LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

MSc Project Handbook

Control of Infectious Diseases

(face-to-face programmes)

2022-2023

Important Notice

There is a risk that some types of projects will be disrupted. The disruption is most likely to be related to difficulties with travel and/or carrying out fieldwork and laboratory work but may also relate to data access or ethical approval. Students must therefore consider very carefully whether there is any risk that the project they are planning may not be able to go ahead. If there is a strong possibility of this for whatever reason, then it is essential that a contingency project (referred to as a "Plan B" project) is developed alongside the primary project.

In developing a Plan B project, it is essential to consider the following:

- that a switch from the primary project to the Plan B project can happen very quickly if necessary. In this regard, it is preferable that the Plan B project does not require ethical approval;
- the nature of the Plan B project should be approved by the Programme Director to confirm that it is suitable for the students MSc Programme. Depending on the MSc, Plan B projects are typically policy reports, systematic reviews, and data analyses, but could be a number of other types;
- ideally, the Plan B project should be closely related to the primary project so that the same supervisor is involved.

Students who are developing both a primary project and a Plan B project are strongly advised that any expenditure incurred ahead of starting the primary project (e.g. flights) should be refundable in the event that the project does not go ahead.

Version information:

Specific guidance regarding Risk approved by the Safety Manager, and guidance regarding Ethics by the Chair of the MSc Research Ethics Committee.

Last updated October 2022

Note that LSHTM-wide information given in this handbook applies only to projects for intensive LSHTM MSc degrees, under School regulations. Different guidance may apply for Distance Learning programmes, or intercollegiate MSc programmes taught jointly with other University of London colleges for which projects come under the other college's remit.

In the event of any inconsistency between the information in this handbook and any other School document, please contact your Programme Director. Where an interpretation may be required, advice should be sought from the Secretary and Registrar.

CONTENTS

About this Project Handbook

All students taking an intensive master's programme at LSHTM are required to carry out a project, and to write it up and submit it in the form of a project report, which counts for a major component of your degree. This handbook is designed to bring together all general guidance from the School and from your programme about project work. It consists of two parts:

- **Part 1** contains **School-wide information** that applies to all MSc project reports.
- **Part 2** contains important **programme-specific information** that applies for your MSc.

Each programme's specific version of the handbook, **along with all forms that you may need to complete**, will be available on Moodle (ble.lshtm.ac.uk) under the programme site for your MSc.

Forms

These will be available on Moodle under the programme site for your MSc, or on the web/intranet as indicated.

Forms all students are expected to complete
Combined Academic, Risk Assessment and Ethics Approval (CARE) form, available via LSHTM Ethics Online (LEO) at: http://leo.lshtm.ac.uk. Queries regarding the LEO system should be sent to MScethics@lshtm.ac.uk

Forms for those travelling overseas
Travel Vaccination form can be completed online: Travel Clinic Referral
Travel Insurance form online: https://itravel.lshtm.ac.uk/#/
Travel process & approval https://lshtm.sharepoint.com/sites/intranet-occupational-health-and-safety/SitePages/Travel-Approval.aspx

Forms which may be relevant for specific programmes only
ITD Project Choice form

Other general forms which may be of use
Agreement template for assigning ownership of Copyright (CR)
Agreement template for assigning Intellectual Property Rights (IPR)

PART ONE: SCHOOL-WIDE INFORMATION

1. OVERVIEW OF THE PROJECT PROCESS

1.1 Introduction

All students taking an intensive master's programme at the School are required to undertake a project, in which you carry out and write up an independent piece of work on a topic that is relevant to the MSc programme or stream that you are studying. The project must be carried out by you yourself, but you will have support from a supervisor, and may also have access to co-supervisors or technical advisers where relevant.

The project forms a large component of your final degree grade and contributes 30% (33.3% for MSc Health Data Science) towards your final degree Grade Point Average (GPA) and classification; or 40% for extended projects.

While specific deadlines may vary between programmes, the key phases are:

Stages	When	Action
Stage 1	January	Focus your thinking about what you will do for your project (for some MSc programmes you will be provided with a list of project options from which to choose).
Stage 2	February and March	Turn your idea into a formal proposal and gain approval from School staff.
Stage 3	Early April (March for MSc HDS)	Ensure you have all required approvals, and you may start doing preparatory work or getting arrangements confirmed.
Stage 4	Mid-April (March for MSc HDS)	Deadline for submission of CARE form for approval
Stage 5	Summer	You will normally undertake the main part of your project work – including research or data collection, analysis and writing-up.
Stage 6	End of August/Start of September	You will need to submit your project report by the published deadline.

1.2 Learning times and credits

The topic you choose should be specific enough to be answered within the time and resources you have available. Please see MSc specific information for details of project credits.

1.3 Word count and project lengths

The word/page (as appropriate) count should be stated on the front cover of the project. All the main content of the project (from the Introduction to the Conclusion, including tables and footnotes) should be included in the word count or page count. Numbers in tables should be counted as corresponding to one word each, as per standard software packages. The cover sheet, title page, acknowledgements, abstract, contents, references and appendices are excluded. Appendices should only include material which the examiners are not required to read in order to examine the project, but to which they may refer.

- **Standard Project:** A minimum of 7,000 words and a maximum of 10,000. MSc Medical Statistics sets a 50-page limit rather than a word limit, with prescribed formatting. MSc Health Data Science sets a 60-page limit rather than a word limit, with prescribed formatting (See Part 2 of this handbook for programme-specific information).
- **Extended Project (MSc IID students only):** A minimum of 10,000 words and a maximum of 12,000 words

1.4 Project types

See Part 2 of this handbook for programme-specific information on the types of project permissible for your MSc. You can also see copies of past students' project reports for your MSc on the Library Intranet pages at: https://lshtm.sharepoint.com/sites/intranet-library-archive-and-open-research-services/SitePages/MSc-Project-Reports.aspx

Examples of project types include:

- **Field-based research project:** Primary data collection followed by analysis of the results.
- **Laboratory research project:** Based in School labs or at institutions elsewhere.
- **Analysis of an existing dataset:** May be based on work done or data collected by you prior to or during the programme; or use data provided by School staff, or others, or which is in the public domain. The LSHTM 'Data Management for MSc Summer Projects' document at https://doi.org/10.17037/DATA.00001857 offers guidance on locating datasets for analysis.
- **Protocol for new study:** Designing a detailed proposal for a larger scientific study.
- **Policy report:** Reviewing a policy issue using data from grey and other literature and/or from original sources to draw conclusions and make recommendations for policy.
- **Systematic literature review:** A comprehensive and original review of the literature on a relevant subject.

1.5 Project objectives

Producing a project report will enable you to demonstrate your ability to carry out and write up an independent piece of work on a topic that is relevant to your programme. Given the wide variety of projects undertaken at the School, project work should aim to fulfil the following objectives in general terms, without necessarily fulfilling each individual statement. See Part 2 of this handbook for programme-specific information on project aims.

The project report should demonstrate:

- Understanding of a substantive portion of the body of knowledge covered by the programme curriculum
- The ability to think critically and develop original ideas
- The ability to analyse data or literature and form conclusions based on this analysis
- Independent research skills
- An awareness of the practical aspects of planning and conducting a study, including potential problems and pitfalls
- Your ability to produce an extended piece of writing that is clear and coherent
- The ability to present research findings and/or policy recommendations in a clear and systematic format
- Your ability to reflect on social or ethical issues relating to the research, if appropriate
- Familiarity with either conventional research-reporting or policy-reporting styles, including project layout and referencing

1.6 How your project will be assessed

MSc project reports are marked independently by two markers, who then either jointly agree a grade on the School's standard scale from 0 to 5 or do this for two or more components and these grades then combined to give an overall Grade Point Average. The specific marking criteria that will apply for your programme are given in Part 2 of this handbook. Further general information, including things you can expect the markers to be looking for, is covered in Section 14 Project Assessment.

1.7 Stages in the project report process

The various stages in preparing and undertaking a project report, including associated deadlines, may differ between MSc programmes. You will find the specific key dates and deadlines for your MSc in Part 2 of this handbook.

1.8 MSc Project Report Timeline

A diagram of the general project timeline is shown on the next page. This will differ between standard and extended projects and you will find the specific key dates and deadlines for your MSc in Part 2 of this handbook.

You should work through key stages of pre-planning, initial planning, and proposal development for your project, before seeking all required approvals and beginning any substantive project work. These early stages should not necessarily require a great deal of work; the key point is that you should start actively thinking about your project report from the Autumn term.

1.9 Your wellbeing during the project process

Planning, performing and writing up a research project is an exciting but challenging series of events in your academic life, particularly if you are working overseas. We encourage any student due to be away from usual support networks for a prolonged time, and who may need additional support, to make contact with the Student Support Services before they leave. The Student Support Services can arrange for a confidential chat about how any difficulties might be managed. An informal and confidential meeting with one of the student counsellors can help you

to identify triggers which might mean you cope less well than usual, as well as look for potential strategies to prevent this happening, or actions you can take if you find that you are struggling.

Please see also further information in the Moodle page for Student Support Services.

MSc Project Report Timeline

Deadline	Stage	Task	Key Milestones
Mid November	Stage 1 Pre-planning	• Choose standard or extended Project (MSc IID students only) • *See Section 3: Starting to Plan Your Project*	➢ Linked to selection of Terms 2 and 3 modules
End January	Stage 2 Initial Planning	• Start thinking about topics and discuss with staff • Consider type of project to carry out • Identify and approach potential supervisors where necessary • Identify external placement where appropriate • *See Section 3 Starting to Plan Your Project*	➢ Identification of Supervisor ➢ Identification of Project Topic
Mid – End February	Stage 3 Proposal Development	• Draft Project Proposal and discuss with supervisor and/or other staff (incorporate their feedback). • *See Section 4: The Project Approval Process*	➢ Initial submission of draft LEO-CARE form to supervisor
Mid Apr (Ethics and Risk Assessment) (March for MSc HDS)	Stage 4 Proposal Approval	• Completion of final project proposal as LEO-CARE form • Obtain academic, risk assessment and ethics approval • *See Section 4: The Project Approval Process*	➢ Obtain supervisor approval then Programme Director approval ➢ Obtain Faculty Safety Partner approval if required ➢ Submit final LEO-CARE form to MSc Research Ethics Committee
Late August	Stage 5 Undertake Project	• Reviewing literature / Data collection / Data analysis / Writing report • *See Section 9: Undertaking research for your Project Report **and** Section 11: Writing up your Project Report*	➢ Finish data collection ➢ Finish first draft report for supervisor's comments ➢ Submission of final project report by the deadline.

2. SUPERVISION

2.1 Matching you with a project supervisor

Programme Directors will support every student in finding a supervisor, to guide with the planning, undertaking and writing up of project work. You should contact your Programme Director if you are having any problems with identifying a suitable supervisor.

Supervision arrangements may vary between programmes (see Part 2 of this handbook for specific details relating to your MSc); and the nature of your relationship with your supervisor may also depend on the project type or topic you are undertaking. In some cases, a supervisor may be assigned to you, or will be attached to the project. In other cases, you may need to find a supervisor yourself, approaching members of academic staff with appropriate expertise, or staff from other institutions or organisations. Your personal tutor may also be your project supervisor.

2.2 Problems with your supervision

If you are dissatisfied with supervision arrangements, please discuss this first with your supervisor and attempt to resolve any problems. If you are still dissatisfied, you can speak to your Programme Director. It is sometimes possible to change supervisor and this may be appropriate if your plans or project topic change significantly, or if your original supervisor will no longer be available. However, changes are discouraged unless absolutely necessary because of the disruption they can cause.

2.3 Supervisory roles

Main Supervisor
Your main supervisor is the person who provides you with guidance about your project. The role of your supervisor is explained in more detail in section 2.4 below. Supervisors may be members of School staff (based at the School or at research sites elsewhere); or they may be external (i.e. non-School staff based outside the School).

External Supervisor
If you have an external supervisor, your Programme Director will need to approve their appointment, and ensure that you also have a designated School supervisor available to provide guidance from the School's perspective. The School supervisor may be your Personal Tutor, Programme Director or someone else.

Co-supervisor / Technical Advisers
Other individuals may also be involved in supervising or assisting with your project, though they do not have the responsibilities of your main supervisor. These individuals are referred to as co-supervisors (academics), or technical advisers (non-academics, e.g. staff working for an NGO). It can sometimes be appropriate for you to have a greater level of contact with a co-supervisor or technical adviser than with your main supervisor. Day-to-day advice on fieldwork or laboratory work may often be primarily given by co-supervisors or technical advisers, while your main supervisor may only need to give advice on the strategic direction of the project. They may be closely involved in the project as a whole, or for specific parts of your project, i.e. directing you in specific laboratory procedures, working with you during fieldwork, or advising you on statistical techniques for a specific part of your analysis. Your main supervisor may also delegate substantive supervisory responsibilities (including approving your project proposal and reading and commenting on your

draft final project report) to an internal or external co-supervisor, provided everyone involved agrees.

Personal Tutor

In some instances, your personal tutor may also be your project supervisor and you should note the shift in their role and responsibilities at this time. In cases where students have an external co-supervisor who will undertake the majority of supervision, it is also common practice for the personal tutor to act as School-based co-supervisor, with more limited responsibilities. In all cases your personal tutor should be monitoring that you are progressing with your project.

2.4 Role of supervisor

The role of your supervisor is to provide you with guidance and advice, and to support your learning during the project report. However, the final content of the project report is your responsibility and must reflect your own abilities and the skills and knowledge you have acquired during the programme and the project. **It is not your supervisor's responsibility to make sure that the project report submitted is of pass standard**.

If your main supervisor is not a member of School staff, you should clearly establish early on what support they will be expected to provide. This should include their availability and frequency of contact, or what they can arrange for you in terms of facilities and practical support (e.g. travel, accommodation etc.)

- **Planning stages:** You must write the project outline. In some cases, your supervisor may identify the dataset and define the research question for you to investigate, but you are responsible for specifying the analytical approach. However, for laboratory-based projects, the supervisor will usually play a more significant role at this stage.

- **Undertaking the project:** Your supervisor will provide guidance, but should not tell you what to do or what to write, or carry out specific actions such as writing text/commands or running statistical analyses for you.
    - Where you encounter specific challenges, you may find it helpful to have a discussion with your supervisor about situations similar to that which you are facing, then apply what you learn from such a discussion to your project report.
    - Sometimes the data you are analysing will belong to your supervisor. However, your supervisor should not direct the analysis beyond your level of ability. In some cases, your supervisor may carry out further analysis after the project report has been submitted, but the project report must be your work alone.

- **Writing-up the project:** Your supervisor will read and comment on **one** written draft of the project report, **so long as the draft is provided within a minimum of two weeks before the submission deadline**.
    - You must ensure that meetings are planned to allow adequate reading time. You should jointly agree target dates with your supervisor, for when they can expect to receive your draft and when they will be able to give you feedback after having read it.
    - Rather than have your supervisor read through a single final draft of your project, it may be much more helpful to get supervisor feedback on individual chapters as you draft them.

- Your supervisor is not expected to correct your English, though they may advise where further improvement is necessary.

Checklist – role of the supervisor
Things the supervisor *can* do: • May identify the dataset. • May define the research question. • Advise on development of the project proposal, including giving feedback and making specific suggestions for how to complete the online CARE form. • Give their approval for the final project proposal using the online CARE form – including confirming the appropriateness of the risk assessment, and advising the student on seeking ethics approval where required either by the School or locally. • Provide guidance over the course of the project, particularly on overarching elements but also on specific aspects where appropriate. • May insert comments electronically. • Provide feedback on a penultimate draft of the project report (if provided on time).
Things the supervisor should not do: • Correct the student's English. • Decide the final content of the project report. • Write the project outline. • Specify the analytical approach. • Tell the student what to do or write. • Write text/commands for the student. • Track-change text electronically. • Run statistical analyses for the student. • Ensure that the project is of at least a pass standard. • Rewrite a project report.

Disabilities

You may wish to inform your project supervisor if you have a **disability or ongoing medical condition**, e.g. physical or sensory impairments, learning disabilities such as dyslexia or dyspraxia, or difficulties affecting emotional or mental well-being. If you have already had a Learning Support Agreement put in place, then you may want to send a copy to your supervisor so they are better able to understand any specific needs you have and what support is already in place. If you have any queries related to disability support, then you can contact studentadvice@lshtm.ac.uk. Further information can also be found here: https://lshtm.sharepoint.com/students/Pages/student-support-services.aspx

2.5 Frequency of contact with supervisor

The primary responsibility for maintaining contact with your supervisor rests with you. You should consult them early on about your plans, and jointly agree on how they will give input as your work progresses. There may be periods where your supervisor is unavailable and they should let you know when this is the case. If you feel that your supervisor is not sufficiently available to give you necessary support, you should let them know immediately. If you are still dissatisfied, you should let your Programme Director know.

- **Initial project planning and proposal development stages:** you should seek advice from your supervisor about the general topic and direction of your project. Your supervisor can be expected to give you feedback on **one full draft project proposal during these planning stages**, but not more detailed input (e.g. they should not do your literature search for you). Your Programme Director can give advice and feedback if no supervisor has yet been appointed.
- **Main period of project work**: You should organise regular sessions with your supervisor, e.g. meetings, phone calls, email briefings, particularly during the early stages of the project. You should agree a timetable of work for the project report with your supervisor early on; and you should agree the plan of analysis and the structure of the report at a relatively early stage, including chapter titles and sub-headings.

The exact amount of contact time will vary according to your needs, the type of project involved, and any particular difficulties or problems that may arise. See Part 2 of this handbook for programme-specific information. However, **the total contact time you can expect between yourself and your supervisor over the summer period is between 6 and 10 hours**. This includes all contact, whether by telephone, email or face to face. In addition to this 6-10 hours' contact, the supervisor is required to read through and comment on **one full draft** of your project as long as the **draft is provided within a minimum of two weeks before the submission deadline**.

Laboratory-based work may often involve students being in contact with their supervisors on more or less a daily basis. In such scenarios, technical contact such as setting up equipment, handling materials and demonstrating or carrying out procedures is not expected to count towards the maximum 10 hours' supervision time.

3. STARTING TO PLAN YOUR PROJECT

3.1 Initial planning

Late Autumn term, and by early January. Deadline will be approximately end January, or a minimum of two-weeks before the hand-in date for your draft project proposal – to allow your supervisor to check the details and for you to make any final amendments.

Initial ideas
All students should begin to think about potential project areas at an early stage in the academic year. You should consider what type of work or topic area will best suit you and your expertise, or fit with your career goals for after the programme. You may wish to explore a number of different ideas with a variety of staff before coming to a decision.

Your chosen topic must be relevant to your MSc programme. Further specific guidance is given in Part 2 of this handbook; but if in any doubt, please speak to your Supervisor, Personal Tutor or Programme Director before spending any time investigating options that may not be relevant or appropriate.

