LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Celebrating 120 years of health innovation

Innovating for the future: what's next?

How LSHTM has shaped global health

How you can get involved in the LSHTM community

Alumni News

#11
Spring
2020

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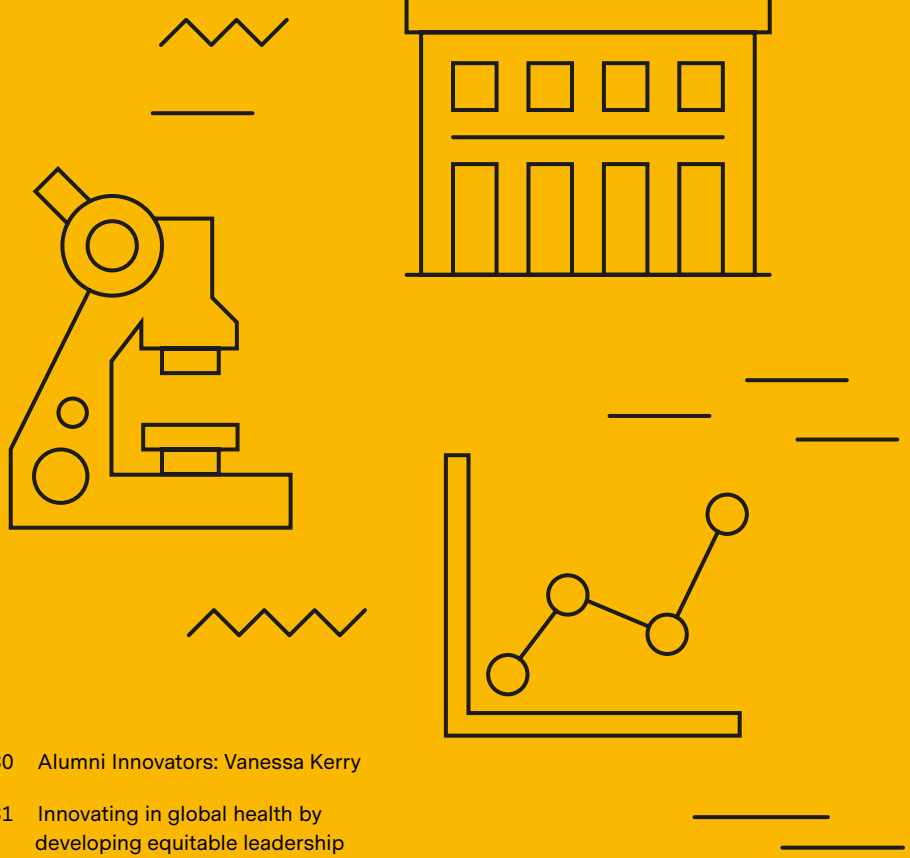


Editor: Alice Perry. Contributors: Georgina Jones, Andrew Davidson, Gemma Marenghi, Sarah Enderby, Edward Chlerich, Valerie Boulet, Joe McAleer, Louise Thomas, LSHTM Communications and Engagement team and the Communication Forum.

Designed by: Phil Mason

Cover image: Stonemason carving the name of a female health pioneer to be added to LSHTM's iconic Keppel street building. Read the full story on page 12.

Message from the Director

This academic year marks LSHTM's historic 120th anniversary. On the 2nd of October 1899 and under the leadership of Sir Patrick Manson, our School first opened its doors to students down at the Albert Dock in the East End of London. In the 120 years that have followed, LSHTM has been at the forefront of innovative scientific research and health discoveries, whilst also providing research-led teaching in public and global health. From creating the randomised control methodology and seminal work linking smoking and lung cancer, to impregnated bed nets for malaria control, and pioneering work on Ebola vaccines, innovation has, and continues to be, central to our mission of improving health worldwide.

