

Annual Report 2017

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



From Our Partners



Dr Tedros Adhanom Ghebreyesus

MSc Immunology of Infectious Diseases (1992), LSHTM Honorary Fellow (2012)
World Health Organization Director-General

Universal Health Coverage is our top priority at WHO. Dramatic action is required, including improving access to life-saving medicines and healthcare services, and boosting global confidence in vaccines. I'm proud that LSHTM, my 'professional home' to which I returned last summer, is leading the way in tackling these and many other major health issues. Nobody should die from a chronic non-communicable disease because they are poor, nobody should be financially disadvantaged for getting the treatment they need. Universal Health Coverage is a human right. The work of institutions such as LSHTM is vital to achieving it.



Dr Joanne Liu

International President of Médecins Sans Frontières

2017 brought its load of devastating humanitarian crises: from conflicts in Syria and Yemen – where blocked aid and bombed hospitals brought starvation and epidemics – to a never-ending global stream of desperate, forcibly displaced people. Countless families fled horrific violence in Democratic Republic of Congo, South Sudan and Myanmar. Others escaped grave hardship at home, only to end up trapped in Libya's "business" of extortion, human trafficking, and modern enslavement. LSHTM is building strong, undeniable evidence, depicting the migrants' plight. Damning figures, that we hope to use to shame governments into change. We also need politicians with courage to denounce attacks on hospitals, patients and medical staff in war zones. LSHTM has made valuable contributions on these issues, both through our shared mission to improve health, as well as our mutual belief in a common humanity.



Mr Sadiq Khan

Mayor of London

London is the higher education capital of the world, and our outstanding universities are a key part of what makes this a great city. LSHTM's talented international staff and students make a huge contribution not only to improving health around the globe, but also to addressing inequalities here in our capital and across the UK. LSHTM's ethos and global focus clearly demonstrate that London remains open and will continue to go from strength to strength as a leading international hub for research, innovation and education.

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Foreword From Our Chairman Of Council

We started 2017 with lots of apprehension. Politics, environment, society— local and global—all seemed challenged. But we had no illusions about what we would do about it. We would do what we had always done: prepare astute and committed people to make immeasurable contributions to the health of their fellow human beings around the world and in all circumstances.

It's tempting to say that the world has never been more in need of that help, but there is reason to be optimistic. According to The Economist, six million fewer children under the age of five died in 2016 than in 1990: "Never before have so many people been free of grinding poverty and ill-health. Never have women been so unlikely to die as a result of giving birth, or lose a baby to illness." With the 21st Century changes in communication enabling us to intervene broadly to change social behaviour, a time of better global health might be upon us.

Of course, there are other, more pessimistic prognoses. The world is still confronting powerful health challenges: major demographic shifts and rapid urbanisation; increasing chronic conditions; ever faster climate change and environmental degradation; inequality and unsustainability of health care systems in high-income countries; the need for any health care system at all in many countries.

And the world's poorest are still the prey of ancient predators— tuberculosis, HIV, malaria, and the 20 ailments referred to as "neglected tropical diseases", among them river blindness and lymphatic filariasis. Life for these billions of people are still uncertain, even in a new age of health.

At the dawn of the 20th Century, there were just a few people educated enough in our field to make much of a difference. The problems that confronted them were so broad and so deep that they often couldn't find a name sweeping enough to encompass everything that they faced. The tools they had at their disposal, and their

understanding of both the problems and the solutions, were limited. Yet, their commitment to public service drove them to become the pioneers of public health and medical care.

William Osler, a Canadian physician, was one of those people. Many think him to have been one of the greatest diagnosticians we have ever known. He is still referred to by many as the "Father of Modern Medicine". He was a founder of Johns Hopkins Hospital and then its School for Medicine. He insisted that doctors must "care more particularly for the individual patient than for the especial features of the disease". To him, medicine had to be born from science, but doctors who knew science must be healers as well. In other words, we must combine laboratory research with clinical observation.

In his book, The Principles and Practice of Medicine, published in 1892 and the first legitimate medical textbook, Osler declared: "He who studies medicine without books sails an uncharted sea, but he who studies without patients does not go to sea at all." He envisioned "a united profession", one "working in many lands, doing more for the (human) race than has ever been accomplished by any other body of men." The doing includes the prevention, containment and eradication of disease through hygiene and changes in social behaviour. That's why 'hygiene' is part of our name. The 'London School of Hygiene & Tropical Medicine' may be a mouthful, but it reflects our mission perfectly.

Our far-reaching community and our many partners and guests often present at LSHTM help us to exchange ideas and stretch minds and find common ground. We hope these acquaintances will lead to more collaboration in the years ahead.

The main protagonist for this is our Director, Peter Piot, who believes strongly that networks and collaboration and reciprocity sharpens our ability and brings us opportunity.

He was named the first Chair of the HMG Strategic Coherence of ODA-funded Research Board, a new

government body helping to steer the direction of the UK's research for international development. And earlier in the year he also helped to launch the Coalition for Epidemic Preparedness Innovations (CEPI), a global initiative to create new vaccines for emerging infectious diseases.

We are all determined to bring our broad hunger for public health work to meet these challenges at global and local levels, to lead the agenda on infectious diseases and other public health issues, and to be outward-looking, engaged, and imaginative.

But to increase the impact of our scientific research and our growing teaching programme, we will need to invest much more than we ever have - or have been able to - in the past. So fundraising will be central to our future. Without that long-term investment in people, ideas and facilities, LSHTM may not have the capability or capacity to meet the urgent challenges of global health – from educating health workers to handling epidemics, to undertaking ground-breaking research.

If you are working or studying in LSHTM, we hope you will take an interest in what's happening all around it, but without being distracted from your main work. (Osler would say that "thoroughness is the most difficult habit to acquire, but it is the pearl of great price, worth all the worry and trouble of the search."). If you are outside LSHTM, we hope you'll be inspired by what you read in the rest of this report and join us in our mission in any way you can.

The Council members thank all of our diverse and devoted staff for their work in 2017. Their outstanding leadership - and the commitment of our students - are crucial to accomplishing everything.



Dame Marjorie Scardino
Chairman of Council

Introduction From Our Director

The past year has seen some big achievements from our School. Research is the defining pillar at the heart of everything we do, and is a major reason why we continue to attract such talented staff and students from around the world. Our research income has grown to an all-time high of more than £120m in 2016/17.

In November, we were delighted to be awarded the Queen's Anniversary Prize for Higher and Further Education. The prizes are part of the UK honours system, awarded every two years by The Queen on the Prime Minister's advice. The award is not only recognition of our response to the Ebola epidemic in West Africa, but of our overall ethos, strong science base, extensive global partnerships and because of how our work translates into real world impact.

