

## Keynote lecture 7

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### THE IMPLICATIONS OF CLIMATE CHANGE FOR OCCUPATIONAL HEALTH

Paul Wilkinson *LSHTM, London, UK*

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Global warming presents major social challenges because of its potential for multiple adverse effects on the environment, population health, social integrity and the economy. Substantial changes will be required both to adapt to climate change (which in some degree is now inevitable), as well as to help mitigate its occurrence through ambitious reductions in the emissions of greenhouse gases (GHGs). Responding to these needs has a number of important implications for occupational health. First are the additional risks to human health that global warming will present. The most direct of these is the likelihood of substantially increased summer temperatures and heat waves in many locations. The increased physiological demands of thermal stress are likely to reduce the

ability of workers in unprotected environments to carry out their essential tasks, impairing their productivity and in some circumstances presenting substantial health risks of morbidity and even mortality. Second are the transformations in technology and infrastructure which will be introduced in pursuit of sustainability objectives and GHG emissions reductions. Such technology will present new hazards, and cannot be assumed always to be beneficial for workers. Third are the opportunities for promoting behaviour changes that promote health while helping to achieve necessary greenhouse gas abatement targets. An important example is behaviour in travel to work. GHG reductions may be achieved through decarbonising the transport network, but with limited gains to public health largely confined to reductions in outdoor air pollution. Measures that encourage replacement of vehicle transport with active transport (walking and cycling) also have an important role in GHG reduction, but have potential for much greater benefits to population health by addressing underlying drivers relating to lack of physical activity and its impact on obesity, diabetes, chronic disease and mental well being. There are important opportunities for promoting such changes through the workplace. This presentation will consider the context of climate change, its various implications for health, and the ways in which occupational settings need to respond to the new challenges.