

Impact through excellence in research and education

The London School of Hygiene & Tropical Medicine Strategy 2017–2022

LONDON
SCHOOL *of*
HYGIENE
& TROPICAL
MEDICINE



The London School of Hygiene & Tropical Medicine is renowned for its research, postgraduate studies and continuing education in public and global health.

The School has an international presence and collaborative ethos, and is uniquely placed to help shape health policy and translate research findings into tangible impact.

Our Mission

To improve health and health equity in the UK and worldwide; working in partnership to achieve excellence in public and global health research, education and translation of knowledge into policy and practice.

I. The World We Live In

Health challenges

- Major demographic shifts, including aging, huge population growth in Africa with the largest number of adolescents ever; and rapidly increasing urbanisation.
- Chronic conditions are the main cause of death and ill health in most parts of the world.
- The continuing threat of endemic infectious diseases, particularly in the poorest populations; emerging and epidemic infections, including zoonoses and drug-resistant infections.
- Worsening climate change and environmental degradation.
- Difficulty in transforming unsustainable health systems in high-income countries including the UK, and the need to make rapid progress to universal health coverage in low- and middle-income countries.
- Information and communication technology innovations with the potential for 'leapfrogging' and maximising health benefits.
- The growing importance of machine learning in health research and health service provision.

Institutional challenges

- Joint academic ventures, collaboration and competition are growing.
- Global health research funding is increasingly going direct to low- and middle-income country institutions, who sub-contract high-income institutions.
- There are major new funding opportunities in global health, but specific priorities can shift over time and threaten established programmes of work.
- We need to take full advantage of technology transfer opportunities.
- There is increasing demand for life-long learning and more effective online provision.
- There are uncertainties around staff and research funding due to Brexit.

II. Our School

Bringing our assets together

- We can tackle all dimensions of a health challenge collectively and in an integrated way, using multidisciplinary and inter-sectoral approaches.
- We have global scope and presence across countries at all levels of development.
- We are a responsive institution with expert and committed staff and students.

Our main priorities

- Excellence and relevance in all our research.
- Offering a comprehensive, high standard of education for future researchers and public health professionals.
- Enhancing levels of satisfaction for all our students.
- Consolidating our strategic partnerships.
- Diversifying our funding streams through further major investments, new initiatives and maintaining a good balance across research and education.
- Investing in our infrastructure, systems and processes.

Our scope of expertise

- Fundamental laboratory; statistical bioinformatics; clinical; epidemiological; and social research.
- Development, testing and evaluation of interventions, services and systems.
- Policy appraisal and analysis in relation to the major causes of ill health in the world.
- Evaluation of delivery at scale through programmes and systems.

Key features

We place strong emphasis on:

- Methodological development to enhance rigour and relevance of research.
- Drawing on disciplinary mixes to answer specific research questions.
- Addressing within- and cross-sector health determinants.
- Drawing on our research knowledge to enhance our educational programmes.
- Providing independent and authoritative advice to policymakers.



1. Discovery

- Fundamental research
- Understanding disease determinants



2. Development & Evaluation

- Methodologies
- Product development
- Intervention trials
- System and service improvements



