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| Title of PhD project / theme | **Predicting impact and resource optimised vaccination schedules using mathematical modelling** |
| Supervisory team | **Lay Myint Yoshida** (Nagasaki University),<br>**Stefan Flasche** (LSHTM) |
| Brief description of project / theme | Resource constrains dictate the need for efficient use available vaccines in order to optimise their direct and indirect (herd) effects while using a minimal number of doses. This project offers the exiting opportunity to apply and learn a diverse set of epidemiological and modelling skills and help advise public health decision making on optimal vaccine scheduling. The successful candidate will be working on a topic like for example the optimal expansion of the diphtheria vaccine schedule towards the WHO recommended inclusion of booster doses in order to eliminate diphtheria transmission and disease in South East Asia. Depending on the interests and skills of the candidate, this can involve primary data collection, microbiological sample testing, statistical analyses, mathematical modelling and economic analyses. |
| Particular *prior* educational requirements for a student undertaking this project | A background in quantitative epidemiology and an interest in mathematical modelling is required. Experience in vaccinology, field epidemiology and mathematical modelling or statistics is desirable. |
| Skills we expect a student to develop/acquire whilst pursuing this project | Deepened expertise in vaccinology, public health policy and mathematical modelling. |