The question of how to ensure that our School continues to have a tangible benefit on people's lives over the coming decades is one that I think about frequently. Research and innovation have a long lag time, so it is imperative that we have the next 20–30 years in mind in our work and priorities today. Our new five-year strategy clearly sets out what we want to achieve and how we plan to get there.

Partnerships and collaboration are integral to us and play a key part in our strategy. Our role in low and middle-income countries is shifting, and partnerships are an essential way to achieve an agenda that is relevant for people on the ground and which will strengthen capacity. We remain committed to take on more on the ground public health research focussed on London, and in the most deprived areas here in the UK.

The next year will be a busy one for us in this and many other areas. A key priority for 2018 is ensuring the harmonious integration of the MRC Units in The Gambia and Uganda into LSHTM. These are remarkable institutions with an impressive track

record of research, and working closely with them will help us to focus our activities in Africa, strengthen scientific opportunities and become a truly global organisation.

To strengthen our education offer, we are establishing a Doctoral College to bring together our doctoral degree support and provide greater coherence and consistent excellence in our programmes. Across all our courses we will continue to develop our online learning provision to make LSHTM accessible to as many people as possible wherever they are in the world.

We are also investing heavily in our people and buildings through staff support, recruitment for excellence and major capital projects. In the next two years, 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 the end of 2020, our new research building will be completed on Tavistock Place. These developments will help us meet our changing needs and provide a high quality, flexible and sustainable environment for research and education.

Philanthropy will play a significant role in ensuring that we achieve our goals. Helping those who would benefit most from studying at our School means that the need for scholarships continues to be pressing, as well as the need for flexible research funding, and investment in our buildings and facilities.

Our sector faces many challenges in the coming months, not least the uncertainties around staff and funding that Brexit brings. However, I believe that there are also great opportunities. Universities will be needed more than ever as the complexity of the world's problems is growing every year, as does our societal responsibility. The ability to adapt, together with excellence and a commitment to justice makes me optimistic about our future.



Peter Piot and His Royal Highness Prince Harry during a visit to LSHTM in July 2017. Prince Harry united global HIV/AIDS leaders during his visit and secured pledges that will ensure young people are given a voice when forming future research and policies. Credit: Getty Images/Chris Jackson

As always, I would like to thank our hugely talented and dedicated staff and student community along with our dynamic Council, volunteers and donors for all their hard work and support in 2017. I look forward to working together to deliver our strategy as we continue to address global and public health challenges through ambitious research, education, innovation and engagement.



Professor Peter Piot
Director, LSHTM

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Read the LSHTM strategy 2017-22 at bit.ly/LSHTMstrategy

Research

Our research explores all aspects of health challenges, with expertise from fundamental laboratory science through to policy appraisal and analysis, encompassing statistical, clinical, laboratory, epidemiological and social science research in the UK and globally. Over the last year, our experts have been at the forefront of important, high quality studies and trials that both enhance our understanding of global health and influence policy and people. As our research grant income grows (rising to £124m in 2016/17), we continue to work closely with partners, funders and all those involved with – or who could benefit from – our research to maximise the real world impact of our specialist skills and knowledge.

Here we highlight some key research from our three faculties – the **Faculty of Epidemiology and Population Health**, which brings methodological excellence such as statistical analysis, field and clinical trials to improve the



Discovery



Development
& Evaluation



Delivery
& Evaluation



Policy Appraisal
& Analysis

health of populations worldwide; the **Faculty of Infectious and Tropical Diseases**, which encompasses laboratory-based research and clinical and epidemiological aspects of infectious disease; and the **Faculty of Public Health and Policy**, which concentrates on economic and social sciences with a focus on health policy, systems and services. Given our multidisciplinary strengths, much of our research covers a range of themes, from the molecular to the global, the theoretical to the applied, the analytical to the political. Our 2017 research highlights are grouped into categories which form the basis of our strategy for the next five years.

Infectious disease

A series in *Clinical Infectious Diseases* led by Prof Joy Lawn and colleagues detailed the global burden of a deadly infectious disease called **Group B Streptococcus (GBS) on stillbirths**, and on deaths and disability among newborns. The analysis showed for the first time that a maternal GBS vaccine could potentially prevent 231,000 infant and maternal GBS cases.

Vaccines featured in a number of other research highlights focused on child health including an economic analysis to investigate the cost-effectiveness of **vaccination strategies for Respiratory Syncytial Virus in England** published in *The Lancet Public Health*.

With antibiotic resistance and the development of new antibiotics a current imperative, it is perhaps surprising that relatively little research has been carried out on the potential **role of vaccination on tackling the global scourge of drug-resistant infections**, an issue highlighted in *The Lancet Infectious Diseases*.

A team led by Prof Sharon Peacock have used **genomic surveillance to reveal how the MRSA "superbug" spreads** within and between hospitals, GP surgeries and communities in England, which could help the development of infection control strategies.

Investigators studying the role of genetics on other pathogens have published findings in several high-impact journals this year. This included a study by Prof David Conway and colleagues in *Science* showing that protection from the most severe form of malaria is linked with **natural variation in human red blood cell genes**. The research could pave the way for new studies on vaccines to prevent malaria parasites invading red blood cells.

As well as emerging infections and epidemics, malaria continues to be an important target for researchers across LSHTM. Research by Dr Sian Clarke and colleagues published in *BMJ Global Health* found that prevention **education, insecticide-treated nets and antimalarial treatment** in regions where malaria is highly seasonal could reduce the risk of schoolchildren developing anaemia and improve their cognitive performance.

The ongoing **global battle against tuberculosis** has also featured in key studies. **Colleagues** assessed the economic risks and benefits of a diagnostic tool (Xpert MTB/RIF) in South Africa. Meanwhile, the need for health system strengthening and potential impact on antibiotic

resistance to be considered as part of **funding strategies and targets for TB** was highlighted by Dr Mishal Khan and colleagues in the journal *Health Policy and Planning*.

The WHO recently launched the "Ending cholera: 2030" campaign and staff at LSHTM including Prof Nick Thomson are at the forefront of this goal. For example, two publications in *Science* have revealed the global sources and routes of transmission of **epidemic cholera over a 50 year period**. These studies provide the reference point to develop intervention strategies and policies to reduce the global burden of this devastating disease.

The **UK Public Health Rapid Support Team**, funded by the UK Government and jointly run by LSHTM and Public Health England, was deployed to five countries in 2017 to tackle disease outbreaks which had the potential to develop into major health emergencies. This included: Ethiopia (acute watery diarrhoea, April), Nigeria (cerebral meningitis, May), Sierra Leone (water-borne disease surveillance, especially cholera and salmonella, August), Madagascar (pneumonic plague outbreak, October), and Bangladesh (diphtheria, December).



