

Could Health Impacts of Climate Change Trigger Action?



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When it comes to the effects of climate change, more effort is needed to understand the damage caused by these changes, and to set lines of action to address these damages. Perhaps it is by looking at the estimated effects of climate change directly affecting the quality of life that the global opinion would be able to understand the extent of damage that will occur and the cost that will be incurred and accordingly become more proactive on climate change action.

The economic costs of climate change as estimated in the stern report will be equivalent to losing at 5% of global GDP per year, now and onwards; accounting for wider range of impacts and risks, the estimated loss would rise to at least 20%. However, the cost of taking action in reducing greenhouse gas emissions can be limited to 1% of global GDP. In numbers, climate change could cause a 70% rise in the projected number of people with severe difficulties in accessing safe water by 2025. Reduced water availability combined with even modestly higher temperatures will reduce agricultural productivity and in some areas may make crops unsustainable (Stern & Great Britain, 2007).

Whether direct or indirect, the changing climate has several attributed impacts on health like aggravating mental illness, undernutrition, allergies, cardiovascular diseases, injuries, respiratory diseases, and poisoning (Watts et al.,

2015). The changes in temperatures have also caused the appearance of new infectious diseases and aided in their development including vector-borne diseases, the dengue fever, rodent-borne diseases and Hantaviruses (Climate, n.d.).

When it comes to the health sector, economic evidence has been classified into three categories: direct health damage cost, health adaptation cost and health economic evaluation (Hutton & Menne, 2014). Health damage costs shows the direct cost of climate change on health taken from the past data, adaptation costs indicate the amount of money that will be paid if the health hazards were to be avoided, and finally the health economic evaluation which shows the cost benefit analysis of cost adapting and saving on healthcare. However, the Lancet Commission adds to these categories the mitigation cost to health (Watts et al., 2015), and tackles each of adaptation and mitigation as cost-benefit evaluations.

Direct Costs

In terms of direct costs to health, the World Health Organization (WHO) estimates an approximate of 250,000 additional annual deaths in the coming 30 years due to malnutrition, diarrhea and heat stress. Moreover, the cost done by direct damage to health is estimated to be between 2 to 4 billion US dollars per year by 2030. The WHO also calculates the total world expenditure as 9.1% of the gross world product accounting for about US\$6.8 trillion (WHO, 2014). Another study shows that the increase in Salmonella cases in the EU caused by the higher temperature will increase cost to 70-139 million euros until 2040 (Hutton & Menne, 2014). Similar to the general increases in economic costs due to climate change, health has a fairly similar trend where expected increases in direct costs are on the rise.

Adaptation and Health Benefits

One type of adaptation to climate change is employing

an early warning system that predicts the occurrence of extreme events before they happen and having set actions to save as many lives as possible. Examples of applied systems include an early heatwave warning system in France which includes improved health care facilities, that has succeeded in reducing anticipated deaths based on previous events by 4000. Moreover, estimations of a 10-15 day warning system could cost close to 1 million USD but on the other hand could save “billions of dollars in damage and protect thousands of lives” (Webster, 2013). As noted by Dr Maria Neira, WHO Director of the Department of Public Health, Environmental and Social Determinants of Health. Early warning systems allow health officials with enough time to prepare the medicines and vaccines, and thus can reduce the death tolls.

Mitigation and Health

When talking about climate change, some actions that are induced by humans such as burning fuel and releasing air pollution can be reduced to aid climate change mitigation. For instance, the cost of pollution-induced diseases is becoming highly significant. Serious health risks will reach disastrous proportions if climate change is kept unmitigated. Based on a report produced by the European Commission, mitigating air pollution will deliver the equivalent of 38 billion euros by 2050 through reduction of early mortality (Watts et al., 2015). IRENA, as well, calculates up to \$230 billion of avoided external health costs annually by 2030 (Irena, 2014).

Mitigation can have other benefits such as policies that encourage using soft modes of transportation like walking and cycling, which have proved to reduce cardiovascular diseases, diabetes, and improve the mood (Woodcock et al., 2009). In the UK the increase in the active travel as well as the usage of cleaner energy might lead to a 15 billion British pounds in savings by 2030 (Jensen et al.).

What can be Done?

The WHO emphasizes on the importance of the effect of climate change on public health, and stresses on the need to intervene to address both climate change and poverty. Likewise the IPCC report highlights the amplified impact climate change will have on the future of health. Giving these impacts an exact monetary value is difficult, but the studies that do exist present enough evidence that

should steer the interest of the global population to start preparedness plans.

Accordingly, these warning signs should be taken in a more active manner. Impacts of climate change are exerting heavy burdens on the economies in general, but applying adaptation and mitigation methods could help in reducing monetary costs as well as protecting human health and lives. As Stern puts it “the investment that takes place in the next 10-20 years will have a profound effect on the climate in the second half of this century and in the next.” (Stern & Great Britain, 2007).

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