LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

MSc Medical Statistics Project Handbook

(face-to-face programmes)

2017-18

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 November 2017.

Note that School-wide information given in this handbook applies only to projects for LSHTM MSc degrees taught face-to-face in London, 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 Academic Registrar.

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About this Project Handbook

All face-to-face students taking a 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 Insurance form, available at: https://intra.lshtm.ac.uk/Services/Travel/index

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 a face-to-face 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% towards your final degree Grade Point Average (GPA) and classification; or 40% for extended projects, and whether you may obtain a distinction.

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

Stages	When	Action
Stage 1	Mid-November	MSc Immunology of Infectious Diseases (IID) students decide whether to take the standard or extended project.
Stage 2	January	Focus your thinking about what you will do for your project.
Stage 3	February and March	Turn your idea into a formal proposal and gain approval from School staff.
Stage 4	End of April	You should have received all required approvals, and may be able to start doing preparatory work or getting arrangements confirmed.
Stage 5	Summer (after the exams)	You will normally undertake the main part of your project work – including research or data collection, analysis and writing-up.
Stage 6	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. There are two types of projects: standard (which most students will follow) and Extended (MSc Immunology of Infectious Diseases only). The standard project is worth **45 credits** (450 learning hours) and the extended project is worth **75 credits** (750 learning hours), and work on the extended project runs during both D and E timetable slots. (See Part 2 of this handbook for programme-specific information).

1.3 Word count and project lengths

The word 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. (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 site at: www.lshtm.ac.uk/library/collections/mscprojects.html. 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.
- **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 jointly agree a grade on the School's standard scale from 0 to 5. 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.

MSc Project Report Timeline

Deadline	Stage	Task	Key Milestones
Mid November	Stage 1 Pre-planning	• Choose standard of 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 CARE form to supervisor
Mid Apr (Ethics) **Early May** (form to TSO)	Stage 4 Proposal Approval	• Completion of final project proposal as 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 Supervisor approval if required ➢ Submit final CARE form to MSc Research Ethics Committee ➢ Once all approvals received, submit approved form to TSO via Moodle.
Early September	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 ensure that every student has 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. It may sometimes be appropriate for your personal tutor to become 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.

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 STATA 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 one week 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 *<u>can</u>* 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 STATA analyses for the student. • Ensure that the project is of at least a pass standard. • Rewrite a project report.

<u>Disabilities</u>

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: http://intra.lshtm.ac.uk/studentadvice/disability

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**: The supervisor should organise regular sessions with you, 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 one week 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 Pre-planning (Stage 1)

Early Autumn term. Deadline for this stage will be approximately mid-November.

This only applies to students on the MSc Immunology of Infectious Diseases, who need to decide whether to take a standard or extended project. This decision is linked with the number and type of teaching modules selected, and the deadline for selection is the same as for Term 2 & 3 module selection.

3.2 Initial planning (Stage 2)

Late Autumn term, and by early January. Deadline will be approximately end January, or a couple of 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: http://www.lshtm.ac.uk/research/researchgovernanceandintegrity/researchgovernance/index.html.

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**, 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.

Past example CARE forms
You may find it helpful to look at examples of completed CARE forms available on the web at www.lshtm.ac.uk/edu/taughtcourses/studentforms/careforms.html Note that these forms were completed using a previous version of the form, so the question order is different.

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

(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) 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 link can be found on the Moodle site for your MSc programme (log on at ble.lshtm.ac.uk using your School username and password). 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_2017_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_2017_ 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 3c(iii). 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:

- **(Q12 - Hypothesis):** This depends on the project type and not all require one.
- **(Q13 - Aim):** The overall aim of the project may simply be to investigate the hypothesis.
- **(Q14 - 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 (questions 15-21) 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 (questions 19-20b)

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 secondary data analysis, 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 is 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://intra.lshtm.ac.uk/Research/Research-Governance/Human-Tissue/index

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://lshtm.sharepoint.com/sites/assets/policies/Documents/Animal_Research_Policy.pdf#search=animal%20research%20policy

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.

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. There is information on what is considered security sensitive material in the information icon of Q8d.