Chronic conditions and diseases

Researchers from our Cancer Research UK Cancer Survival Group published a special issue of *Cancer* focusing on **cancer survival in the US** for a range of different cancers. These studies highlighted the persistently poorer levels of outcomes for black cancer patients there. Also on cancer – and adding an economic perspective – analysis led by Dr Ajay Aggarwal in *Annals of Oncology* concluded that the **NHS Cancer Drugs Fund** was not good value for patients and society, and may have resulted in patients suffering unnecessarily from toxic side effects.

A study in *BMC Public Health*, by Prof Peter Lamptey and colleagues, flagged very high rates of **high blood pressure** (or hypertension) in Ghana, while there was good news for the UK with Prof Liam Smeeth and colleagues showing that resistant hypertension seems to be on the decline.

Looking at the growing problem of **obesity** and associated ill health, an observational study of data from around 400,000 people in *The Lancet Public Health* by Kate Mason and colleagues found that people living within a kilometre of physical activity facilities, such as gyms, swimming

pools and playing fields, have smaller waist circumferences, lower BMI and lower body fat percentages than people who have no nearby exercise facilities.

Mental health care in Central and Eastern Europe remains ineffective, according to research in *Lancet Psychiatry*. Dr Arlinda Cerga-Pashoja and colleagues assessed the development of **mental health services** in 24 countries across the former Soviet Union and Eastern Bloc and Southeast European countries over the last 25 years.



Health systems and economics

We are home to the largest body of health services and systems researchers in the world and continue to bring expertise and strong networks to analyse health systems and economics and shape health policy.

Analysis by Prof Martin McKee and colleagues found that a substantial increase in mortality in 2015 in England and Wales could be linked to failures in the **health and social care system**. In separate research, Prof McKee modelled the **impact of Brexit** on UK health and social care systems.

LSHTM trafficking experts including Prof Cathy Zimmerman produced a special *PLOS Medicine Collection on Human Trafficking, Exploitation and Health* containing a prevention framework for governments, companies and consumers to address **modern slavery and labour exploitation**.

Research published in the *Journal of Epidemiology and Community Health* also highlighted the interplay between **consumers, industry and government in public health**. Prof Steven Cummins and colleagues found that introducing

a small levy of 10 pence per drink to the price of sugar-sweetened beverages sold in Jamie's Italian restaurants across the UK is likely to have contributed to a significant decline in their sales.

Research from the School of Public Health Research group at LSHTM explored the role of the alcohol industry, including a study in *Public Health* which found producers and retailers in the UK were failing to provide consumers with information on the **calorie content of alcoholic drinks**.



Municipal health officer, Dr Desiree Biaoco, tends to a Palawan native woman at the rural health unit in Rizal, Palawan, Philippines. Credit: Joshua Paul/LSHTM



Dr Anna Goodman conducts research on the effectiveness of transport interventions on public health and the environment. This has included investigating uptake, usage patterns and health impacts of the London Cycle Hire Scheme. Credit: Christian Sinibaldi/LSHTM



Environment, climate change and health

According to the first report of *The Lancet Countdown on Health and Climate Change* which analysed multiple data sources, climate change is already having an impact on health. Prof Andy Haines and colleagues highlighted impacts on **labour productivity, the spread of infectious disease and exposure to air pollution and heatwaves**, affecting countries worldwide.

LSHTM led the largest study to date of the potential temperature-related health impacts of climate change. Dr Antonio Gasparrini and colleagues showed that as global temperatures rise, the surge in **death rates during hot weather** outweighs any decrease in deaths in cold weather, with many regions facing sharp net increases in mortality rates. The research, in *The Lancet Planetary Health*, also found that these deaths could largely be avoided under scenarios that include

mitigation strategies to reduce greenhouse gas emissions and further warming of the planet.

Meanwhile, moderate changes to typical Indian diets could help to **'future proof' the Indian food system** against the predicted decline in availability of groundwater over the coming decades, benefiting both health and the environment, according to a paper in the same journal from Dr James Milner and colleagues.



An integrated perspective

The WOMAN Trial Collaborators brought global clinical trials expertise to address the leading cause of maternal deaths with a study of 20,060 women suffering from **severe bleeding after childbirth**. The results, published in *The Lancet*, showed that treatment with a drug called tranexamic acid reduced death due to bleeding by a third if given within three hours. This was followed with further evidence of the importance of early treatment. Coordinated by LSHTM, the team engaged with policymakers and professional associations to ensure

the research quickly fed into medical practice to make an impact on the fact that 100,000 women a year bleed to death after giving birth. Impressively, the WHO updated its guidelines on tranexamic acid use for this condition within six months of the publication.

Meanwhile, Dr Lucy Platt and colleagues showed that needle syringe programmes and opioid substitution treatment were highly effective in reducing transmission of the **hepatitis C virus**.

Our ability to bring together multiple disciplines and expertise to address health issues among vulnerable populations was further highlighted in a major *Lancet* series assessing the evidence base for **health interventions in humanitarian crises**. As well as revealing significant variations in the quantity and quality of evidence for health interventions in humanitarian crises, Hilary Bower and colleagues also flagged innovative strategies such as use of the messaging service WhatsApp to help monitor and collect data on attacks on health care workers and facilities in conflict-affected settings.

2017 In Numbers

Research

Top funders by amount awarded



Wellcome Trust	£24.9m	UK Research Councils	£16.4m	EU Commission and other EU bodies	£11.9m
Bill & Melinda Gates Foundation	£17.4m	UK Dept. of Health and Social Care incl. National Institute for Health Research	£12.9m	Department for International Development	£21.1m
USA National Institute of Health	£3.6m				

Total new research grants awarded 2016/17: £124m

Top three new research grants in each Faculty

Faculty of Epidemiology and Population health

£7.8m
National Institute for Health Research – UK Public Health Rapid Support Team, Jimmy Whitworth

£5.4m
£5.4m Wellcome Trust – Sustainable and Healthy Food Systems (SHEFS), Alan Dangour

£2.2m (or \$3.3m)
TB Modelling and Analysis Consortium (TB MAC) – Bill & Melinda Gates Foundation, Richard White

Faculty of Infectious and Tropical Diseases

£9.9m
Department for International Development – Non Malaria Fevers RED, David Mabey & Shunmay Yeung

£7.8m (or €9.9m)
European and Developing Countries Clinical Trials Partnership – AMBITION-cm, Joe Jarvis

£6.8m (or \$10m)
IDEAS Phase 2: Measurement for Better Maternal & Newborn Health – Bill & Melinda Gates Foundation, Joanna Schellenberg & Tanya Marchant

Faculty of Public Health and Policy

£2.9m
Department for International Development – Centre for Excellence in Development Impact and Learning (CEDIL), James Hargreaves

