

UCL POLICY BRIEFING – NOVEMBER 2013

KEYWORDS

Climate change, population health, maternal and child health, development

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KEY MESSAGES

- **Population, development, climate change and human health are interconnected.** Increased collaboration in research policy and practice is needed to tackle the complex challenges they present.
- Future **population size** in poor countries will have significant consequences for health and the environment.
- **Family planning** reduces unintended pregnancy, improves maternal and child health, and changes the social and economic status of women in turn generating economic benefit.
- **Consumption patterns**, together with **ageing** and **urbanisation** in some countries, have bigger implications for health and reducing carbon emissions than the total number of people in the world.
- **Consumers**, rather than people per se, drive climate change: **reducing consumption** represents the most effective way to reduce carbon emissions.
- **Reducing carbon emissions can have substantial health co-benefits**; consideration of human health should be integral to consideration of tackling climate change.

Population, development and climate change: links and effects on human health

Introduction

There are significant interconnections between population, development and climate change, and their effects on health, which remain under-examined. The global population has undergone unprecedented growth as it moves from high mortality and high fertility to low mortality and low fertility. Demographic factors, including an increase in non-communicable disease, increased urbanisation, an ageing population and consumption patterns have significant implications for population, development, climate change and human health and the intersections between them. These intersections present considerable challenges which require further attention.

Population

Decreased mortality has led to population growth whilst the reduction in fertility rates is leading to an ageing population. Significant regional variation in fertility persists with both worryingly high and low rates of fertility in different countries. Despite previous controversy (including coercive practices and abortion politics), **family planning is now firmly recognised to bring considerable human health benefits**, particularly in terms of the empowerment of women and the reduction of maternal and child mortality.

Development

Concerns have persisted about the detrimental impact of large populations on economic growth, notwithstanding the advantages of a larger labour force. However, there is an increasingly sophisticated understanding of the complex interrelationship between economic growth, health and wellbeing, including the problems of social and health inequalities. Demographic change, including lower fertility, is now seen as a key factor in determining economic growth. Going forward, considerations of international development, human health and population should take account of **urbanisation, gender perspectives, and effects on the environment**.

Climate Change

Concerns about anthropogenic climate change have intensified in recent years although international governance has thus far failed to achieve much in terms of regulation and implementation.

POPULATION FOOTPRINTS SYMPOSIUM

This policy briefing summarises a review published in the *Lancet* in October 2013 which considers the relationship between population, development and climate change and their effects on health. The review follows the Population Footprints symposium held in May 2011, organised by the UCL Institute for Global Health and funded by the Leverhulme Trust, which brought together academics and technical experts to consider the challenges of global health, population growth, economic development, environmental degradation and climate change.

Awareness of increasing global population has led to a difficult debate about the relationship between population and climate and the extent to which lower population growth might reduce carbon emissions. Future climate scenario modelling has, to date, taken insufficient account of population patterns and trends. Although population is an important factor, **demographic trends are more significant for climate change than total population. Poor populations will be affected most** by the effects of climate change.

Impacts on human health

Improved sanitation, nutrition and healthcare are allowing more children to survive into adulthood. This will eventually lead to couples deciding to have fewer children; in turn children's health and development benefit from receiving a greater share of available resources.

When implemented with other social and economic improvements, **family planning** is one of the most effective ways of slowing population growth while delivering extensive health benefits, which are effective in both developed and poor countries. Access to family planning has significantly reduced maternal and infant deaths although there remains a considerable unmet need.

Demographic change has significant implications for human health. The rise of an ageing population, in particular, presents significant challenges for healthcare systems which will face an increasing disease burden, and in particular, an exacerbation of the rise of non-communicable diseases (NCDs). Increasing urbanisation compounds these challenges and creates further health and environmental impacts.

Understanding of the **conditions of human health** is increasing, including the social determinants of health and health inequalities, the rise of NCDs, and the health effects of climate change. Health is a key concern in consideration of sustainable development, along with inequity and environmental concerns.

There are considerable **health co-benefits** from mitigation strategies to reduce carbon emissions, particularly in transport, energy, food and agriculture. For example, a reduction in car use (in order to reduce carbon emissions) could result in increased physical activity and lead to lower obesity rates (a clear health benefit).

FURTHER INFORMATION

Read the full review in the *Lancet*:
www.ucl.ac.uk/popfootprints/lancet-article

Read the full Population Footprints report:
www.ucl.ac.uk/popfootprints/publications/popfoot_report
or a shorter briefing
www.ucl.ac.uk/public-policy/public_policy_publications/Population-Footprints.pdf

Intersections and interrelated challenges

Continuing global population growth (including regional variations in populations and fertility rates), the continued imperative for poorer countries to develop and prosper, and the effects of climate change, are **increasingly intersected** and present **interrelated challenges**.

These challenges are in turn compounded by a number of factors (as discussed above), including:

- the increase in non-communicable diseases
- an ageing global population
- a failure to achieve the MDGs in all countries
- increased urbanisation,
- global temperature rises.

Whilst it is not possible to predict with certainty the future population trajectory or carbon emissions and the effects of climate change, it is clear that all of these factors will significantly affect population, development and climate change, and ultimately human health.

There remains insufficient cooperation between the fields of population, development, global health and climate change. This is despite the significant intersections between these fields, which make it increasingly difficult to consider them separately. **The climate change debate should emphasise the connections between health and demographic changes and the intersection of these with climate change.**

Climate change cannot be addressed simply through lower population growth, although universal access to family planning would bring substantial health benefits and have an important effect on final population size in countries where fertility remains high (principally Africa). Although population and demographics are considerable factors in carbon emissions and consequent global warming, consumption patterns remain the most significant factor. It is more accurate to say that **consumers**, rather than people, **cause climate change. Reduced consumption offers the most scope for rapid reduction in carbon emissions.**

WAYS FORWARD: COLLABORATION TO MEET THE CHALLENGES

The climate change debate should **emphasise connections between health and demographic change** and should accentuate the role of local innovation in reducing greenhouse-gas emissions and population vulnerability.

Responding to climate change and to related challenges for population, development and human health will require **effective engagement between developed and developing countries.**

Closer **interdisciplinary collaboration** is needed to:

- use experience of international development and the MDGs to *devise sustainable development goals to help poorer countries to develop rapidly* without huge increase in emissions or environmental effects.
- *explore the causes and effects of demographic change on global carbon emissions* through collaborative engagement with communities and sophisticated mathematical modelling (acknowledging the lessons learnt from past family planning programmes)
- *recognize the impact of urbanisation and migration on material consumption and effects on the environment* whilst improving socioeconomic levels and human welfare