Programme-specific approaches
Please see Part 2 of this handbook for programme-specific information. Some programmes assemble a list of potential projects, or a list of potential project supervisors, or both. Others leave it to students to come up with a project idea, usually after discussion with your personal tutor. The project idea or topic area and the type of project you undertake, will be interlinked.

Identifying a supervisor
Your supervisor should normally be identified at this stage. Further information on how this process will work for your MSc are given in Part 2 of this handbook. It is not always necessary to identify a supervisor during initial planning, and your Programme Director can provide advice if no supervisor has yet been appointed.

Identifying external placements
Your initial exploration of project ideas may lead you to identify a potential external placement (e.g. in a hospital, college, research institute, NGO, field station etc.) Sometimes such links may be suggested by your supervisor or Programme Director; or this may be an organisation that you know of or have some previous experience with. You should contact such organisations at this stage, to find out whether a placement will be possible, and identify a suitable member of staff who can support you while there (e.g. as main supervisor, co-supervisor or technical adviser).

Good research practice policy
You must read through the *School's Good Research Practice Policy.* This may clarify your thinking about how aspects of the project might best be carried out. The policy is available on the web here: https://lshtm.sharepoint.com/sites/intranet-research-governance-and-integrity .

Completing initial planning
At the end of the initial planning stage, you should know:

- The type of project you will be doing.

- The likely topic (although the final title of your project may not be agreed until the writing up stage, the broad topic area should be decided now).
- Who your supervisor will be.

Setting a work schedule

Good project management is key to a successful project and a plan should be agreed early on:

- Develop a timetable, prepare a clear project outline/structure for the main research, and always be conscious of what is/is not feasible.
- Do as much groundwork and preparation as possible ahead of starting the main project work in the summer.
- Once your main research is underway, aim to maintain a steady productive pace. Beware the temptation to think you can cram everything in at the end.
- Always plan to set aside writing-up time after completing the main research or data collection.

4. THE PROJECT APPROVAL PROCESS

It is *vital* that you obtain full approval before starting work on your project. Further guidance about how proposal development and approval should operate for your MSc specifically is given in Part 2 of this handbook. You will need to develop your proposal and gain approval. You will want to seek and incorporate feedback from your supervisor (and possibly other staff like your Programme Director) as you develop your proposal and you will need to gain approval from your supervisor and Programme Director.

You must complete the School's **Combined Academic, Risk assessment and Ethics approval (CARE) form** via the LEO portal (https://leo.lshtm.ac.uk/), to obtain the formal approvals the School requires before you undertake project work.

4.1 Proposal development (Stage 3 of planning & approval process)

January-February: Deadline for this stage will be approximately mid-February.

Proposal development is where you shape your ideas into a specific plan. This may include:

- **Adding more details** about the background to this topic, your intended approach, and expected outcomes.
- **Confirming major aspects** like who your supervisor will be (if not previously confirmed) or setting up an off-site placement.
- **Seeking advice and feedback from others**, particularly from your supervisor, but potentially from other staff such as your Personal Tutor or Programme Director, other students, or past colleagues and personal contacts.

It is recommended that you use the CARE form when you begin to develop specific details of your proposal. You may produce several drafts of the CARE form, revising them after discussions and feedback from your supervisor or others, before you submit a final version for approval.

Your supervisor can reasonably be expected to give you **feedback on one full draft project proposal** (or your Programme Director can do this if no supervisor has been appointed).

4.2 Starting the CARE form

The Combined Academic, Risk assessment and Ethics (CARE) form enables you to summarise the work of your project, so that staff have sufficient information to give approval.

You can find guidance on the Research Governance and Integrity intranet pages here https://lshtm.sharepoint.com/sites/intranet-research-governance-and-integrity/SitePages/LSHTM-Ethics-Online-(LEO)-Guidance.aspx

Structure of the CARE form
The form is divided into main sections:

(1) Administrative details which cover basic information about the type of submission
(2) Project filter to set the appropriate questions for your study
(3) Overview of the project, and the academic content of proposal

(4) Project methodology
(5) Description of your background and experience
(6) Participant information (might not be applicable)
(7) Funder details (might not be applicable)
(8) Intervention study information (might not be applicable)
(9) Drug and device information (might not be applicable)
(10) Human tissue samples information (might not be applicable)
(11) Details of local approval (might not be applicable)
(12) MSc specific information on:
    (12a) data sources, intellectual property and permissions
    (12b) risk assessment
(13) Security Sensitive Research
(14) Data Protection Impact Assessment Screening (not applicable to MSc students)
(15) Declarations and signatures

The project filter in section 2 will enable and disable questions specific to your study. You need to complete all enabled questions as they will all apply to your study.

Use of electronic form
The form must be completed online at http://leo.lshtm.ac.uk. The online form is saved automatically as you navigate between questions. You can share the form, or save as a pdf to send to your supervisor and programme director, as required.

Draft versions
You are not expected to complete the CARE form in one go. It can be helpful to start work on a first draft of the CARE form as you discuss initial project plans with your Personal Tutor, Supervisor or Programme Director, or even earlier. Alternatively, you can fill it out in one go when you have worked out your plans more fully.

You can share the form on LEO with your supervisor so they can review it as you complete it. Your supervisor may write in the speech bubbles included within the system.

Please ensure you keep an electronic copy of all versions of the form that you submit for approval, and that you can always identify the most recent. If you save pdf versions of the CARE form, it is helpful to date or number different versions. Files should be named in the following format:

[MSc title]_[Year of Submission]_[Surname]_[Forename]_CARE [Version]

For example: **PH_2021_Chadwick_Edwin_CARE_v01_Jan19th.pdf**

Any other documentation, e.g. consent forms when submitting to the MSc Research Ethics Committee, should be saved in a similar format but changing the word CARE.

For example: PH_2021_ Chadwick_Edwin_EthicsConsentForm_v01_Jan19th.doc

Who should fill in the CARE form
The CARE form must be filled out by the student writing in the first person. However, it may be appropriate for supervisors to edit parts of the CARE form (To help distinguish such contributions they should be written in the third person.)

Abbreviations
Ensure that **any abbreviations are defined in full the first time they appear** in the CARE form, even if you think the abbreviation is widely understood.

4.3 CARE Section 1 – Administrative Details

Section 1 of the CARE form is a cover sheet of important basic information about your proposal:

- **Project title:** You will need to come up with a draft project title for the purposes of the CARE form. This does not have to be the final title for the project report, it just needs to be a working title.
- **Name and email contact details:** Do not give your candidate number anywhere on the CARE form.
- **Supervisor details**: **You may not have had your project supervisor fully confirmed by the time you submit the form for approval**; if so, you can state the status in question 3e. Where no supervisor has been identified, you should use the name of your personal tutor. These details can be updated if they are confirmed or changed later in the course of the CARE approval process.

4.4 CARE Section 2 – Project Filter

This section contains filter questions to tailor the form to your proposal. Ensure that you select the appropriate answer to these filter questions, as errors may delay starting the study. Details about permitted project types for your MSc are given in Part 2 of this handbook.

4.5 CARE Section 3 – Overview of Project

This section allows you to describe the main features of what your project will cover, with a general project outline plus points about general feasibility. You will benefit from discussing this section with your Supervisor, Personal Tutor or Programme Director, and may need to go through several drafts and revisions. Once complete, you should be in a better position to answer the questions in the next sections. However, questions and answers in later sections may prompt you to come back and revise academic elements in this section.

Project Outline
Academic requirements for projects will differ between programmes. Further details and guidance are given in Part 2 of this handbook. The **project outline should not exceed 750 words total**. The form is only intended to sketch out your project plan. Please note:

- **(Hypothesis):** This depends on the project type and not all require one.
- **(Aim):** The overall aim of the project may simply be to investigate the hypothesis.
- **(Specific objectives):** While these do not have to be specific at the proposal stage and can be generic, setting out sensible objectives now helps to demonstrate that your project has been properly thought out. It can be helpful to us the following **SMART criteria**:

    - **S**pecific: rather than too general.
    - **M**easurable: to help allow you to reach a conclusion about what your work has found.
    - **A**chievable: given the limited resources you will have for your project.
    - **R**elevant: to the project topic, and to the criteria your project will be marked on.

- **T**ime-bound: achievable within the limited time you will have to carry out the project.

4.6 CARE Section 4 – Methodology

This section should cover both data collection and data analysis. It is good to include a provisional data analysis plan, e.g. listing statistical techniques to be used.

Feasibility
The Feasibility sub-section asks about **things that might prevent you from carrying out a successful project**, and **back-up plans** for such scenarios. This will be **relevant for all students**, **no matter what type of project you are doing**. Your answers in this section may also link up with details you give in the later Risk Assessment section. This may also be an opportunity to give contextual information on possibilities like natural phenomena or transport issues, e.g. whether travel may be affected during a monsoon season.

4.7 CARE Section 5 – Experience of Investigators

Upload a brief Curriculum Vitae (CV) and provide brief details of your experience in relation to the project.

4.8 CARE Section 6 – Participant Oversight

If you are undertaking a systematic/literature review only, or using data fully in the public domain, you will not need to complete this section. This section looks at the information provided to participants for your study, as well as how they will be consented. Further information is provided in Section 6 of this handbook.

4.9 CARE form Section 7 – Funding

Provide any details of funding available for the project, including any travel grants or other funds awarded to you.

4.10 CARE form Section 8 – Interventional Studies

This section is for any student undertaking an interventional study for their project. Most students will not undertake this type of study due to the length of time it takes to set up a trial.

An interventional study as defined includes: “all trials based on random allocation of interventions and also non-randomised interventions where participants or groups of participants are given treatments (of whatever nature) that they would not otherwise be receiving in the ordinary course of events and which are allocated by the investigator.”

4.11 CARE form Section 9 – Drug and Device Information

It is unlikely that a student will need to complete this section.

4.12 CARE form Section 10 – Human Tissue Samples

It is important that students are familiar with appropriate laboratory techniques as there is specific UK legislation which guides how we handle and use human tissue samples. Further information is

available on the tissue section of the intranet: https://lshtm.sharepoint.com/sites/intranet-research-governance-and-integrity/SitePages/Human-Tissue.aspx

For students planning projects that involve human tissue at LSHTM (Keppel Street) please be aware that you will need to complete the mandatory 'Working with Human Tissue' online training course *before* you submit your CARE form for ethical review.
The training is available on Moodle: https://open.lshtm.ac.uk/enrol/index.php?id=13
Please note, your LSHTM login won't automatically work on this site, and if you haven't used Open Study before, you will need to register as a new user.

4.13 CARE form Section 11 – Local Approval

Obtain local approval
It is the responsibility of the student and their supervisor to ensure that all applicable ethics approvals are in place before the start of the study.

- Details of local ethics approval need to be included in CARE form submissions.
- Copies of any local ethics approval or similar documentation will need to be included in your final project report

You need to think about whether any approvals or permissions are required in relation to your project from bodies outside LSHTM. **If local ethics approval is required, you must not start work until you have obtained full approval both locally and from the School**. This could include local ethics approval (from an ethics committee associated with the institution running the research site you will be working at, or a national or regional body or government department in the country concerned), research governance approval (e.g. to work in an NHS facility in the UK), appropriate permission to work with vulnerable groups such as patients or children, etc.

You should be aware of and expected to follow the LSHTM policy on the use of animals in biomedical research. Such work is also likely to require some form of external approval.
https://www.lshtm.ac.uk/research/research-governance-and-integrity/animal-research

Where you have identified that approval is required, you will be responsible for following up to obtain it, and should not undertake project work until it has been confirmed as granted. It is always useful to **apply for local approval as far ahead of your project as possible**, as approving organisations can sometimes take a long time to consider and respond to applications.

If local approval is necessary you should briefly outline the requirements, demonstrating that you have investigated them. For example:

- *"The Ministry of Health and Social Services of Namibia require a detailed summary of the proposed project, with covering letter, in order to give local ethics approval."*
- *"Barking and Dagenham Primary Care Trust will require me to undergo some pre-engagement checks, to be determined by them, but have confirmed that they will not need me to have an NHS Research Passport as I will not be interacting with individuals in a way that has any direct bearing on the quality of their care."*

Local approval already obtained

In some cases, local ethics approval that is required for the work you are undertaking will already have been granted. **If so, you must make this very clear**, quoting approval reference approval numbers and if possible giving web links to documents or attaching a copy/scan. For example:

- *"Ethics approval has already been given by the MRC and Gambian Government Scientific Co-ordinating Committee (SCC) and Joint Ethical Committee (JEC), in Letter L2011.28 of 28th April 2011, for a broader study into which this project fits as a component. A copy of this is attached. My CV will be submitted to the SCC and JEC to inform them of my visit and participation in the work during this project."*

School ethics approval required before local ethics approval
Sometimes, local ethics committees will require that you get ethics approval from the School before they are willing to give their local approval. In such a case, you should apply for School ethics approval and make this very clear. **If local approval is *not* granted, then this will make your School approval invalid.**

Local approval not required / unknown
There may be cases where you are unable to identify a relevant local ethics committee or believe that no formal approval is required. **If you indicate that local approval is not required, you should explain why**, including what you have done to check this. You should **always** be able to demonstrate some kind of appropriate local support for the work you will be doing, e.g. correspondence with local government officials or an involved Non-Governmental Organisation. For example:

- *"My data collection in Kigoma, Tanzania will comprise semi-structured interviews about local nutrition matters with up to a maximum of 15 individuals, to be identified via 'snowball' recommendations from my two lead contacts in Mtanga Village (who are a village Councillor and the village primary school Head teacher). I do not believe this will require formal local approval. Attached are copies of correspondence from my contacts, plus a copy of a letter setting out my intended work which I have sent to the District Executive Director, Kigoma Rural District."*

If you will be working at the invitation of an NGO or similar responsible body, you should give details about your relationship with them and their work in the country in question. For example:

- *"The Red Cross already have relevant wide-ranging permissions to work with refugee groups in this area. I will be working under their auspices as a volunteer, and they have agreed that I can carry out my health and sanitation survey as part of this work (see letter of confirmation attached)."*

4.14 CARE form Section 12 – MSc Specific Information

Data sources, intellectual property and permissions
At this stage of project planning, you should also consider **whether any issues around data sources, intellectual property rights, copyright or other permissions may apply for your project**. It is each student's responsibility to seek and gain any requisite permissions. Speak to your supervisor in the first instance if you are unclear on this. Section 10 on Copyright and Intellectual Property later in this handbook, provides further information.

- If you expect to use existing data, you should explain how you intend to gain permission to use it, how you will access it, and what kind of restrictions may apply to your access or what you can write or publish about it (e.g. data usage limitations to prevent identification of individuals).
- If you intend to use public domain data, it is important to make clear that this is fully public.
- The form prompts you to indicate whether any data rights permissions or usage limitations will apply to data collected or used in the project, e.g. if the body granting permission needs you to ensure that no personally identifying information appears in your final report or if the owner of the dataset you will be using will only grant you permission to use it for the specified purpose of your LSHTM project report. For example: *"Data will belong to the MRC Unit in The Gambia. I will be permitted to analyse and present the data in my MSc project report, but not to make the results available to others. The right to incorporate my project data together with other existing data into a future publication will be retained by my supervisors at MRC The Gambia, with the assurance that I would be appropriately credited."*
- In many cases you may be working with data that belongs to LSHTM. You should discuss whether it is necessary to sign any specific agreements in advance about intellectual property rights or copyright. Standard forms are available for this (on the Moodle site for your MSc programme).
- You should tick the appropriate box to indicate which type of agreement may be applicable, if any, including with external parties. Copies of forms and agreements should also be supplied where possible when the CARE form is submitted for approval, even if they are still in draft.

Guidance on collecting and finding data is provided in the LSHTM document on Data Management for MSc Summer Projects, available at https://doi.org/10.17037/DATA.00001857.

4.15 CARE form Section 13 – Security Sensitive Research

If your project involves access to and/or storage of security sensitive research material, you will be required to complete this section.

The following are examples of material that would be considered security sensitive:

- Materials that are covered by the Official Secrets Act (1989) (http://www.legislation.gov.uk/ukpga/1989/6/contents) and the Terrorism Act 2006 (http://www.legislation.gov.uk/ukpga/2006/11/contents)
- Materials that could be considered 'extremist' which is defined in the (Prevent) Statutory Guidance to HEIs under Section 29 of the Counter Terrorism and Security Act 2015 as, 'vocal or active opposition to fundamental British values, including democracy, the rule of law, individual liberty and mutual respect and tolerance of different faiths and beliefs'
- Materials used for research projects commissioned by the military or under an EU security call.
- Research projects that involve the acquisition of security clearances to undertake the research.
- Materials for malign purposes, e.g. extreme pornography

'Materials' includes both online, electronic and hard copy resources.

Other research material, not mentioned above, could also be regarded as security sensitive. If in doubt please contact the schools Quality and Governance Manager at rgio@lshtm.ac.uk

Please note that while some data is considered sensitive, such as HIV status, it is not necessarily considered security sensitive unless it meets the criteria above. If you are using data that could be considered sensitive, but not security sensitive please answer no to whether your research involves access to and/or storage of security sensitive research material.

4.16 CARE form Section 15 – Signatures

Electronic signatures need to be obtained after the final draft of the form is completed online and can be requested by different people. **This will lock the form which will no longer be editable. Should you need to make changes to the form after requesting signatures, this will unlock the form and void signatures. You will then need to request these again.**

- **Student:** Sign the form electronically before requesting other required signatures Signing will confirm that you will carry out the project as stated on the form, particularly with regard to safety and ethics requirements.
- **Supervisor, Programme Director and Other:** You will need to obtain the electronic signature from your Supervisor and Programme Director (and Faculty Safety Partner, Offsite Safety Advisor, Quality and Governance manager or Designated Individual for Human Tissue, if appropriate), before it can be submitted to the MSc Research Ethics Committee. They need to be registered on the LEO system before requesting their signature. Further guidance on the process of submitting the form for approval is given in Section 4.17 of this handbook.
- **Submit:** Once you have received all relevant signatures, your form will be automatically submitted to the MSc Research Ethics Committee. If your form is submitted in error you can use the 'Withdraw' button located under Actions to withdraw your submission up until the point that the application has been validated. Once the application has been validated you will need to contact MScethics@lshtm.ac.uk to have the application withdrawn.

Safety and Risk Assessment

Detailed guidance about filling in the sections on Safety and Risk Assessment in the CARE form is given in Section 5 of this handbook. **You *must* fill out all questions in the CARE form section 12** as these will confirm whether you will be required to do a more substantive risk assessment.

4.17 Proposal approval (Stage 4 of planning & approval process)

Late February to early March. For most programmes, the key date of this stage will be to submit CARE form for Ethics approval by mid-April(March for MSc HDS).

The School requires that all students obtain appropriate approvals for intended projects ***before*** starting work.

- **Academic approval** (Supervisor and Programme Director). This is to ensure you do not work on a project which would be unsuitable for the MSc you are studying.
- **Risk assessment approval** (Supervisor and Programme Director, and possibly from further staff such as the Faculty Safety Partner or Offsite Safety Advisor). This is a School requirement.