£1.9m
Department for International Development – Pathways for Prevention Research Programme Consortium Tackling the Structural Drivers of the HIV Epidemic (STRIVE), Janet Seeley & Saidi Kapiga

£1.7m
Economic & Social Research Council – Anti-Microbials in Society (AMIS) Hub, Clare Chandler

Education

1,160

London-based students 2017/18
706 Master's
454 Doctoral

London-based students 2017/18 (1,160)



Gender

Male	34%
Female	66%

3,274

Distance learning students 2017/18



94% of students found teaching stimulating (sector benchmark 86%)

92% of students said their course has enhanced their academic ability (sector benchmark 86%)

Student survey: Postgraduate Taught Experience Survey 2017

1,068

Professional development course participants for 2016/17



We have London-based and distance learning students from 155 different countries of origin

MSc and Doctoral students by region

Region	Doctoral	MSc (London-based)	MSc (Distance learning)
Africa	66	62	480
Central & Eastern Asia, Middle East	21	28	245
UK	167	309	694
Europe (non-UK)	80	67	588
North & Central America (inc. Caribbean)	86	103	750
South America	10	7	56
South Asia	17	20	99
South East Asia & Oceania	7	23	256
Not provided	0	87	106

Staff

Gender

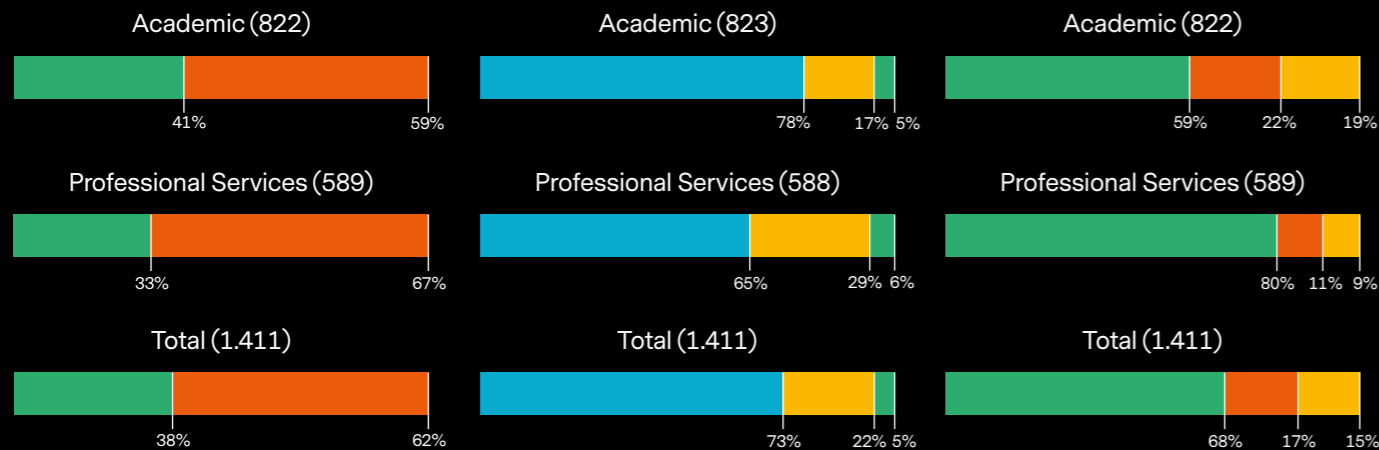
- Male
- Female

Ethnicity

- White
- Black, Asian and minority ethnic
- Not known

Origin

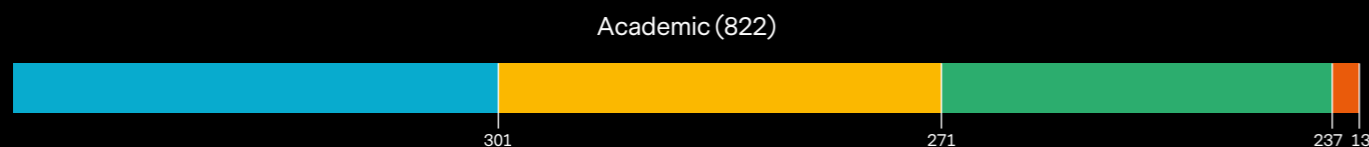
- UK
- Other EU
- Non-EU



Academics by role in each Faculty

	Professor	Associate Professor	Assistant Professor	Research Fellow	Research Assistant
Epidemiology and Population Health	57	45	80	86	33
Infectious and Tropical Diseases	60	34	56	89	32
Public Health and Policy	40	46	58	83	10
Central Professional Services, Division of Education & LIDC	2	2	3	2	4

Staff numbers by area of LSHTM



- EPH Faculty
- ITD Faculty
- PHP Faculty
- Central Professional Services, Division of Education & LIDC

LSHTM named an 'Employer of Choice' and ranked 8th out of 50 higher education institutions

Capita Benchmarking Group 2017

91% of the staff feel LSHTM is a good place to work

95% of the staff feel proud to work for LSHTM

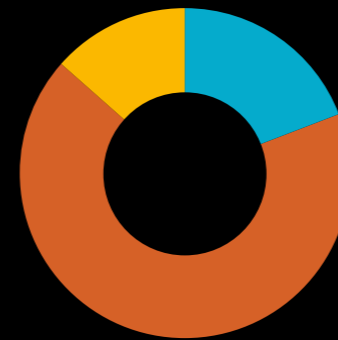
95% of the staff would recommend LSHTM to a friend as a place to study

Staff survey 2017



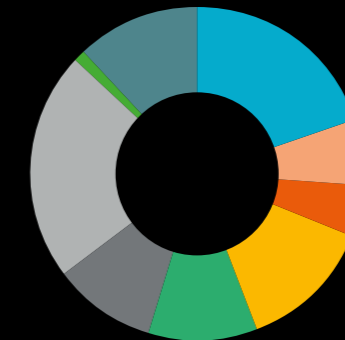
We have staff from 68 different countries of origin

Financial Summary



Total expenditure 2016/17: £177.5m

- Education £33.9m
- Research £120.3m
- Operations £23.3m



Total income 2016/17: £178.4m

- UK Govt. research grants £35.4m
- EU Commission & EU Govt. research grants £11.6m
- Non UK/EU Govt. research grants £8.6m
- HEFCE £23.3m
- Tuition fees £19m
- Corporations £18m
- Foundations £39.4m
- Endowment and Philanthropy £1.9m
- Other £21.2m

Announced investment to improve and grow our facilities by 2020

£12m phase 1 Keppel Street, including new laboratories

£33m new research building at Tavistock Place

Partnerships

LSHTM ranked #4 in the world for the proportion of its publications that have been written by co-authors from two or more countries

76% of our outputs are produced with an international collaborator

63% of our outputs are produced with a collaborator situated >5000 km from London

Data from CWTS Leiden Ranking 2017

Alumni

20,000+ active alumni in more than 180 countries

25 alumni chapters in 20 countries

Engagement

16,695 pieces of global media coverage in 2016/17


20,000+ attendees at public lectures in 2016/17

Ebola Guinea ring vaccination trial paper in *The Lancet* by Prof John Edmunds and colleagues ranked #9 in the Altmetric top 100 most talked about papers of 2017

- 15,000+ @lshtmpress
- 58,000+ @LSHTM. students @LSHTMAlumni @london.schoolofhygiene.tropical.medicine
- 1,570+ @the_lshtm
- 23,000+ lshtm.ac.uk/study/linkedin

School Centres

Cross-Faculty networks of academics, collaborating and innovating to address global health challenges.