Innovation has become a well-used and sometimes overused buzzword these days so it is important to understand what we mean when we use the term. In health, innovation is so much more than the discovery or launching of new therapies, vaccines or high-tech apps - although these all have a critical role to play. Innovation is about challenging the status quo, applying new ideas, new tools, that are disruptive in the sense that they overhaul the current way of working and create possibilities that didn't exist before. I believe innovation in health is needed now more than ever. Progress in public and global health is being constantly challenged by a number of factors—including climate change, misinformation and a distrust in science, an ageing population and rampant inequality. That's why it is so critical that we continue to train the next generation of leaders through our teaching and research programmes, and work together to innovate, respond and prevent in the most effective way.

For this anniversary year, we are celebrating 120 years of health innovation at LSHTM and developing new opportunities to stimulate future innovation across our global LSHTM community. To launch our celebrations, we were honoured to host LSHTM alumni and guests for a very special evening, among others, Dr Tedros, WHO Director-General (MSc in Immunology of Infectious Diseases 1992), Dr Muhammad Ali Pate, Global Director for Health, Nutrition and Population at the World Bank (MSc in Health Systems Management 2000) and Dr Matshidiso Moeti, WHO Regional Director for Africa (MSc in Community Health for Developing Countries 1986 and LSHTM Honorary Fellow 2018). We also hosted a keynote innovation lecture where we heard from many illustrious alumni who shared their personal accounts of working on the frontline of innovation in health. I encourage you to watch these inspiring talks online. We will be hosting more events like these, including organising 120 LSHTM alumni events around the world throughout the year.

We were also proud to announce this year that we are adding the names of three pioneering women in health to our historic Keppel Street building here in London. I am delighted that Marie Skłodowska-Curie, Florence Nightingale and Alice Ball have been added to our iconic building which currently only features the names of 23 male scientists. Whilst the change is long overdue, the 120th anniversary marks an opportune time to make the change. Our building frieze now better reflects the talented and diverse people who work and study at LSHTM and in public and global health around the world.

We will continue to celebrate this anniversary throughout the academic year of 2019-20 and there will be a number of opportunities to take part. As ever, I look forward to working with our global alumni community toward our shared mission of improving health worldwide.

Professor Peter Piot,
LSHTM Director

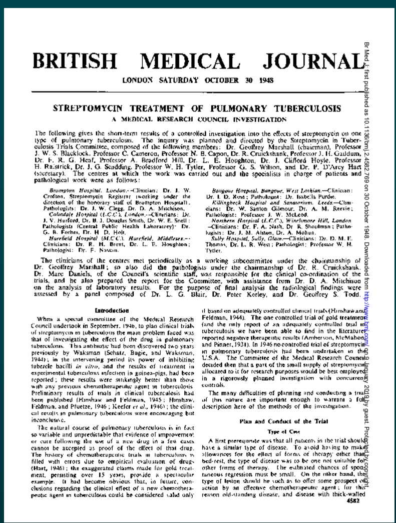
Main picture: Peter speaking with alumni and friends in Singapore. Credit: Straits Clan Club. Above: 2019 Graduation Day.

LSHTM Innovations that changed the world...

1948

We created the modern randomised control trial.

In 1948, while working on tuberculosis, Professor Austin Bradford Hill introduced methodology to evaluate health interventions: the randomised controlled trial. This is now the 'gold standard' of trial design, used by scientists around the world to make fair comparisons between interventions. It is also widely applied to study the impact of social and development interventions.