Ethics approval. Not all projects will need ethics approval, but you are required to submit your application to the MSc Research Ethics Committee for their initial review. Please **be aware that any work in breach of ethics requirements is liable to be given an automatic fail grade.** ***Key steps in the approval process***

Approvals should be obtained in a specific order as follows.

Approval step	***Instructions***
1. Proposal development	Complete the CARE form, get feedback from your supervisor or personal tutor and edit or re-draft as required. You should fill in all sections at this stage, including for risk assessment and ethics. **When ready, share with your supervisor on the LEO system**.
2. Staff Peer Review *MSc Public Health Projects only)*	This stage only applies to the MSc PH programme. The draft CARE form is sent to two tutors, neither of whom are the designated supervisor, who provide brief written comments on the draft project proposal. The student should discuss these comments with the supervisor and revise their draft before submitting it for formal supervisor approval.
3. Supervisor approval	Supervisor scrutinises the form. They may wish to speak to you about specific points. Programme Directors or personal tutors can give approval if your supervisor is still to be identified or confirmed. You should incorporate their feedback • **Approved:** Request that the supervisor sign the final version of the CARE form on the LEO system. • **Not approved:** The supervisor will inform you and give feedback about what you need to change/ improve. You should go **back to the proposal development stage**, and make changes incorporating their feedback.
4. Programme Director approval	Programme Director scrutinises the form, to confirm it is academically suitable for the MSc and that any key risks have been identified. They may wish to speak to you about specific points. (*For programmes with more than one Programme Director, only one needs to give approval).* • **Approved:** Request that the Programme Director sign the form electronically. If relevant, the **Faculty Safety Partner (FSP) will also be able to sign the form electronically before submitting to the MSc Research Ethics Committee**. • **Not approved:** The Programme Director will give feedback about what you need to do. You should go **back to the proposal development stage** to make changes and put a revised form through for supervisor and Programme Director approval.
5. Faculty Safety Partner(FSP) approval *(where relevant) as indicated by answers to Questions in Section 13 of the CARE form*	This step is only likely to be required for ITD programmes, where hazardous substances (including pathogens) might be used. You should incorporate the FSP's feedback. • Approved: The FSP will sign the form electronically on the LEO system; then submit to **MSc Research Ethics Committee**. • Not approved: The FSP will inform you and give feedback about what you need to change or improve. You may be able to simply **re-submit for FSP approval** if changes will not require fresh approval from your supervisor and Programme Director.
6. Designated Individual Approval *(Where relevant) as indicated by answers to Q6a and Q36-39 of the CARE form*	In certain cases, relating to work with human tissue as clearly indicated on the form, you will need to seek specific approval from the Designated Individual for human tissue (DI). • You should incorporate their feedback. • **Approved:** the DI may sign the form electronically on the LEO system; then submit **to MSc Research Ethics Committee**.

Approval step	*Instructions*
	• **Not approved:** the DI will inform you and should give feedback about what you need to change or improve. You may be able to simply **re-submit for DI approval** if changes will not require fresh approval from your supervisor and Programme Director.
7. Offsite Safety Advisor Approval	If your project requires you to travel across international borders or involves an overnight stay within your country of residence, you will need to seek approval from the Offsite Safety Advisor. • **Approved:** the Offsite Safety Advisor may sign the form electronically on the LEO system; then submit **to MSc Research Ethics Committee**. • **Not approved:** the Offsite Safety Advisor will inform you and should give feedback about what you need to change or improve. You may be able to simply **re-submit for Offsite Safety Advisor approval** if changes will not require fresh approval from your supervisor and Programme Director.
8. Quality and Governance Manager Approval	If your project involves access to and/or storage of security sensitive research material, you will need to seek approval from the Quality and Governance Manager. • **Approved:** the Quality and Governance Manager may sign the form electronically on the LEO system; then submit **to MSc Research Ethics Committee**. • **Not approved:** the Quality and Governance Manager will inform you and should give feedback about what you need to change or improve. You may be able to simply **re-submit for Quality and Governance Manager approval** if changes will not require fresh approval from your supervisor and Programme Director.
9. Ethics approval	All studies will be submitted to the MSc Research Ethics Committee for review. Please include any other relevant documentation, including copies of information sheet and consent form for collecting data from human subjects, confirmation of local ethics approval received, etc. Queries regarding the ethics review process or with the LEO system may be sent to MScEthics@lshtm.ac.uk . • **Approved:** The MSc Research Ethics Committee will inform you via an approval letter– and may also have further comments. • **Not approved:** The MSc Research Ethics Committee will inform you and give feedback. You can **re-submit for ethics approval**, and will need to obtain new signatures from your Supervisor, Programme Director and FSS as the CARE form will have changed. More substantial revisions may need you to **return to the proposal development stage**. • **Request for clarification/Insufficient Information:** The MSc Research Ethics Committee may request additional information before they make a decision. You will be informed of this via a request for clarification letter. You will be able to respond to the Committee by going back to your original application and changing the answer to Q2f to 'responding to request for clarification' and uploading a covering letter. You will then need to obtain new signatures and submit your application to the Ethics Committee.

Approval step	*Instructions*
10. Submission to MSc Moodle page	You should upload a final copy of the CARE form with your final project submission **via your MSc Moodle page.**

Please also see Section 4.20 “Revisions during the approval process” for details about reasons why staff may not approve proposals at certain stages, and what to do if so.

Other approval steps

- ***Local ethics approval:*** If approval is required from an external body then this must be followed up and obtained separately (see Section 6 Ethics Approval). The LSHTM MSc Ethics Committee will not normally grant approval until all required local approvals are in place; for cases where LSHTM approval must be granted before local approval is in place (e.g. the local committee require LSHTM approval to be in place before they will approve, local approval should always be in place before you commence the local work in question.
- ***Animal research ethics approval:*** **Use of animals and animal samples.**
  Any student projects involving animals or animal tissues, including blood and serum samples, ***must*** be given formal LSHTM animal ethics (AWERB) approval before they can proceed. This includes laboratory animals, wild animals as well as domestic animals (such as live stock or pets).
  If the work is conducted in the UK you must state which Home Office project licence is in place that will cover the work. If the work is conducted outside the UK you will need to investigate and obtain any local ethics approval (i.e. from bodies external to LSHTM) that may be required for the work being undertaken. You must also clarify who will collect the samples and what their qualifications are (e.g. veterinarian etc.).
  Approval should be sought by contacting AWERB@lshtm.ac.uk
- ***Restricted travel:*** In the very rare case that you wish to undertake a project in a country or region to which the Foreign & Commonwealth Office advises “against all travel” and “all but essential travel”, your Travel Risk Assessment Form. Further guidance about this is given in Section 5.7 of this handbook.

4.18 Approval deadlines

School-level project deadlines for standard projects are set out below (deadlines for MSc IID extended projects will differ). Please also **note the programme- specific deadlines for obtaining supervisor and Programme Director approval**, as given in Part 2 of this handbook.

Any students having problems finalising their proposal or obtaining approval should ensure their Programme Director is aware **before** the deadline is reached. **You must not commence the main work of the project until you have received all required approvals**.

Ethics Approval
Deadlines for students to submit a completed CARE form to the MSc Research Ethics Committee. *(Note that ITD MSc projects taking place overseas have a later deadline.)* You will need to allow at least two weeks for the FSP and/or Offsite Safety Advisor approvals if necessary, prior to these deadlines.

Care form submitted to MSc Research Ethics Committee	Deadline
All MSc Projects (except ITD projects overseas)	**Wednesday 19th April 2023**
ITD projects taking place overseas	**Wednesday 26th April 2023**

Ethics review will typically take 4 to 6 weeks from the point of submission, though this can be longer if the project is particularly complex. You should **expect to have all approval in place by around the beginning of June** (i.e. early in Term 3.)

CARE Form
Students to submit their final approved CARE form when submitting their final project via their MSc Moodle page.

Late submissions
The School will endeavour to accommodate **late submissions**, but reserves the right to defer approval/marking of projects for which proposals are submitted late. If you anticipate delays in being able to submit a proposal for approval, you should let your supervisor, Programme Director and (where relevant) the MSc Research Ethics Committee know as soon as possible. You will not be penalised if there are delays on the part of staff in approving your proposal; but you should always let your supervisor and Programme Director know of such delays.

4.19 Recording approval and submitting the CARE form

Staff members' formal approval for the CARE form should be obtained via the signatures section in the LEO system. This should only be done after you have finalised the form.

Contacting staff
Email the relevant member of staff informing them that you will be finalising the form and a request will be made for them to authorise the form by signing electronically. You should email staff at their LSHTM email addresses unless they are based externally or have specifically asked you to use another address. In section 15 of the CARE form, you will be able to click on "request signature" and sign the form as applicant.

Staff responding to you
Having received your request for approval via the LEO system, staff may first wish to discuss specific items with you face-to-face, by phone or by email. However, the response to your request for authorisation will be as follows:

Either: The staff member will **confirm** by signing electronically the form
Or: The staff member may **not give approval** at the present time, and advise on what you need to change in your proposal in order to gain approval. (*Section 4.20 below gives further guidance on what to do where revisions are requested).*

Once all parties have authorised/signed electronically your CARE form, the form will automatically submit to the MSc Research Ethics Committee.

Ethics reference number
Once you have submitted the application, you will receive an ethics reference number which is important to keep a record of.

Saving approval details
Once you have received an email from the LEO system giving approval, you should ensure you save a copy. The LEO system will retain all correspondence which you can access at any time. The document should be saved as **Approved CARE form** followed by the **initials of your MSc** (as per the Programme Initials table below) and followed by **your name**. For example, "**Approved CARE form – MSc PH – Edwin Chadwick**".

4.20 Revisions during the approval process

During all stages of the process, staff may give you feedback on your proposal and request amendments before they approve it.

Approval given, with feedback or minor revisions
If you are asked to make minor revisions, you should update the form to incorporate staff feedback before passing it on to the next stage of approval. You should also give those staff a copy of the revised form. Updating the form will void any signatures received and you will not be able to submit to the MSc Research Ethics Committee until all signatures are in place.

Approval withheld
If staff are ***not*** willing to approve the proposal as it stands, then they must **return the form to you unapproved, letting you know why** and discussing revisions you should make before they can give approval.

Minor revisions after approval by supervisor/programme director
It is permissible to make small changes to your proposal even after it has been approved by some or all involved staff, without having to get it re-approved, provided such changes are minor and do not affect the previously-approved aspects. For example:

- If prompted by the Faculty Safety Partner, you could add some notes about additional precautions to be taken with pathogens.

When you have made revisions, **you should re-request the signature of the person who requested the changes.** Their approval will need to be given before you move on to the next step in the approval process.

Major revisions
Major revisions are those which make a material difference to the academic content of the project, risks involved or ethics considerations. In the rare instance that objections to your proposal are so major as to necessitate an entirely new proposal, you will be asked to discuss further with your supervisor. In any such cases, you may ask for a deadline extension to give you sufficient time to work through the process again via the School's Extenuating Circumstances Policy, details of which, can be found on the web at the following link: https://www.lshtm.ac.uk/study/new-students/starting-your-course-london/regulations-policies-and-procedures

If you need to make major revisions after your proposal has been approved by some or all involved staff, then you should seek re-approval from all relevant staff. For example:

- If the Faculty Safety Partner requests changes, e.g. to use a completely different procedure for handling pathogens, which would affect the academic content of the project and change the risk considerations previously approved.
- If the MSc Research Ethics Committee requests changes, e.g. in your proposed data handling methods for assuring the confidentiality of participant data, which would affect the academic content of the project already approved by your supervisor and Programme Director.

It is helpful to identify such revisions within the CARE form itself, e.g. “Details added on recommendation of Faculty Safety Partner.”

Updating the Student Declaration

If you update the CARE form at any point after submitting it for approval by staff, you will need to re-sign the student declaration and obtain all signatures again.

4.21 Revisions after final approval

Once you start your main research work, after your final CARE form has been fully approved, your project may develop in ways that differ from your original proposal. This can be a natural outcome of scientific method and the process of discovery. However, **you must consult staff if you need to significantly alter your approach from that set out on the CARE form.** If the potential changes relate to **safety, risk assessment or ethics**, your supervisor will advise on whether updated approval needs to be sought from relevant staff. Such changes should be discussed with your supervisor first and you should explain any more notable changes in your final project report, e.g. in an annex.

Any changes to your approved CARE form must be submitted to the MSc Ethics Committee via an Amendment form on the ethics online applications website: http://leo.lshtm.ac.uk

If you make such changes without checking with your School-based supervisor, you may be liable to a penalty, potentially including failing the project. If you have a supervisor at another institution, checking with them will *not* be sufficient.

5. SAFETY AND RISK ASSESSMENT

5.1 Risk assessment

Information about safety at the School can be found on the School's safety web-pages at https://lshtm.sharepoint.com/sites/intranet-occupational-health-and-safety/SitePages/Travel-Safety.aspx . Where documents refer to risk assessments, then for the MSc project this means the CARE form. You are expected take the online risk assessment training available on Moodle, prior to completing your CARE form. You do not need to complete a risk assessment other than using the CARE form.

The School has a legal duty of care towards you in all studies you undertake as part of your degree, and you in turn have a duty to undertake these in line with School policies and procedures. To comply with this duty of care and related insurance requirements, **the School requires a risk assessment for all MSc projects using the CARE form**. Approval must be obtained from your Supervisor and Programme Director, plus your Faculty Safety Partner where relevant, **before** work begins.

- If your project involves **laboratory work** or **work away from LSHTM** or significant **travel**, then safety issues will need to be considered and addressed as part of the CARE form. If you are **pregnant or are immunosuppressed**, risk assessments may need to be adjusted.
- If your project work will be carried out at any of the following locations, this is considered standard study and does not require detailed risk assessment information in the CARE form.
    - At LSHTM, but not in labs or involving hazardous activities
    - In libraries elsewhere in the UK
    - At your personal residence in the UK

You should also be aware that **any accidents occurring during project work which result in an injury must be notified to the School's Head of Safety** in the form of an Incident Report.

Joint degree programmes
Students registered on joint degree programmes for which projects come under the other college's remit should normally follow the other college's risk assessment processes. However, if your project work is primarily being done at or through LSHTM (e.g. in labs), you should check with your LSHTM Programme Director or Faculty Safety Supervisor as to whether you need to carry out an LSHTM risk assessment.

5.2 Laboratory work safety requirements

It is vital that additional safety training is given and suitable supervision is provided throughout the practical work, ***before*** any laboratory-based project begins. If you have any concerns about your training, please speak to your supervisor. Completed CARE forms should demonstrate understanding of all major lab-based risks relevant to the project.

All MSc students undertaking lab projects must read the School's lab safety manual, at: https://lshtm.sharepoint.com/sites/intranet-occupational-health-and-safety/SitePages/Laboratory-

Safety.aspx , and have had their project risk assessment (CARE form) approved before gaining access to the laboratory.

- The CARE form must be approved by the Faculty Safety Partner well in advance of commencing any work with hazardous substances.
- Practical work should be overseen by your project supervisor, or another nominated member of the research group, until such a time as you are considered competent to continue without direct supervision. Your supervisor or nominee must be close by (within the building) at all times when you are conducting lab work, and must be contactable.
- Work outside normal school hours will not be permitted without approval of the project supervisor and Faculty Safety Supervisor.
- You must be given adequate training in use of central lab equipment, such as ultra-centrifuges.
- Projects involving use of infective stages of ACDP hazard group 3 pathogens will not be permitted.

5.3 Work away from LSHTM

The capacity to conduct work offsite will remain subject to the current global situation and associated factors such as:

- Regulations and guidance on travel, mobility and social activities as advised by the UK and foreign governments.
- Outcome of a comprehensive risk assessment
- Availability of funds to support any significant changes to travel arrangements
- Appropriate level insurance cover

LSHTM will therefore assess the feasibility of any travel and off-site activities on a regular basis. Any travel and offsite work will be assessed on a case by case basis and will be subject to a vigorous risk assessment and approval process. Systems have been implemented to ensure all protective measures are identified to ensure the health and safety of all our staff and students.

Offsite work is not limited to fieldwork or primary data collection, it can also include data analysis at another institution, placement work doing policy research at a non-governmental organisation, work in a library or archive outside the UK, etc. You will not require a detailed risk assessment if you are working at your personal/family residence (though you still need to make clear that you will be going there).

It is important to make yourself aware of any potential risks or safety issues for any work activities away from School buildings and take into consideration the impact of the COVID 19 Pandemic may have your work either inside or outside. You should discuss this with your supervisor as part of the process of completing the CARE form. Further guidance or restrictions to be aware of are given in Section 5.5 of this handbook, about completing “CARE Section 12b – Risk Assessment”.

Code of Practice on off-site work
You must also read the guidance and information available at https://lshtm.sharepoint.com/sites/intranet-occupational-health-and-safety/SitePages/Travel-and-Offsite-Training.aspx . This contains important information to be borne in mind before and during the project. Completed CARE forms should demonstrate understanding of off-site working issues. For fieldwork, your completed CARE form should demonstrate that relevant points, precautions and good practice have been considered, and how you plan to minimise risks.

Restrictions on off-site work

Restrictions may apply to where you may travel or conduct work off-site, and whether this is permitted at all. The School does not permit work in countries to which the UK Foreign & Commonwealth Office advises against all travel.

Contact arrangements

You should **discuss intended contact arrangements with your supervisor**, as per questions about this on the CARE form, to agree by what methods (e.g. email, Skype, phone, face-to-face meetings) and how frequently you expect to be in communication or how easily contactable you expect to be. At the time you are filling out the CARE form, you may not have a final itinerary or be able to provide full contact details. However, you should have all this information by the time you set off for your work outside the School.

You should also **make clear on the CARE form about your ability to call for emergency medical assistance and/or evacuation services in the event of an accident.** More information about such procedures is given on the safety web-pages here: https://lshtm.sharepoint.com/sites/intranet-occupational-health-and-safety/SitePages/Travel-Safety.aspx .

Before departure you should ensure that:

- You have details of all key contacts to take with you.
- If travelling overseas, take contact numbers for Medical Evacuation (via insurers), insurers, details of the appropriate in-country high consulate or embassy, and any relevant NGO or other local contacts.
- You provide your supervisor with your latest itinerary and contact sheet
- You have confirmed your supervisor's contact details for this period as many LSHTM staff tend to travel or work abroad during the summer months.
- If travelling overseas or overnight within primary country of residence, ensure you have attended/completed the Travel procedures and Travel Safety awareness sessions provided by the School's Health and Safety Department.

5.4 Arrangements with external institutions

Projects undertaken away from the School are normally expected to be based at an established site or with a specific organisation. Your project supervisor should ensure that local arrangements comply with the School's requirements.

