TOBACCO CONTROL

Smoking gobbles up almost 6% of global health spend and nearly 2% of world's GDP

In 2012 this amounted to US\$ 1436 billion, nearly 40% of which was borne by developing countries

Smoking consumes almost 6 per cent of the world's total spend on healthcare and nearly 2 per cent of global GDP, reveals the first study of its kind, published in the journal *Tobacco Control.**

In 2012 the total cost amounted to US\$ 1436 billion, with nearly 40 per cent of this sum borne by developing countries, the calculations show.

The detrimental impact of smoking on national health systems and economies has been widely studied since the 1960s, but most of these studies have focused exclusively on high income countries, say the researchers.

They wanted to include low and middle income countries to come up with more accurate estimates of the total global cost. And so they included data from 152 countries representing 97% of the world's smokers, from Africa, the Americas, the Eastern Mediterranean, Europe, Southeast Asia, and the Western Pacific.

They used the 'cost of illness' approach, first devised in 1960. This divides the economic impact of an illness into direct costs, such as hospital admissions and treatment, and indirect costs representing the value of productivity lost to death and disability in current and future years, for a given year.

The direct and indirect costs are then added up to provide the overall societal cost, usually expressed as a percentage of annual gross domestic product (GDP).

The researchers trawled through four leading research databases for relevant studies on direct costs, finding 33, and covering the 44 countries which account for 86% of the world's total spend on healthcare.

They estimated the indirect costs, using a validated method (HCM) which calculates the current value of productivity lost to illness/disability and death.

And they used data from sources such as the World Health Organization and the World Bank to uncover information on the proportion of ill health and death attributable to smoking, national employment rates, and GDP for each of the 152 countries, to inform their calculations.

These showed that in 2012, diseases caused by smoking accounted for 12% (2.1 million) of all deaths among working age adults aged 30-69—with the highest proportion in Europe and the Americas. This figure included 1.4 million adults who would have been in the workforce.

The number of working years lost because of smoking related ill health added up to 26.8 million, 18 million of which were lost to death with the remainder lost to disability.

In terms of health spend attributable to smoking, this totalled US\$ 422 billion, equivalent to nearly 6% of the global total, with the highest share in Europe and the Americas. In Eastern Europe alone, the calculations indicated that this proportion was 10% of the total healthcare spend for that sub-region.

Based on all these figures, the researchers calculated that the total economic cost of smoking was US\$ 1436 billion in 2012, equivalent to 1.8% of the world's GDP, overall. But there were substantial regional/subregional variations.

The equivalent proportion of the GDP of Canada and the US combined was 3%, and 2.5% in Europe, and 3.6% in Eastern Europe.

Almost 40% of the global economic cost was borne by low and middle income countries; the four BRIC countries—Brazil, Russia, India and China—accounted for 25% of it.

The researchers point out that their calculations did not include the health and economic harms caused by second hand smoke or smokeless forms of tobacco, and that their estimates of lost productivity applied only to those who were economically active.

But they emphasise that in 2015 the UN General Assembly adopted the 2030 Agenda for Sustainable Development. This includes 17 goals that all member states have signed up to achieve by 2030. Goal 3 includes a target to cut by a third early deaths from non-communicable diseases, such as those caused by smoking, and to strengthen national implementation of the WHO Framework Convention on Tobacco Control.

"Smoking imposes a heavy economic burden throughout the world, particularly in Europe and North America where the tobacco epidemic is most advanced," they conclude.

They add: "These findings highlight the urgent need for all countries to implement comprehensive tobacco control measures to address these economic costs, while also helping to achieve the Sustainable Development Goals of the member states."