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**CLIMATE CHANGE AND HEALTH:
RESEARCH ON VULNERABLE
GROUPS OR RESEARCH FOR
VULNERABLE GROUPS?**

A timely question to ask of current research on the potential health impacts of climate change on vulnerable groups is: “For whose agenda is the research being carried out?”. This is an important question because asking why a research study was undertaken reveals what types of impact the researchers intended their findings to have. It is the assertion of this essay that much of the current research on climate change and health relating to vulnerable populations has not been conducted according to the priorities and needs of these groups themselves. In general, it has mostly been research *on* vulnerable groups rather than *for* vulnerable groups.

We must shift our focus towards researching *for* vulnerable groups, and if we are to achieve this we must change the type of research we do. This essay will therefore argue that the biggest challenge for research on vulnerable groups is to reorientate the research agenda towards generating research with the needs and priorities of these vulnerable groups as the overriding concern. Achieving this may well necessitate less emphasis on global scale epidemiological studies that seek to quantify future health burdens attributable to climate change and more emphasis on policy research that asks how we can improve the health status of vulnerable groups now.

Current data on future health impacts attributable to climate change suggests that the extra burden is likely to be surprisingly slighter than has often been assumed.¹ There are of course many methodological problems with such epidemiological studies, with key concerns of extrapolation, variation, adaptation and modification. However, if we look at the breakdown of future mortality by disease category we see that malnutrition and diarrhoea are likely to be the major categories with increased mortality.¹ These are both diseases of poverty: conditions that would be entirely preventable were it not for stark social and economic inequalities. These are diseases that result from a lack of resources and capacity to purchase sufficient food and an inability to gain access to sufficient and acceptable water and sanitation. It will be these groups, who today experience the heaviest burden of diarrhoea and malnutrition, and who will suffer from an increased burden due to climate change. Then as now the overarching cause will be the same: poverty. Despite all the uncertainties inherent in predicting the scale and scope of the future health impacts of climate change, what can therefore be asserted with confidence, is that the poorest and most vulnerable groups will suffer the most, globally.

The scale of the current burden of diarrhoea and malnutrition is a sober reminder of the gross inequalities in global health and of our failure to introduce sizeable improvements in the situation, despite extensive research in the water and sanitation fields. It is estimated that 1.8 billion people do not have access to improved water supplies and 2.6 billion do not have access to improved sanitation. There are four

billion cases of diarrhoea each year and 1.8 million deaths, most of which occur among children under five years of age.² A study that has estimated the relative risk of deaths due to diarrhoea in 2030, with projected levels of climate change in comparison to the risk if climate stayed the same as in the period 1961–1990, has reported relative risks of 1.08 in west Africa, 1.08 in east and south Africa and 1.9 in South-East Asia. An increase of around 8% on the 2004 figures would give an extra 144 000 deaths.¹ Considered in the light of 1.8 million deaths in 2004, it is clear that the effects of climate change will not change the scale of the problem; the situation we have now is in the same order of magnitude as that predicted in 2030. As such, it appears nonsensical to continue to focus on the question “how many more people will die or become sick as a result of climate change?”, given there are so many preventable deaths occurring every day.

It might be argued that figures on the future global burden of disease attributable to climate change are useful for advocacy purposes, to galvanize support for greener policies and behaviours in developed countries. However, populations in developed countries have grown accustomed to the imagery of global health inequalities. The public appears more responsive to images of catastrophic and irreversible environmental events, which are predicted to increase with climate change. Therefore, in order to raise awareness and encourage behavioural change perhaps a different approach is required. In any event, tackling the health burdens of diarrhoea and malnutrition requires action at the political, grass-roots and policy level, not the vertical programming of philanthropic efforts.

Furthermore, seeking to reduce the anthropomorphic pressures driving climate change in the hope of averting future negative impacts ignores the fact that the problems are already urgent. By focusing on minimizing climate change impacts we will not significantly improve the health of vulnerable populations. This is not to dismiss the importance of greener policies and behaviours, but it is important to recognize that these are two different research priorities.

If we are to carry out research which prioritizes the needs of vulnerable groups, then the focus must shift from epidemiological studies seeking to quantify health burdens, to research on how to develop and implement policies that improve the current situation. We need research questions that: address how the health status of vulnerable groups in low-income countries can be improved; evaluate what sustainable policy solutions are possible; and, investigate the implementation and outcome of policies when they are introduced. This will require more input from the social and political sciences in order to approach the problem from a wider perspective; to consider power differentials and social hierarchies and to address the role of public participation in agenda setting and decision-making and the accountability of decision-makers.

There needs to be a fundamental shift in the research time frame, away from a focus on future climate change impact scenarios, to the present, so that the current needs of people suffering from the same diseases get addressed. This is also important because finding solutions to current problems should help mitigate future problems. Reducing the vulnerability of current vulnerable groups should lessen the future health-related impacts of climate change. As stated above, the two key categories of mortality likely to be most affected by climate change are malnutrition and diarrhoea.

The greater mortality and morbidity through diarrhoea and malnutrition, anticipated to occur with climate change, is contingent upon the underlying causes of these two preventable conditions remaining much as they are today. By reducing the current burdens of these diseases through focusing on the underlying causes of poverty and inequality, these populations will be better able to adapt to and resist the added future strains imposed by a harsher climate.

Current research should therefore be about trying to make these vulnerable groups less vulnerable – less vulnerable to heavy burdens of diarrhoea, malnutrition and infection, and ultimately less vulnerable to the health impacts of climate change. Is this not a worthwhile research agenda to set?

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- 1 Campbell-Lendrum D et al. The global burden of disease due to climate change: quantifying the benefits of stabilization for human health. *The proceedings of Avoiding Dangerous Climate Change Conference*, Exeter, United Kingdom, 2005 (<http://www.stabilisation2005.com/programme2.html>, accessed 20 August 2008).
 - 2 World Health Organization/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (http://www.swissinfo.org/en/141_wshintro.html, accessed 20 August 2008).
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