- If you have initiated the contact leading to the placement or co-supervision arrangements, you may need to follow up on these matters on behalf of your supervisor.
- The information you give in the CARE form should demonstrate that you have sought and received appropriate and up-to-date information about the research site, including health and safety advice.
- Where specific hazards may be involved at the local site, **please ensure you read local safety guidance in addition to LSHTM manuals and guidance**. Discuss this with your FSP and upload these documents with your CARE form.

You should usually have support at the local site from a co-supervisor or technical adviser. This should be confirmed when arranging your work at the site, and details should be given on the CARE form as part of your risk assessment. It is essential when completing your CARE form that

full contact details of your onsite local supervisor or person who will act as local technical advisor are given to allow direct communication in case of any emergency. If no-one at the site is able to act as your co-supervisor or technical adviser, you must obtain written agreement in advance about exactly what support or facilities the site will be able to provide to you.

It may often be appropriate to arrange to do your project at your normal place of employment. You should be careful to distinguish between your role as a staff member at the institution, and your role as an LSHTM student carrying out a project. You should make arrangements on the same basis as set out above, i.e. ensuring that a more senior member of your employer's staff knows what you will be doing for your LSHTM project and can confirm that this is satisfactory.

5.5 Work outside the UK

Risk assessment and approval process is particularly important for project work you wish to undertake outside the UK. You will also need to request specific LSHTM travel insurance for any travel across international borders.

Travel Clinic advice (required prior to travel)

All students should obtain medical advice prior to any travel for your MSc project. Students with pre-existing health problems, such as diabetes, hypertension, respiratory disorders, immune-suppression or taking long term medication, are strongly advised to seek advice from a travel health specialist. Further related details are given on the School's Safety web-pages at https://lshtm.sharepoint.com/sites/intranet-occupational-health-and-safety/SitePages/Travel-Safety.aspx .

The School has an agreement with the Travel Clinic at the Hospital for Tropical Diseases for them to provide students with a health advice consultation and any necessary vaccinations, pre/post travel COVID tests, anti-malarials or medication for MSc project work overseas. The cost of this may be paid by the School provided you have a Travel Clinic Referral Voucher. You can request one of these by filling in the Travel Clinic Referral Form on Service Desk: https://lshtm.topdesk.net/tas/public/ssp/content/detail/service?unid=569cb0717835486c9abe7b8186552e3f&from=3a1f7503-50a4-41fa-abde-c1a106be39af Once this is approved you will receive an email voucher which you use as payment for the treatment required. The Travel Clinic is located at Mortimer Market (off Tottenham Court Road), Capper Street, London WC1E 6JB. Please take the email voucher when you go to the Clinic. (website: http://www.thehtd.org/travelclinic.aspx)

- School-supported appointments cannot be made until **after** your CARE form has been approved by the Offsite Safety Advisor, your supervisor and Programme Director.
- Once your CARE form has been approved, you should complete the Health Consultation Request form available on Service Desk. Please give details of the country or countries you will be visiting, plus any more specific information you can provide about the area(s) where you will be working.
- Once approved Service Desk will email you a payment voucher. This should be taken to the Clinic when you have your appointment.
- Please then telephone the Travel Clinic to make an appointment.

Travel insurance

If you will be travelling outside the UK primarily for the purpose of your MSc project (even if you are returning to your home country), you must register for the School's free travel insurance. This provides emergency medical and insurance cover to members of staff and students working abroad on School business. You need to fill out the travel and offsite Risk Assessment Form to be able to register for the Schools free travel insurance. Full information about this is available at https://lshtm.sharepoint.com/sites/intranet-finance/SitePages/Insurance.aspx

You must not travel for project work unless you are covered by the School's insurance and carrying an emergency assistance card. You may **not** use your personal insurance in place of the School's insurance.

The LSHTM Offsite Safety Advisor (offsite-safety@lshtm.ac.uk) and the Finance Office insurance section (insurance@lshtm.ac.uk) should also be informed of any accident, incidents near misses or emergency as soon as possible. All incidents should be officially reported on the ServiceDesk via the incident report form on ServiceDesk.

Health awareness on returning from travel overseas

It is important to note that **if you are unwell on return from project work overseas**:

- If feverish or acutely unwell, go direct to the Hospital for Tropical Diseases to be assessed by the doctor on duty.
- If not acutely unwell, visit your GP requesting a referral to the Hospital for Tropical Diseases for more detailed investigations.
- Any febrile illness within three months after return from a malaria-endemic region should raise the suspicion of malaria and travellers should immediately seek urgent attention from their local Accident and Emergency (A&E) department or the Hospital for Tropical Diseases for a blood film.
- If not based in London after return from such travels, please seek appropriate alternative medical attention if unwell.

5.6 CARE Section 12 – Risk Assessment Aspects

You may not be able to answer fully, all questions in this section until you have a fairly clear idea of the academic approach your project will take. As you finalise your CARE form, you may need to update your risk assessment to fully reflect your intended project. You should aim to give sufficiently detailed information to enable staff to be assured that adequate safeguards will be in place for your project.

You should normally have discussed the intended work with your supervisor. If such discussions do not take place until after you have submitted your CARE form for sign-off by your supervisor, you or your supervisor can still update the form to include further information. Some examples of completed CARE forms based on past students' projects, indicating the kind of information you may need to give in the Risk Assessment section of CARE, are available at https://lshtm.sharepoint.com/sites/intranet-occupational-health-and-safety/SitePages/care-form.aspx *(Note that the section on risk assessment is now in Section 12 on the LEO system, and some of the questions have changed.*

Types of risk

This sub-section of CARE should be completed by <u>all</u> students. These answers, about intended location(s) and potential hazards of project work, will determine which subsequent sections you may need to complete. You need to make explicit where your project will take place, ticking all boxes that apply. You also need to indicate whether you will be working with any hazardous materials, whether the project may involve any other hazardous activities, and whether any special requirements may apply.

Work away from LSHTM

This section should be completed if you will be doing any work away from LSHTM (i.e. other than work at home or visits to UK libraries).

Work outside the UK

As well as covering work abroad at a research site or in the field (for which you should **also** have filled in the previous sub-section), this covers any work you may expect to be doing at your family home or personal residence in your home country, if your home country is not the UK. You need to tick to indicate what form of work you will be doing while abroad.

- You must also **name the regions(s), country or countries involved**, and **check their risk status on the Foreign, Commonwealth & Development Office's (FCDO)Travel Advice Notices** available via https://www.gov.uk/foreign-travel-advice
- You should also be aware that for travel overseas, you will need to **obtain travel advice, fill out the travel Risk Assessment and obtain any relevant vaccinations**, and **obtain travel insurance**, well in advance of departure. You should confirm this on the CARE form.
- Ensure you have attended/completed the **Travel Safety and Security awareness sessions** provided by the School's Health and Safety Department.

Work with hazardous substances

This mainly applies to ITD students. Hazardous substances include pathogenic organisms, genetically modified organisms, human or animal tissues which may contain pathogens, toxic chemicals and radiochemicals. This will require approval from the Faculty Safety Partner.

- Further guidance is available in the School's lab safety manual for students at https://lshtm.sharepoint.com/sites/intranet-occupational-health-and-safety/SitePages/Laboratory-Safety.aspx If you have any specific concerns or queries, please talk to your Supervisor or your Faculty Safety Supervisor.
- Guidance about whether health surveillance may be necessary, and related occupational health issues, is given both in the main lab safety manual and in additional appendices available via the safety web-pages at https://lshtm.sharepoint.com/sites/intranet-occupational-health-and-safety/SitePages/Safety-Management.aspx .

Precautions against hazards

This is intended as a catch-all section, for you to indicate any aspect of the project you believe may involve risks or hazards.

- Please number all distinct hazards, and use the same numbering when detailing the corresponding precautions to be taken against them.
- You should not normally need to write at length or go into significant detail. For example, a potential hazard might be "*6. Access to field site is by private transport only, with local*

vehicle safety and road safety known to be poor"; or "*6. Transport to and from site has been arranged using trusted and seatbelt-equipped vehicle owned by NGO responsible for field site*".

- If the project supervisor feels that it is appropriate in light of the risks identified in this sub-section, the Faculty Safety Partner's approval may also be required as part of the risk assessment / CARE approval process.

Special requirements

This sub-section of the CARE form must be completed if there are special requirements or other concerns for you, study participants or colleagues (i.e. potential need for emergency medical care; disability-related matters; allergies; food and diet religious restrictions; etc. You are not expected to note every conceivable requirement or eventuality, but simply to note any matters that might have a **significant** impact on the way you plan and carry out your project.

5.7 Restricted Travel to high risk areas

Projects are *not normally permitted* in areas of high as defined by the Foreign, Commonwealth & Development Office (FCDO): https://www.gov.uk/foreign-travel-advice . In exceptional circumstances only, requests with clear justification may be considered by the Faculty Safety Partner and require approval by the School Safety Offsite Safety Advisor and Program Directors.

Where such permission is sought

- Your main CARE form should already have been completed with an explanation of why the work needs to be undertaken in the area in question.
- You need to fill out the Travel Risk Assessment form. The form itself gives fairly detailed guidance about the kind of information you should provide and will need to be approved by your project supervisor and Programme Director.

Approval process for restricted travel permission

- When complete, students should send an electronic copy of the Travel Risk Assessment form **and** their CARE form to the Faculty Safety Partner or the School Offsite Safety Advisor: https://lshtm.sharepoint.com/sites/intranet-occupational-health-and-safety/SitePages/Travel-Approval.aspx .

Where permission has been granted

- During the course of project work, if a request arises **for either additional or new trips** to countries or regions on the FCDO advised-against list, then **the above approval process must be repeated in full**.

- You may be required to complete additional training specific to hostile environment awareness. A cost may be incurred for this additional training and you must seek advice from the Offsite Safety Advisor.

6. ETHICS APPROVAL

6.1 Ethics policy for MSc students

This chapter constitutes the School's formal policy and guidance on ethics approval for MSc projects. **Please read it carefully.** If you have any queries on ethics-related matters which cannot be answered by your Supervisor or Programme Director, please contact the MSc Research Ethics Committee via MScEthics@lshtm.ac.uk

- Any student projects involving human participants, human tissue or human data **must** be given formal LSHTM ethics approval before they can proceed. The term 'human data' includes any documentary data (e.g. case studies, records from interviews) or datasets. The term 'human tissue' includes any biological material collected from a human either as part of the current project, or a previous project. For example serum, dried blood spots, and sputum samples would all be considered human tissue for the purpose of ethics review.
- The only projects which do not require LSHTM ethics approval are those not involving any human data whatsoever, or for which the only human data involved is fully in the public domain and cannot directly or indirectly enable the identification of living people.
- You will also need to investigate and obtain any local ethics approval (i.e. from bodies external to LSHTM) that may be required for the work being undertaken.

If, after your CARE form has been approved, you need to change aspects of your project approach that may affect, then this may be permissible but you will need to apply for an amendment via the LEO system. You should follow the procedures for this given earlier in this handbook under Section 4.21 about making "Revisions after approval".

It is very important that the study you carry out is consistent with what the MSc Research Ethics Committee has approved. If you do not gain ethics approval, or breach the School's ethics guidelines, you may be liable to fail.

Intercollegiate programmes
For LSHTM students registered on joint degrees with the LSE and RVC (MSc HPPF, MSc Vet Epi and MSc One Health), projects will come under the remit of LSE or RVC respectively as lead college responsible for projects, and should follow their ethics approval processes as appropriate. For students registered on the MSc GMH, LSHTM is the lead college responsible for project assessment, but ethics approval should follow the supervisor, i.e. if your supervisor is based at KCL, follow their approval procedures; if your supervisor is a member of LSHTM staff, follow the School's ethics approval procedures.

6.2 Ethics Approval Process via CARE form

Examples of completed CARE forms can be found on the web at the following link. Note that these were completed on the previous version of the form and therefore the question order has since changed: https://lshtm.sharepoint.com/sites/intranet-occupational-health-and-safety/SitePages/care-form.aspx .

Supervisor/Programme Director approval
Once you have received all relevant signatures, your form will be automatically submitted to the MSc Research Ethics Committee.

Local approval
Note that even if your project has already been granted local ethics approval at the site you will be undertaking it, you must still apply to the LSHTM MSc Research Ethics Committee for your project. This applies even if this work has already been approved by an organisation with which the School has long-established links.

Project outline
You should also ensure that the project outline given in sections 3-5 of the CARE form contains sufficient detail to allow the MSc Research Ethics Committee to make an informed decision without reference to other documents. This should include the purpose, methods and procedures of the activities you will be carrying out with human subjects or participants, or human data; as well how you will obtain data, including whether specific permissions or limitations will apply, or whether the data is fully public domain.

- **For projects using human data, datasets or biological samples collected in a previous study**, you must make sure that the project outline states the new work to be done in your project, and describes how this will build on the previous work.
- **For projects collecting any new human data, datasets or biological samples** you must make sure that the project outline contains sufficient detail about things like purpose, methods and procedures to enable the MSc Research Ethics Committee to make an informed decision without reference to other documents.

Scope of study
In section 2 (project filter), you are given the option to select the type of study in question 4 which will help decide whether further review by the MSc Research Ethics Committee is required.

Projects using only previously-collected human data
For studies where you are using previously-collected data in question 4 of the CARE form, this will activate questions 49a in section 11 (local approval). You will need to give details of the purpose and methods of the original study or studies, the original approval(s) granted, and whether your analyses will still be covered by the original permissions granted (if not, then explaining how you will obtain permission or retrospective consent); as well as further details on the work you intend to carry out.

If you are planning to use data previously collected in an ethics-approved study, you must check that this will not in any way breach or go beyond the terms of the approval originally granted. Information about the conditions under which such data was collected, and the ethics approval it received at the time, should be available to you. Your CARE form should make clear that you have checked and confirmed that your plans remain consistent with the earlier approval.

Projects collecting any new human data
Where you are making use of work for which local or LSHTM ethics approval was previously granted, the approval reference number should always be cited. Web links to the approval documentation should be given if possible, and if not, then a copy/scan of relevant documents should normally be attached.

You should also clarify in the local approval section whether the work to be carried out is covered under the original approval, and if not what steps have been taken to amend the original approval to cover the proposed work.

Guidance on obtaining and working with data may be found in the Data Management for MSc Summer Projects document, available at https://doi.org/10.17037/DATA.00001857.

6.3 Review process by the Research Ethics Committee

Once you have submitted your CARE form via LEO in line (see Section 4.19 "Recording approval and submitting the CARE form"), you will receive a notification that it was transmitted and will later be notified of one of the following outcomes:

- The application is **valid** and has been circulated to the MSc Research Ethics Committee for review. (**This does not constitute an approval)**.
- The application is **not valid** and you are requested to re-submit with additional information.
- **No ethical review is required** as it meets the criteria (literature review, secondary data analysis fully in the public domain, not using any human tissue or data).

After your application is validated, it will be forwarded to the committee for review. This process takes approximately **4 - 6 weeks**.

6.4 Outcomes from the Research Ethics Committee

Following the ethics review, you will receive one of the following responses:

- **Approved (Favourable opinion)**: There may be conditions attached to the approval which you will need to adhere to.
- **Request for Clarification**: The committee would like to request changes/more information before giving an opinion on the proposed study. You can respond to the committee by changing the answer to Q2f on your CARE form to '*responding to request for clarification*' and uploading a cover letter addressing the committee's comments. You will then need to re-obtain signatures before clicking submit.
- **Insufficient Information:** There was not enough information for the committee to ethically review the proposed study. You can respond to the Committee by expanding the sections that are indicated as needing more detail. You should change the answer Q2f on your CARE form to '*responding to request for clarification*' and uploading a cover letter letting the Committee know where the changes have been made. You will then need to re-obtain signatures before clicking submit.
- **Not Approved (Unfavourable opinion):** The committee has not approved the study and will provide reasons. You will need to submit a new application on LEO and will be issued with a new reference number.

6.5 Maintaining confidentiality

Students should pay particular attention to preserving confidentiality in studies involving small numbers of participants even when data have been anonymised. There are three main ways of avoiding this possibility:

- Ensure that there are never less than, five individuals in a sub-group.
- Describe the results for the initial group as a whole, i.e. not broken down into any sub-groups.
- Give each participant the option in the consent form of not being quoted at all, anonymously or otherwise, or included in any of the analyses.

Research participants' personal data, including identifiable photos of them, must only be gathered if ethical approval has been given, and must be processed ethically and in a way that protects their rights. All collected data, must be kept secure on password-protected, encrypted devices, and should only be shared with those who need them. All data must be stored and transmitted securely and only to the extent necessary for your project.

6.6 Information Sheets and Consent Forms for study participants

Studies will require written information sheets and separate consent forms. Please remember that these should be **concise and easily understood.** Groups of participants within a study may require different information sheets, depending on their characteristics and different components of the study. The three main ways of obtaining consent are as follows:

- Participant reads information sheet and signs consent form. This should be witnessed where possible.
- Information sheet is read to participant who agrees verbally and signs or marks his/her agreement. This should be witnessed where possible. A record is kept of this procedure and agreement.
- In exceptional circumstances, verbal agreement only will be accepted, without either signature or mark. Reasons should be fully explained on the Ethics application form. A record that consent was given by each individual should be kept.

Information Sheets

Information sheets should include the following information:

1. Study title and investigator's name and contact details.
2. Explanation that the research is being undertaken as part of a Master's degree.
3. The overall objective of the study, why is it important and the reason why the subject's cooperation is requested.
4. Explanation that taking part in the research is entirely voluntary and withdrawal possible at any time without having to give a reason.
5. What will happen to participants if they take part?
6. What inconvenience or discomfort this will involve? Detail this inconvenience or discomfort, for example: Number and amount of blood samples, Number and duration of hospital visits and the likely discomfort
7. The risks involved, including the possible side effects of a new drug being tested.
8. Explanation of the arrangements if something goes wrong.
9. Who will be responsible for the confidentiality of the material and its use or disposal at the end of the study?
10. The manner in which the data and/or samples will be collected, handled, stored, who will see them and what will happen to the material at the end of the study.
11. That in randomised trials, participating involves random allocation either to an experimental treatment or to orthodox or no treatment. The reasons and advantages for randomisation should be explained in appropriate lay language.
12. Request consent for long term follow-up through medical records or other use of medical records for which participants have not given explicit consent. If in doubt contact the MSc Research Ethics Committee via MScEthics@lshtm.ac.uk
13. The financial arrangements should be set out, for example:
    - Expenses incurred which would normally be reimbursed.

- Any other financial payment. This should not amount to a financial incentive or inducement to take part in the study.

14. State the ethics committees which have approved the study.

Consent Forms

Consent forms should include the following information and statements

1. Study title and investigator's name and contact details.
2. "I have read the information sheet concerning this study [or have understood the verbal explanation] and I understand what will be required of me and what will happen to me if I take part in it"
3. "My questions concerning this study have been answered by ……."
4. "I understand that at any time I may withdraw from this study without giving a reason and without affecting my normal care and management"
5. "I agree to take part in this study"

Name Participant… Signature Participant …… Date ……

Name Student…… Signature Student…… Date.....

