

Should ‘Climate Change’ Change Health Promoters? Lessons for the Developing World

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Abstract

The threat posed by climate change to global public health is evident and appalling, and its impact is felt on physical, mental and emotional health and well-being of individuals and populations. Evidence on the unusually changing weather conditions and patterns is clear and difficult to ignore.

This paper debates a changing global climate. The paper subsequently attempts to discuss the impact of climate change on global health, with examples. Then, the paper argues in favour of ‘thinking globally and acting locally’ as a way to enhance community health. Subsequently, the implications of a globally changing climate for health promotion practice, especially in the developing world are discussed.

The changing global climate is well supported by empirical evidence, and poses huge threat to public health. Health promotion researchers and practitioners have a crucial role to play towards climate change mitigation and adaptation to secure the health of current population and posterity.

Keywords: Climate change, health promotion, global.

1.0 Introduction

Climate change is widely acknowledged as a major challenge facing the world’s environment, its economy and consequently its people (European Commission, 2008). Climate change is fundamentally associated with the manifestations of extreme weather conditions and patterns over a defined period of time; thus climate change subsumes the global warming phenomenon (Bryant, 1997; Patil and Deepa, 2007; Henson, 2008). Increasing body of scientific evidence shows that the increasing global warming threatening the world today is largely caused by human-induced greenhouse gases such as the chlorofluorocarbons (CFCs), produced through activities such as human industry and desertification (European Commission 2008; Houghton 1997).

This paper adds its voice to the debate on climate change from a health promotion perspective. Precisely, the paper attempts to discuss the impact of climate change on global health, with examples. Then, the paper argues in favour of ‘thinking globally and acting locally’ as a way to enhance community health. Subsequently, the implications of a globally changing climate for health promotion practice are discussed.

2.0 Climate Change: A Myth or a Fact?

Engendering debates is whether or not climate change is factual or a myth. Urry (2008) has mentioned that, though the scale and impact of climate change is debated in some developed nations, it is often denied in some developing societies. Notwithstanding, evidence on the unusually changing weather conditions and patterns is clear and difficult to ignore. For example, world temperatures are reported to have increased by over 0.78°C over the past century, with the first six years of the 21st century being the hottest in the past millennium (Henson, 2008; Urry, 2008). Similarly, the world in recent years has increasingly witnessed extreme natural events such as storms, floods, and wildfires (Science Daily, 2008; Patil and Deepa, 2007). Though it would be unsubstantiated to conclude a direct causal relationship between such disasters and climate change, it would also be erroneous to ignore their potential association with climate change. In Ghana for example, the effect of climate change has received increased attention in recent times. For example, a recent study on the effect of climate change on agriculture showed that when climate change scenarios were generated, there was an indication of increase in both the minimum and maximum temperatures of Ghana (Sagoe, 2006).

3.0 Impact on Global Health

The threat posed by climate change to global public health is evident and appalling, and its impact is felt on physical, mental and emotional health and well-being of individuals and populations (Science Daily, 2008).

Agriculture remains a life-wire to health and development of both developed and developing countries. Nutritional needs of the world’s population are anchored on food and livestock production. The changing rainfall patterns manifested by decline in average annual rainfall is adversely affecting food production, especially in regions such as sub-Saharan Africa and parts of Asia, where agriculture is mainly rain-fed (United Nations Environment Programme, 2005). The consequences of this situation include food shortage for both domestic use

and also at the world's market. Food shortage has implications on hunger and malnutrition-key elements of the UN millennium development goals (United Nations Development Programme, 2010). A recent statistics published by the Food and Agriculture Organisation (FAO) has shown that malnutrition currently affects 925 million people in the world (FAO, 2010).

Furthermore, the impact of food on mental health is increasingly being established scientifically. For example, a study by the Mental Health Foundation (2005) shows a correlation between food and mood. Similarly, Van de Weyer (2005) has reported the importance of food in treating mental health problems such as depression, schizophrenia and dementia.

From a health promotion perspective, it can be observed that the impact of climate change on agricultural production largely affects the wider *social determinants of health* adversely. A reduced agricultural yield signifies a reduction in household income, and jeopardises the ability to acquire decent housing for family, and attain better education for children. Marmot and Wilkinson have carefully elaborated the negative impact of unemployment, poor housing and low education on health and well-being (Marmot and Wilkinson, 2006).

The effects of extremely high and low temperatures are dreadful, and include the emergence and spread of diseases such as malaria, skin cancers, and respiratory infections, influenza, and pneumonia. Studies have identified an association between high temperatures and stroke, especially in elderly people (Byrant, 1997). Extreme temperatures are associated with stress which can culminate in psychosomatic and mental illness, leading to increased violence, suicide, crime and death (Byrant, 1997).