Providing the authoritative academic voice on malaria

We published 138 papers in 2017 and worked on more than 120 projects in over 45 countries.

@LSHTM_malaria



Inspiring innovation in AMR research through interdisciplinary and international engagements

We worked on projects in 30 different countries.


@LSHTM_AMR



Improving understanding and responses to chronic conditions

We launched in 2017 after merging two successful Centres and we organised five Global Health Labs in partnership with *The Lancet*.


@LSHTM_CGCC



Placing mental health on the global population health agenda

The number of students on our MSc in Global Mental Health has grown by 140% since the programme started and in 2017 we launched a Distance Learning module.

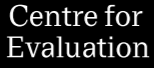
@GMentalHealth



Improving health worldwide for adolescents, women and children

More than 200 Centre members worked on over 100 studies in over 100 countries, with 241 papers published on MARCH topics.


@MARCH_LSHTM



Improving global health practice through evaluation

Last year we hosted 29 events and saw our membership within LSHTM increase by 24%.

@LSHTMEvaluation



Gathering statistical and methodological expertise to strengthen research capacity in epidemiology, public health, and policy

Last year we launched a new theme on Big Data and hosted a symposium on Statistical Methods for Big Data with international speakers and over 100 participants.

csm.lshtm.ac.uk



Research to end TB

We provide a forum through which members enhance their own research and influence policy. Last year we organised more than 20 events to raise awareness of TB research and technology innovations.

@LDHTM_TB



Bringing together researchers to focus on improving the health of populations affected by humanitarian crises

More than 20,000 people from 195 countries enrolled on our free online course.

@LSHTM_HHCC



Launching in 2018 to boost big data expertise and apply genomic technologies to provide new insights into disease.


Coming Soon



Modelling infectious disease dynamics to improve global health

Six members won prestigious fellowships in 2017 and the Centre organised the first UK conference on infectious disease modelling.

@cmmid_lshtm



Contributing to historical understanding of public health policy and practice

Last year we brought a historical perspective to public and policy audiences on issues like prison medicine and the development of health systems.

@LSHTMhistory



Improving human and animal health through vaccination

Last year we hosted 20 events, 50% more than 2016. We increased our student membership by 48% and held a successful mini-retreat attended by over 50 people.

@LSHTM_Vaccines

Education



Dr Tedros Adhanom Ghebreyesus with LSHTM students on his first trip to the UK as WHO Director-General in July 2017. He looked back upon his time studying at LSHTM and discussed his vision to address the world's complex and changing health challenges.

We have continued to offer **high-quality, research-led educational programmes** to thousands of future health leaders, researchers and professionals across the globe.

We welcomed the first Fellows to our new **Executive Programme for Global Health Leadership**. The programme was established to address the lack of strategic leadership courses on health. Fellows began by spending six days in London undertaking a rich and varied programme, highlights of which included hearing candid accounts of leadership challenges from current Chief Medical Officer, Dame Professor Sally Davies, and former Chief Medical Officer, Professor Sir Liam Donaldson. The programme will be expanded in the years ahead.

Our highly successful suite of **free online courses** continued to grow in 2017. Responding rapidly to the need for freely accessible education for those facing the challenges of delivering healthcare in a crisis setting, we launched a new **"Health in Humanitarian Crises"** massive

open online course (MOOC). This course shared some of the fundamental resources, facts, principles and standards to adhere to during the trajectory of any humanitarian mission. In participant numbers, it proved to be our second most popular MOOC to date, after the 2015 Ebola course.

Other free online courses included **"The Lancet Maternal Health Series: Global Research & Evidence"**, which explored the state of maternal health globally, and a course on public health history: **"A History of Public Health in Post-War Britain"**.

Director's Awards for Education launched in 2017 to celebrate teams **delivering excellence and innovation in education** and outstanding support for education or the wider student experience.

Inaugural winners were:

- Excellence and innovation in developing students as researchers – **Malaria Capacity Development Consortium**

- Excellence and innovation in assessment – **Use of peer review to provide feedback to distance learners** developed by the Library and Archives Service
- Excellence and innovation in the use of technology to enhance learning or the wider student experience – **Use of Open Data Kit software for mobile data collection**
- Outstanding support for learning, teaching, assessment or the wider student experience – **Public Health for Development Student-led Seminar Series**

Our MSc and Doctoral degrees have continued to support a broad range of motivated learners and equip them to make a difference in the world. Our portfolio will be enhanced in the years ahead with new, **blended learning Master's programmes**, and through joint redevelopment of specific Master's degrees currently delivered in separate face-to-face and by distance learning.

In January 2018, we will welcome our new **Pro-Director of Learning, Teaching and Enhancement**, Sasha Shepperd, Professor of Health Services Research, who will lead our education programme. To provide greater coherence and consistent excellence in our PhD and DrPH programmes, we establishing a new **Doctoral College**. Its inaugural Head will be Audrey Prost, Professor of Global Health, who also joins us in January 2018.

Major rankings in 2017

Sixth in the world for social sciences and public health

US News Best Global Universities Ranking 2018

First in the world for tropical medicine research; second for parasitology; seventh for infectious diseases, public, environment and occupational health; seventh for social sciences and biomedical

Center for World University Rankings by Subject 2017

25th in the world for medicine

QS World University Rankings 2017



Professor Sasha Shepperd, Pro-Director of Learning, Teaching and Enhancement.



Professor Audrey Prost, Head of Doctoral College

Staff Community

We have continued to foster an **inclusive environment for our talented and diverse staff community** that represents the global community we serve.

Throughout the year we held over 35 events across the **equality, diversity and inclusion** spectrum, including a meeting on the voice of LGBT+ at LSHTM, a Black History Month seminar on introducing inclusivity with UK Black Pride co-founder, Phyll Opoku-Gyimah, and our annual Women in Health lecture with the International President of Médecins Sans Frontières, Dr Joanne Liu.

