The Impact of Climate Change on Health

The Issue

There is broad consensus among scientists that climate change is occurring and increasing evidence that human health will be affected by it in many ways. Some of the impact will be direct, such as deaths related to heat waves. Others will result indirectly from disturbances to complex physical and ecological processes, such as changes in patterns of infectious disease, drinking-water supplies, agricultural yields and malnutrition, mental and post-traumatic stress disorders arising from fires, floods and greater urbanisation, and respiratory diseases arising from poor air quality.

While current projections suggest no region will go untouched by climate change, its negative impact on public health and health systems is likely to be most acute in the developing world, where healthcare systems are already severely stretched. Concern about this impact is rapidly coming up the international agenda; the WHO has publicly stated its aim of putting public health at the centre of the UN agenda on climate change.

The international response to this growing threat is to mitigate the effects of climate change by reducing the emission of greenhouse gases. However, most agree that even if greenhouse gas emissions were abruptly capped, some climate change is inevitable. Adaptive strategies at local, national and regional levels are therefore necessary to address the risks to health associated with climate change.

The availability and accessibility of therapies to tackle climate change related health problems will need to be a key part of these strategies, and it is here that the pharmaceutical industry has an important role to play.

GSK’s Position

A Global Challenge

– There is growing evidence to suggest that climate change could affect human health through increases in heat-stress mortality; floods; storms; fires and droughts; changes to the range of some infectious disease vectors, including the geographical range of malaria and other mosquito-borne diseases, such as dengue; increases in the burden of diarrhoeal diseases, and of water-borne pathogens such as cholera; and an increase in cardio-respiratory morbidity and mortality associated with ground level ozone.

– Notwithstanding this growing evidence, a number of knowledge gaps still exist concerning the exact relationship between climate change and health. More research is therefore required if the health impact of climate change is to be tackled. More capacity building; more technical support; and a health-orientated approach to managing the environment (including air and water quality, food safety, and urban and housing design) are also required.

– All stakeholders ie. governments, multi-lateral organisations, NGOs, the healthcare community, as well as the pharmaceutical industry, have a role to play. An international approach based on multilateral frameworks and coordinated action is essential.

– Reducing climate change (mitigation) and dealing with the inevitable impact of climate change on a number of areas (adaptation) is a huge challenge. Ensuring steady supplies of high quality medicinal products and continued investment in R&D are rightly seen as key elements of any adaptation strategy. Of note, however, the Intergovernmental Panel on Climate Change (IPCC) has identified “rebuilding public health infrastructure” as “the most important, cost-effective and urgently needed” adaptation strategy.

GSK’s Role

– GSK is committed to playing our part in addressing global healthcare challenges - wherever they may occur and for whatever reason they may occur. We are a leader in the global fight against disease, researching and manufacturing medicines and vaccines in a broad range of therapy areas. We have a particular R&D focus on tackling diseases of the developing world.
GSK has a comprehensive strategy in place to support global mitigation efforts. This includes a commitment to reduce carbon emissions throughout the entire lifecycle of our products and supply chain (involving patients, consumers and suppliers as well as our own operations). Our specific objective is to reduce this impact by 10% before 2015 and 25% by 2020 (from a 2010 baseline).

These targets are ambitious and far exceed what is required through regulation. Their achievement will ensure that GSK builds on past successes so future greenhouse gas emissions are minimised. For more information on GSK’s Climate Change Policy see gsk.com.

GSK is also committed to supporting the adaptation strategies required to address the healthcare impact of climate change. Our existing product portfolio of asthma and other respiratory disease products, antibacterials, anti-depressants, anti-malarials and vaccines, including one that targets rotavirus (the leading cause of infectious diarrhoea in the world), should help governments to address some of the projected impact of climate change on disease burden.

In the world’s poorest countries, which are considered most vulnerable to the impact of climate change, we make our anti-malarials available at not-for-profit prices. We also make our vaccines available at preferential tiered prices.

Growing resistance to many existing therapies is such that ongoing biomedical R&D is vital. New medicines are needed for the treatment and, ultimately, prevention of diseases most susceptible to climate change. GSK is committed to ongoing research into affected areas, both as part of our broader commitment to tackling diseases that disproportionately affect the developing world (such as malaria and dengue fever) as well as our mainstream respiratory, infectious disease and neuroscience research programmes.

Continued work in this area by GSK, and other innovative R&D companies, requires a supportive environment, comprising a robust intellectual property framework; public sector commitment to Public Private Partnerships; and innovative funding mechanisms, such as Advance Market Commitments.

For further information on GSK’s R&D portfolio, including our research commitment to diseases that disproportionately affect the developing world, visit gsk.com.

November 2013