BRITISH MEDICAL JOURNAL

LONDON SATURDAY OCTOBER 30 1948

STREPTOMYCIN TREATMENT OF PULMONARY TUBERCULOSIS

A MEDICAL RESEARCH COUNCIL INVESTIGATION

The following gives the short-term results of a controlled investigation into the effects of streptomycin on one type of pulmonary tuberculosis. The inquiry was planned and directed by the Streptomycin in Tuberculosis Trials Committee, composed of the following members: Dr. Geoffrey Marshall (chairman), Professor J. W. S. Blacklock, Professor C. Cameron, Professor N. B. Capon, Dr. R. Cruickshank, Professor J. H. Gaddum, Dr. F. R. G. Heaf, Professor A. Bradford Hill, Dr. L. E. Houghton, Dr. J. Clifford Hoyle, Professor H. Raistrick, Dr. J. G. Scadding, Professor W. H. Tytler, Professor G. S. Wilson, and Dr. P. D'Arcy Hart (secretary). The centres at which the work was carried out and the specialists in charge of patients and pathological work were as follows:

Brompton Hospital, London.—Clinician: Dr. J. W. Crofton, Streptomycin Registrar (working under the direction of the honorary staff of Brompton Hospital). Pathologists: Dr. J. W. Clegg, Dr. D. A. Mitchison. *Colindale Hospital (L.C.C.), London.*—Clinicians: Dr. J. V. Hurford, Dr. B. J. Douglas Smith, Dr. W. E. Snell; Pathologists (Central Public Health Laboratory): Dr. G. B. Forbes, Dr. H. D. Holt. *Harefield Hospital (M.C.C.), Harefield, Middlesex.*—Clinicians: Dr. R. H. Brent, Dr. L. E. Houghton; Pathologist: Dr. F. Nassau.

Bangour Hospital, Bangour, West Lothian.—Clinician: Dr. I. D. Ross; Pathologist: Dr. Isabella Purdie. *Killingbeck Hospital and Sanatorium, Leeds.*—Clinicians: Dr. W. Santon Gilmour, Dr. A. M. Reevie; Pathologist: Professor J. W. McLeod. *Northern Hospital (L.C.C.), Winchmore Hill, London.*—Clinicians: Dr. F. A. Nash, Dr. R. Shoulman; Pathologists: Dr. J. M. Alston, Dr. A. Mohun. *Sully Hospital, Sully, Glam.*—Clinicians: Dr. D. M. E. Thomas, Dr. L. R. West; Pathologist: Professor W. H. Tytler.

The clinicians of the centres met periodically as a working subcommittee under the chairmanship of Dr. Geoffrey Marshall; so also did the pathologists under the chairmanship of Dr. R. Cruickshank. Dr. Marc Daniels, of the Council's scientific staff, was responsible for the clinical co-ordination of the trials, and he also prepared the report for the Committee, with assistance from Dr. D. A. Mitchison on the analysis of laboratory results. For the purpose of final analysis the radiological findings were assessed by a panel composed of Dr. L. G. Blair, Dr. Peter Kerley, and Dr. Geoffrey S. Todd.

Introduction

When a special committee of the Medical Research Council undertook in September, 1946, to plan clinical trials of streptomycin in tuberculosis the main problem faced was that of investigating the effect of the drug in pulmonary tuberculosis. This antibiotic had been discovered two years previously by Waksman (Schatz, Bugie, and Waksman, 1944); in the intervening period its power of inhibiting tubercle bacilli *in vitro*, and the results of treatment in experimental tuberculous infection in guinea-pigs, had been reported; these results were strikingly better than those with any previous chemotherapeutic agent in tuberculosis. Preliminary results of trials in clinical tuberculosis had been published (Hinshaw and Feldman, 1945; Hinshaw, Feldman, and Pfuetze, 1946; Keefer *et al.*, 1946); the clinical results in pulmonary tuberculosis were encouraging but inconclusive.

The natural course of pulmonary tuberculosis is in fact so variable and unpredictable that evidence of improvement or cure following the use of a new drug in a few cases cannot be accepted as proof of the effect of that drug. The history of chemotherapeutic trials in tuberculosis is filled with errors due to empirical evaluation of drugs (Hart, 1946); the exaggerated claims made for gold treatment, persisting over 15 years, provide a spectacular example. It had become obvious that, in future, conclusions regarding the clinical effect of a new chemotherapeutic agent in tuberculosis could be considered valid only if based on adequately controlled clinical trials (Hinshaw and Feldman, 1944). The one controlled trial of gold treatment (and the only report of an adequately controlled trial in tuberculosis we have been able to find in the literature) reported negative therapeutic results (Amberson, McMahon, and Pinner, 1931). In 1946 no controlled trial of streptomycin in pulmonary tuberculosis had been undertaken in the U.S.A. The Committee of the Medical Research Council decided then that a part of the small supply of streptomycin allocated to it for research purposes would be best employed in a rigorously planned investigation with concurrent controls.