On World Mental Health Day we signed the **Time to Change pledge**, making a commitment to supporting mental health in the workplace. We were named as a **Disability Confident committed employer**, and we were pleased to receive a London Healthy Workplace Charter award – backed by the Mayor of London – for our **commitment to supporting staff health and wellbeing**.

We also remain a Stonewall diversity champion.

Our My Pledge initiative launched over the summer to **encourage health and wellbeing**. 217 staff completed 902 pledges to do something new. The initiative included free mindfulness and yoga classes, and a staff musical showcase.

Results from our staff survey found LSHTM was an **“Employer of Choice”** and ranked 8th out of 50 higher education institutions that had also been surveyed by Capita in the last 12 months.

The first cohort of staff completed our **Pathway to Academic Leadership Programme**, supporting Research Fellows and Assistant Professors who are in the early stages of establishing themselves as an independent researcher and starting to build a research team.

Our annual **LSHTM Week** was a great success with hundreds of staff from around the globe taking part in sessions on research in The Gambia,

Tanzania, Uganda and China, plus Inaugural Lectures, an Education Day, many Centre-led events and a Fellows’ Showcase. We also held a successful annual meeting and marketplace for professional services staff.

We ran a successful bespoke recruitment drive for a number of positions across LSHTM to **strengthen our capability and expertise in priority research areas** and we look forward to welcoming some leading experts to our community in the coming months.

In 2018, we will continue to support initiatives including **Athena SWAN and the Aurora Women’s Leadership Programme**. A School-wide action plan from our staff survey will make improvements in areas identified for development. Further growth of our mentoring scheme will enable all staff to achieve their full potential.

We are also looking forward to welcoming many leading women to LSHTM in 2018 when we host the **Women Leaders in Global Health conference** in November.

Staff awards

Prof Kaye Wellings appointed Fellow of the Academy of Social Sciences in recognition of her pioneering work in sexual health.

Prof Peter Piot awarded the Edinburgh Medal.

Prof Dame Anne Mills awarded the Galen Medal for her contribution to the provision of efficient and equitable health care in low-and middle-income countries.

Dr Charlotte Warren-Gash awarded a British Science Association Media Fellowship to strengthen engagement with the public in science through the media.

Emeritus Ann Ashworth and Betty Kirkwood jointly awarded the George Macdonald Medal by The Trustees of the Royal Society of Tropical Medicine and Hygiene for their outstanding research leading to improvement of health in the tropics.

Ms Priya Morjaria received the World Congress of Optometry Paul Berman Young Leader Award for her outstanding contribution to optometry.

Prof Sharon Peacock awarded the 2018 Unilever Colworth Prize by the Microbiology Society for her outstanding contributions to translational microbiology.

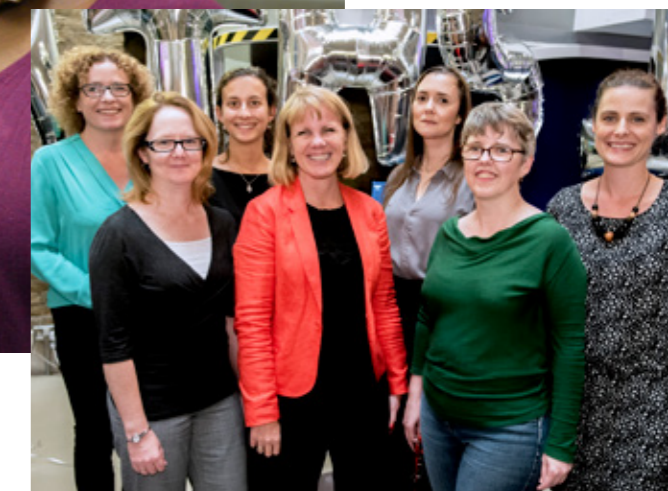
Prof Kim Mulholland awarded the Peter Wills Medal by Research Australia in recognition of his transformative child health research projects across Africa, Asia and the Pacific.

Prof Clare Gilbert awarded a lifetime achievement award from the Royal National Institute of Blind People for her work on the prevention of blindness.

Dr Andrew Bastawrous awarded the Combined Royal Colleges Medal in the 2017 Royal Photographic Society Awards for outstanding contribution to the advancement and/or application of medical photography or the wider field of medical imaging.



Professor Dame Anne Mills, Deputy Director & Provost, with Phyll Opoku-Gyimah in October 2017.



Aurora Champion, Prof Joy Lawn, with participants in the Aurora Women’s Leadership Programme 2017.

Honorary Fellows

An Honorary Fellowship is the LSHTM’s most prestigious honour and is conferred on those people who have rendered exceptional service to LSHTM or have attained exceptional distinction in any of the subjects taught at our School. They are awarded every three years.

Our new Honorary Fellows are:

Matshidiso Rebecca Moeti
WHO Regional Director for Africa

Natalia Kanem
Executive Director of UNFPA, the United Nations Population Fund

Janet Hemingway
Director of Liverpool School of Tropical Medicine

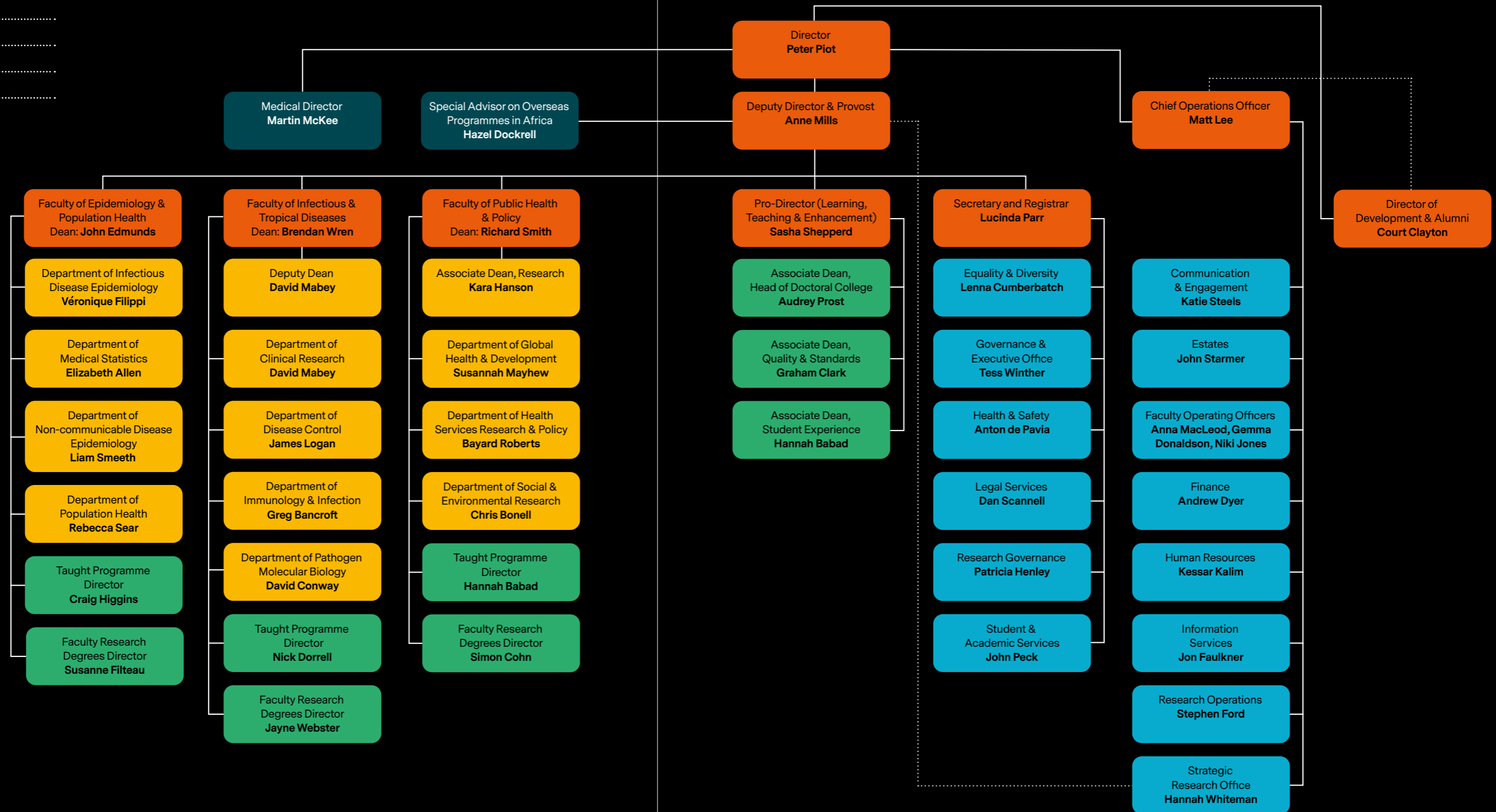
In memory of Dr Chesmal Siriwardhana and Dr Adrian Root

One of our most talented and energetic colleagues Dr Chesmal Siriwardhana, Associate Professor in the Department of Population Health, died in April 2017. Chesmal joined the School in 2016, conducting research on global mental health, supervising PhD students and contributing to the MSc in Global Mental Health. His work on armed conflict, migration and mental health put him at the forefront of some of today’s major public health challenges. To pay tribute to Chesmal’s work, the Centre for Global Mental Health will be hosting an annual lecture on topics related to his research interests.

Our colleague Dr Adrian Root, Research Fellow in Epidemiology and PhD candidate, died in December 2017. Adrian was a GP who came to LSHTM to study the MSc in Epidemiology, which he completed in 2013. He was awarded an MRC Population Health Scientist Fellowship to pursue a PhD looking at the population impact of drug-drug interactions in primary care. He was a member of our Electronic Health Records Research Group and ran the LSHTM choir. As well as a valued researcher, Adrian was a well-regarded tutor, teaching on the short course in Pharmacoepidemiology and Pharmacovigilance, and Statistical Methods in Epidemiology MSc module.

Organisational Chart as of January 2018

- Senior Leadership Team
- Academic Department
- Education Roles
- Professional Support



Council membership as at January 2018:
Council is our governing body with overall responsibility for operational and strategic management

Chairman:
 Dame Marjorie Scardino, DBE FRSA

Deputy Chair
 Dr Diana Walford, CBE MA BSc MSc
 MD FRCP FRCPath FFPH

External members
 Ms Ann Grant, BA MSc

Mr John O'Donnell, BA LLB LLM
 Mr Paul Klingenstein
 Mr Jon Roper, MA
 Sir Andrew Witty, BA (Hons)
 Dr Wendy R Ewart, MBE BSc PhD
 Dr Precious Lunga, BSc PhD

Elected staff members
 Professor Alison Grant, MB BS MSc PhD DTM&H FRCP
 Professor Susannah Mayhew, BA MA PhD
 Professor Richard White, BSc MSc PhD
 Ms Gemma Donaldson, MA

Director
 Professor Baron Peter Piot, KCMG MD PhD
 DTM FRCP FMedSci (ex officio)

President of the Student Representative Council
 Ms Agnes Bangali, BA (ex officio)

Secretary and Registrar
 Lucinda Parr, BMus MMus (ex officio)

Partnerships

Working in partnership with others is central to achieving our mission. This year we strengthened our relationships with three key partners in Asia and worked on plans to form a significant new strategic alliance in Africa, while maintaining relationships with other parts of the world.

Our long-standing partnership with **Nagasaki University**, Japan, has expanded to include the development of a joint PhD programme for Global Health, the first such programme at LSHTM. We envisage that the work of students on the programme will further consolidate areas of collaboration between LSHTM and Nagasaki researchers. The programme was launched in London in December with the visit of a senior delegation from Nagasaki University and the signing of a formal agreement.

Our partnership with the **National University of Singapore (NUS)**

and the **National University Health System (NUHS)** is being consolidated through a series of parallel academic appointments in the broad areas of infectious diseases, comparative health systems, and non-communicable diseases. Two staff members are now in post at NUS under this scheme and a new round of recruitment was launched in December. In September we hosted a delegation from the **West China School of Public Health, Sichuan University**, and identified a number of opportunities to deepen our existing partnership.

Our researchers continue to engage in many and varied partnerships in Africa but our key focus during the last year has been a formal negotiation with the Medical Research Council to transfer the **MRC Unit The Gambia** and the **MRC/UVRI Uganda Research Unit** to become part of LSHTM on 1 February 2018. LSHTM is currently the

main UK university research partner of both Units, and has numerous longstanding links, including through staff who have served as Directors of the Units. These links have been highly productive, resulting in a large number of high impact research publications and many joint research grants. Transferring the MRC Units to LSHTM builds on these links and will enable LSHTM to be involved with two large research hubs in West and East Africa which can also link to ongoing School research in their regions. This is a unique and mutually beneficial opportunity, resulting from our historical close links to the Units, that will bring LSHTM's portfolio of research and training in Africa to a new level.

Further information on our longstanding and extensive partnerships is available at bit.ly/LSHTMpartnerships.