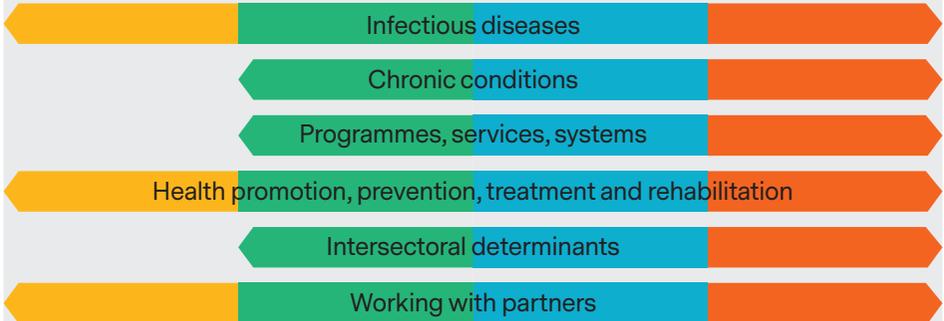
3. Delivery & Evaluation

- Delivery at scale
- Whole system reforms
- Evaluation of real world programmes



4. Policy Appraisal & Analysis

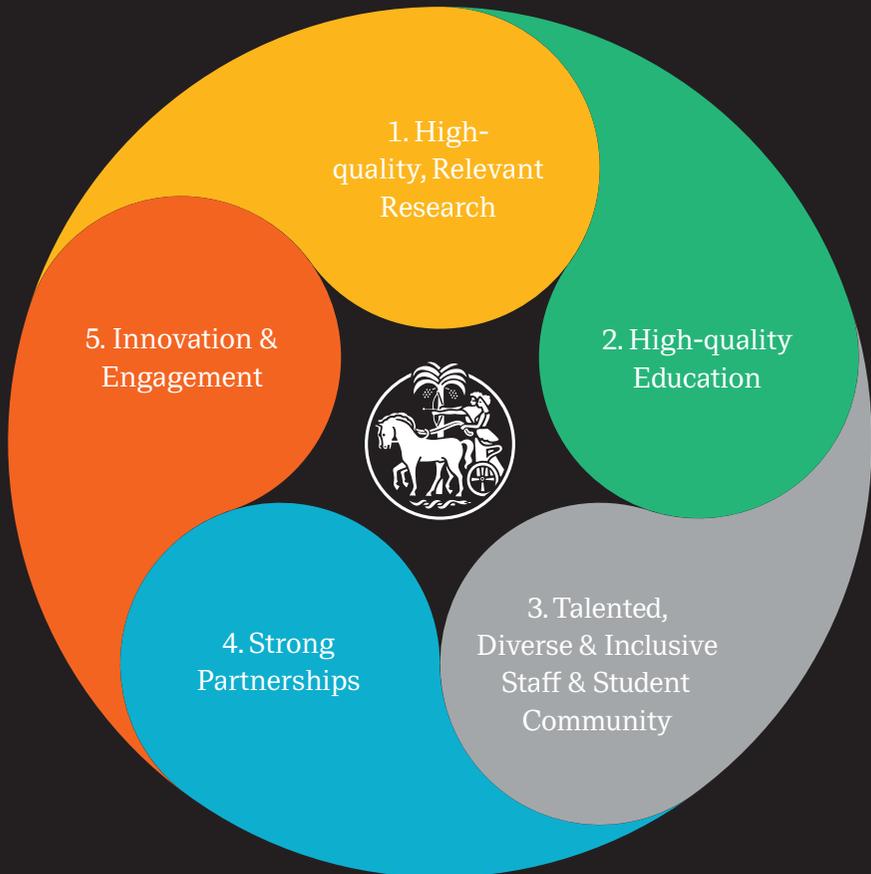
- Assessment of policy options
- Policy processes & consequences
- Translation of research to policy



We draw on our diverse talents, skills and experience, to underpin our position as a leader in public and global health. These range from the molecular to the global, the theoretical to the applied, the analytical to the political.

III. The Next Five Years

The School will address global and public health challenges through high-quality research, educating future research leaders and health professionals and supporting innovation and engagement.



1. High-quality, Relevant Research

Key objectives:

- To generate and maintain critical mass in priority areas, including through key partnerships, School Centres and investment and recruitment.
- To engage with users of research findings and research funders to make sure our research is relevant and influential.
- To maintain a balanced grant portfolio of awards across major funders, and to secure several major centre or unit awards.
- To improve support to academics for research grant applications and management, including strengthening the Strategic Research Office and Research Operations Office.
- To ensure our research output is of the highest quality and meets REF requirements.

School Centres:	Centre for Maternal Adolescent Reproductive & Child Health (MARCH)	Health in Humanitarian Crises Centre
Centre for Global Mental Health		Malaria Centre
Centre for History in Public Health	Centre for the Mathematical Modelling of Infectious Diseases	TB Centre
Centre for Evaluation		The Centre for Applied Genomics
Vaccine Centre	Centre for Statistical Methodology	Antimicrobial Resistance Centre
	Centre for Global Chronic Conditions	



Priority research areas:

We aim to enhance certain key areas while maintaining existing areas of strength.

a) Infectious diseases

We have unrivalled experience in conducting research into infectious diseases, including malaria, HIV and TB. Beyond these, priority areas include:

- **Vaccines:** We will lead research into the development, testing and evaluation of vaccines and inform vaccine policy through mathematical and economic modelling. This will require further development of the Vaccine Centre, strengthening of vaccine trial sites, and alliances with other universities and industry.
- **Emerging infections and epidemics:** Working with the UK Public Health Rapid Support Team, we will address the growing threats of population growth and migration, mass urbanisation, globalisation and climate change. We will work closely on preparing for and responding to epidemics with Public Health England, Department for International Development, World Health Organization, and the African Centres for Disease Control, as well as promoting a One Health approach with animal health institutions.
- **Antimicrobial Resistance (AMR):** We will draw on our cross-School expertise and international partnerships to address the threat AMR poses to life and healthcare globally. The Antimicrobial Resistance Centre will bring together biological, social, mathematical, clinical and environmental sciences and the

humanities to meet two main research needs: (1) understanding where, how and why AMR is a problem; and (2) developing, modelling and evaluating innovative solutions to reduce its threat.