The many difficulties of planning and conducting a trial of this nature are important enough to warrant a full description here of the methods of the investigation.

Plan and Conduct of the Trial

Type of Case

A first prerequisite was that all patients in the trial should have a similar type of disease. To avoid having to make allowances for the effect of forms of therapy other than bed-rest, the type of disease was to be one not suitable for other forms of therapy. The estimated chances of spontaneous regression must be small. On the other hand, the type of lesion should be such as to offer some prospect of action by an effective chemotherapeutic agent; for this reason old-standing disease, and disease with thick-walled

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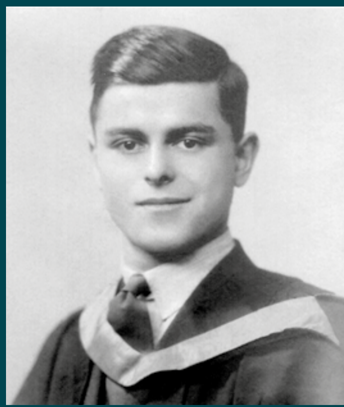
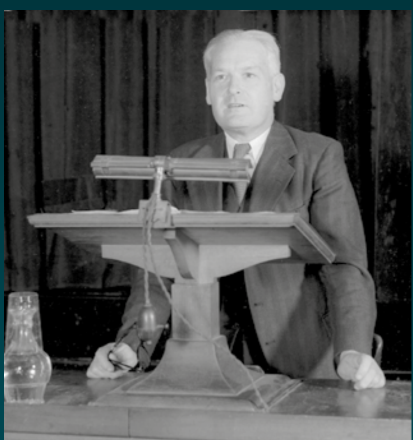


1953

We're home to the 'inventor of exercise'.

In 1953, Professor Jerry Morris published a famous study comparing heart disease between bus conductors and bus drivers. It showed that sedentary bus drivers had much higher rates of heart disease than the more active conductors. This was the first evidence demonstrating the important connection between exercise and health. So you can thank Jerry for those trips to the gym!



1950

We proved the link between smoking and lung cancer.

In 1950, Professors Richard Doll and Austin Bradford Hill published an early study connecting smoking with lung cancer. They went on to study the smoking habits of 40,000 doctors, providing important evidence that death rates from lung cancer and heart attacks increased with the amount smoked.

1958

We linked pollution with respiratory conditions.

In 1958, Professor Donald Reid and Dr A.S. Fairbairn conducted surveys of respiratory illness among civil servants which suggested that areas with frequent, thick and polluted fog had a higher incidence of chronic bronchitis and that the disease in these areas had a more serious prognosis.

1980s

We established one of the largest and most comprehensive scientific studies of sexual behaviour in the world.

Working with UCL in the late 1980s, Professor Kaye Wellings and colleagues co-founded the National Survey of Sexual Attitudes and Lifestyles in response to the emerging HIV epidemic. Conducted every 10 years, the findings have greatly influenced current-day sexual health education and services in Britain, including those for HIV, chlamydia screening, teenage pregnancy, and health education campaigns for young people and men who have sex with men.


THE LANCET

1980s

We showed that bed nets treated with insecticide could stop millions of children dying from malaria.

Since the 1980s, experts including Professor Brian Greenwood and Professor Umberto D'Alessandro have helped develop, test and roll out insecticide treated bed nets to people living in regions with malaria. We proved these nets could prevent millions of deaths and are highly cost-effective. Now over half the population of sub-Saharan Africa sleep under them. Their use has played a major part in halving malaria deaths over the past 20 years.

