***Workshop title:* For the planet and ourselves, we can leave economic growth behind: new synthesis of evidence on population health trends in rich countries**

***Objectives****:  explain the reasons for the workshop and the objectives of the workshop. What is the added value of organising the workshop? What is the coherence between the presentations in relation to the topic of the workshop? Describe the format of the workshop. Maximum amount of characters (including spaces): 3,000.*

Sustainable Development Goal 8 (SDG8) calls for sustainable economic growth, and this is essential for improving population health in developing countries. However, SDG8 also raises a vital and poorly addressed question for rich countries. Is it possible for population health to continue to improve rather than stagnate or even worsen over long periods of zero or low economic growth? The Preston curve, relating average income per person to life expectancy at one point in time, shows the association across countries is highly nonlinear, but does not assess the longitudinal relationship within countries.

In the past decade of low growth and austerity, long-term increasing life expectancy trends in UK and USA have stalled. The reasons for the interruption in health improvement are debated, and include increased socioeconomic and geographic inequalities, such as early disadvantage, and deaths of despair. If the pattern of low growth and stagnant health trends was repeated across rich countries, there would be reason for concern that continuing population health improvement was incompatible with an environmentally sustainable economy.

The workshop will examine evidence from G7 countries on trends in health and health inequalities over the past 40 years. The headline health indicators are life expectancy, lifespan variation, all-cause and cause-specific mortality and self-rated health. The workshop will bring together recent findings from two distinct research networks, based in UK, Japan and Sweden. The research has been conducted independently, yet is highly complementary in respect of population health trends in the context of the SDG8 policy question: is it possible that rich countries could thrive, absent of economic growth?

***Main messages****: two short (200 characters maximum) messages which summarise the main impact of the proposed workshop.*

The relation between economic growth and population health is a vitally important consideration, as policy makers strive to meet climate change targets

Among G7 countries, recent trends in health and health inequalities are both adverse (USA, UK) and favourable (Japan) indicating that low growth can be compatible with improving population health

* **Presentations**: if applicable, select the number of presentations that will be included in the workshop. The introduction can be included in the objectives. The maximum number of presentations is 5. The maximum amount of characters per presentation is 2,000.

**3 presentations**

Topics

* 1. Health determinants and inequalities (incl. Sustainable Development Goals)

S. Public health advocacy, policy and politics

**Presentation 1**

Eric Brunner, UCL

**Economic growth, population health and the Sustainable Development Goals**

High-income countries (HIC), including UK, Germany and Japan, are reducing CO2 output relative to economic growth. SDG8 refers to ‘sustainable growth’ but does not differentiate between low, middle and high income countries. The United Nations target is for net-zero CO2 emissions by 2050, therefore there is a strong case for exploring the implications of low or zero economic growth among HICs as a mechanism for limiting climate change. A key consideration is whether progress in population health would stall if HIC economies stopped growing.

We examined headline health statistics among HIC countries for evidence of divergence in health trends. We looked for associations between trajectories of national economies and health trends over the past four decades. Age-standardised death rates were calculated from all-cause and cause-specific rates in the WHO mortality database. All-cause mortality (ACM) rates declined in parallel in UK, France and Japan, from about 700 to 400/100,000 in the period 1980-2010, with the lowest rates in Japan. Decline in the ACM rate in USA was shallower 1980-2010. In the decade of austerity following the banking crisis, the ACM rate in USA and UK stopped declining. The Japanese ACM rate continued its rapid post-war decline in the two decades of economic stagnation after 1990. Trends in Japanese coronary heart disease, stroke and cancer mortality rates, but not those for suicide, were consistently favourable in the recent period.

The natural before-and-after experiment in Japan, of high economic growth in the decades to 1990, and low growth after 1990, is an example of a HIC with continuing progress in population health in a long period of low growth. Repeat measures of subjective, self-rated health from a population-based Japanese survey series (1986-2013)

add to the evidence from objective mortality rate trends. Progress in population health does not need to stall if HIC economies focus on combatting climate change instead of growth.

**Presentation 2**

Ayako Hiyoshi

**Presentation 3**

Lucinda Hiam, London School of Hygiene and Tropical Medicine; University of Oxford

Jon Minton, Public Health Scotland

Martin McKee, London School of Hygiene and Tropical Medicine

**What can lifespan variation tell us about trends in life expectancy in high income countries?**

*Max 2000 characters*

Building on the findings of presentation 1, we turn to two further measures of population health: life expectancy at birth and lifespan variation. Life expectancy at birth provides a single figure that captures the overall mortality experience of a nation, and, in the absence of data artefact, a wide-scale environmental event such as war or natural disaster, a disease epidemic or mass migration, life expectancy can be expected to continue to improve in HICs. Concurrently lifespan variation, which measures the average gap between the age at death of an individual and the remaining life expectancy at that age, should decrease as life expectancy increases.

Recent analysis of life expectancy improvements in HICs by the Office for National Statistics, using Human Mortality Database data, found that while Japan continues to see improvements, the UK and the USA fell to the bottom of the rankings. Economically, both the UK and Japan have experienced ‘lost decades’ of poor economic growth, in 1990s and 2010s respectively. Yet, while Japan continued to see life expectancy improvements, in the UK life expectancy stalled, and both countries saw an increase in lifespan variation.

In this presentation, we will present the analysis of lifespan variation of 5 HICs: the USA, where life expectancy has declined, the UK, where gains in life expectancy have trailed behind those in other industrialised countries, Japan, which has seen sustained progress, and France and Canada, neighbours of the UK and USA respectively, which lie in the middle. We will examine what can be determined from these measures over periods of poor economic growth, and the implications for achieving ‘sustainable growth’.

1700 characters