



© MRC International Nutrition Group, LSHTM Photo: Ian Farrell

Epidemiological evaluation of vaccines: efficacy, safety, policy

Short Course: 4 - 15 July 2016

Improving health worldwide

Student Testimonials

“The course was a fantastic opportunity to experience the full breadth of research in vaccines through contact with leading scientists and peers working in the area. In addition, having participants from all over the globe gave the course a unique mix of experiences and perspectives that enriched learning and skill acquisition. The skills I gained from the course were of immediate practical use in my work on the impact of the pneumococcal conjugate vaccine in Kenya. Insights I gained during the course are guiding me towards developing a research question in the field of measles epidemiology and measles vaccine policy. Attending the course also helped me develop important contacts in the field of vaccine epidemiology.”

Kenneth Munge, Nairobi, 2013

“This course was really comprehensive for both regulatory bodies and industry as well. It helped me to understand the methods of conducting vaccine studies which are different than regular medicinal products. Also, the materials are very useful to evaluate all studies that relate to vaccines and I still use them, especially during my routine work.”

Thamir M Alshammari, Riyadh, 2012

“This course covered an impressive breadth of material while ensuring objectives for each learning domain were manageable. The entire course was very well organized and the instructors were both accessible to students and passionate about their work. As a research associate with a public health background, I was particularly inspired by course modules that covered topics outside my professional purview (e.g. immunology, methods in correlates of protection). The two-week intensive course has expanded my academic interests and I will use this learning to shape next steps in my career”

Rika Moorhouse, Ottawa, 2014



The London School of Hygiene & Tropical Medicine is a world-leading centre for research and postgraduate education in public and global health, with 4,000 students and more than 1,000 staff working in over 100 countries. The School is highly ranked in a number of university league tables, including being named top in Europe for impact (Leiden Ranking, 2015) and the world's leading research-focused graduate school (Thomson Reuters / Times Higher Education).

Our mission is to improve health and health equity in the UK and worldwide; working in partnership to achieve excellence in public and global health research, education and translation of knowledge into policy and practice.

How to Apply

Applicants should complete the online application form available on the relevant course webpage:
www.lshtm.ac.uk/study/cpd/shortcourses.html

An alternative format can be requested by contacting:

Registry

London School of Hygiene & Tropical Medicine
Keppel Street
London WC1E 7HT
UNITED KINGDOM

Telephone: +44 (0)20 7299 4648

Fax: +44 (0)20 7299 4656

Email: shortcourses@lshtm.ac.uk

Website: www.lshtm.ac.uk/study/cpd/seev.html

Further Information:

www.lshtm.ac.uk/study/cpd/seev.html

Course Organisers

Professor Anthony Scott and Dr Stefan Flasche
Faculty of Epidemiology and Population Health

The Course

Epidemiological research has become an important tool in assessing vaccine protection. Although there are several courses specialising in vaccinology, there remains a gap in teaching about advanced epidemiological tools for vaccine evaluation. This course fills that gap, providing an in-depth training on current methods used in the evaluation of vaccine efficiency, safety and policy. It aims to address immunisation issues in high-, middle- and low-income countries.

Who Should Attend?

The course is relevant to public health professionals and field researchers with a strong interest in vaccine efficacy, safety and policy impact. The course is intensive and a good command of the English language is essential. A knowledge of computers and a basic knowledge of Word for Windows and Excel is also essential.

Participants will be expected to have completed a basic post-graduate epidemiology module or equivalent. They should have an understanding of epidemiological measures of disease frequency (incidence, prevalence), measures of effect (odds ratios, risk ratios), the merits of different study designs (cross-sectional, cohort, case-control, intervention studies) and key concepts and implications of sampling error, bias and confounding.

Course Content

- Epidemiological principles of vaccine evaluation
- Immunological basis for vaccination
- Pre-licensure epidemiological issues:
 - Phase I, II and III trials
 - Clinical trials: sample size and analysis issues
 - Good clinical practice and adverse event monitoring

Aims and Objectives

The overall aim of this short course is to provide an understanding of the methods used in the evaluation of vaccines; from early human trials through to assessment of population impact and policy. Specifically the course will:

- bring the participants up to date with the current methods for epidemiological evaluation of vaccines in terms of efficacy and safety, and collection of evidence necessary for policy formulation and evaluation.
- provide an understanding of the application of epidemiology to the pre- and post-licensure evaluation of vaccines.
- address the epidemiological issues for vaccine evaluation in high, middle and low income countries.
- equip participants to critically analyse how vaccines are evaluated for safety and efficacy, and how to collect the evidence necessary for vaccine policy setting, programme implementation and impact measurement.

Teaching Methods and Course Materials

All teaching is carried out at the School and consists of a combination of formal lectures and more informal seminars and group practicals. A comprehensive manual will be provided to accompany the presentations.

- Post-licensure epidemiological issues:
 - Vaccine efficacy and effectiveness
 - Impact studies
 - Burden of disease assessment
 - Surveillance of disease and infection
 - Adverse events monitoring
- Using immunology in vaccine evaluation

Course Fee

The total course fee for the full two weeks is **£2,775**. The fee covers participation in the course, materials, incidental tea/coffee and a welcome reception. It does not include travel costs, accommodation or meals.

Fees are payable in full by **6 June 2016**. If the course fee is to be paid on the applicant's behalf, please send a letter from the sponsor to confirm this as soon as possible. Otherwise, the applicant will be held responsible for payment. Cancellation of attendance after the fee deadline may lead to loss of all or part of the fee.

Participants employed by an institution from a LMIC (World Bank definition) are offered 50% reduction on the course fee. This offer is applicable to a maximum of 10 participants on a first come first serve basis based on receipt of payment.

Visa

The student is responsible for obtaining any visa or other permissions to attend the course, and is encouraged to start the application process as early as possible. The Registry can provide supporting documentation if requested.

Accommodation and Meals

A list of hotels and other accommodation located in the vicinity of the School can be supplied on request to the Registry. Lunch can be purchased from the School's refectory. Evening meals are not catered for, but there is a large choice of restaurants, cafés and shops nearby.

- Infectious disease modelling in assessing vaccine impact
- Economic evaluation of vaccination programmes
- Key issues in vaccination schedules and policy
- Long term implications of vaccination programmes
- Topical issues in the epidemiology of vaccine preventable disease