4.16 CARE form Section 14 – 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 submitting the CARE form to the MSc Research Ethics Committee. Signing will confirm that you will carry out the project as stated on the form, particularly with regard to safety and ethics requirements.
- **Supervisor and Programme Director:** You will need to obtain the electronic signature from your Supervisor and Programme Director (and Faculty Safety Supervisor, Overseas Safety coordinator, 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 4.16 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 late March.

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 Supervisor). 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 Supervisor 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**

Approval step	*Instructions*
	development stage to make changes and put a revised form through for supervisor and Programme Director approval.
5. Faculty Safety Supervisor (FSS) approval *(where relevant) as indicated by answers to Question 43c and 48a and b of the CARE form*	This step is only likely to be required for ITD programmes, where hazardous substances might be used. You should incorporate the FSS's feedback. • Approved: The FSS will sign the form electronically on the LEO system; then submit to **MSc Research Ethics Committee**. • Not approved: The FSS will inform you and give feedback about what you need to change or improve. You may be able to simply **re-submit for FSS 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**. • **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. Overseas Safety Coordinator Approval	If your project requires you to travel to a country or region to which the FCO advices against travel, you will need to seek approval from the Overseas Safety Coordinator. • **Approved:** the Overseas Safety Coordinator may sign the form electronically on the LEO system; then submit **to MSc Research Ethics Committee**. • **Not approved:** the Overseas Safety Coordinator will inform you and should give feedback about what you need to change or improve. You may be able to simply **re-submit for Overseas Safety Coordinator 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 .

Approval step	*Instructions*
	• **Approved:** The MSc Research Ethics Committee will inform you via an approval letter– and may also have further comments. You should then **submit the final approved form to TSO via Moodle**. • **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.
10. Submission to TSO	When all required approvals have been obtained, you should submit a final copy of the CARE form to the Teaching Support Office **via Moodle**. Please also **retain an electronic copy** as you will need to include it (without the front sheet) in your final project report.

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). Such approval does not have to be obtained prior to getting the CARE form approved; but it should always be in place before you commence the local work in question.
- ***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 travel, you will also be required to complete a separate **Restricted Travel Safety 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.)*

Care form submitted to MSc Research Ethics Committee	Deadline
All MSc Projects (except ITD projects overseas)	**Monday 16 April 2018**
ITD projects taking place overseas	**Monday 23 April 2018**

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 May** (i.e. early in Term 3.)

CARE Form

Once the MSc Research Ethics Committee has approved your CARE Form, you should then **submit the final approved form to TSO via Moodle**.

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. The MSc Research Ethics Committee **will not accept** any applications after **1 July 2018**, including re-submissions, aside from those which meet the criteria for not requiring ethical review. Amendments to approved projects may be submitted after this date.

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 13 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 4.19 below gives further guidance on what to do where revisions are requested).*

Once all parties have authorised/signed electronically your CARE form, you will then be able to submit to the MSc Research Ethics Committee by clicking on submit.

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**".

Submitting final approved CARE form to TSO

Once you have received all necessary approvals, you must submit a final approved version of the form in pdf format to your MSc Programme Moodle page and you will need to include it with your final project report. The Teaching Support Office will retain this as the School's master file version.

MSc Programme initials	Faculty	Initials
Control of Infectious Diseases	ITD	CID
Demography & Health	EPH	D&H
Epidemiology	EPH	EPI
Global Mental Health	EPH	GMH
Immunology of Infectious Diseases	ITD	IID
Medical Entomology for Disease Control	ITD	MEDiC
Medical Microbiology	ITD	MM
Medical Parasitology	ITD	MP
Medical Statistics	EPH	MS
Molecular Biology of Infectious Diseases	ITD	MBID
Nutrition for Global Health	EPH	NGH
Public Health – all streams	PHP	PH
Public Health Eye Care	ITD	PHEC
Public Health for Development	ITD	PH4D
Reproductive & Sexual Health Research	EPH	RSHR
Tropical Medicine in International Health	ITD	TMIH

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

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 Supervisor, you could add some notes about additional precautions to be taken with pathogens.
- If prompted by the MSc Research Ethics Committee, you could add further details about local ethics approval you will be seeking before commencing work at a non-LSHTM site.