Extremely high and low temperatures have also been identified with extreme natural events such as storms, floods, and wildfires (Yarrow, 2008). In the year 2005, an extreme natural event was witnessed in New Orleans as *hurricane Katrina* (Henson, 2008). Similarly, in 2004 many parts of India were plagued with unprecedented flood causing casualties and destroying properties (Henson, 2008). Though from a critical perspective, one may argue that natural disasters have always been experienced in the history of the world and so should not be linked with climate change; an empirical fact difficult to refute is the increasing rate of these natural disasters. For example, according to a publication by the New England's Journal of Medicine, the scale of natural disasters has increased due to human induced activities including deforestation, and environmental degradation (Leaning & Guha-Sapir, 2013).

Furthermore, studies have shown that floods coupled with high temperatures can lead to epidemics of vector-diseases such as malaria. Available evidence shows that, as temperatures increase, the malaria vector can shift habitation to other parts of the world where they do currently not inhabit, which apparently puts at risk the public health of temperate regions of the world (Byrant, 1997).

4.0 The Need for Accelerated Efforts-From a Developing Country Perspective

Though many industrialised nations have agreed to cut down their annual emissions of carbon by ratifying the Kyoto Protocol of 1997; it is prudent for individuals, communities and national governments to '*think globally, and act locally*'. 'Thinking globally and acting locally' has been a guiding principle of the environmental movement since the 1970s, and signifies that, individuals, communities and nations recognise that local policies and actions have implications on the global scale (Darier and Schute, 1999). In view of this, health promotion actions are essential to equip individuals and communities with skills for both mitigation and adaptation to climate change for sustained health and well-being.

Some key pragmatic actions necessary in local health promotion efforts include, advocacy and skill development in the efficient use of energy, recycling of waste, tree planting, growing of food crops for subsistence use, and cutting down on the intake of meat and dairy products-especially beef. A study by the Food and Agriculture Organisation (2006) has reported that greenhouse gas emissions associated with livestock production constitute up to 18% of the total human impact on the climate. Ironically, Giovannucci *et al.* (1994) have reported an association between red meat and colon cancer. In line with the principle of 'thinking globally and acting locally' some countries have taken laudable steps. Typical of such is Zimbabwe, which has implemented an energy saving initiative intended to encourage the use of biogas for rural kitchens: another is Thailand, which has resorted to the use of efficient stoves to reduce woodfuel consumption (Markandya and Halsnaes, 2002).

Climate change apparently has implications for health promotion practice. Health promotion ought to intensify its advocacy for healthy public policies, such as those which encourage people to use non-fuel consuming modes of transport like bicycles, walking to school and work. Such a move would be a necessary step towards fulfilling the Ottawa Charter's demand for healthy public policies (WHO, 1986). Developing countries could learn from the successes of Netherlands, which has succeeded in using policy to encourage the mass use of bicycles (Pucher and Dijkstra, 2000).

The overwhelming evidence of the threat posed by climate change coupled with its social, economic and public health implications should be a clarion call for African leaders to start putting in place policy frameworks, strategies and effective mitigation and adaptation programmes to deal with this global threat.

Ghana has already taken the initial step by enacting a national climate change policy framework which is built

on five pillars: governance and co-ordination, science, technology and innovation, finance, international cooperation, information communication and education and monitoring and reporting. However, the challenge that Ghana and many other African countries face is to overcome the lack of trained climate science professionals, weak institutional capacity and financial investment which will enable countries to adapt to climate change effectively and mitigate its impact on vulnerable communities (University of Ghana, 2008). The annual flooding and droughts being experienced in the three northern regions of Ghana and the ineffectual and unsustainable response highlights the exigency of the situation.

At the community level however, a key implication for health promotion practice is to use *community mobilization strategies* to enable people to initiate community-led actions which equips them with coping skills to deal with the problem of social vulnerability, thereby sustaining good health and well-being (Bohle, Downing and Watts, 2002). Community-led actions are phenomenal as it leads to *empowerment*, which is derived through *community participation*. It is therefore not astounding that WHO (2001) has admonished that all organised health promotion programmes be guided by the principles of participation, empowerment, and sustainability.

5.0 Conclusion

The changing global climate is well supported by evidence and poses huge threat to public health. The adverse effects of a changing global climate include food insecurity, explosion of vector-diseases, psychological and social instability, and an increase in extreme natural events. The scale of natural disasters is reported to be increasing and calls for increased attention. The plethora of effects of climate change are visible not only in the developed world but also in many developing countries including Ghana. The threat posed by climate change has implications for health promotion research and practice. It includes intensifying health promotion advocacy towards building healthy public policies, and encouraging community-led actions towards climate change mitigation and adaptation. Though some developing countries have initiated steps towards climate change adaptation and mitigation, the efforts should be intensified by putting in place a well-coordinated policy framework and strategies. Developing countries could pick up lessons from countries which have successfully used policy to promote the use of non-fuel consuming modes of transport. Furthermore, developing countries could increase investment in capacity building for climate change research and programming. A multi-sectoral approach could be resorted to in a bid to strengthen institutions which have a stake in climate change. Health promoters certainly have a critical role to play towards creating a synergy from a multi-sectoral approach geared towards climate change mitigation and adaptation, so that developing countries would be well positioned to secure the health of current population and posterity.

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