NB: For children and young adults (usually under the age of 18), the consent of the parents or guardians must be obtained in line with local custom and practice. If this is not possible, this should be explained on the ethics application and the agreement of the child should be obtained to the degree possible dependent on the age of the child.

Further guidance

Further detailed guidance about patient information sheets and consent forms, as well as many areas of research ethics, is provided by:

- The National Research Ethics Service at https://www.hra.nhs.uk/approvals-amendments/
- The School on the Standard Operating Procedures Intranet page: https://lshtm.sharepoint.com/sites/intranet-research-governance-and-integrity/SitePages/Standard-Operating-Procedures-(SOPs).aspx (see SOP 005 on informed consent for research for templates you can adapt to your project).
- The School on the Ethics Intranet pages: https://lshtm.sharepoint.com/sites/intranet-research-governance-and-integrity/SitePages/Ethics.aspx

7. FUNDING FOR PROJECT WORK

7.1 Funding information

While your fees cover the costs of standard School resources, facilities and staff support available during the project, the School cannot cover all the many and varied costs which individual projects may entail. You must consider such costs as early as possible in planning your project, to give yourself time to explore potential sources of funding or financial support.

Details of potential scholarship funding available to both students and prospective applicants to the School can be found on the LSHTM web pages: https://www.lshtm.ac.uk/study/fees-funding. For details of scholarship funding specifically for current LSHTM students (including eligibility criteria, the application process, and deadlines) please see the 'Current Students' tile.

The LSHTM webpages are updated with details when funding is agreed and made available. Information about funding for this year will be available on the Current Students funding table from early on in Term 2. Please do not contact the Scholarships team to enquire about potential funding ahead of this. Once the scholarship opportunities have been advertised these will be shared on LSHTM Noticeboard and send to Programme Administration Teams to cascade on to all students.

All LSHTM funding is dependent on donations and/or interest earned on current endowments. Some funding will have very specific criteria, in line with a donor's wishes. Unfortunately, there is not unlimited funding to allow all of the travel and/or project support that we (and you) might wish to cover. Submitting an application for any of the offered scholarships does not guarantee that you will be funded. And in many cases, awards may be made that provide a contribution towards costs only (not the full amount required). If you cannot afford to undertake a specific project or travel unless you receive an LSHTM scholarship we would strongly recommend that you consider an alternative Plan B, and that you do not pay for non-refundable costs ahead of receiving an outcome for any applications made.

7.2 LSHTM MSc Project Awards (sometimes referred to as 'Trust Funds')

Historically, LSHTM has set aside some interest earned (on endowments) to assist students with their MSc Project by providing a contribution to flight costs (where eligible). If a decision is made to provide similar funding again for the current academic year this will be advertised along with all other funding for project work on the Current Students Funding page.

7.3 Other sources of funding

Other sources of funding may be available depending on the programme you are studying for and/or the type of research you wish to undertake. You are also encouraged to conduct your own investigations of potential funding sources. Many organisations exist which may be prepared to offer assistance. Students from outside the UK are also advised to check possible funding sources in their home country, which are unlikely to be detailed on the LSHTM Funding pages.

Other sources of funding | Fees and funding | LSHTM

8. TRAVEL

8.1 Key points to consider before travelling

Many students undertake projects away from LSHTM elsewhere in the UK, or overseas. This may mean going to your home country, or to another country or an area/region you are less familiar with. All travel must be very clearly indicated in the risk assessment section of your CARE form and a separate Risk Assessment for Travel and Offsite work must have been completed. It is highly advisable to ensure that full approval has been obtained for your project (including risk assessment and ethics) before making final payments or non-refundable bookings for travel. Before arranging any travel associated with project work, you **must** read the comprehensive guidance given in **Section 5, Safety and Risk Assessment**, earlier in this handbook.

Please see also LSHTM resources for travel in the intranet:

- Travel Intranet: https://lshtm.sharepoint.com/sites/intranet-occupational-health-and-safety/SitePages/Travel-Policies-and-Procedures.aspx
- Travel check list: https://lshtm.sharepoint.com/Services/travel/Pages/Travel-Risk-Assessment.aspx
- Travel Risk Assessment: https://lshtm.sharepoint.com/:w:/r/sites/intranet-occupational-health-and-safety/_layouts/15/Doc.aspx?sourcedoc=%7B06113C70-11A0-4889-A0D2-2601DF78027E%7D&file=Travel%20and%20offsite%20RA.docx&action=default&mobileredirect=true

As part of your Travel Risk Management, we recommend you register onto the Sphere Travel App. Sphere is a check in, monitoring and SOS service. Should there be an incident we will be able to respond more efficiently and it is connected to a 24 hour call centre: https://lshtm.sharepoint.com/sites/intranet-occupational-health-and-safety/SitePages/Safeture.aspx

8.2 Training

You must ensure that you have completed the mandatory training required for overseas travel.

- To validate your insurance, AIG travel Angel: https://travelguard.secure.force.com/TravelAssistance/TGPreLoginHomePage
- Travel Safety & Security awareness https://studentbookings.lshtm.ac.uk/index.php/courses/trave

If travelling to an area of high risk you must seek advice from the Offsite Safety Advisor for training relating hostile environments, as there may be a cost incurred.

- For example: If travelling to a high risk destination - 3 day Security Awareness & First Aid for Overseas Field Environments (To complete once care form/ethic has been approved, cost £1300+VAT)

8.3 International requirements for visas, passports etc.

If you will be travelling outside the UK as part of your project work, please be very careful to:

- Check and ensure you obtain/meet any **visa or entry requirements** that apply.
- Ensure that you get the **right** type of visa, in **sufficient time** before you travel.

- Check that your **passport** (and any other relevant documents) will be valid for a sufficient length of time **after** your intended trip.

Checking visa and entry requirements

For all international travel, it is very important to **ensure you check and arrange a visa and anything else that may be required**, in good time before travelling. Remember that other countries will assess your visa or entry eligibility primarily based on your nationality. It may also be relevant that you are a student.

- If you have **UK nationality**, then the Foreign & Commonwealth Office (FCO) Travel Advice website at https://www.gov.uk/foreign-travel-advice gives comprehensive information for all other countries in the world and each should have a section on entry requirements, covering visas, how long your passport must be valid for, medical and immunisation-type requirements, etc. The UK Council for International Student Affairs' (UKCISA) *Go International* site also give advice on visas and formalities for UK students studying abroad, at http://www.go.international.ac.uk/going-abroad/i-am-student-what-next
  The Foreign & Commonwealth Office's specific advice may ***not*** be applicable **if you are from Europe or the rest of the World**. You will need to directly check the destination country's requirements for your nationality. That country's embassy in the UK will be a good place to start https://www.gov.uk/foreign-travel-advice

Getting the right type of visa

It is very important to ensure you arrange **the right type of visa**. Getting the wrong kind can have serious implications, including deportation or even imprisonment. Please do not simply rely on advice from a local supervisor, though it is good to get such advice. Always check directly with the embassy of the country concerned, and get very clear guidance from them, in writing if possible, to confirm that your arrangements will be appropriate.

Validity/expiry dates for passports and other documents

To be granted a visa, you will usually need to have **a passport which will remain valid for a set period of time after your intended trip** (e.g. 3 or 6 months beyond). If you get delayed in the destination country for any reason and your passport expires in that time, it is likely to cause problems. It may therefore be advisable to renew your passport in good time before you get a visa and travel. Most international MSc students at LSHTM will have UK visas valid until mid-November, hence your project travel might need to finish by mid-August at the latest.

If you required a visa to study in the UK and intend to come back after your project trip, be careful about the timing. It may be inadvisable to try to re-enter the UK after your School registration has finished, even if your UK visa has a little more time left on it. This is because UK border officials could decide that you are not entering the country for the reason your original visa was granted, i.e. to study, and could thus refuse you entry.

9. UNDERTAKING RESEARCH

9.1 Preparatory project work

Please see Part 2 of this handbook for more guidance relating to your particular MSc programme. Having developed your project proposal, you can undertake preparatory work and background research (e.g. literature searching, desk-based work) ahead of receiving full approval. However, be aware that staff may require some changes to your approach before approving the proposal.

As noted earlier, you must **not** commence the substantive work of your project, e.g. field research, lab work, subject interviews, collection of data on human subjects, until you have received all required approvals.

Structured planning
From early on, you should come up with a plan and timetable for carrying out your main project work. This may not need to be too detailed, but breaking the work down into specific chunks may help turn a daunting overall prospect into an achievable set of tasks. Setting yourself small-but-regular deadlines can help keep everything on track.

Good research practice policy
The School has a Good Research Practice Policy which applies to all research conducted by staff as well as students. Please familiarise yourself with these and ensure your research is conducted in accordance with them. The guidelines are available at http://www.lshtm.ac.uk/research/researchgovernanceandintegrity/researchgovernance/index.html.

Literature searching
Library staff provide a number of excellent resources to assist with literature searching and finding information. Training is provided throughout the year, and one-to-one support is available for students completing MSc Projects.
See the Library's Moodle pages for information, support and FAQs
https://ble.lshtm.ac.uk/course/view.php?id=88

As you identify useful source information during your literature search, it can be very helpful to store the details using reference management software (such as EndNote and Mendeley), so that they can easily be referenced later on when you are writing-up. More guidance about this is given in the Academic Writing Handbook.

Data management
A range of resources on the collection, management and analysis of data are available on http://servicedesk.lshtm.ac.uk/ and http://lshtm.sharepoint.com/. Training sessions and one-to-one support may be booked by students via Servicedesk.

Past projects in the Library
The Library holds electronic copies of past MSc project reports for the last several years. These will give you an idea of the breadth of topics covered by students in previous years. Most of the past projects from 2006 onwards are available. Please see the Library's Intranet pages at https://lshtm.sharepoint.com/sites/intranet-library-archive-and-open-research-services/SitePages/MSc-Project-Reports.aspx

Arrangements with external institutions
As noted in the earlier section 5.3 “Arrangements with external institutions”, if you plan to carry out your project at an established site or with a specific organisation away from the School then you should ensure that suitable support arrangements have been agreed with them beforehand.

9.2 Main project work

After final preparatory work in approximately April, main project work is to be done from approximately early June to end August. Final submission deadline for the project will be 1st September 2023.

You should normally begin your main research work after the end of the E module for MSc programmes that do not have summer exams or after the summer exams have finished for those MSc Programmes that do have summer exams.

Remote access to School resources
If your research requires you to go overseas, you should still be able to access your School email account and the School’s network resources. Please see the IT Services (ITS) site at https://servicedesk.lshtm.ac.uk , which includes Remote Desktop access software you can install on your home computer or laptop. or e-mail itshelpdesk@lshtm.ac.uk .

Further information about library resources is available at https://lshtm.sharepoint.com/sites/intranet-library-archive-and-open-research-services/SitePages/Using-the-Library-and-Resources.aspx . Electronic journals can be accessed via the Library catalogue, Discover: https://discover.lshtm.ac.uk and bibliographic databases can be access on the Databases A-Z list: https://www.lshtm.ac.uk/research/library-archives-service/resources/databases . Note that users wishing to make use of electronic journals are required to read and follow the guidelines for their use.

Employment during project work
Note that full-time students are expected to be able to concentrate fully on project work in the period from after the summer exams (from early June) until the project hand-in date (end of August). Part-time students are expected to spend the same amount of time on project work.

9.3 Seeking further assistance

If you are ever faced with a problem, do not be afraid to ask for help. Your Personal Tutor, Supervisor and Programme Director are there to help you in any way they can, and student representatives can also provide support and take up matters on your behalf.

If you have a personal issue, e.g. something affecting the amount of time you can spend on the project, it may be helpful to let relevant staff know. The Student Adviser is also available to help with personal matters. It may be possible to be granted an extension to the deadline by which you need to hand in your project report. You will need to apply for such an extension using the School’s Extenuating Circumstances Policy, details of which, can be found on the web at the following link: https://www.lshtm.ac.uk/study/new-students/starting-your-course-london/regulations-policies-and-procedures

If you are experiencing difficulties with academic aspects of the project, you should consult your supervisor in the first instance. If you feel that your supervisor is not giving you enough support,

then you should contact your Programme Director or Personal Tutor and let them know that you are experiencing difficulties.

10. COPYRIGHT AND INTELLECTUAL PROPERTY

10.1 Introduction

Copyright and intellectual property rights are important issues to be aware of when utilising the work of others in your project report. This is not just about ensuring that you correctly reference everything you make use of (see separate guidance in Section 12 of this handbook on referencing, citing and avoiding plagiarism); but you also need to be sure that you are **allowed** to make use of this work. If you are making use of the work of others in your project report (e.g. using data collected by a third party), their copyrights and intellectual property rights also need to be carefully respected.

The copyright of your final project report, will normally legally belong to you as the author of the work, however, there may be exceptions to this. Please note that the School's standard registration form, signed by all students at enrolment, authorises the School to make copies of student projects and have these made available on the School intranet.

If you are unfamiliar with these issues, please look through the guidance available here https://lshtm.topdesk.net/tas/public/ssp/content/detail/service?unid=af1172f9905b412bb1c6ad16e41ec70f . An expanded version of the guidance presented here is also given in the Academic Writing Handbook. Information on data licences can be found at https://lshtm.sharepoint.com/sites/intranet-library-archive-and-open-research-services/SitePages/Research-Data-Management.aspx.

10.2 Copyright and IPR agreements

Copyright, or IPR agreements, will not be necessary for the majority of LSHTM projects, but may be appropriate in some cases as outlined in the Academic Writing Handbook, which can be found here https://lshtm.sharepoint.com/students/Pages/masters-students.aspx. You should ensure that you talk to your supervisor about copyright and IPR as part of the proposal development stage of your project, when filling out the CARE form. You should also review these issues again around the point of submitting your final project report, when you know whether any specific agreements may now apply or be needed.

10.3 Setting restrictions on access to your work

Restrictions will not normally be granted **except** where the thesis is said to contain sensitive or confidential material or material that would infringe the rights of third-party holders of copyright. Please refer to the Academic Writing Handbook for further information.

10.4 Data Protection principles

Students who use personal data in connection with their academic studies or research must abide by Data Protection Principles. The General Data Protection Regulation (GDPR) came into force in May 2018. This builds upon existing data protection legislation and enhances it to address new types of digital material.

The GDPR sets out the following six principles of data protection that require personal data to be collected and used fairly, stored safely and not disclosed to any other person unlawfully:

a. Where personal data is processed, it must be done so lawfully, fairly and transparently ("lawfulness, fairness and transparency");

b. Personal data must only be processed for clearly pre-specified lawful purposes. GDPR does, however, permit further processing in certain circumstances for archiving, research or statistical purposes ("purpose limitation"). Ethics advice must be sought if you wish to analyse data for other purposes.

c. Collect personal data that is adequate, relevant and necessary to achieve the stated purpose and no more ("data minimisation").

d. Personal data collected must be accurate and kept up to date where necessary ("accuracy").

e. Personal data must not be kept for longer than is necessary for its stated purpose ("storage limitation").

f. Personal data must only be processed in a manner that ensures appropriate security. This includes protecting it against unauthorised or unlawful processing and against accidental loss, destruction or damage, using appropriate technical or organisational measures ("integrity and confidentiality").

Further information can be found at the following locations:

- LSHTM data security policies and procedures can be found at: https://www.lshtm.ac.uk/aboutus/organisation/information-management-and-security

- Introduction to Data Protection and LSHTM policy/procedures https://lshtm.sharepoint.com/Services/Information-Management/Data/Pages/default.aspx.

- The School's Good Research Practice Policy contains guidance on maintaining data, samples and records https://www.lshtm.ac.uk/sites/default/files/Good_Research_Practice_Policy.pdf

Other information security material can be found at:
https://lshtm.sharepoint.com/Research/Research-data-management/
https://servicedesk.lshtm.ac.uk

10.5 Publication of project reports

MSc project reports may sometimes result in papers published in peer reviewed journals. Your supervisor, Programme Director or personal tutor may advise you whether your report is likely to be of publishable standard. Normally, MSc project work should not be submitted for publication until after it has been marked. Further editing would then be required making the published paper different to the original project report.

Before a project report is submitted for publication, you should resolve any issues of authorship and obtain relevant copyright/IPR permissions. Detailed guidance is in the Academic Writing Handbook.

11. WRITING-UP

11.1 Introduction

It is highly advisable to write as you go throughout your project work. Writing the final report should be a case of just drawing together notes you have already written, rather than trying to piece together what you have done three months previously.

11.2 Format of project report

The following formatting criteria are suggested as good practice. Certain MSc programmes may set specific requirements on presentation and these will be described in Part 2 of this handbook.

- **Use A4 paper size (210 x 297mm).** Set your electronic copy up as if it were going to be printed.
- **Use standard Arial 11-point font** for your main text. You may wish to put specific headings in larger font sizes; and could use different fonts for specific elements i.e. quotations, which should also usually be indented and surrounded by quote marks.
- **Set line spacing at 1.5**, and leave a one-line gap between separate paragraphs.
- **Use margins of 2.54cm (1 inch) all round the page**.
- **Number all pages (in the footer)**. Page numbers may appear outside the 1-inch margin.
- **Tables may be presented in an alternative font, of no less than 8-point size, and single-line spaced** – to help improve visual appearance or fit to the page.

You should aim to present your work in a clear, readable and consistent way. The following points about how to present aspects of your report are worth noting.

Headings
It is helpful to break up your text with headings and sub-headings at appropriate points, to assist the reader to grasp the subject matter and structure of the text. Such headings should be short and relevant, encapsulating the content of the text under them. If different levels of headings and sub-headings are required, work out a hierarchy of heading styles in advance using capitals, bold, italics and underlining as desired.

Abbreviations
You should ensure that **any abbreviations or acronyms are defined in full the first time they appear in your project report,** even if you think the term is obvious or well-known.

Tables and figures
You may have a variety of non-text items such as tables (grids of data) or figures (such as photographs, diagrams, graphs and maps). These should be set out distinct from the text; numbered separately and consecutively, e.g. Table 1 for the first table and Figure 1 for the first figure; and referred to by these numbers in the text. Do not use phrases like “Table above" or "Figure below".

When presenting tables:

- Each table should have: a table number; a table heading; column headings; data in columns; and a legend making the table understandable without having to read the text
- Immediately beneath column headings put the units of measurement of the data, where applicable (e.g. % or years). If there is no room for complicated units (e.g. "number of infant deaths per 1000 live births and stillbirths"), put these details in a footnote to the table.
- If possible, keep the column headings concise so that they can be written horizontally. They may contain obvious abbreviations.
- Tables with adequate headings and captions should be self-explanatory, but they usually need comments in the text.
- Tables should be presented vertically on the page; but if a table is too wide for this, it may be presented sideways. If a vertical table is too long to fit onto one page, put "continued..." at the bottom of the first page, and at the top of the second put "Table XYZ continued:" then repeat the column headings.
- If the table has been reproduced from another document, the source should be cited.