LSHTM Innovations that changed the world...

2000s

We helped expand access to effective antimalarial treatment through the private sector.

In the early 2000s, Professor Kara Hanson, Professor Catherine Goodman and colleagues showed antimalarial medicines were widely available from retail outlets, and evaluated the impact of private sector interventions. This played an influential role in the creation of a global financing mechanism designed to improve access to drugs through subsidies and price negotiations.

2005

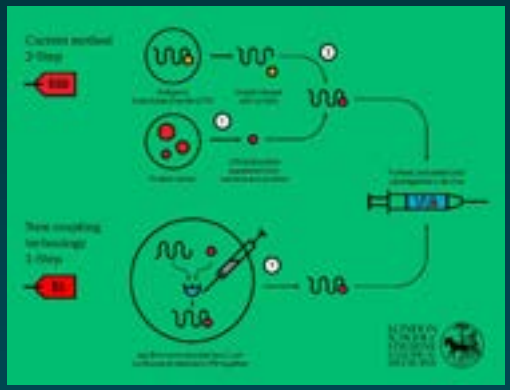
We put the issue of newborn deaths and still births on the global agenda.

In 2005, Professor Joy Lawn and colleagues published the first national estimates on the causes of newborn deaths and the numbers of stillbirths around the world. 99% of the 8 million deaths each year were in low-and-middle-income countries, yet were invisible on the global and political agendas. Thanks to ongoing work, targets for preventing these deaths are now included in the UN's Sustainable Development Goals, and innovations in communities and hospitals are saving babies' lives daily.

2000s

We developed a new method to create cheaper vaccines.

Professor Brendan Wren and Associate Professor Jon Cuccui developed an innovative glycoengineering technique to create vaccines. Traditional glycoconjugate vaccines for protection against bacterial pneumonia and meningitis require over 300 steps, are very expensive and not currently produced in the UK. This new method is incredibly low cost and can be used to create new vaccines for many bacterial diseases that do not currently have one.



2010

We showed how a cheap and widely available drug could stop tens of thousands of trauma patients from bleeding to death needlessly.

In 2010, the CRASH-2 trial demonstrated that the clot stabilising drug tranexamic acid reduced the chances of death from severe blood loss by a third. Traumatic bleeding, mostly from road traffic accidents or violent crimes, kills millions of people per year. Professor Haleema Shakur-Still, Professor Ian Roberts and colleagues went on to demonstrate how the same drug could prevent women dying from blood loss in childbirth.

2015

We demonstrated that a mother's diet before conception can permanently alter how her child's genes function

In 2015, MRC Unit The Gambia at LSHTM published the first evidence of this epigenetic modification on future offspring's DNA. Further studies demonstrated changes to the function of a gene, influencing immunity and cancer risk.

2014-16

We introduced a novel design for vaccinating people against Ebola.

In the 2014-16 Ebola outbreak in West Africa, Professor John Edmunds and colleagues designed an innovative 'ring vaccination' approach for a trial of the rVSVZEBOV vaccine in Guinea. The same design was later used as the vaccination strategy during 2019's major Ebola outbreak in the Democratic Republic of the Congo.

Celebrating 120 years of health innovation

We launched our 120th anniversary celebrations at special events in September 2019. LSHTM Director Professor Peter Piot, said: "For 120 years, we have been at the forefront of innovative scientific research and health discoveries, whilst also providing research-led teaching in public and global health.

"Through our global presence and international partnerships, LSHTM has a proud history of innovation that has had a tangible impact on improving health and health equity, from creating the randomised control methodology and seminal work linking smoking and lung cancer, to impregnated bed nets for malaria control, and pioneering work on Ebola vaccines.

"Our 120th anniversary is a momentous occasion which I hope will inspire us all to mobilise and challenge the status quo, applying creative new ideas and tools to generate new possibilities for improving health for all."

