



Title of PhD project	Estimating the effect of tuberculosis patient and healthcare delays on the infectiousness of tuberculosis cases	
Supervisor	Dr Emilia Vynnycky	LSHTM
Co-Supervisor	Professor Richard White	LSHTM
Potential Non-Academic Partner	Public Health England	
Brief description of project	<p>Tuberculosis (TB) is currently the leading cause of death from an infectious agent globally. Many TB control programmes worldwide aim to reduce the delay between symptom onset and treatment initiation. Early diagnosis and treatment of tuberculosis cases after onset of symptoms is important for reducing tuberculosis incidence, as it reduces the duration of infectiousness and the number of people that are infected by each case. However, the impact of reducing the delay to treatment depends on several factors, including the infectiousness of cases, which are poorly understood.</p> <p>This project will apply mathematical modelling to surveillance and molecular data from Public Health England and elsewhere to understand the effect of patient and healthcare delays on the infectiousness of cases and the potential impact of reducing treatment delay. The work will help to inform where interventions would best impact delay and will be important in influencing future interventions.</p> <p>The work will involve collaboration with colleagues in Public Health England, and funding is available to convert the studentship into a CASE studentship, with the opportunity for a placement at Public Health England.</p>	
Skills we expect a student to develop/acquire whilst pursuing this project	<ul style="list-style-type: none"> • Mathematical modelling • Tuberculosis epidemiology • Molecular epidemiology 	
Particular <u>prior</u> educational requirements for a student undertaking this project	Students with a strong quantitative background ideally with some experience of mathematical modelling of infectious diseases.	