evidence that BF duration influences other allergic outcomes, and no evidence that timing of SFI influences any of the outcomes assessed.

Conclusion Longer breastfeeding duration may protect against wheezing later in childhood. Any effect is likely to be through effects on lung function rather than allergic sensitisation. Other allergic outcomes do not appear to be influenced by breastfeeding duration.

P217 CHRONIC MUCUS HYPERSECRETION MAY REPRESENT A BIOMARKER OF AIRWAYS DISEASE ACTIVITY RATHER THAN SIMPLY A PHENOTYPE: A LONGITUDINAL STUDY OF A NATIONALLY REPRESENTATIVE BRITISH BIRTH COHORT

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Introduction Chronic mucus hypersecretion (CMH) is associated with COPD development and progression. CMH presence across adult life is dynamic, influenced by factors such as smoking behaviour. CMH is usually considered a binary phenotype and the potential influence of longitudinal CMH pattern on concurrent FEV_1 decline has not been explored. We investigated how longitudinal prevalence of CMH relates to concurrent FEV_1 decline.

Methods The MRC National Survey of Health and Development consists of a sample of men and women born in one week in March 1946 within England, Scotland and Wales. Smoking behaviour, MRC questionnaire defined CMH, height, weight and pre-bronchodilator spirometry were recorded at three ages: 43, 53 and (60–64) years.

We used the number occasions that CMH was positively reported (0–3) as a measure of longitudinal prevalence of CMH. Multilevel models adjusted for sex were used to analyse the relationship between longitudinal prevalence of CMH and concurrent FEV_1 decline (between ages 43 and (60–64)), allowing both intercept and slope to vary according to the longitudinal prevalence of CMH score. Height, weight and mean FEV_1 at age 43 years were then included in the model. Smoking status (current, ex and never-smoker) and number of cigarettes smoked daily were included as time-varying covariates capable of influencing both intercept and slope.

Results 1960 individuals contributed data to the multilevel model: 46% male; 59% ever-smoker and mean FEV_1 at age 43 years = 3.00 L. 13% reported CMH $\geq$ once between ages 43 and 60–64 years. After full adjustment, longitudinal prevalence of CMH was significantly associated with both a lower FEV_1 at age 43 (intercept $p < 0.001$) and a faster decline (slope $p = 0.003$) (See Table 1). For each additional occasion CMH was reported there was an additional 3.2 ml/yr decline in FEV_1 ($p = 0.003$) i.e. presence of CMH on all three occasions was associated with an additional 9.6 ml/year FEV_1 decline compared with those without CMH on any occasion.

Conclusion Longitudinal prevalence of CMH is associated with concurrent FEV_1 decline independent of concurrent smoking history. Rather than CMH being solely an airway disease phenotype, the longitudinal course of CMH may represent a biomarker of concurrent disease activity.

P218 THE EPIDEMIOLOGICAL, HEALTHCARE AND SOCIETAL BURDEN AND COSTS OF ASTHMA IN THE UK AND MEMBER NATIONS: ANALYSES OF NATIONAL DATABASES

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Abstract P217 Table 1 The association between longitudinal prevalence of CMH (number of occasions CMH reported) and FEV_1 between ages 43 and 60–64 years. Multilevel model includes 1960 individuals

		FEV_1 intercept (mls) at age 43 years		FEV_1 linear change per year (mls/year) between ages 43 and (60-64) years	
		Coefficient (95% CI)	p value	Coefficient (95% CI)	p value
Per occasion CMH reported between ages 43 and (60-64) years (0 - 3 occasions)	Minimally adjusted†	-90.0 (-46.8 to -133.3)	0.001	-10.2 (-12.8 to -7.7)	<0.001
	Fully adjusted‡	-143.4 (-104.1 to -182.8)	<0.001	-3.2 (-1.1 to -5.3)	0.003

† Adjusted for sex and age

‡ Adjusted for sex, age, height at age 43 years, weight at age 43 years, smoking status and smoking intensity at ages 43, 53 and (60-64) years