Background

Asthma affects about 334 million people globally, many of whom are unnecessarily disabled. Several countries have an estimated prevalence of current wheeze in 13-14 year olds above 10%, indicating that about 14% of the world’s people have asthma and 20% have current wheeze. The Global Asthma Research Network (GAN) undertakes a cross-sectional email survey of principal investigators of GAN centres in the world. The survey form had eight questions, one of which was "Has a national asthma strategy been developed in your country for the next five years? For children? For adults?" The survey was sent to 276 investigators in 142 countries.

Methods

A cross-sectional email survey of GAN centres was carried out between 2013 and 2014. The survey was sent to GAN principal investigators in 276 centres in 120 countries, 41 were high-income countries (HICs) and 79 low- and middle-income countries (LMICs), defined by the criteria used by the World Bank 2015. The survey form had eight questions, one of which was "Has a national asthma strategy been developed in your country for the next five years? For children? For adults?" (Yes/No/Don’t Know).

Hypothesis

That most countries in the world do not have a national asthma strategy.

Aim

To identify the countries that have a national asthma strategy for children and adults.

Results

213/276 (77.2%) investigators in 112/120 (93.3%) countries completed the national strategy questionnaire (see illustration). Of the 112 countries, 26 (23.2%) reported a national asthma strategy for children, 24 (21.4%) reported a national asthma strategy for adults, and 22 (19.6%) had a national asthma strategy for at least one age group (see illustration). Of the 28 countries who reported a national asthma strategy for at least one age group 13 (46.4%) were HICs and 15 (53.6%) LMICs. Strategies were reported in 13/38 (34.2%) HICs and 15/74 (20.3%) LMICs; these differences between LMICs and HICs were not statistically significant p=0.107.

Country findings were compared with the prevalence of asthma symptoms in 13-14 year olds in countries where this had been estimated in the International Study of Asthma and Allergies in Childhood (ISAAC) Phase Three. Countries were categorised as high prevalence if the prevalence of current wheeze was >20%, and low prevalence if the prevalence of current wheeze was <10%. The Chi-Squared test was used for statistical analyses.

Discussion

In about one in four countries a national asthma strategy was reported, proportionately more commonly in those with known high asthma prevalence. A large reduction in the global burden of asthma could be achieved potentially, if more countries had an effective national asthma strategy.

Summary

This study surveyed GAN investigators in more than half the world’s countries and found only about four in 100 had a national asthma strategy. There would be a large reduction of the burden and costs of asthma in the world if the gains in Finland over 10 years were replicated. Finland found the proportion of severe asthma fell by 50%, the number of emergency visits fell by 24% in adults and 61% in children, hospital days fell by 54%, significant disability decreased by about 76%, costs per patient per year fell by 36%, and deaths by 31%.

References