Dr Tedros Adhanom Ghebreyesus, WHO Director-General (MSc Immunology 1992), joined the event via video link. He said: "Nelson Mandela said that education is the most powerful weapon which you can use to change the world. That's what this institution is doing every day; changing the world."

Other speakers at the event included: Dr Muhammad Ali Pate, Global Director for Health, Nutrition and Population at the World Bank (MSc in Health Systems Management 2000); Dame Sally Davies, former Chief Medical Officer for England (LSHTM Honorary Fellow 2015); Matthew Rycroft, Permanent Secretary at the UK Department for International Development; and Dr Matshidiso Moeti, WHO Regional Director for Africa (MSc in Community Health for Developing Countries 1986 and LSHTM Honorary Fellow 2018).

1. Dr Tedros Adhanom Ghebreyesus addressing guests via video link from WHO in Geneva. 2.Professor Peter Piot addressing guests. 3. A malaria sniffer dog 4. A display from LSHTM's Archives. 5. Tanks of zebrafish showcasing the work of the Mostowy Lab.

Happy Birthday LSHTM

By Jeremy Farrar,
Director of the Wellcome Trust

"We are living through incredibly complex times politically, socially, economically and as a result inevitably all impact on our health.

"There is no doubt we face enormous challenges - inequality, climate change, drug resistant infections, non-communicable diseases, epidemics and more: fragile health systems, the rise of nationalism and so-called populist politics, deliberate misinformation, and lies.

"At the same time, the broadly defined scientific enterprise undoubtedly is providing at least some of the answers to these pressing issues.

"For 120 years, LSHTM has stood for excellence, honesty, diversity and inclusivity and has addressed the big issues facing us and our planet. It has not shied away from speaking truth to power and to societies around the world.

"This has never been more important and now is the time to step up, ask the critical questions, provide and use the best available evidence to argue for the things that can enhance lives, argue for the values that you stand for and the sort of world you believe in.

"Embrace the opportunities of the 21st century as you did the 19th and 20th – the world has never needed your voice and all that you do more than it does now.

"The poet Robert Browning wrote: 'A man's reach should exceed his grasp or what's a heaven for?'

"Go for it, make the world a better place for everyone."

Alumni on the frontline of innovation

To improve health for all, the global health community must continue to challenge the status quo by applying new, ground-breaking ideas and tools that create fresh possibilities and enable us to better reach those in need. Our global community of over 30,000 alumni are doing that every day.

In September 2019 we hosted our 120th anniversary Keynote Lecture, welcoming back some of our most prestigious alumni to share their personal journeys of innovation in health.

Dr Jennifer Dixon
MSc in Public Health (1990), PhD in Health Services Research (1997)

Jennifer is Chief Executive of The Health Foundation. She previously held roles such as Chief Executive of the Nuffield Trust, Director of Policy at The King's Fund and Policy Advisor to the Chief Executive of the NHS.

"When I came to LSHTM I was just off the wards, having done medicine. I came from a scientific tradition of discovery and white coats. What I found at LSHTM is that I was exposed to a whole variety of different ways of thinking, whether it be statistics, health economics, politics or communicable disease control. For me, this really helped me to focus on the more 'messy' areas which I was aspiring for. The innovations I have been involved in really relate to those 'messy' things."

You can watch the keynote lecture on the @LSHTM YouTube channel.

Richard Horton, Editor-in-Chief of The Lancet, chairing the keynote lecture.

Dorcas Gwata
MSc in Public Health (2008)

Dorcas is a Public Health Specialist working in the Westminster Multi-agency Integrated Gangs Unit, providing physical and mental health support to young people and their families. She is a Mental Health Advisor at THET, mentors young graduates and is passionate about supporting more women of colour in leadership.