To meet our aims, we will consolidate all infectious disease laboratory sciences into one department. We will also invest in infrastructure and excellent scientists, including researchers, modellers and field epidemiologists.

b) Chronic conditions and diseases

We have broad experience in chronic conditions research, including epidemiological and health systems research, with a strong track record in international studies. We aim to continue this work with special focus on implementation research; innovation in health care; and integration of management of chronic conditions, including mental health, chronic communicable diseases (e.g. TB, AIDS/HIV) and non-communicable diseases (e.g. diabetes, cancer, and cardiovascular diseases).

The areas we plan to strengthen include:

- Use of large-scale data, including from electronic health records and wearables, to conduct large, innovative epidemiological studies.
- Development and evaluation of e-Health interventions to improve management of patients with multi-morbidities (e.g. mental health and cardiovascular diseases).
- Multi-disciplinary approaches to complex evaluations to improve prevention and management of chronic conditions in

limited-resource areas (including conflict-affected and refugee settings).

- Conducting international comparative studies across low-, middle- and high-income countries.
- Closing the treatment gap for people living with mental, neurological and substance-use disorders in low-resource settings, where health systems are under-resourced, and populations under-served.

c) Health systems and economics

We are home to the largest body of health services and systems researchers in the world. Our multidisciplinary expertise covers countries at all levels of development. Priority areas for the next five years include:

- Economics of health and health systems: A new initiative bringing together economists across the School to enhance our profile in economic evaluation of health interventions, health system financing and organisation, behavioural economics and policy evaluation. We will use expanded health economics training to strengthen links with policymakers and health system managers.
- Health services and systems strengthening and health equity: In an environment of convergence of health system challenges across high-, middle- and low-income settings, we will continue to be at the forefront of approaches to transforming health systems. We will do this through evidence synthesis, new methodologies and comparative research on health systems and equity. This will include

improving implementation research and complex systems analysis. We will work with key national and international policy bodies, to support knowledge translation and policy impact.

d) Environment, climate change and health

The School is recognised as a world leader in research on public health aspects of natural, built and social environments. Our research draws together multidisciplinary expertise from life sciences, public health and social sciences, to understand and develop policy responses to the impact on health of climate and other global environmental changes.

Priority areas for the next five years include the health implications of, and policy responses to:

- Climate and other environmental changes, urbanisation and migration
- Environmental change, agriculture, food systems, and nutrition
- Social environments, urban health, and young people

e) An integrated perspective

These priorities will help address key health problems, regardless of cause, at specific stages across the life course, particularly health problems of neonates, children, adolescents, mothers and vulnerable populations. Our expertise in laboratory sciences, entomology, statistics and epidemiology, lab sciences, political and social sciences and economics, will underpin rigour across our research.

2. High-quality Education

We will deliver research-led educational programmes to future health leaders, managers and researchers across the globe. This will be achieved by creating an inclusive environment where all students can thrive and ensuring access to world-leading expertise, including our own academic staff.

Key objectives:

- a) To deliver a portfolio of original, inclusive, research-led Master's and Doctoral degree programmes, achieving high levels of student satisfaction. These programmes will support a broad range of motivated learners and equip them to make a difference in the world. Our portfolio will be enhanced with new, blended learning Master's programmes, and through joint redevelopment of specific Master's degrees currently delivered in separate face-to-face and distance learning versions.
- b) To establish a Doctoral College for greater coherence and consistent excellence in our PhD and DrPH programmes.
- c) To provide an engaging learning experience with long-lasting impact, using appropriate technology to facilitate learning. This will include virtual reality, embedding MOOCs in credit-bearing programmes, technology-mediated self-assessment and formative feedback, solutions around intermittent Internet access, and bringing together face-to-face and distance learning students and tutors.
- d) To provide a portfolio of broad-based programmes to support continuing professional development. This will include expanding our Executive Programme for Global Health Leadership, and our highly successful suite of MOOCs and open-educational resources.
- e) To extend and enhance our global community of learners by developing collaborative educational provision with overseas partners. These include a joint PhD programme with Nagasaki University in Japan, and developing similar programmes elsewhere. We will also use our experience with the Professional Diploma in Tropical Medicine & Hygiene in East Africa to establish a similar programme with partners in Asia.



3. Talented, Diverse & Inclusive Staff & Student Community

Outstanding, diverse and committed staff and students are crucial in delivering our ambitious vision and strategy. They shape our ethos, culture and values, facilitating a collegiate and multi-disciplinary approach to research and education. Our community of academics makes an impact where it is most needed — deploying research in real time in response to crises, developing innovative programmes for major health threats, or training the next generations of public and global health leaders and researchers. Our students' engagement in our research community ensures mutual learning and inspiration.

