Public Health Reviews

The public health implications of asthma

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Abstract Asthma is a very common chronic disease that occurs in all age groups and is the focus of various clinical and public health interventions. Both morbidity and mortality from asthma are significant. The number of disability-adjusted life years (DALYs) lost due to asthma worldwide is similar to that for diabetes, liver cirrhosis and schizophrenia. Asthma management plans have, however, reduced mortality and severity in countries where they have been applied. Several barriers reduce the availability, affordability, dissemination and efficacy of optimal asthma management plans in both developed and developing countries. The workplace environment contributes significantly to the general burden of asthma. Patients with occupational asthma have higher rates of hospitalization and mortality than healthy workers. The surveillance of asthma as part of a global WHO programme is essential. The economic cost of asthma is considerable both in terms of direct medical costs (such as hospital admissions and the cost of pharmaceuticals) and indirect medical costs (such as time lost from work and premature death). Direct costs are significant in most countries. In order to reduce costs and improve quality of care, employers and health plans are exploring more precisely targeted ways of controlling rapidly rising health costs. Poor control of asthma symptoms is a major issue that can result in adverse clinical and economic outcomes. A model of asthma costs is needed to aid attempts to reduce them while permitting optimal management of the disease. This paper presents a discussion of the burden of asthma and its socioeconomic implications and proposes a model to predict the costs incurred by the disease.