When you have made revisions, **you should re-submit the updated form for approval by the person who requested them.** 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 Extensions and Deferrals Policy.

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 Supervisor 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 Supervisor."

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 <u>not</u> 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 http://intra.lshtm.ac.uk/safety. Where documents refer to risk assessments, then for the MSc project this means the 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 Supervisor 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 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 Safety Policy Adviser** in the form of a factual 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/Services/Safety/Pages/laboratory.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 Supervisor 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.
- 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 category 3 pathogens will not be permitted.

5.3 Work away from LSHTM

Some MSc programmes allow projects to be undertaken off-site. This does not mean just 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. The only areas where off-site work will not require a detailed risk assessment are for library-based work elsewhere in the UK, or for work at your personal/family residence in the UK or overseas (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 which may apply for any work you may be carrying out away from School buildings. 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/Services/travel/. 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 conduct work off-site or overseas, and whether this is permitted at all. The School does not permit work in countries to which the UK Foreign & Commonwealth Office advises against 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/Services/Safety/.

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.

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**.

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. 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 is particularly important for project work you wish to undertake outside this UK. You will also need to request specific LSHTM travel insurance for any overseas travel.

Travel Clinic advice (required prior to travel)

All students should obtain medical advice prior to any travel overseas 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/Services/travel/Pages/new-travel-pages.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, anti-malarials or medication for MSc project work overseas. The cost of this will be paid by the School,

up to a maximum, provided this is booked through the School. The Travel Clinic is located at Mortimer Market (off Tottenham Court Road), Capper Street, London WC1E 6JB. Please take the original TSO-signed form plus one copy 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 your supervisor and Programme Director.
- Once your CARE form has been approved, you should complete the Health Consultation Request form available from the Teaching Support Office (TSO). 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.
- Take the completed form to be signed by the Team Manager for your Faculty in the TSO.
- TSO will then email the signed form to the Travel Clinic, so that they have a copy to hand when you make an appointment. The original form, plus two copies, will be returned to you.
- 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, 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. Full information about this is available at https://lshtm.sharepoint.com/Services/travel/Pages/new-travel-pages.aspx.

You must not travel overseas 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 Safety Manager and the Finance Office insurance section (insurance@lshtm.ac.uk) should also be informed of any accident or emergency as soon as possible.

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 http://www.lshtm.ac.uk/edu/taughtcourses/studentforms/careforms.html. *(Note that the section on risk assessment is now in Section 12 on the LEO system. All questions have remained the same).*

Types of risk

This sub-section of CARE should be completed by all 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 status on the Foreign & Commonwealth Office's (FCO) Travel Advice Notices** available via www.fco.gov.uk/en/travelling-and-living-overseas/travel-advice-by-country .
- You should also be aware that for travel overseas, you will need to **obtain travel advice and any relevant vaccinations**, and **obtain travel insurance**, well in advance of departure. You should confirm this on the CARE form.

Work with hazardous substances

This mainly applies to ITD students. This will require approval from the Faculty Safety Supervisor.

- Further guidance is available in the School's lab safety manual for students at https://lshtm.sharepoint.com/Services/Safety/Pages/laboratory.aspx. If you have any specific concerns or queries, please talk to 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/Services/Safety/.

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 Supervisor'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 Safety form

Projects are not normally permitted in areas of high risk as defined by the Foreign & Commonwealth Office (FCO): www.fco.gov.uk/en/travelling-and-living-overseas/travel-advice-by-country. In exceptional circumstances only, requests with clear justification may be considered by the Safety Committee and require approval by the School Safety Manager and School Secretary.

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 Restricted Travel Safety 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 Restricted Travel Safety form **and** their CARE form to the School Safety Manager: https://lshtm.sharepoint.com/Services/Safety/.

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 FCO advised-against list, then **the above approval process must be repeated in full**.

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), datasets or biological samples.
- 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: http://www.lshtm.ac.uk/edu/taughtcourses/studentforms/careforms.html.

Supervisor/Programme Director approval

Please also remember that your supervisor and Programme Director should have approved the project **before** submitting your completed application 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.

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.

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, as well, a copy/scan of relevant approval documentation should normally be attached.