Innovation

We have continued to maximise the reach and influence of our research by embedding innovation across LSHTM.



peekvision.org

Spin-out and research partner, Peek Vision, has gone from strength to strength in 2017. Peek Retina, its smartphone-based ophthalmoscope, launched in April 2017. Peek Acuity, its validated smartphone eye test app, is now in use in over 100 countries. Peek is partnering with governments, NGOs and others to deliver comprehensive eye health programmes, and recently announced a new partnership with international development organisation CBM to work in four new countries in 2018. Peek also finalised a partnership with the Government of Botswana to deliver the world's first national school eye health screening programme by 2020.



arctec.lshtm.ac.uk

ARCTEC, a world-leading testing centre for consultancy and vector control products based at LSHTM, has grown in size and stature with the team now numbering nearly 20 and turnover increasing by more than 30% during 2017 alone. The company is bridging the gap between industry and academia, focusing on globally important innovative commercial projects from laboratory development to full field evaluation of arthropod control products. ARCTEC also runs successful educational and training programmes in developing countries and is building The Global Vector Hub - an online platform designed to support research, preparedness and rapid responses to outbreaks. Government and regulatory agencies around the world continue to

receive advisory support from ARCTEC experts. With LSHTM's support, demonstrating its success and impact, ARCTEC intends to spin-out in 2018.

Spin-out ArcVax uses bacterial glycoengineering as a platform technology to produce low cost new vaccine combinations for human and animal use. One of the co-founders, Dr Jon Cuccui, was awarded a prestigious BBSRC/Royal Society enterprise fellowship to accelerate the establishment of ArcVax.

A new partnership with LifeArc in 2017 will allow us to intensify innovation and efforts to translate our research in ways that will address major health threats in the UK and globally. LifeArc are now providing our School with dedicated expertise in intellectual property, translational potential of research portfolios, and funding and development pathways.

Engagement



Young Scientists inspecting bed bugs in the lab.

Engagement with external audiences, including policymakers, industry partners and the public, is a key priority in our new strategy.

We were one of only 12 institutions across the UK to receive funding from the Research Councils UK **Strategic Support to Expedite Embedding Public Engagement with Research (SEE-PER)** funding call. The grant will be used to understand the current landscape of public engagement at LSHTM and work to enhance our public engagement activity, support and recognition.

Our **Public Engagement Small Grants Scheme**, now in its third year, was offered School-wide in 2017. It funded 14 projects across all three faculties, providing up to £1,000 for staff and research degree students to engage with diverse local and global communities about our research. Projects ranged from "public trust in the use of big data for health research" to "engaging transgender people in research on sexual health service innovation."

The annual **Three Minute Thesis competition** once again challenged our research degree students to describe their research to a general

and our experts gave numerous talks at museums and festivals across the UK.

Our research and expertise continue to generate wide-spread international media coverage, with **more than 16,000 pieces of global media coverage** about LSHTM in 2017. Interviews on BBC's flagship 'Today' and World Service 'Newsday' programmes, front page comment in the Times, and regular stories in outlets such as the South China Morning Post, New York Times and the Hindu, have raised the profile of important global health issues and informed policymakers around the world.

Our **reach and influence on social media** continued to strengthen, with more than 97,000 followers across Facebook, Twitter, Instagram and LinkedIn.

Our new **public café**, Seacole Social, opened at Tavistock Place. The café was named by staff in honour of pioneer nurse Mary Seacole who tended to wounded soldiers in the Crimean War and was named Greatest Black Briton in 2004. We are planning to use the café as a space to **engage with our local community** throughout 2018.



Participants at an inspirational TEDxLSHTM event organised by students in September 2017. Credit: Rory Ronnie

Thank you

We would like to thank all those who supported LSHTM in the last financial year (1 August 2016 – 31 July 2017). Members of our Individual's Giving Societies along with our most generous corporate, foundation and governmental grantees are listed below.

Donors to the First 500 make annual gifts of between £500 and £9,999, while those of the Director's Circle make gifts of £10,000 or more.

Donors and grantees helped to fund capital improvements, scholarships, and research.

Special thanks goes to the members of the American and Canadian Friends of LSHTM boards who raise monies in these two countries to support our School.

Corporation, Foundation & Governmental Funders (£1M+)

Bill & Melinda Gates Foundation
Biotechnology and Biological Sciences Research Council
Department for International Development
Economic & Social Research Council
European & Developing Countries Clinical Trials Partnership
European Commission
GlaxoSmithKline
Medical Research Council
Medical Research Foundation
National Institute for Health Research
USA National Institute of Health
Wellcome Trust
World Health Organisation

Corporation, Foundation & Governmental Funders (£100,000 - £999,999)

3ie
The Academy of Medical Sciences
American Leprosy Missions
Aurum Institute for Health Research
British Council
British Council for the Prevention of Blindness
British Heart Foundation
Centres For Disease Control And Prevention (FMO)
Childrens Investment Fund Foundation
Clinton Health Access Initiative, Inc.

Drugs for Neglected Diseases Initiative

Energy Efficiency and Affordability Division
GAVI Alliance
Guy's and St Thomas's NHS Foundation Trust
The Health Foundation
Institut National Du Cancer
Interhealth
Leprosy Research Initiative
PATH
The Pfizer Foundation
The Royal Society
Save the Children Federation Inc
Task Force for Global Health
Tres Cantos Open Lab Foundation
UBS Optimus Foundation
Unilever
The Uplands Trust
United States Agency for International Development
ViiV Healthcare UK Limited
The World Bank
Worldwide Support for Development

Director's Circle

Michael and Maureen Chowen
Arabella Duffield
Mary Graham
Brian and Alice Greenwood
Haruhisa Handa
Lauren Hall and David Hearth
Paul Klingenstein
Helen Pickering
Peter Piot
The Rossy Family
Marjorie Scardino
Robert Berger and Marla Shapiro
Paul Stoffels
Kevin Ho and Michelle Yue

First 500

Robert Bethel
Rachel Bousfield
Maggie and Patrick Burgess
Sandy Cairncross
Gus and Jenny Carey
James Cherry
Francis Cox
June Crown
Nicole Cohen and Simon Dibley
Michael Dohn
John Drage
Charlie Easmon
Sandrine Estoppey
Ann Fazakerley
Anne Fergusson
Sue Fisch and family
Claire Gilbert
Roger Gilbert
Rishi Gupta
Andrew Honan
Joy Lawn
Shirley Lennon
Lester Mascarenhas
Anthony McClellan
Ruth Mellor
Andrew Morgan
Yoshiro Nagao
Carlos and Renee Nottebohm
John O'Donnell
Paul Odusanya
Helen Oliver
Claire Panosian
Jan and Belinda Pethick
Sreeram Ramagopalan
Rosemary Schofield
Eduardo Simoes
Liam Smeeth
Geoffrey and Julie Targett
Ahmed Tayeh
Leonard Valenzuela
Jean-Paul Warmoes
Philip Weintraub
Robert Wilkinson
David Winter
Anonymous (2)