As a community, we face major challenges, including the high cost of living in London, insufficient support services, short-term funding, and high expectations for grant and fellowship success. We aim to strengthen our support for the professional growth and development of all staff so that we continue to attract and retain world-leading academic and professional support staff.

Key objectives:

- a) To foster a thriving, inclusive staff and student community, built on our shared values of free-thinking and collaborative working. To set this within an ethical and healthy environment built on respect, equal opportunities, excellence and creativity.
- b) To provide training, supervision and mentoring support to enable all staff to achieve their full potential through opportunities to develop expertise and skills.
- c) To recruit, develop and retain outstanding and diverse researchers and educators who produce excellent science and can influence the public and global health agenda, providing equal opportunity for progression. We will continue our recruitment drive, and ensure succession planning.
- d) To make sure the expectations and responsibilities of our community are clearly expressed and widely communicated.



4. Strong National and Global Partnerships

Working in partnership is central to achieving our mission. We aim to extend our impact and potential through increased focus on national and international strategic partnerships and collaboration. Our partnerships in the UK and across high-, middle- and low-income countries deliver health and socioeconomic benefits across the world, especially in the most disadvantaged communities.

We will monitor and review our partnerships to ensure that they genuinely contribute to our mission and are at the forefront of science and health policy.

Key objectives:

- a) To ensure relationships with our partners are based on principles of equity and mutual benefit, and are driven by a common scientific agenda.
- b) To maximise the benefits of affiliation with the Gambia and Uganda MRC Units, to the Units themselves, the rest of the School, and their host countries and regions.
- c) To consolidate our numerous activities in sub-Saharan Africa, and provide institutional support to a limited number of partnerships.
- d) To work with our partners in low and middle-income countries to support capacity strengthening and the development of research and public health leaders.
- e) To consolidate an academic partnership for the School in continental Europe.



5. Innovation and Engagement

To maximise the reach and influence of our research, we will embed innovation across the School, encouraging engagement with external audiences, including policymakers, industry partners and the public.

Key objectives:

- a) To develop and implement a plan to strengthen capacity in big data, bioinformatics and machine learning and other digital innovation. To identify partners to establish excellence in these areas, including ‘precision health’.
- b) To connect more with policy and practice communities, and with the public, locally, nationally and internationally, as well as supporting School Centres in their communications and engagement activities.
- c) To develop strong, ethical partnerships in enterprise and innovative technology, across all areas including engineering, industry and business.
- d) To become a leading forum for policy debate on health in the UK and Europe.
- e) To support staff with proactive, high-quality consultancy and technology transfer, providing clear advice, guidance and support on IP, spin-out and consultancy activities.



IV. Delivering Our Strategy

To deliver our strategy, we will develop effective infrastructure and operational plans to support research, education, and innovation and engagement. Agile planning and implementation processes will help us respond to external influences, maintaining our long-term sustainability.

Key objectives:

a) To redevelop our estate to provide a high quality, flexible and sustainable environment for research and education. In 2018 and 2019, all our laboratories will be refurbished, and the Bedford Square buildings will be renovated to provide additional space, including room for executive and short courses. By 2020, our new research building will be completed on Tavistock Place.

b) To improve the effectiveness of our support systems and processes. In particular, we need to strengthen human resource management, research operations support, and education programme management, harmonising processes and policies across faculties, minimising bureaucracy, and improving digital capabilities.

c) To strengthen management information systems to provide useful, accurate and timely information for institutional and individual decision making on research and education.

d) To raise philanthropic and public funding to support improvements to our infrastructure and attract the best scientists.

What we will consolidate

- Establishing a Doctoral School to bring together our doctoral degree support.
- Bringing all laboratory science into one department.
- Harmonising administrative procedures and policies across faculties and departments.
- Focusing our activities in Africa.

Our main plans for the next two years

- To invest in people, through support to staff and recruitment for excellence, strategic priorities, and succession planning.
- To create a cohesive set of programmes that facilitate expanded flexible learning.
- To invest in our physical environment through major renovation of our estate with a new building and new laboratories.
- To invest to improve our support services.
- To ensure harmonious integration of the two MRC Units in Africa.
- To raise money from philanthropy and the public sector to finance our expansion.

To remain relevant in a rapidly changing world, this strategy will be considered a living document, and will be reviewed in two to three years' time.

To achieve our objectives, the School will implement an operational plan with KPIs which will be reviewed annually by Council and will be the basis of our planning.

London School of Hygiene & Tropical Medicine
Keppel Street, London WC1E 7HT

+44 (0)20 7636 8636 · www.lshtm.ac.uk