circulation

# Prof Dave Gordon's Alternative

- **Don't be poor. If you are poor, try not to be poor for too long**
- **Don't live in a deprived area. If you do, move**
- **Don't be disabled or have a disabled child**
- **Don't work in a stressful low-paid manual job**
- **Don't live in damp, low quality housing or be homeless**
- **Be able to afford to pay for social activities and annual holidays**
- **Don't be a lone parent**
- **Claim all the benefits to which you are entitled**
- **Be able to afford to own a car**
- **Use education as an opportunity to improve your socio-economic position**

# NHS Five Year Forward View

*The first argument we make in this Forward View is that the future health of millions of children, the sustainability of the NHS, and the economic prosperity of Britain all now depend on a **radical upgrade in prevention and public health.***



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# Global burden of disease WHO 2012

2012				
Rank	Cause	Deaths (000s)	% deaths	Deaths per 100,000 population
0	All Causes	55859	100.0	789.5
1	Ischaemic heart disease	7356	13.2	104.0
2	Stroke	6671	11.9	94.3
3	Chronic obstructive pulmonary disease	3104	5.6	43.9
4	Lower respiratory infections	3052	5.5	43.1
5	Trachea, bronchus, lung cancers	1600	2.9	22.6
6	HIV/AIDS	1534	2.8	21.7
7	Diarrhoeal diseases	1498	2.7	21.2
8	Diabetes mellitus	1497	2.7	21.2
9	Road injury	1255	2.3	17.7
10	Hypertensive heart disease	1141	2.0	16.1
11	Preterm birth complications	1135	2.0	16.0
12	Cirrhosis of the liver	1021	1.8	14.4
13	Tuberculosis	935	1.7	13.2
14	Kidney diseases	864	1.6	12.2
15	Self-harm	804	1.4	11.4
16	Birth asphyxia and birth trauma	744	1.3	10.5
17	Liver cancer	740	1.3	10.5
18	Stomach cancer	733	1.3	10.4
19	Colon and rectum cancers	724	1.3	10.2
20	Alzheimer's disease and other dementias	701	1.3	9.9

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# Climate change health impacts

Significant climate change threats to human health and wellbeing will have even greater impacts in the future:

- Decreased **air quality**
- Illnesses transmitted by **water** & disease-carriers, such as **mosquitoes** and **ticks**
- Increases in **extreme weather events** & **wildfire**.



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# How health is affected

*A rise in **asthma** levels and asthma attacks.*

*Insects carry infectious diseases (like malaria) with threat of increased **disease outbreaks**.*

*Extreme weather events lead to **injury, sickness and death**.*

*Heat related weather leads to a surge in emergency care and **heat stroke**.*

*During disaster events, people who rely on **daily medicines** are less likely to receive them.*



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# Likely UK health impacts

Summary of health impacts from 2012 UK climate change risk assessment	Risk level (2020s)	Risk level (2050s)	Confidence
<b>Positive</b>			
Decline in winter mortality/morbidity (1,300–12,000 fewer deaths pa)	High	High	Medium
<b>Negative</b>			
Mental health effects of floods/storms (twice as many people affected by 2020)	High	High	Medium
Summer mortality/morbidity due to higher temperatures (130–1,700 more deaths pa)	Medium	High	High
Extreme weather event mortality	Medium	Medium	Medium
Extreme weather event injuries	Low	Medium	Medium
Sunlight/UV exposure	Low	Medium	Low
Mortality and morbidity due to summer air pollution (ozone)	Unknown	Unknown	



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# Global flooding “triple by 2030”

50 million people could be affected by flooding in 15 years' time



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# Heat waves that can kill

Elevated temperatures in 2003 European heat wave resulted in 30,000 confirmed heat-related deaths & 70,000 excess deaths from all causes.



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# We're not equally at risk

Some populations at greater health risk from climate change than others:

- Children
- Elderly people
- Those living in poverty
- People living in certain geographic areas
- People with underlying health conditions



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# The Lima Agreement

We need to **phase out fossil fuels**.

Every country to submit national climate action pledges ahead of COP 21 Paris with aim of **cutting emissions** to contain global average temperature rise to below 2DegC.

**No** agreement on supporting nations which suffer loss and damage resulting from climate impacts like extreme weather



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# Road from Lima to Paris

Climate and Health Summit in Lima

- December 2014 (**COP 20**)

Focus on climate change health impacts & opportunity to build a cleaner, healthier, and more equitable world

Next chance to secure global climate change agreement will be Paris

- December 2015 (**COP 21**)



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# What we can do about it

**Plan** for climate change - **protect** human health and well-being.

**Early public health action** to ensure systems are in place to protect people - prepare for, and respond to climate change health effects.

**Strategies, programmes and partnerships** to confront global climate change threats.



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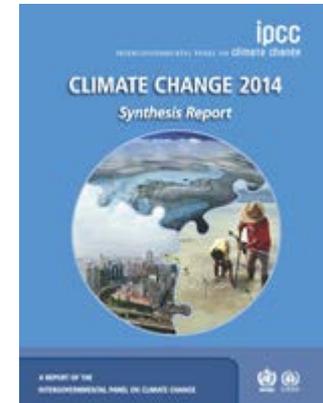
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# Resources



**United Nations**  
Framework Convention on  
Climate Change



**UCL Institute of Health Equity**  
Reducing Health Inequities Through Action  
on the Social Determinants of Health



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