MODULE SPECIFICATION

Academic Year (student cohort covered by specification)	2026-27
Module Code	2600
Module Title	Understanding and Applying Research Evidence
Module Organiser(s)	Paul Lokubal (LSHTM), Justice Aheto (UGSPH), Emefa Modey (UGSPH)
Faculty	Epidemiology & Population Health
FHEQ Level	Level 7
Credit Value	**CATS:** 20 **ECTS:** 10
Term of Delivery	Term 1
Mode of Delivery	Online
Mode of Study	Full-time
Language of Study	English
Pre-Requisites	An understanding of basic algebra and numerical calculation is required.
Accreditation by Professional Statutory and Regulatory Body	None
Module Cap (Indicative number of students)	50
Target Audience	The module is compulsory for students studying MSc in Sexual and Reproductive Health Policy and Programming
Module Description	This module introduces students to the basic concepts and principles of public health research methods used to understand, interpret and apply research evidence. The research concepts and methods taught in the module come from statistics, epidemiology and qualitative approaches used in social sciences. The module is designed to be accessible to students who do not have any background in research or statistics.
Duration	10 weeks (two sessions per week)
Timetabling slot	Term 1
Last Revised (e.g. year changes approved)	August 2023

Programme(s) This module is linked to the following programme(s)	Status
MSc Sexual and Reproductive Health Policy and Programming	Compulsory

Module Aim and Intended Learning Outcomes

Overall aim of the module
The overall module aim is to: ● Introduce students to the basic concepts and principle methods of public health research with a focus on statistics, epidemiology and qualitative approaches so that they understand, interpret and apply research evidence in sexual and reproductive health with proficiency

Module Intended Learning Outcomes
Upon successful completion of the module a student will be able to: 1. Demonstrate an understanding of key concepts and research methods used in public health 2. Discuss the advantages and limitations of different data sources 3. Discuss the principles, strengths and limitations of a range of key data generation and analysis methods 4. Explain the nature of sampling variation and the role of statistical methods in quantifying it 5. Understand what p values, confidence intervals, measures of effect are and what the difference is between crude and adjusted measures of effect 6. Interpret the results of an epidemiologic study by considering their study design, information and selection bias, confounding, chance and causality 7. Propose a study to address a proposed research question, using an appropriate study design and basic analysis methods 8. Critically appraise research papers and other sources of information by assessing the scientific clarity and evaluating the methodological quality

Indicative Syllabus

Session Content
The module is expected to cover the following topics **over 20 sessions**: ● Understanding public health problems ● Literature review ● Development of research questions ● Quantitative study designs (cross-sectional, cohort, case-control, ecological and intervention/randomised control trial) ● Principles of qualitative research ● Qualitative data generation methods (structured interviews, in-depth interview, focus group discussions, observation) and their analysis ● Demographic and SRH related data sources (surveys, routine sources) and validity ● Measures of disease frequency and types of data ● Measures of effect ● Selection and information bias, chance and confounding ● Screening (specificity, sensitivity, positive/negative predictive values) ● Describing samples and summarising data ● Sampling and sample size– covering basic concepts ● Basic concept of statistical inference (comparing two means and proportions, association between categorical variables, introduction to regression and correlation) ● Ethical issues in public health research ● Principles of critical appraisal of research evidence (If possible and there is high demand, we are flexible to provide optional STATA sessions)

Teaching and Learning

Notional Learning Hours

Type of Learning Time	Number of Hours	Expressed as Percentage (%)
Contact time	40	20%
Directed self-study	60	30%
Self-directed learning	40	20%
Assessment, review and revision	60	30%
Total	200	100

Teaching and Learning Strategy
The teaching approach is designed to maximise students' time working on "real-world" practical problems. Each session will start with a relevant case study or open-ended problem to support students to be able to apply key research methods introduced in the session. Sessions will be delivered through a combination of lectures, hands-on practical sessions, interactive seminars, formative quizzes and "real-world" problem-based learning. Each week students will have two sessions of pre-recorded lectures and synchronous sessions with an interactive Q&A session and tutor facilitated seminar/practical. Slots will be reserved on the timetable for unfacilitated group work and digital office hours where students can log in for 1:1 support with a tutor/lecturer. Both will be optional. Formative multiple-choice tests which may also include some short answer questions will be used to measure students' progress.

Indicative Breakdown of Contact Time:

Type of delivery	Total (hours)
Lecture	20
Seminars	15
Tutorials	5
Office hours	0.25
Total	40.25

Assessment

Assessment Strategy
• Formative assessment (Q&A activity, individual work - no contribution to final grade) • Critical appraisal of a mixed-methods article from any setting covering qualitative research, basic epidemiology and basic statistics. The article will be followed by structured questions in which a student is expected to demonstrate understanding, interpretation and application of key qualitative research, basic statistical and epidemiological concepts taught throughout the module, research design and analytical methods (100%; individual work, not exceeding 2,500 words).

Summative Assessment

Assessment Type	**Assessment Length (i.e. Word Count, Length of presentation in minutes)**	**Weighting** (%)	**Intended Module Learning Outcomes Tested**
Individual written assessment	2,500 words	100%	1, 2, 3, 4, 5, 6, 7, 8

Resitting assessment
Resits will accord with Chapter 8a of the LSHTM Academic Manual. The resit for the individual assessment will comprise an individual written assessment with a different set of questions.

Assessment being replaced	**Approved Alternative Assessment Type**	**Approved Alternative Assessment Length** (i.e. Word Count, Length of presentation in minutes)
Group work and presentation	Individual written assignment on a new topic	2,500 words

Resources

Indicative reading list

- Ann Bowling (2009). Research Methods in Health: investigating health and health services. Open University Press
- Ilona Carneiro (2017). Introduction to Epidemiology, 3rd edition. Open University Press.
- Cheryl Ann Willard (2020). Statistical Methods: An introduction to basic statistical concepts and analysis. Routledge
- Betty Kirkwood & Jonathan Sterne (2003). Essentials of Medical Statistics, 2nd edition. Blackwell.

Teaching for Disabilities and Learning Differences

The module-specific site on Moodle provides students with access to course materials, including any lecture notes and copies of the slides used during lectures (live and pre-recorded). All lectures are recorded and made available on Moodle as quickly as possible. All materials posted up on Moodle areas, including computer-based sessions, have been made accessible where possible.

The LSHTM Moodle has been made accessible to the widest possible audience, using a VLE that allows for up to 300% zoom, permits navigation via keyboard and use of speech recognition software, and that allows listening through a screen reader. All students have access to “SensusAccess” software which allows conversion of files into alternative formats.

For students who require learning or assessment adjustments and support, this can be arranged through the Student Support Services – details and how to request support can be found on the LSHTM Disability Support pages.