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.

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.

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 www.nres.nhs.uk/applications/guidance
- The School on the Standard Operating Procedures Intranet page: https://lshtm.sharepoint.com/Research/Research-Governance/Pages/standard-operating-procedures-(sops).aspx (see SOP 005 on informed consent).

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.

The Registry maintains web pages with links to extensive details of potential funding available:

- Please see https://www.lshtm.ac.uk/study/fees-funding for details of potential funding for both students and prospective applicants to the School.
- For details of funding specifically for current LSHTM students, including Trust Fund awards (about which further details are given below), please see https://www.lshtm.ac.uk/study/fees-funding/funding-scholarships/funding-current-students

Please check these webpages for the most up-to-date details, as some of the information is subject to change. All relevant funding application forms will be available directly from these webpages.

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

The School sets aside annual funding to assist students with the cost of their MSc Project Reports. Information about this will be advertised in the Current Students Funding section of the School's website in due course: https://www.lshtm.ac.uk/study/fees-funding/funding-scholarships/funding-current-students

To be eligible to apply for this funding, applicants and/or projects must meet **all of the criteria** set out in the advertisement. Please be aware, only those projects taking places in a low- or middle-income country (as defined by the World Bank) will be eligible for consideration for this funding.

Please remember, submitting an application for a School MSc Project Award does not guarantee that you will be awarded funding. If you cannot afford to travel unless you receive a School MSc Project Award, or other such grant, we strongly recommend that you **do not** pay for or complete a non-refundable booking until you have received the outcome of your funding application.

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 Registry Funding pages.

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. 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.

8.2 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 Overseas**. 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 www.fco.gov.uk/en/travel-and-living-abroad/foreign-embassies-in-uk.

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

Final preparatory work should be done around April, ahead of main project research commencing from approximately early June. (This is after planning and approval, but before commencing main 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
The Library provide a number of excellent resources to assist with literature searching and finding information. Please see https://lshtm.sharepoint.com/Services/library/Pages/literature-searching.aspx Training is provided throughout the year, and one-to-one support is available for students completing MSc Projects.
See https://lshtm.sharepoint.com/Services/library/Pages/training.aspx.

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), 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 here www.lshtm.ac.uk/edu/qualityassurance/academicwritinghandbook.pdf

Past projects in the Library
The Library holds copies of past MSc project reports for the last seven years. These will give you an idea of the breadth of topics covered by students in previous years The majority of past projects are available electronically. Please see the Library's Collections and Resources site at www.lshtm.ac.uk/library/collections/mscprojects.html

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 at the beginning of September.

You should normally begin your main research work after the summer exams have finished.

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 www.lshtm.ac.uk/its, 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/Services/library/Pages/default.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 (start of September). Part-time students are expected to spend the same amount of time on project work. Please refer to the section on Employment and Studies in the Student Handbook available here: https://lshtm.sharepoint.com/students/Documents/Student_Handbook_2017-18.pdf#search=Employment%20and%20Studies

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 Extensions and Deferrals Policy.

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 publicly available.

If you are unfamiliar with these issues, please look through the guidance on the Library's web pages at
https://lshtm.sharepoint.com/Services/library/Pages/copyright.aspxhttp://www.lshtm.ac.uk/library/guidance/copyright/index.HTML. An expanded version of the guidance presented here is also given in the Academic Writing handbook, at https://lshtm.sharepoint.com/Teaching-and-Support/Documents/academicwritinghandbook.pdf.

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. 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 needing to use personal data in connection with their academic studies or research must abide by the Data Protection Principles, and should seek the advice of their supervisor before constructing or maintaining files of personal data. Further information is available on the School's Data Protection webpage at https://lshtm.sharepoint.com/Services/Information-Management/Data/Pages/default.aspx**Error! Hyperlink reference not valid.**. Guidance on maintaining research data/samples and records is also given in the School's Good Research Practice Policy, at https://www.lshtm.ac.uk/sites/default/files/Good_Research_Practice_Policy.pdf

Broadly, the Data Protection Principles state that personal data shall be:

- fairly and lawfully processed
- processed for limited purposes
- adequate, relevant and not excessive
- accurate
- not kept longer than necessary
- processed in accordance with the data subject's rights
- secure
- not transferred to countries without adequate protection

In May 2018, the new General Data Protection Regulation (GDPR) comes into force. Many of the principles of GDPR are the same as the current Data Protection Act, however there are some new elements and enhancements which the School needs to adhere to. There is further information on the GDPR intranet page at: https://lshtm.sharepoint.com/Services/Information-Management/Pages/GDPR.aspx

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:** *2017-2018.*
- **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 the online catalogue of previous MSc Projects on the library web pages here: http://www.lshtm.ac.uk/library/resources/msc_projects/

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 in 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 separate 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 both your MSc Student Handbook and in the Academic Writing handbook (which includes a worked example on how to use and cite sources correctly).

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 web pages here: https://lshtm.sharepoint.com/Services/library/Pages/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 **Wednesday 5 September 2018**.

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 Extensions and Deferrals Policy. 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 main project report (from title page to the reference list and all appendices) must be provided as **one file**, named in the format **[Candidate Number]_[MSc]_[Year of Submission]_Project**, e.g. “1234_PublicHealth_2014_Project”.
- The CARE form plus any other relevant documentation should be compiled together as a **second file**, named in the format **[Candidate Number]_[MSc]_[Year of Submission]_FurtherDocs**, e.g. “1234_PublicHealth_2014_Project_FurtherDocs”.
- 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://lshtm.sharepoint.com/students/Pages/student-regulations.aspx

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://lshtm.sharepoint.com/sites/assets/policies/Documents/Resits_Policy_Policy_Procedure.pdf#search=resits%20policy

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 15 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

PART TWO: PROGRAMME-SPECIFIC PROJECT INFORMATION

Each student undertakes a project after the June examination. This is usually based on statistical analysis of data from a specific medical research study. Students are required to produce a written dissertation. This not only presents the data analysis but also an insight into the study's design and objectives and an informed interpretation of the relevance of the statistical findings to medical knowledge.

Objectives of the project report

The Project Report is the culmination of your MSc studies at the School. As an independent piece of research on a topic relevant to your course, it should demonstrate the learning, understanding and skills you have developed in the subject. In the project you should demonstrate that you are able to:

(i) select and apply appropriate statistical techniques;

(ii) use a range of software packages for statistical analysis and data management;

(iii) interpret correctly the results of your statistical analyses in the light of the medical literature, including identifying the strengths and limitations of your results;

(iv) communicate your findings effectively in a written report.

This Handbook gives details of the specific project marking scheme used, as well as further guidance on the kind of 'learning objectives' your Report will need to demonstrate to markers reading it.

Identifying a project topic – how the process works for this MSc

A list of project proposals will be circulated in early February. After consultation with your tutor you should select 3 projects ranking them in order of preference. It is not always possible to assign each student their number 1 choice but we will try to make sure that everyone is happy with their allocated project.

Some students may arrange projects directly with their tutors and others may be provided with a project question and data by their employer. In both cases the project will still need to be approved by the Programme Director and attain LSHTM project approval including ethical approval.

Types of project report permitted for this MSc

Projects will usually involve the analysis of real life data from a clinical trial or epidemiological study. Occasionally students undertake more methodological projects which may not involve analysis of real life data. Irrespective of the type of project undertaken, the report has a strict page limit of 50 pages, which includes all material from the Introduction to the Conclusions. The page limit does not include references or any appendices. Appendices should only include material which the examiners are not required to read in order to examine the report, but to which they may refer if they wish, e.g. analysis do-files may be included but results tables should not. Project reports which exceed the page limit will be given a 0 grade. Details regarding font size, margins, referencing, etc. are given in section 11 of this handbook.

Expected time commitment of projects

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.

Identifying a supervisor: How the process works for this MSc
The student's tutor will in most cases act as supervisor for the project, although there may be circumstances when it is appropriate for another member of staff to do it (e.g. because of the choice of topic). Supervision must be by a member of the School staff. External supervision is also possible, but this must be in addition to an internal supervisor.

Supervisor support
You should meet with your project supervisor regularly over the summer (typically, for one hour each week). The supervisor should arrange for alternative support during extended periods of absence, e.g. whilst away on vacation.