When presenting figures:

- Each figure should have: a figure number; a concise title; the figure itself with appropriate labelling; and a legend and explanatory notes so that the figure can be understood without reference to the text.
- Graphs may only indicate approximate values. If precision is required, exact numbers should be given, either at annotated at points on a curve, or in the text or associated tables.
- Graphs, diagrams and maps will usually be produced in appropriate computer software packages and copied and pasted into the electronic version of your project report.
- Photomicrographs must include a scale bar or indicate magnification.
- Figures with appropriate labels and notes should be self-explanatory, but they usually need comments in the text.
- If you reproduce a figure from another document, always give a reference to the source.

11.3 Structure of project report

As a minimum, all projects reports should normally include the following (please check Part 2 of this handbook for MSc-specific requirements):

- Title page
- Contents
- Abstract
- Acknowledgements
- Introduction
- Aims and objectives
- Materials and methods
- Results
- Discussion
- Recommendations
- Reference list
- Appendices/annexes*

* Further annexes or appendices may also be supplied; but note that markers are expected to be able to assess the project based on the main content, without having to read any appendices.

Title page
A template file for the title page will be provided on Moodle which covers the following:

- **MSc PROJECT REPORT:** *Give the full title of the project report (see further note below).*
- **Candidate number:** *Do not include your name*
- **Supervisor:** *You do not have to give the name of your supervisor on the title page; they may be named in the acknowledgements instead.*
- **Submitted in part fulfilment of the requirements for the degree of MSc in** *Give the full name of the MSc on which you are registered.*
- **Academic Year:** *2020-21.*
- **Date of submission:** *You only need to give the month and year of submission.*
- **Word count:** *Based on the main content of the project only (see Section 1 of this handbook). Where a page limit applies, a page count should be given instead of a word count.*
- **Project length:** *Standard/ Extended (MSc IID only).*

Note that **the project report title should convey the key features of the project.** This should typically say what type of project it is, what the subject area is, and in relation to which specific locations or data sources. The final title should be agreed with the supervisor before you submit your project report, and **should not exceed 30 words**.

Contents
A **Contents list** should be included, clearly indicating the page number of each major section and the headings used within each major section. It may be helpful to make use of the features provided in most standard word-processing packages to create a "table of contents" automatically.

Abstract
All project reports should include a structured **Abstract**, not exceeding 300 words, on a single standalone page just after the Contents. This should appear before the main body of the project report (which will start with the introduction).

The Abstract may be structured into four key sections:

- Background – summarising the problem being considered.
- Methods – describing how the study was performed.
- Results – listing the salient results.
- Conclusions – stating the principal conclusions.

Examples of abstracts can be found in previous MSc Projects on the library intranet pages here: https://lshtm.sharepoint.com/sites/intranet-library-archive-and-open-research-services/SitePages/MSc-Project-Reports.aspx

Acknowledgements
Your project report should include an Acknowledgements section, before the Introduction to your work proper. Detailed guidance on what to put in the Acknowledgements section is given in Section 12.1.

Main Report – Introduction

The start of the main content of your project report should be presented as a formal **introductory section** – which might typically account for between 10% and 30% of the overall word count.

- This should give a detailed background of the work which has led up to the project, including a review of the literature if appropriate.
- The Introduction should finish by describing the gap in knowledge that your aims and objectives will address.

Main Report – Aims and Objectives

You should include a concise statement of your project report's **Aims** (the overall goal of the work) and **Objectives** (what you hoped to be achieved during the project work itself). This section should normally consist of just a few lines. If your project has involved primary research, then it will be appropriate to indicate the specific research question or hypothesis addressed.

Main Report – Materials and Methods

This section should contain a detailed description of all the methods used during the project.

- If your project is a lab-based study, you must also describe the materials used and their origin. However detailed protocols are not usually required.
- If you had practical assistance in the collection of the data (e.g. if you were provided with samples by the project supervisor or if you were part of a team carrying out field work), then this must be clearly stated along with the role you played in generating the data specified.

Main Report – Results

The results (either positive or negative) of the study should be explained in a logical order.

- Tables and figures should be included where appropriate, with explanatory legends.
- In the case of laboratory studies, not every experiment or piece of work undertaken needs to be included.

Main Report – Discussion

This section should be a summary of what the results show, along with an explanation of their meaning. The results should be analysed in the context of other published work; and the reason(s) for any negative results (or unsuccessful experiments) should be considered.

Main Report – Recommendations

The discussion should end with a paragraph linking the current findings with recommendations for further work. However, it may be appropriate to present the recommendations as a separate section. Your recommendations must follow from your findings and your analysis of them, and not simply be a list of unrelated 'good ideas'.

Reference list

At the end of your project report, you must always give a full list (presented in a recognised style) of all references that appear earlier in the report. This is mentioned in Section 12.1, with comprehensive guidance provided in the Academic Writing Handbook.

Annexes or Appendices

Further information may also be supplied as appendices to your main report. This should be supplementary material that does not form part of the main academic content of your report, but is perhaps felt to provide helpful further context or details. Project markers are not expected to read any appendices, and this material will not be taken into account, when marking the project.

11.4 Referencing

You are strongly advised to read the Academic Writing Handbook, and ensure you fully understand the School's expectations about referencing.

A reference or citation is a way of properly acknowledging where you make use of the work of others, and the proper presentation of citations and references is an important part of any piece of academic writing. Your MSc programme may specify a particular citation system to use and you should check Part 2 of this handbook for programme-specific information. You are expected to be able to cite and reference correctly. The key requirements are that you should:

- Acknowledge the work of others wherever you make use of it.
- Reference such items in a consistent manner using a recognised citation system.
- Provide a well-presented reference list at the end of your work.

Extensive further guidance on this is given in the Academic Writing Handbook, which covers referencing and citing, avoiding plagiarism or assessment irregularities, and other more general useful points about writing skills and styles.

11.5 Plagiarism and assessment irregularities

When writing up MSc project reports, it is vital that you are aware of the School's rules on plagiarism and related issues, and understand how to avoid breaching these rules. Please ensure you are familiar with this guidance on plagiarism, cheating and other assessment irregularities, given in the Academic Writing Handbook (which includes a worked example on how to use and cite sources correctly). If you are in any doubt, check with your supervisor or programme director for more guidance.

Note that failure to observe the rules, even unintentionally, may constitute plagiarism and be penalised. The School recognises that occasional slips in attribution or similarity of text may happen with even the most diligent student, and all relevant factors will be taken into account, in consideration of any case.

12. RECOGNISING THE CONTRIBUTION OF OTHERS

12.1 Introduction

In addition to correctly citing and giving references for all source material you have used (as described in the preceding two Sections, 11.4 and 11.5), your project report should also clearly indicate where you have received direct assistance from others (such as your supervisor, co-supervisors, technical advisers etc.) Project assessors must **always** be made aware of any such support or input, to be able to mark all work fairly. The important point is that all support or input you receive during the project should be specified, to distinguish the main body of work done by yourself from any other supporting/enabling work where you had help from others.

- You should always include an **Acknowledgements section** at the start of your work, indicating both (i) **academic support** and (ii) **other support** you have received.
- The contribution of others should also be clearly indicated **at relevant points throughout your project report** – to make clear if and where you received help with aspects such as laboratory procedures, statistical analysis, literature review, etc.
- Project data does not necessarily have to be collected by you as a student. It is expected that many projects will use existing datasets (subject to required permissions having been given). **Use of provided data or other material** should also be made clear in your report.

12.2 Writing the Acknowledgements section

(i) Acknowledgement of academic support describes the amount of interaction you have had with your supervisor or other experts (e.g. co-supervisors or technical advisers) in developing your project, e.g. specific advice or ideas, aspects undertaken collaboratively, statistical support, etc. Typically, this should consist of four short structured paragraphs covering the following:

Project development: Describe the roles of you, your supervisor and anyone else in:

- Identifying the area for investigation and/or initiating the project.
- Developing the project study design, e.g. whether this was done wholly independently by you, or incorporated suggestions/constraints/criteria from the supervisor (recap if so), or whether the nature of the project gave you limited opportunity to contribute to the design.

Contact, input and support: Describe general levels of input and support given by:

- Your supervisor (including how often you discussed or worked on the project with them).
- Individuals other than your main supervisor, such as co-supervisors or technical advisers (including how often you discussed or worked on the project with them).

Main research work: Describe any more specific academic input or assistance you received from the supervisor or others whilst doing your research:

- Extent to which you worked alone or collaboratively (and for the latter, which specific project elements required more direct support or assistance from the supervisor or others).
- Extent of any help given by the supervisor or others in finding appropriate references, background literature or key readings.

- Extent of any assistance in analysing and interpreting results (including results having been checked by others, or advice given on how to proceed with analysis).

Writing-up: Describe any assistance received from your supervisor in writing-up your report:

- Whether the supervisor has read or advised on drafts of the report (and if so, how many drafts; or if not, why it was not possible for them to read a draft).
- Extent of advice given on the structure and content of the report, any material provided, and/or corrections given after reading drafts.

(ii) Acknowledgement of other support recognises any other assistance you have received, including practical, administrative and personal matters. Typically, this should be about one or two paragraphs long, specifying and thanking those responsible for:

- **Practical assistance** that has enabled but not specifically altered the academic content of your work, e.g. assistance with collecting data in the field or in a lab, support in respect of a specific disability, translation services, editing and proofreading, etc.
- **Permissions you were granted,** e.g. for use of copyrighted material, use of a specific dataset, use of a patented process, etc.
- **Assistance with finance and resources** or similar, especially any funding or grants which have supported the work done, but also support such as access to facilities or resources which might not have been automatically available.
- **Personal acknowledgements** to recognise and express appreciation for other people who have supported your work, but in ways which did not directly change what you covered or how you wrote it up. These might be family, friends, staff or others, e.g. to thank them for encouragement, support, motivation, inspiration or similar.

You should also briefly indicate where you have received such 'other support' at appropriate points throughout your main project report, e.g. mentioning translation services at the point where you describe or make use of the translated work.

Anonymity

Note that while MSc project reports are intended to be anonymous (you are not allowed to give your name and should only identify yourself by candidate number), it may **sometimes** be appropriate to name particular staff such as your supervisor, co-supervisors or technical advisers in the acknowledgements section. However, for personal acknowledgements it is generally better to express thanks to 'my family' or to friends using first names only, to help retain anonymity.

Example of an Acknowledgements section

Acknowledgements should be clear and simple, specifying input/assistance received with general thanks to the individuals or groups involved. Examples of acknowledgements sections can be found in the online catalogue of previous MSc Projects on the library Intranet pages here: https://lshtm.sharepoint.com/sites/intranet-library-archive-and-open-research-services/SitePages/MSc-Project-Reports.aspx

Agreeing the Acknowledgements section

Your supervisor must see a draft of the Acknowledgements section before you submit your final project report. Your supervisor may suggest revising elements of the statement in line with their perspective on the amount of support you have received. Please consider their suggestions carefully. In the unlikely event that you and your supervisor fundamentally disagree about how to

record the level of support you have received, the matter should be referred to your MSc Programme Director.

12.3 Proof-reading

The report you submit should be your own work, i.e. consisting of your own ideas and judgments, expressed in your own words. However, many students will wish to seek some further assistance with use of language. You should make sure you proof-read your report before submission and correct any obvious errors. If markers see evidence of poor writing that demonstrates insufficient attention to detail, this may result in you being marked down. If English is not your first language, please be reassured that you will not be marked down for minor imperfections. You are simply being asked to produce a readable scientific report that puts your points across clearly. Further information on proof-reading, and what is/is not permissible can be found in Section 4 of the Academic Writing Handbook.

13. SUBMITTING YOUR PROJECT REPORT

13.1 Electronic submission

You are required to submit just one copy of your project report electronically via Moodle, by the deadline.

13.2 Deadline

The deadline for submitting your project is **1400** on **Friday 1st September 2023**.

You can submit your project ahead of this deadline if you wish to. However, if you anticipate any problems in being able to complete your report by the deadline, please refer to the School's Extenuating Circumstances Policy, which can be found on the web at the following link: https://www.lshtm.ac.uk/study/new-students/starting-your-course-london/regulations-policies-and-procedures. For reasons of equity with other students, deadline extensions cannot be given simply if you are running late; but illness, bereavement or other compassionate reasons will be treated with due seriousness.

13.3 Part-time students (when to undertake and submit project)

It is strongly advisable for part-time students to undertake your project after you have completed all your modules in year 2.

Part-time students are also welcome to start preparatory work in year 1, e.g. mapping out potential avenues of work and doing literature searching, particularly if you are certain about the topic you want to cover and approach you want to take.

If your personal circumstances are such that it would be more helpful for you to start substantive project work/research from the summer of year 1, this is also permissible and you can get your CARE form approved in Year 1 in order to do this.

Normally students who start their project in year 1 would not be expected to complete and submit until the standard deadline in year 2. If you anticipate major problems in finding sufficient time for project work in year 2, then you can potentially complete the project in year 1. However, it should be stressed that this is much less academically desirable than waiting until summer of year 2 to do the project.

If you do not submit for the standard deadline in year 1, you will be expected to hand in for the standard deadline in year 2.

13.4 Required format

You will need to ensure that your main project report is presented in the manner required; that you attach all additional required forms and documentation; and that it is formatted in an appropriate file type and has a clear filename.

Presentation requirements

- Ensure you follow the guidance set out in Section 11 of this handbook.

- Your submission should be anonymous, identifying you by candidate number only – **do *NOT* include your name anywhere in the project report**.

Other forms and documentation

You must also submit the following forms and documentation as created during your project, to give markers full visibility of proposals made, approvals received and materials used in developing and undertaking your project.

- Approved **CARE form** (always required) – but **without** your name appearing on the cover sheet. You may also wish to anonymise information such as supervisor contact details.
- Anonymised evidence of **local ethics approval** received (where this was required).
- Any **other relevant documentation,** i.e. Information sheets and consent forms for study participants. Copies should normally be included as part of either the main project report or appendices. You may need to anonymise such documents, i.e. blanking out your name.

File requirements for electronic submission

- The recommended file format for submission is Microsoft Word (**.doc** or **.docx**). you may alternatively submit your file in Rich Text Format (**.rtf**) or as an OpenDocument Text file (**.odt**). Certain programmes may specific particular file formats to be used in submissions – please check if so in Part 2 of this handbook.
- All text in your files must be electronically recognisable as text. If scanning material in, be careful to check that the file does not treat text as a picture (other than for items such as graphs and charts where labels etc. may form part of a picture-object).

14. PROJECT ASSESSMENT

14.1 General marking criteria

Project requirements will differ between MSc programmes; but the School uses a standard grading scale to ensure comparability of standards across all students. The final mark for your project report will be reported either as a numeric grade point or a grade point average (GPA) on this standard grading scale, which runs from 0 – 5. **Please see Part 2 of this handbook for the specific marking criteria that apply for your programme**. Details of the School's marking criteria can be found in the MSc Award Scheme on the Registry website here: https://www.lshtm.ac.uk/node/340631

14.2 What the examiners will be looking for

The specific criteria which will apply for marking project reports on your MSc are set out in Part 2 of this handbook. In all cases (unless stated to the contrary), examiners will be looking to see:

- **Evidence of learning:** Your project report should be your own work, and include original thinking.
- **Evidence of scientific and academic standards:**
  - Whether the main project report is structured in an appropriate way
  - How well you make the case for your study design in the light of your research question
  - Whether the project meets the stated aims and objectives set out in the project report
  - Appropriate and competent use of methods for data collection or generation and analysis
  - Convincing well-argued conclusions
  - A full reference list of all sources of knowledge, data and ideas in the project report, whether these were published in paper form or obtained via the internet
- **Evidence of critical skills:** Your project report should demonstrate your ability to integrate your skills in conducting an independent piece of research, including:
  - Critical thinking
  - Analysing data and drawing conclusions
  - Clear and coherent writing
  - Presenting your findings in an appropriate way

14.3 Resits

Project resits will be followed up in line with the School's resits policy available here: https://www.lshtm.ac.uk/sites/default/files/academic-manual-chapter-08b.pdf

There are three types of resit which Exam Boards can require students to undertake:

- **Revision and re-submission:** to make corrections and submit a revised project (based on the same core material) within two months of the student being notified of this. An extension or deferral beyond two months may be requested if necessary. Written feedback and guidance about the corrections required will be provided.
- **Further data collection:** to collect new data and revise/update the project (based on the same basic topic) for the following year's deadline. This may be most common where data previously collected has been insufficient or flawed.

- **New project:** to do a new project on an entirely new topic – where there are fundamental problems in the original submission that cannot simply be revised. This should be submitted for the following year's deadline.

14.4 Additional support for resits

- **Revise and re-submit projects:** students are allowed one further meeting with either their supervisor or Programme Director (up to 2 hours' further staff support time in total) to help clarify how to address markers' feedback; but supervisors should not be expected to read a revised draft.
- **Further data collection / New projects:** The School will provide the same level of supervision as for original projects, namely 6-10 hours contact time maximum, across a single period of no longer than 12 weeks (period to be agreed between the supervisor and student). Students may request a different supervisor for such resit work

15. DATA TRANSFER AGREEMENT GUIDELINES FOR MSC SUMMER PROJECTS THAT INVOLVE AN ANALYSIS OF AN EXISTING DATASET

When carrying out a data analysis project, it is important to ensure that the correct permissions are in place for you to;

- use the data for the purpose of fulfilling the requirements of your MSc
- meet any special access or permission rules in order to use the data
- share with/provide access to your academic supervisor should you need to for advice
- use the data for the purpose of publication or other dissemination outputs if you plan to publish

It might be necessary for you to have a data sharing agreement in place to meet these requirements.

15.1 What is a Data Sharing Agreement?

A data transfer agreement (can also be referred to as a data sharing agreement) is a legal instrument, a contract between the data provider and its recipient, setting out the terms and conditions of data sharing and use of the data with details of the data to be transferred (shared)[1].

Other details that might be required in a data sharing agreement include:

- specification of any personal data included in the dataset, or whether the data will be fully or pseudo-anonymised
- how the data will be transferred, stored and accessed securely during the project; for example, whether it will be possible to download and store a local copy of the data to an encrypted machine or whether access will only be via a secure server
- what will happen with regard to access to data at the end of the project
- any regulatory requirements and implications specific to the project, especially with regard to *General Data Protection Regulation* (*GDPR)* and to transfers of data within and outside of the EU or the UK.

Regardless of whether a DSA is needed, you will still need to consider confidentiality, anonymity and data security. The steps you will take during your project to safeguard these aspects of the data will need to be described as part of your application for ethical clearance (CARE form)

15.2 Why is a data transfer agreement important?

A data transfer agreement will be the document clarifying what the data can be used for, and how. Without this agreement, it would be possible for you to be using data, only to find at the end of your project, that all outputs have to be destroyed. Furthermore, some categories of data require special protection, particularly when it concerns third parties' confidential information or personal data.

