



THE UNIVERSITY *of* EDINBURGH

News Release

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Major ethnic variations revealed in asthma hospital admissions

People's ethnic origin can significantly influence whether they are likely to need hospital treatment for asthma, a study has found.

Researchers have shown that people of Pakistani origin have a 50 per cent increased risk of being admitted to hospital for asthma compared with White Scottish patients.

The study also showed that people of Chinese origin were 40 per cent less likely to be admitted to hospital than White Scottish patients.

Researchers studied data on more than 4.5 million people in Scotland from 2001 to 2010, making this one of the largest ever investigations into ethnicity and asthma.

The team securely linked anonymised national census data from 2001 with hospital and mortality records. The use of census data was important because ethnicity was not sufficiently recorded in NHS records to permit a detailed analysis.

They compared the hospital admission and mortality rates of ethnic minority groups against those of the White Scottish population.

Researchers say the significant differences between hospitalisation rates is unlikely to be explained by differences in the prevalence of the condition. Instead, it may be attributable to lack of awareness about the condition, greater severity of disease or differences in the quality of care.

The findings have been published in the journal *BMC Medicine*.

The study follows previous research, recently published in the *Journal for Public Health*, which is the first study to link health data from GP records with national census information.

Researchers say this pilot study shows potential for research on a larger scale to help explain some of the variations in other health outcomes by ethnic group.

Professor Raj Bhopal, Professor of Public Health at the University of Edinburgh's Usher Institute said that the ethnic difference is not simply due to country of birth or low socio-economic status.

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“This study of over 4.5 million people has clearly shown that there are major variations in the risk of asthma admission between ethnic groups. Much more detective work is required to unravel the causes of these ethnic variations and, in particular, understand why the Chinese origin population does so well in comparison with other ethnic groups,” Prof Bhopal said.

Professor Aziz Sheikh, who led the research at The University of Edinburgh’s Asthma UK Centre for Applied Research said the study reveals striking differences in the impact of asthma on patients among ethnic groups.

Said Prof Sheikh: “We want to understand why the Chinese people have such good outcomes and whether there are any potentially transferable lessons to other populations.”

Dr Samantha Walker, Director of Research & Policy at Asthma UK, said: “These findings are significant because it is the first time such a large study has been carried out, looking at 92% of the Scottish population. Tragically, the lives of three families are devastated by the death of a loved one to an asthma attack every day. The reasons for the differences in this study need more research, but it’s important everyone with asthma understands how serious it can be.”

Irene Johnstone, Head of The British Lung Foundation (Scotland and Northern Ireland), said: “These are fascinating findings. Further research is now needed to understand why these variations occur, whether these patterns hold true in other UK nations and how we might use this understanding to make improvements for people living with lung disease. We hope this work will lay the foundations for improving respiratory outcomes for all.”

The study was funded by the Chief Scientist Office, British Lung Foundation and NHS Health Scotland.

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Notes to Editors

You are four times less likely to be admitted to hospital because of your asthma if you use a written asthma action plan – you can download one from www.asthma.org.uk or call the Asthma UK Helpline on 0300 222 5800 to speak to one of our specialist asthma nurses.