It may be useful to meet with the data provider early on to discuss the project aims, data issues, etc. However the data provider is not usually expected to provide ongoing supervision.

Key dates and deadlines
1. Project selection: a list of project proposals will be sent out at the beginning of February. Your provisional choices (up to 3) must be submitted to Richard Silverwood by **Friday 16 February 2018**. Projects will be allocated to students by **Friday 23 February 2018**. Students who are being provided with a project by their tutor or employer directly should submit a project proposal to Richard by **Friday 16 February 2018**.

2. Project approval: the project approval process involves attaining academic, risk and ethical approval (see Section 4.0 of this Handbook for more details). The Combined Academic, Risk assessment and Ethics (CARE) approval form should be completed online at http://leo.lshtm.ac.uk. This should be filled in with help from your tutor and data provider and completed by **Monday 16 April 2018**.

Students will be required to give a 5 minute presentation on their assigned project in Term 3.

3. Project submission: the written report must be submitted by **1400** on **Wednesday 5 September 2018** at the latest. Details of the requirements and process of submission are given in this Handbook.

Project marking criteria
The summer Project Report is marked according to a standard scheme agreed in advance by the Board of Examiners.

Assessments of data-based projects will be based on the following points:

- The student's understanding of the problem, understanding of the nature and structure of the data set, care and attention given to handling difficulties in the data, in detecting outliers, handling missing data, applying appropriate transformations, etc.

- The presence of adequate preliminary analyses to give an overview of the data, followed by appropriate statistical analyses and interpretation.

- A discussion that puts results in context of other work and considers how much weight may be given to the conclusions in the light of the data. Negative conclusions are entirely acceptable.

- The assessment will take account of the difficulties associated with the data set, provided that they are described, the work involved including whether new computer packages had

to be mastered, the difficulty of the analysis, and the extent to which the student had to be guided and supervised. Above all the assessment will be based on the clarity, interest and quality of the presentation.

- To achieve the highest grade (Grade 5), a project will normally be expected to contain both (a) material of statistical interest – for example, the use of statistical methods not taught in depth on the course, or a critical comparison of statistical methods, and (b) interpretation of the results in terms of the clinical, epidemiological or public health problem addressed.

Grade point	General criteria for qualitative work
5	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	A full discussion of the topic that includes all relevant information and critical evaluation.
3	The major points are discussed, but relevant, though less important considerations, are omitted.
2	Sufficient relevant information is included but not all major points are discussed, and there may be some errors of interpretation.
1	A few points are included, but lack of understanding is shown together with use of irrelevant points.
0	None of the major points present; many irrelevant points included and a serious lack of understanding. *or* Not submitted.

Further programme-specific information
The following order of contents is recommended:

a. Title page with student's candidate number & date. (Do not include your name.)

b. Acknowledgements.

c. Contents list.

d. One-page summary.

e. Chapters 1, 2,...

f. References.

g. Appendices (if any).

It is best if tables and figures are included in the text near where they are first referred to. It is also usually helpful if the chapters are divided into reasonably short numbered sections (e.g. 1.1, 1.2,...).

To get an idea of the style, length and presentation of Project Reports, it may be useful to look at some previous students' Project Reports available on the intranet:

http://www.lshtm.ac.uk/library/resources/msc_projects/index.html

General advice

1. Once the projects have been assigned make contact with your data provider/project supervisor to get the information required to complete the CARE form.

2. Meet with your tutor/project supervisor early in Term 3 to begin putting together a general plan/outline for the project.

3. The Term 3 project preparation time should be used to carry out any data cleaning if required, to do background reading, develop the project outline and statistical analysis plan, and begin investigating the data. Students will be required to give a short project presentation.

4. After the exams see your project supervisor regularly (typically, for one hour each week).

5. Start writing as you go along. Do **not** wait until late August to start writing.

6. Show critical thinking about data and problems: this requires reading through and modifying the text.

7. Keep careful records of all data manipulations and analyses because there may be required for re-running analyses.

8. Consult the computing advisory personnel with basic computing problems and queries.

9. Take a holiday sometime during the summer, but perhaps not just before the deadline.