of food allergy at 3% compared with only 0.1% in Athens and the majority of cases of food allergy were IgE mediated. The mean duration of breastfeeding was 6.1 months overall, ranging from 4.3 months in Athens to 8.5 months in Reykjavik but the age at introduction of solids was similar across Europe.

Maternal smoking habits (during pregnancy and postnatally) varied considerably between countries.

In the multivariate analysis, the following risk factors were identified:

- Frequent LRTIs in the first and second year of life: incidence rate ratio (IRR) 1.9 (95% CI: 1.3-2.6) and 2.5 (95% CI: 1.9-3.4) respectively
- Postnatal maternal smoking: IRR 1.6 (95% CI: 1.1-2.4)
- Day care attendance: IRR 1.6 (95% CI: 1.1-2.5)
- Male gender: IRR 1.3 (95% CI: 1.0-1.7)

No significant associations with breastfeeding or food allergy were found.

The absence of association with food allergy may mean that viral exposure is a factor in the development of wheeze, and this is supported by the evidence of association with attendance at day care centres. Climatic differences may also be important. For example, the colder climate in northern Europe may predispose to more frequent respiratory tract infections and hence wheeze.

The study authors comment that the relationship between the identified risk factors and wheeze differed between centres, suggesting that additional risk factors may be operating in individual countries.

'Further research is needed to identify these,' they say.

'Meanwhile preventing respiratory tract infections and minimising postnatal smoke exposure may help to reduce the burden of early childhood wheeze,' they add.

This study confirms that risk factors for preschool wheeze include male gender, cigarette smoke exposure, LRTIs and day care attendance.

It also lends further support to the concept that wheezing in this group is comprised of several different phenotypes.

DR PETER SAUL

Selby A, Munro A, Grimshaw KE et al. Prevalence estimates and risk factors for early childhood wheeze across Europe: the EuroPrevall birth cohort. *Thorax* 2018;73:1049-61

Sexual health

GP training programme improves HIV testing rates

Sexual Health in Practice (SHIP), an educational programme tailored to general practice, increased GPs' rates of HIV testing.

SHIP training was commissioned intermittently in 52 general practices in the London Borough of Haringey from 2008 to 2010. SHIP is a peer-developed and peer-led educational intervention tailored to general practice to improve sexual healthcare.

Over the eight years of the study there were two fallow periods without training of 12 and 23 months respectively. Anonymous data were collected monthly on GPs and nurses from practices which were exposed to SHIP training and the numbers of HIV tests performed by each practice. SHIP attendance was recorded on a register at training events which collected details including the participant's name, role and practice. The number of HIV tests from each practice was obtained from local laboratories.

By the end of the study period, an average of two GPs per practice had been trained and 46 of the 52 practices had at least one trained GP. Average monthly HIV tests per practice increased from one to six over the study period.

On average, for each additional GP completing SHIP training, monthly HIV test rates increased by 16%. The testing rate ratio (TRR) was 1.16 (95% CI: 1.05-1.28, P = 0.004). Training nurses did not affect HIV testing rates.

Overall, an average of 1.42% of HIV tests were positive (95% CI: 0.99-1.96%); however, the study was not powered to examine the effects of SHIP training on the likelihood of a positive test result.

SHIP addresses specific barriers that are unique to the general practice setting, and teaching strategies to overcome these and a rapid risk assessment that is appropriate for general practice.

This study demonstrates the impact of a tailored educational intervention on HIV testing rates in a deprived area of London. Such a sustained increase in HIV testing rates is rarely reported so this is one of the few studies that demonstrates the impact on general practice.

Much has been done to improve the awareness and early diagnosis of HIV including media campaigns for HIV testing week, and NICE guidance which recommends HIV screening for two key at-risk groups, men who have sex with men and Black Africans. Despite this, issues such as stigma and barriers from both clinician and patient perspectives impede early diagnosis.

To improve diagnosis rates, much more work needs to be done to reduce perceived stigma, address confidentiality issues and empower those at risk to get tested, wherever it might be.

DR RICHARD MA

Pillay K, Gardner M, Gould A et al. Long term effect of primary health care training on HIV testing: A quasi-experimental evaluation of the Sexual Health in Practice (SHIP) intervention. *PLoS ONE* 13(8):e0199891

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