Abstract:

The results of the initial International Study of Asthma and Allergies in Childhood (ISAAC) undertaken in the mid-1990s demonstrated a substantial increase in asthma and wheeze symptoms prevalence in Irish teenagers aged 13-14 years from the 1980s. International research suggests that asthma has increased further in some countries and this study was undertaken to determine whether an upward trend in childhood asthma has continued in the Republic of Ireland in recent years. We therefore conducted two further national cross sectional studies in the same previously surveyed childhood population throughout the Republic of Ireland, one in 1998 (n=2,580) and the other in 2002-3 (n=3089). We report here on rising prevalence trends of asthma (42.1% relative increase) but falling wheeze (10.4% relative reduction) prevalence in these teenage children in 2002-3.

Introduction

Asthma is one of the most common chronic disorders in children, and its prevalence varies worldwide. The International Study on Asthma and Allergies in Children (ISAAC) study has identified that the prevalence of asthma in Ireland remains one of the highest in the world. While reports from different countries indicate a fall in asthma symptoms in some countries including the Republic of Ireland in recent years’ reports in some Western countries indicating an increase in prevalence of asthma in recent years”. However, while asthma has a genetic basis, the increasing rise in asthma rates is unlikely to be explained by genetic factors and may reflect other issues such as changing but unexplained environmental factors or an increased awareness of the condition particularly in milder disease. This paper reports on the changing prevalence of asthma and asthmatic wheeze in teenagers throughout the Republic of Ireland in recent years.

Method

The national changing prevalence of asthma, and wheeze employing the International cross sectional questionnaire, were determined in 1998 and 2002-3. The questionnaire and methods of this study were similar to that reported in the 1995 study published in the Irish Medical Journal 1998. As part of these studies we employed questions in the questionnaire on ‘asthma’ or ‘wheezy or whistling in chest over the past 12 months’ and whether they ‘ever had asthma’.

Results

The response rate for both studies was high at 87.7% in 1998 with 2580 of 2942 students completing the questionnaire and 90.9% responding in a similar manner in the 2002-3 survey with 3089 of 3398 students completing the survey. Between 1998 and 2002-3 we demonstrated that while the prevalence of diagnosed asthma increased in teenagers the symptoms of asthmatic wheeze decreased. The prevalence values for children who reported ‘ever had asthma’ increased to 18.2% in 1998 and again to 21.6% by 2003 compared to data reported in 1995 at 15.2% (n=479). This is a 42.1% relative increase in asthma prevalence over that time period. The prevalence for ‘asthma’ in the past 12 months (Table 1) remained steady initially at 29.8% in 1998 (n=770) compared to 29.0% (n=815) in 1995. This then fell to 26.7% (n=825) in 2002-3 which is a 10.4% relative reduction in wheeze symptoms over that period.

Discussion

This study demonstrates a sizable persisting level of childhood asthma in the Irish population and in addition there has been an overall upward trend for increased asthma prevalence. This represents a 42% relative increase in Irish childhood asthma diagnosis from the period 1995 to 2002-3. There was however, a relative drop in reported wheeze in these children. There was however, a relative drop in reported wheeze in these children. This paper reports on the changing prevalence of asthma and asthmatic wheeze in teenagers throughout the Republic of Ireland in recent years.

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