15.3 What is meant by personal data?

Personal data is a term legally defined, and it is broader than it may be intuitive to imagine: it concerns any information that relates to an identified or identifiable individual. Therefore, it includes obvious information like names, addresses or dates of birth, but also any pieces of data that, alone or combined, could be used to identify someone.

Pseudonymisation is a technique to processes personal data so that the data can no longer be attributed to a specific subject without the use of additional information, held separately. This could be, for instance, replacing names by unique numbers and locations by unique codes. However, pseudonymised data must still be treated as personal data, and only fully anonymised data will elude the application of stringent data protection regulations.
On top of this, a last test applied to determine whether a piece of data is personal sets a very high standard: would a hypothetical highly motivated intruder potentially identify one person from the data, even combining them with other data separately available? If so, we should assume personal data is concerned.

15.4 Why is personal data protection so important?

Treating non-fully anonymised data as non-personal data could result in breaches of regulations, resulting in fines of up to EUR 20,000,000.00 per breach! Furthermore, it could result in individuals' fundamental rights being violated, as (potentially sensitive) information about them could be released as part of your project.
With the appropriate contractual arrangements in place, you will have clarity on what type of data you have access to, how you can use it and what you can do with it, ensuring you and the School are protected and your research project will be valid and compliant.

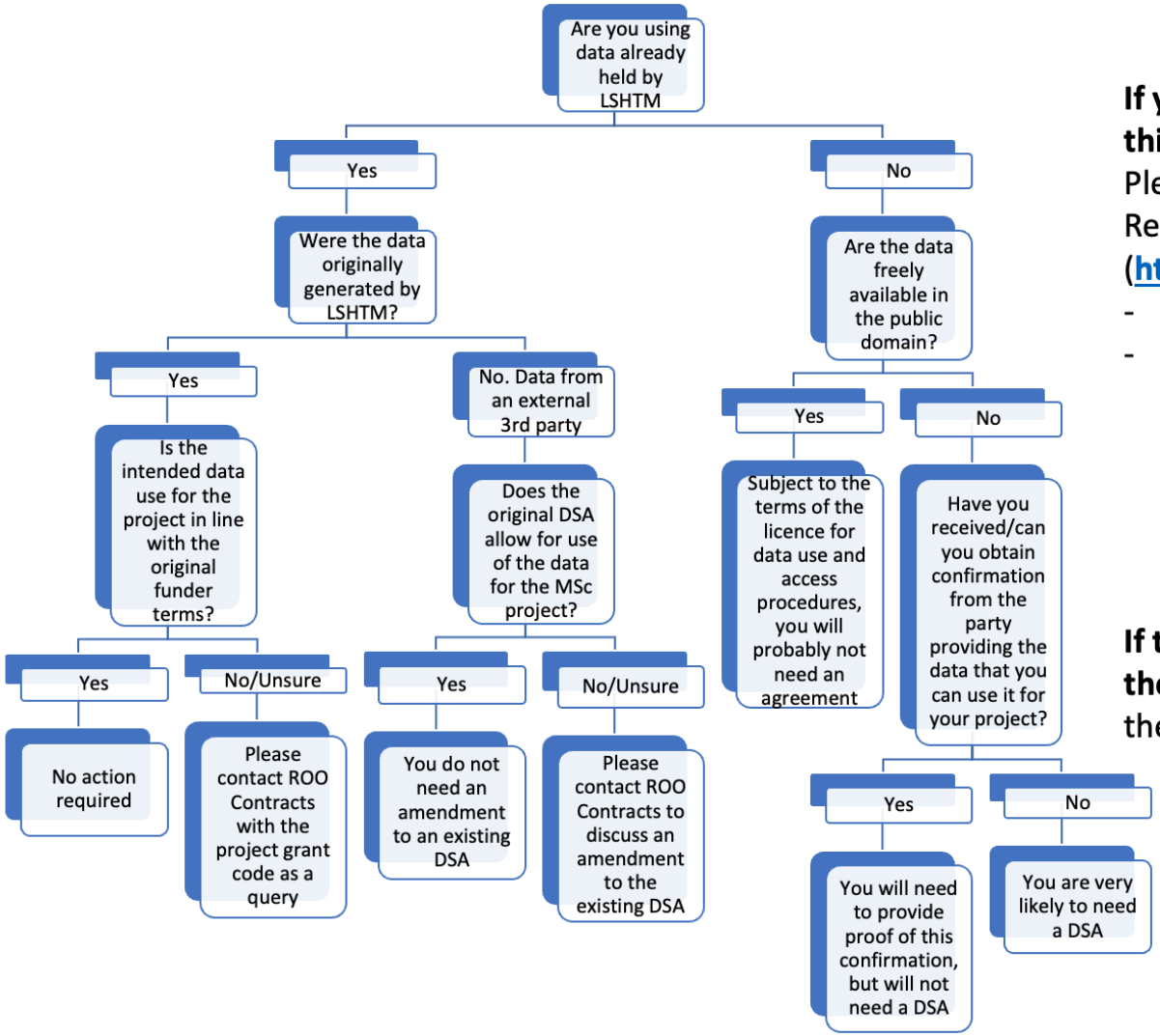
15.5 What to do if there is a "data-breach"

A data breach occurs when there is an accidental or unlawful destruction, loss, alteration, unauthorised disclosure of, or access to, personal data.
For instance, if your laptop containing personal data is stolen, if you mistakenly share a dataset containing personal data with someone else, or you store data in a server you are not allowed to store them in, there will have been a data breach.
If during the course of your project you suffer a data breach, you must promptly notify the School, as we will only have seventy-two hours to start investigating, notify the relevant authorities and start the relevant actions to mitigate it. The sooner we know, the easier it will be for us to help you as well.
Please do so by contacting dpo@lshtm.ac.uk in the first instance. In case of doubt on whether there has been a breach or not, please contact the DPO as well!

15.6 Secure data transfer

If there is no secure data transfer/access process already in place via LSHTM or the external institution, we recommend that students and tutors contact IT Services via ServiceDesk (https://lshtm.topdesk.net) for assistance.

1. When do you need a Data Sharing Agreement for your summer project?



If you need to contact ROO Contracts, or if you think you may need a DSA,
Please request it as soon as possible through the Research Contracts ServiceDesk page (**https://lshtm.topdesk.net/**)

- Log-in
- Select:
  i) Legal, Research contracts & data protection
  ii) Research Contract
  iii) Request a new Research Contract
  iv)"Material, Data transfer agreement" query
  v) Select Data & Incoming options.

If the data provider has agreed for you to use the data, please upload this confirmation with the CARE form.

Please make sure to select the correct answer to question 73 in the CARE form that asks about whether a data transfer agreement is required.

Questions asked by ROO Contracts when completing a Service Desk request for an incoming DSA:

Data Transfer Agreement where the School is receiving data *IN* from a third party	
Name of the party from whom we're receiving the materials	Source of the data; if LSHTM, please include Agresso project code and PI name
Description of the data	Please add a brief description of the information contained in the dataset and confirmation of whether or not the data are anonymised, and whether the data are in the public domain, or permissions are required to access the data.
Will we be receiving Personal Data (i.e. identifiable), or will the data be sent to us in anonymised form/pseudonymised aggregate form such that the individual cannot be identified from the data? If identifiable data, has the School received ethical approval for its proposed used of the data?	Not always as obvious as it may seem, personal data would include, for instance any data that, combined with other available data, enables a highly motivated intruder to identify one individual. It would also include any pseudonymised data (whether you have the key or not).
Please give details of any funding (project number/funder name) for the research in which you will be using the data	Response required only if there is funding in place or funding implications (at LSHTM, not externally) specifically related to proposed project, otherwise "Not applicable". An example of where a response may be required is where your MSc studentship is externally funded via a studentship agreement with LSHTM
Please provide a brief description of the intended research programme using the data	Please include the response to question 12 of the CARE form here.
Will any students or visiting researchers be using the data in the intended research programme?	Response required: "*Yes, student project is a secondary data analysis project"*
Are you collaborating with any non-LSHTM researchers on this project with whom you need to share the data? If yes, please provide details.	Response here will be either "Not applicable", or in the case of having an external supervisor, please provide the details of the name, job title and institution or organisation of the external supervisor
Is it likely that your research with the data will generate any invention or significant intellectual property?	Please complete as applicable.

PART TWO: PROGRAMME-SPECIFIC PROJECT INFORMATION

Objectives of the project report
List programme-specific objectives here. Note that generic MSc project learning objectives are detailed in standard School-wide information about projects.

A fundamental role of the research project for the MSc Control of Infectious Diseases is to provide students with a crucial opportunity to gain personal experience of real world issues and problems with the control of infectious diseases. It is a core principle of this Programme that students should be able to conduct their research projects overseas in endemic areas, in developing or developed countries. It takes considerable effort and time to make the arrangements for such overseas projects. However, some students may undertake their projects in the UK, focusing on UK public health or analysing data sets generated through collaborative research elsewhere.

The specific objectives of the project report are to:

- *Describe the research project and the experience gained*
- *Demonstrate the ability to write up a coherent and professional report*
- *Demonstrate understanding of relevant literature and summarise the context of the project in an introductory or background section to the report*
- *Demonstrate the ability to understand and apply an appropriate range and selection of investigative and analytical methods*
- *Demonstrate the ability to interpret rationally observations and data, while being aware of the limitations of the project*
- *Demonstrate the ability to discuss the outputs and applications of the research project in the context of previous relevant work, and to state clear conclusions and recommendations for future research*
- *Demonstrate independent and original thinking*
- *Where appropriate, reflect on social or ethical issues relating to the research*
- *Demonstrate competent presentational skills, including accurate and systematic reference citations and accompanying bibliography.*

Identifying a project topic – how the process works for this MSc
Give details here, noting whether students must come up with their own topic and who they might wish to speak to in deciding this (e.g. Personal Tutor, Programme Director); or whether a list of set project topics will be provided (e.g. in labs, with a pre-assigned supervisor) and if so how these will be allocated; or details of any other guidance or arrangements.

- May wish to give further guidance on how the proposal development and approval process (using CARE etc.) should work for the programme. Link in to key dates and deadlines later.

- *For MSc CID a project topic is identified by a process of dialogue, between student, tutor, Programme Directors and potential supervisors. The stages are a) the student expressing areas of interest b) more detailed definition of possible projects c) if appropriate, matching of students' interests with projects that are put forward independently by supervisors d) searching, by the student, tutor and Programme Directors, for suitable projects among staff or potential external supervisors, using web descriptions of research interests, journal publications, reports, conference proceedings or correspondence with relevant organisations and individuals.*

- *The process is described in more detail in the section Identifying a supervisor, below.*

Types of project report permitted for this MSc

List and describe here the criteria for what each different type of project permitted involves.

- Also describe options for extended projects (MSc Immunology of Infectious Diseases only).
- Programmes with a page limit rather than a word limit (MSc Medical Statistics only).
- Some programmes may wish to set specific restrictions, e.g. that project work overseas may not be allowed.

Essentially any appropriately planned and conducted research project with relevance to the Control of Infectious Diseases is permissible, such as:

- *Especially, field-based research projects: primary collection of quantitative and/or qualitative data in endemic areas away from LSHTM, with data analysis in the field or back at LSHTM.*
- *Analysis of an existing dataset: based on work done or data collected prior to or during the Programme or data provided by School staff or by others or data that is in the public domain.*
- *Policy report: reviewing a policy issue using data from grey and other literature and/or from 'original sources' to draw conclusions and make recommendations for policy.*
- *Computational modelling: investigating the theoretical and variable dynamics of infections in individuals or populations.*
- *Protocol for new study: conducting a feasibility study, addressing all relevant issues and incorporating the design of a larger scientific study.*
- *Less commonly, a systematic literature review: a comprehensive and original review of the literature on a relevant subject, with clear conclusions and recommendations. An excellent review must exhibit clear evidence of an in-depth understanding of the subject matter, a rigorous literature search, and excellent ability to synthesise and to reach original new insights. For guidance on the grading system for a systematic review or Policy report, please see the additional guidance uploaded to Moodle.*
- *Laboratory based research projects: based either in LSHTM laboratories or at an institution elsewhere.*

Expected time commitment of projects

Describe here at whatever level of detail is felt appropriate. The standard School expectation is 450 hours of learning time for a standard length project, with a typical split of 50 hours planning/preparation, 300 hours' active project work, and 100 hours writing up. Extended projects are 750 hours, with a typical split of 50 hours planning/preparation, 550 hours' active project work, and 150 hours writing up. However, the breakdown of hours may vary by programme and by project type, e.g. lab projects and literature reviews would require a different split of time.

Flexible but rough guidelines as in the general guide above, namely: 450 hours of learning time for a standard length project (12 weeks of 37.5 hours per week), with a typical split of 50 hours planning/preparation, 300 hours active project work, and 100 hours writing up; but this may vary by project type.

Identifying a supervisor: How the process works for this MSc

Give details here noting whether students will be assigned a supervisor, or have one attached with a set topic once selected, or must find their own supervisor.

1. *Towards the end of term 1, the Programme Directors write to previous or potential supervisors requesting that they submit ideas for projects. These submissions are then compiled into a list of potential project topics, as indicated below, which is sent out to the class at the beginning of term 2, and updated periodically as supervisors send in new project ideas. The Programme Directors may also send out the project list, from the*

previous year to the supervisors concerned to see if any of those projects are still valid for reactivation or follow up.

The ITD Faculty also sends out a separate list indicating the research interests of departmental staff, some of whom may be available to supervise projects.

2. *Representatives of some organisations providing projects may be invited, by the Programme directors or class representatives, to meet the class and describe project opportunities.*

3. *Based on the above information the students open up a dialogue with potential supervisors, leading to the selection of one principal suitable project and supervisor, and if considered necessary one back up project.*

4. *Importantly CID students are also encouraged to proactively seek dialogue with potential supervisors and not necessarily await release of the CID specific project list.*

Note that it is the responsibility of the tutor to ensure that the student arranges a suitable project and supervisor in good time, although the tutor may not be the project supervisor.
Restrictions

Projects will not usually be permitted if they involve either work with ACDP Category 3 pathogens or travel to a country against the FCO advises on their website. Their website is at www.fco.gov.uk

*The Restricted Travel Form must be completed to seek approval for travel to a country against FCO advice. Guidelines for circumstances under which permission **might** be granted are:*

Supervisor support

Give details here about any specific supervision practices that apply. You may wish to give further details about how the School's quota of maximum10 hours of supervisory guidance" is expected to work.

The criteria for agreement between collaborators supporting project assignments and the Programme directors/Programme committee for the MSc in the Control of Infectious Diseases (MSc CID) are suggested below. It is also suggested that the student and tutor/LSHTM staff involved in each project are aware of these conditions and agree to them prior to commencement of the project.

1. *The project must be approved by appropriate staff in the London School, via the CARE form.*

2. *Students will need special permission to be assigned to destinations that the UK Foreign Officer recommends as unsuitable for travel, see below.*

3. *For projects involving patients or confidential data local ethical approval must be obtained (see CARE form)*

4. *A tutor from the London School, or another member of staff with a specialist interest in the project, will assist the student and liaise with the student during the project, even if the student is working overseas.*

5. *The collaborator will suggest project assignments, or develop a project assignment with the student, or respond to project assignments suggested by a member of the London School.*

6. *Only a student assessed by both London School staff and the collaborating institution, to have suitable prior experience and skills (e.g. languages) will be considered for a particular project.*

7. *A concise project outline will be prepared by consultation between the collaborator, the student and London School staff. This description,* ***which may be incorporated into the CARE form****, should consist of:*

A title; the name of the student; the name of the student's tutor or/and other supporting staff at the London School; the name of the collaborator/local supervisor; the name of the collaborating organisation; an overall aim; specific objectives; brief background to the project; the methods of investigation and a timetable; the methods of presentation and analysis of results; predicted outcomes and public health significance; a note on ethical or other approvals required, and a budget, which should include a contingency of 10%.

8. *The collaborator will ensure that there is a suitable local advisor for the student and will also give advice on low-cost accommodation and subsistence.*

9. *If the project requires analysis at the London School of biological samples from field sites, the samples concerned will remain the joint property of the collaborator and the London School and may not be distributed to others without the prior agreement of both parties. Any transfer of biological samples will adhere to shipment and safety regulations.*

10. *A copy of the student's project report will be provided to the collaborator. Project reports need to be seen by internal and external examiners but if the collaborator requests may be otherwise kept confidential.*

11. *If the project is considered a suitable basis for a publication, the information will be published jointly by the collaborator and the student concerned, with prior agreement by both parties, and with co-authorship according to contributions made to the work.*

12. *If the collaborator or collaborating organisation has a separate model of agreement, with alternative or supplementary conditions, this may be used as terms of reference for the project, subject to approval of the parties involved.*

13. *The projects take place between early June and early September each year, for up to 12 weeks, with up to 6 to 8 weeks at a field site, as at least the last two weeks are taken up with writing the project report.*

Please note that in some cases project collaborations with external organisations may be governed by a specific memorandum of understanding with LSHTM. This is the case for projects in collaboration with Christian Aid, and further details on the process will be provided separately for students applying for Christian Aid projects*.*

Key dates and deadlines

Give details here about specific deadlines that apply, including for academic approval (from supervisor and Programme Director), ethics approval (if a programme-specific deadline has been agreed with the MSc Research Ethics Committee). The final submission deadline is set by the School and detailed in Section 13 of Part 1 of the Project Handbook

- Set out any further specific stages, milestones and deadlines that may apply for the programme, following on from guidance in Part One about how proposal development and approval should operate (using CARE etc.)

Term 1

1) *Identify one or more topics (infectious diseases, disciplines, geographical locations) which might form the basis of a suitable project and relevant individuals to consult, either in the School or outside. It is important to have more than one option, as some ideas might not prove suitable or logistically possible.*

2) *Describe your provisional topics of interest on the summary table for the class prepared by the class representatives. Consult with appropriate staff, especially your tutor, to assess the feasibility of project ideas and gather information. Contact experts at the School and abroad to have informal discussions on possible project topics. Do not be afraid to approach lecturers after their talk to express your interest in doing a project in that field, and schedule an appointment with them if you want to discuss your ideas further. These experts will be able to provide you with contacts in the field and probably will be able to direct you to readings on the subject.*

3) *Attend any talks for NGOs offering projects e.g. Christian Aid.*

4) *Read relevant literature on the topics that are of particular interest to you.*

5) *Look through projects from previous years. These are available online via the school intranet at the following link –*

https://lshtm.sharepoint.com/Services/library/Pages/MSc-project-reports.aspx

6) *Prepare brief curriculum vitae, which you will need to have available for potential supervisors outside the School.*

7) *At the end of Term 1/beginning of term 2 the Programme Directors start to produce a list of some possible project topics. If you have begun to make arrangements for a project ensure that your topic appears on the list and that it is provisionally assigned to you.*

8) *If you have a project in mind, begin to look at the financial viability. Do you have enough funds? If not, how can you raise supplementary funding? Include a 10% contingency allocation in your budget.*

9) *Ensure that your project destination is compatible with the Foreign Office advice at their website: http://www.fco.gov.uk. If you need special permission for the project site you MUST have a strong alternative project as backup.*

Term 2

Note that for some projects overseas it may take several months to obtain local ethical approval and CARE forms and local ethical applications should be submitted at the earliest opportunity.

