Evidence synthesis for estimating incidence of chronic diseases

**Supervisors:** Chris Jackson, Daniela De Angelis and Anne Presanis

**Location:** MRC Biostatistics Unit, University of Cambridge

**Detailed description:** An increasing number of people are living with one or more chronic diseases. To assess interventions to prevent diseases, it is important to have good estimates of disease incidence or risk, how this varies between people, and how incidence is changing through time. This project will advance Bayesian evidence synthesis methods for estimating chronic disease incidence from multiple routinely-available data sources, such as health survey and registry data, national mortality statistics and published literature. The aim is to determine the extent of variation in incidence over calendar time, between geographical areas and between people of different ages and with different risk factors, for multiple diseases. The statistical challenges include building and computation of models for novel combinations of data of different structures and at different levels of aggregation, with varying definitions of the disease outcome of interest. This work will involve collaboration with Public Health England.

**Start date:** Michaelmas Term 2018

All application queries regarding eligibility should be directed to phdstudy@mrc-bsu.cam.ac.uk

**How to Apply:** Applications should be made on-line via www.graduate.study.cam.ac.uk/applicant-portal selecting course details MDBI22 PhD in Biostatistics

**Deadline for applications:** 4th January 2018