Changes in the testing for and incidence of coeliac disease in the UK 2005-2015: a population based cohort study

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Introduction: Over many previous decades the incidence of coeliac disease has been increasing almost everywhere in the world where it has been measured. However there has been a suggestion that in the last 5 years that incidence has plateaued or even declined.

Methods: We used the UK Clinical Practice Research Datalink and examined the electronic health care records therein to estimate the European (2013 population) age-standardised incidence of coeliac disease 2005-2015 and the corresponding rates of serological testing (Anti-Tissue Transglutaminase (TTG) and Endomysial antibody (EMA)) for the disease. We used Joinpoint analysis to examine changes in the rates of diagnosis and testing during this period. We estimated disease prevalence in 2015.

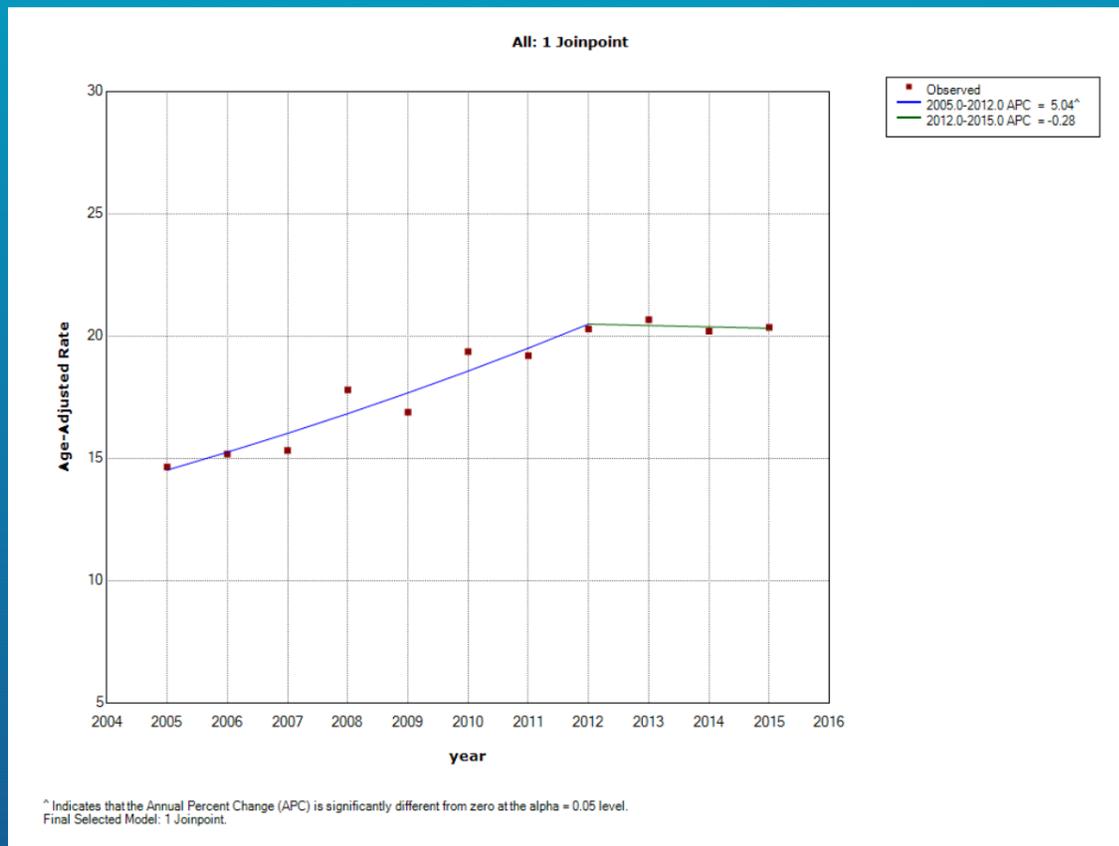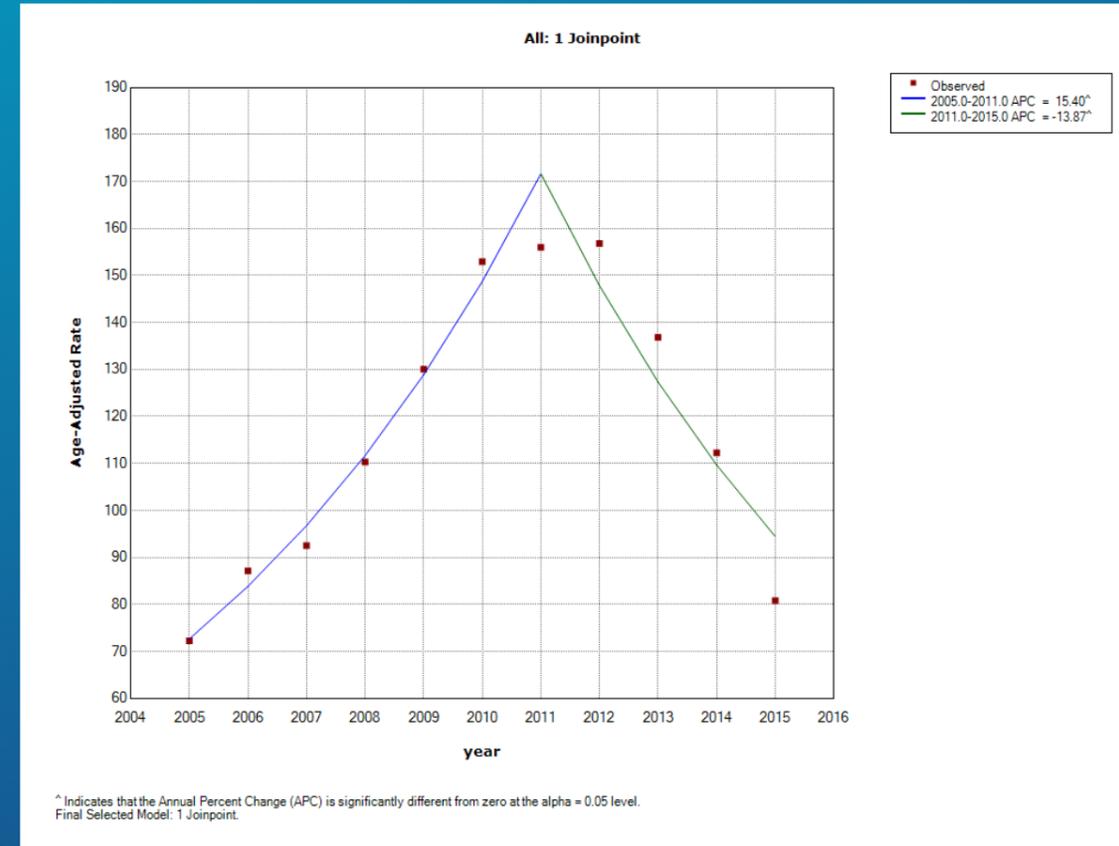Figure 1. European age-standardised incidence rates of coeliac disease per 100,000 population

Figure 2. European age-standardised serological testing rates (TTG and EMA) for coeliac disease per 100,000 population

Results: There were 8177 incident cases of coeliac diseases diagnosed among 45,539,216 million person years. Over the period 2005-2015 there was an increase in age-standardardised incidence from 2005 (14.6 per 100,000) until 2012 (20.3 per 100,000) and then a plateauing effect (figure 1, $p<0.05$). Serological testing increased and then decreased during the same period (figure 2, $p<0.05$). Prevalence in 2015 was 0.3% compared to 0.24% in 2011[1].

Conclusions: Age-standardised rates of diagnosis of coeliac disease and serological testing have, since 2011, respectively plateaued and declined, while prevalence increased. The plateau in incidence is most likely to be a function of the decline in testing which in turn could be due to lack of resource, more targeted use of testing or that the threshold of clinically identifiable coeliac disease has been reached and a steady-state incidence rate obtained.

[1]West et al. American Journal of Gastroenterology 2014 May; 109(5): 757–768.