1) *A fuller version of a project topics list will be produced by the Programme Directors and Programme Administrator. You will be asked to indicate your preferences, or whether you have begun to make your own arrangements for a project.*

2) *Plan an outline of the project and elaborate a short description, which includes: overall aim, specific objectives, methods of investigation, presentation or analysis for results, predicted outputs and significance, and a budget for travel, accommodation, visas and other expenses.*

3) *Consult with your potential supervisor, who may be external to the School, Programme tutor, Programme directors and other relevant staff, as well as the literature, to make sure your project design is as good as can be. Your project supervisor may be a member of the School Staff or of an appropriate external authority, for example a member of an NGO or other organisation working at the project location.*

4) *Remember that you should have a back-up project in mind in case anything goes wrong.*

5) *If you are travelling overseas, make sure your passport is up-to-date, arrange necessary visas, vaccinations, prophylactic medicines, and insurance. Look for the best economical means of air travel - agents regularly used are:*

Comparison sites – Kayak, Skyscanner, Momondo, Expedia, Opodo and Netflights.

Journey Latin America – 0208 747 3108

Scotts Travel – 0208 882 0141

Trailfinders and STA Travel - 0333 321 0099

Make preliminary travel reservations, but beware of cancellation fees if last minute changes have to be made. Note that LSHTM will provide basic insurance cover for projects carried out overseas. You must not travel without insurance.

6) *Ensure that you have support from your tutor or other member of staff in the School relevant to the topic of the project and an established means of regular contact. Ensure that you also have adequate local support overseas and, if appropriate, an external project supervisor.*

7)

DEADLINE *on the Monday of reading week (TBC- TSO will send out info soon) for the decision about the likely project title and the likely project supervisor.*

DEADLINE *13th April for submission of CARE form for ethical and other approvals, or 27th April for projects overseas). Confirm that your intended project is covered by local ethical approval, if not prepare and submit an appropriate application for ethical approval. Note that for some projects in Africa it may take several months to obtain local ethical approval and CARE forms and local ethical applications should be submitted at the earliest opportunity.*

DEADLINE *Project submission -1***400** on **Friday 1st September 2023**.

Project marking criteria

Marking scheme ***must*** be included.

- Describe any differences in marking criteria for different permitted types of project. It may be appropriate to provide full marking criteria as given to markers.
- If a component marking scheme is to be used, make clear what the components are and their respective weightings.

The marking of the project report counts for 30% of the overall MSc.

Marking is based on the following guidelines:

5 (outstanding achievement, distinction level) - A comprehensive discussion of the topic giving all relevant information, showing in-depth critical understanding of the topic,

going beyond conventional answers, and bringing in additional relevant ideas or material.

4 (very good pass) - A full discussion of the topic, including all relevant information and critical evaluation.

3 (good pass) - The major points are discussed, but relevant, though less important considerations, are omitted.

2 (satisfactory pass) - Sufficient relevant information is included but not all major points are discussed, and there may be some errors of interpretation.

1 (borderline fail) - A few points are included, but lack of understanding is shown together with use of irrelevant points.

0 (outright fail OR not submitted) - None of the major points present; many irrelevant points included and a serious lack of understanding, OR Not submitted.

When reviewing a project report, markers are asked to consider the following questions:

1. *How clearly does the abstract represent the content and outcomes of the project?*
2. *How effectively does the introduction summarise context and relevant literature?*
3. *How clearly and coherently are the aim and objectives stated?*
4. *How appropriately were investigative and analytical methods applied and explained?*
5. *How rationally were the findings interpreted?*
6. *Does the student demonstrate sufficient understanding of the limitations of the current project work and show insights into ideas for future research?*
7. *How clearly were conclusions, implications and recommendations made and discussed?*
8. *Have the aims and objectives been met?*
9. *How well has the student sought and identified relevant references (e.g. to position project within context of broader research), and cited these appropriately?*
10. *How competent and accurate was the presentation of the report overall, including structure and the use of tables / figures / illustrations?*
11. *How much independent and original thought was displayed throughout the project?*
12. *Why have you as markers awarded the student this specific grade and not one grade higher or lower?*

Further programme-specific information

- Give any further programme-specific guidance on writing-up the project, including about the specific sections to include (e.g. Introduction, Aims & Objectives, Materials and methods, Results, Discussion, Recommendations), recommended referencing systems (e.g. Harvard or Vancouver), etc.
- May also wish to give further programme-specific guidance on requirements for the final report submission, e.g. presentation requirements, file formats to be used, a checklist of forms or other documentation to be appended to the main project report, etc.

In choosing your modules you may have considered which disciplines/methodologies you might be interested in applying during your summer project, if possible ensuring that your overall module selection encompasses a reasonable number of the key methodological skills that you anticipate might be needed for your project, for example, epidemiological, quantitative or qualitative analyses. Ideally, it is better not to embark on a project that involves an approach for which you are unprepared, e.g. you would not do a modelling project if you had acquired no prior modelling experience during the Programme.

2. *If necessary try and enhance any project related skills prior to departure, or prime your tutor to identify an additional advisor if you think you may need supplementary support with use of software for data analysis.*

3. *Ensure that the outline of your project proposal is adequate, similar to those at the end of this guide, preferably incorporated into the CARE form but if necessary, as a supplementary document. The Programme directors may not sign off approval of your project without such a satisfactory project description.*

4. *It is advisable to build into your project budget 10% for contingencies, even though it is not shown in the examples below.*

Appendix I: Examples of previous project outlines

(see Programme Handbook for a list of previous project titles)

<u>An in-depth study of the views of young users and non-users on the models of sexual health delivery.</u>

Student: *Jenny Komrower*
MSc Candidate, Control of Infectious Diseases,
London School of Hygiene and Tropical Medicine

Supervisor: *Audrey Pettifor (RHRU, South Africa), Kaye Wellings (LSHTM)*

Site: *Eastern Cape Province, South Africa*

Timeline: *26th June 2003 - 9th August 2003 in South Africa, 28th August submit report*

Overall aim*:*
To assess adolescent perceptions surrounding public sector reproductive health sector services and to determine if the National Adolescent Friendly Clinic Initiative (NAFCI) encourages greater use of reproductive health services compared to non-NAFCI clinics.

Specific objectives:
1) To determine what reproductive health services adolescents are currently utilizing; particularly in relation to NAFCI clinics and non-NAFCI clinics.
2) To decipher who is accessing public sector health facilities particularly in relation to NAFCI clinics and non-NAFCI clinics, in terms of age, gender and SES.
3) To understand what services are most utilized by young people and what services/activities/components are most important to young people in relation to reproductive health clinics.
4) To determine what factors serve as barriers, deterring young people from attending both NAFCI and non-NAFCI clinics.

Background:
Approximately 45% of South Africa's population is between the ages of 15 to 24 years. In South Africa more than 4 million people already infected with HIV and some projections state an increase of up to 10 million in the next decade. The young people are a critical target for interventions. Extensive research within South Africa has highlighted a failing of public health facilities. These facilities fail to adequately respond to the need of young people in terms of access and availability of appropriate care. In response to this vacuum loveLife was established as a lifestyle brand to promote healthy living and positive sexuality amongst young South Africans. The loveLife programme is multi faceted: it uses high powered media to promote a healthy lifestyle; provides a Nation-wide adolescent sexual health service whilst also conducting numerous outreach and support programmes. The National Adolescent Friendly Clinic Initiative (NAFCI) was introduced in 1999 and is an accreditation program designed to improve the quality of adolescent health services. NAFCI aims to make health services more accessible and acceptable to young people by establishing national standards and criteria for adolescent health care in clinics throughout the country and building the capacity of health care workers to provide quality services (loveLife 2001). While NAFCI has been in place for over two years, much of this time has been used in developing and refining the programme. As of the end of 2002 approximately sixty public sector clinics in South Africa had NAFCI introduced. In order to better understand if NAFCI is making a difference in improving access and acceptance, qualitative research is being proposed within NAFCI clinics and in clinics who have not yet received NAFCI. By better understanding the perceptions of young people regarding clinical services and the NAFCI programme, steps can be taken to improve NAFCI to better meet the needs of young people.

Methods of investigation:

- *Semi-structured interviews will be used to explore the study objectives. Three NAFCI clinics that have had the programme in place for at least one year and three clinics that do not have NAFCI (but may shortly) will be selected to take part in the study. Interviews will be conducted with young people at each clinic. Youth from within the clinics and those in the community will be sampled to take part in the interviews. At each clinic 10 interviews will be conducted with youth in the clinic and 10 with youth in the community (total of 20 interviews with youth at clinics and 20 with youth in community)*
- *Clinic utilization records will be used to extract the relevant information concerning: age, gender, education status, economic status and distance from the clinic.*
- *All interviews will be conducted in the local language of choice by a trained researcher*

Methods for presentation and analysis of the results:

- *The qualitative data will be transcribed and key themes will be identified, with comparisons made between the sites (NAFCI and non-NAFCI), concerning personal details, sexual health knowledge, sexual health concerns, choice of sexual health service, when they go to services, why they go to services, where they go to services, what they like about the services, what they dislike about the services and what they think would make the services better. EPI Info will be used to input qualitative data and where possible statistical analysis will take place.*
- *The qualitative data above will be triangulated with clinic utilization records of: age, gender, education status and distance from the clinic.*
- *The quantitative data will be analysed using the statistical package STATA7 and analysis will be performed using t-test for continuous data and chi-squared for categorical data. Logistic regression analysis will be performed to control for confounding data. The aim will be to determine any significant differences in the utilisation of clinics and the socio-demographic variables.*
- *Results will be presented in the required 10,000 word report, in the forms of text explaining key issues, tables, maps and graphs.*

Predicted outcomes and significance:

The interviews will ascertain adolescent's perceptions of the public sector clinics concerning: their views on the different providers and services available to them; their perceived barriers to access; what appeals to them about the different services and what are their expectations of a reproductive health service.

Comprehensive analysis of the data will hopefully demonstrate that the youth friendly approach (NAFCI) will reach out to a greater number of young people in a format that will be accepted and understood by them compared to services that are not youth friendly.

Ethics:

Ethical approval has been received from the Ethics Research Committee of the University of the Witwatersrand and the Ethics Committee at the London School of Hygiene and Tropical Medicine.

Budget:

Flight to Johannesburg:	*£477.40*
Internal Flight from Johannesburg to Cape Town:	*£88.20*
(the test site is closer to Cape Town where I will rent a car)	
Insurance:	*£78*
Translator:	*£75*
Living allowances (£15/week for 6weeks):	*£630*
Car Rental and fuel allowance (for the month):	*£275*
TOTAL:	*£1623.60*

Spatial mapping of socio-cultural factors leading to dengue incidence in Kuala Lumpur

Student: *Nada Khan*
MSc candidate, Control of Infectious Diseases
London School of Hygiene and Tropical Medicine

Supervisors: *Karina Razli*

Site: *Kuala Lumpur, Malaysia*

Timeline*: 29 June – 27 August, Kuala Lumpur, Malaysia*
29 August submit report

Overall aim:

- *To determine the relationship between dengue fever incidence in Malaysia with social and cultural variables using statistical and geographic information systems analysis.*

Specific objectives:

- *To access incidence data on dengue fever from the Ministry of Health.*
- *To develop a geo-referenced map with incidence of dengue per region in Kuala Lumpur.*
- *To develop and carry out a questionnaire to determine social and cultural factors that may influence dengue incidence, including human dwellings, awareness/knowledge, mosquito protection patterns, sanitation, water collection and storage and waste disposal.*
- *To assess spatial social risks related to dengue incidence.*
- *To develop a model that can be used as a predictive tool to forecast the occurrence of dengue cases in metropolitan Kuala Lumpur for preparedness and control efforts.*

Background:

Dengue is an arboviral disease carried by the Aedes mosquito and despite control efforts in recent years, ineffective vector control, population growth and urbanization has led to a worldwide resurgence of the infection. Malaysia experienced an epidemic from 1994-1998, however, in 2002, 32,289 cases were reported as the worst year on record. Dengue is mostly a city-borne disease, with mosquito breeding in artificial water containers in households. Kuala Lumpur, the capital city of Malaysia, covers an area of 243 square kilometers and has a population of 1.5 million, and as of April 2003, had the highest concentration of dengue cases in the country.

Social and cultural factors, including water collection, water storage and sanitation have been shown to influence dengue incidence and transmission in urban areas. An essential component of any dengue control program should involve knowledge of disease trends and contributory factors to vector prevalence within cities and by developing a risk level map, control efforts might be targeted to areas of high risk behaviours.

Methods of Investigation:

- *Use of geo-referenced maps of Kuala Lumpur along with remote sensing of areas of high risk socio-cultural practices.*
- *In depth structured questionnaires with families in different areas of Kuala Lumpur.*
- *Statistical models based on socio-cultural risks to develop and test a predictive model of dengue incidence in Kuala Lumpur.*
- *Mapping of dengue incidence data acquired from the Ministry of Health will be referenced with studied risk factors in Kuala Lumpur.*

Methods for presentation and analysis of results:

- *Correlations between risk behaviours and dengue incidence and a regressive-predictive model will be developed using Stata 7.*
- *GIS, using ArcView, will be used to illustrate behaviours related to dengue incidence in a spatial risk level map of Kuala Lumpur.*
- *A predictive statistical risk model will be developed and tested using dengue incidence data.*
- *Results and discussion will be presented in a 10,000 word report with tables, graphs and maps.*

Predicted outcomes and significance:

The purpose of this project is to link households with their socio-cultural practices and dengue incidence. Aedes aegypti breeds mainly in artificial containers holding water, and through structured interviews, data is expected to show which sanitation practices are correlated with higher dengue incidence. Spatial analysis of risk behaviours can then be analyzed to develop a risk level map of Kuala Lumpur for predictive probabilities of transmission.

As an increasingly urbanized disease, a better understanding of social and cultural practices in households as risk factors for the transmission of dengue may be important in developing educational and control programs on a city-wide level. Developing a spatially predictive map of Kuala Lumpur would also help focus area-specific preventive strategies for dengue management.

Budget:

International flight:	*£ 479*	
Insurance:	*£ 25*	
Living expenses	*£ 500*	
	Total	*£1004*

Accommodation will be provided.

Microepidemiology of intestinal nematode infection and incidence of malaria in rural Uganda: is there an association between these infections?

Student: *Adrienne Shapiro*
MSc candidate, Control of Infectious Diseases
London School of Hygiene & Tropical Medicine

Supervisor: *Simon Brooker, LSHTM*

Site: *Rukiga County, Kabale district, SW Uganda*

Timeline: *29 June-4 August in Uganda*
1-29 August London
29 August submit report

Overall aim

- *To describe the microepidemiology of malaria and intestinal nematode infection in rural western Uganda and examine whether helminth infection increases the susceptibility to clinical malaria.*

Specific Objectives

- *Correlate existing data on malaria incidence with parasitology survey data on helminth infection*
- *Determine association between spatial distribution of malaria and helminth infections*
- *Determine household characteristics associated with either infection*
- *Determine whether helminth infection is a risk factor for clinical malaria*

Background

Th1 type immune responses are involved in the immunity for Plasmodium falciparum, which causes over a million childhood deaths in sub-Saharan Africa. Concomitant infection with other organisms that affect this immune response could have an effect on the progression of malaria disease as well as potentially influence responses to vaccines. For example, Mouse-model experiments have shown that mice coinfected with Schistosoma mansoni and Plasmodium chabaudi display higher parasitemias and depressed TNF-alpha responses. The parasitic nematodes Ascaris lumbricoides, Trichuris trichiura and the hookworms (Ancylostoma duodenale and Necator americanus) are amongst the most common infections of humans. They may also influence the responses to vaccines and susceptibility to other infections by inducing potent, highly polarized immune responses characterized by elevated Th2 cytokine production and thus down-regulating Th1 type immune responses.

Early studies in extremely malnourished populations showed that A. lumbricoides led to a suppression of malaria. More recent studies in Thailand have shown that A. lumbricoides is associated with a dose-dependent protection from cerebral malaria but that the incidence of P. falciparum malaria was increased in helminth-infected individuals. In western Kenya, malaria studies carried out by my supervisor have found that children infected with multiple helminth species have a greater risk of malaria than uninfected children. It is important to confirm whether the reported associations are real, given their potential implications for malaria vaccine effects. Given socio-economic confounding and spatial auto-correlation may explain the reported associations, further epidemiological studies in other endemic settings are needed.

As part of on-going and funded epidemiological studies in Kamwezi County of Kabale District, Uganda, staff at the London School of Hygiene and Tropical Medicine together with Uganda collaborators, are collecting weekly malaria incidence data for over 1000 individuals from four villages. In the coming months, both case and matched-control households will be visited and their household members interviewed about socio-economic status and infection risk factors.

Methods of investigation

- *Mapping using a hand-held geographical positioning system, of ~150 households*
- *Develop and implement questionnaire of households on socioeconomic status, infection status, risk factors, etc. (with help of local staff)*
- *Use of existing data on malaria infection and helminth infection in study population.*

Methods for presentation and analysis of results

- *Spatial clustering of infection and disease will be estimated using global spatial statistics*
- *Spatial covariance of helminths and malaria will be investigated using cross-correlation and Mantel correlogram approaches*
- *Logistic regression will be performed, using a random effect model to account for clustering of individuals in households, to examine the associations between helminths, malaria, and potential confounders.*
- *GIS, using ArcView, will be used to create a map of the households and describe the spatial distribution of malaria and helminth infection*

Results will be presented in the required report with appropriate tables, maps, and graphs.

Predicted outcomes and significance

Our hypotheses are that helminths are reducing Th1 type immune responses and increasing susceptibility to clinical malaria. To control for potential confounders, detailed socio-economic and household data will be included in the analyses. The intellectual challenge of this research lies in integrating the several approaches proposed to elucidate infection patterns in the study population. This project attempts to increase the robustness of standard descriptive epidemiology of infections present in the region by considering the role that helminth worm infection plays in determining clinical malaria. Malaria infection, helminth infection, and social/environmental determinants of infection have each been examined independently in a variety of settings. To understand the true impact these have, it is necessary to understand how each relates to the others. The proposed research will, therefore, attempt to extend our understanding of the interaction of malaria and helminth infections, and the effects of the distribution of both within the study population. This study will also foster development of future investigations possibly including immunological markers and a trial of antihelminthics.

Ethics
Ethics approval granted by Ugandan Ministry of Health and LSHTM. Dissemination of results to all interested and concerned parties.

Budget:	*International Flights*	*£518*
	Visa	*$20*
	Insurance	*£50*
	Field technician	*£350*
	Accommodation/Expenses	*£500*
Total		*£1418 app.*

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