"This wonderful School which once fought a cholera outbreak on its doorstep, helps researchers like me from Africa to fight an epidemic that is on our doorstep. You saw beyond our race, you saw beyond our head scarves, and you saw beyond our disabilities. You saw innovation."

Dr Precious Lunga
MSc in Epidemiology (2007)

Precious is Chief Executive and Co-Founder of Baobab Circle, a health technology company delivering innovative health solutions via phones across Africa. Previously, at Econet Wireless, she co-founded the mHealth business unit. Precious worked at UNAIDS on the implementation of HIV prevention programmes.

"My MSc from LSHTM has transformed my life. After my PhD I decided I didn't want to just stay in the lab, I wanted to get out into the world and do something with my science. Suddenly it was not just about numbers. The reason why I ended up running a technology company is because I looked around and I saw the technology people on one end and the health people on the other end, but what we really needed was joining up. There are different ways in which one can use their qualifications from LSHTM, and it's personally taken me into policy and now entrepreneurship, and I know this is a continuing journey."

Dr Chris van Tulleken
Diploma in Tropical Medicine & Hygiene (2006)

Chris is an infection doctor at the Hospital for Tropical Diseases and an associate professor at UCL in the Division of Infection where his research focuses on conflicts of interest. Over the last decade Chris has presented some of the BBC's flagship series about health and medicine including the BAFTA-winning Operation Ouch on CBBC.

"The diploma I received at LSHTM has really been the foundation of everything I have done in broadcasting, in clinical medicine and in science."

Women health pioneers honoured on LSHTM's iconic London building for the first time

To celebrate its 120th anniversary, LSHTM gained special permission from Camden Council to add the names of Marie Skłodowska-Curie, Florence Nightingale and Alice Ball to the façade of its Grade II listed Keppel Street building in Bloomsbury, London.

They have joined 23 other male health and tropical medicine innovators, currently on the frieze that wraps around the building. These include LSHTM founder Sir Patrick Manson, Nobel Prize winner Sir Ronald Ross, and microbiologist Louis Pasteur.

Selected from suggestions made by LSHTM staff, the new names are all from

Stonemason carving replica. Credit: Stonewest.

an era in keeping with the building, which opened in 1929 and celebrated its 90th anniversary last year.

LSHTM Director Professor Peter Piot, said: "I am thrilled that we are recognising these three remarkable women. Attitudes were very different 90 years ago but having only men on our frieze has always troubled me. Our 120th celebrations of health innovation, and having recently hosted the very successful second Women Leaders in Global Health conference, made 2019 the perfect time to make this change. Our frieze will now better reflect the talented and diverse people who work at LSHTM and in global health around the world."

Professor Anne Mills, Deputy Director & Provost at LSHTM, said: "It is important we celebrate all achievements in the advancement of health, not just those we know well. That's why I'm pleased we are recognising Alice Ball, honouring her pioneering work and helping to make her rather hidden story more visible.

"Solving the world's health problems relies on being able to harness the skills of as many talented people as possible. The global health community, including LSHTM, must do as much as we can to encourage equality and diversity. I hope celebrating these pioneers will serve as inspiration for more women to study or work in global health."

Mystery surrounds the reasoning behind the selection of the original 1929 names, which was made by a committee of unknown constitution who pondered deeply on which of the names of the great and good in the fields of hygiene and tropical medicine merited such public acclaim.

Rumour has it that Florence Nightingale was considered at the time, but it is said that the selection committee discounted her name as too long to fit. However, Max von Pettenkofer does appear - and both names contain 11 letters.

Celebrating today's innovation at LSHTM

Peek Vision

Smartphone-based technology to connect people to sight.

Peek Vision is a group of experienced and highly committed eye care professionals, software developers, hardware engineers, partnerships specialists and leaders in public eye health research. The multifunctional, smartphone based Peek Vision project aims to empower eye health workers to diagnose eye diseases and provide a low-cost device for managing and monitoring the treatment of patients, even in the remotest of settings.

Mostowy Lab

Creative ways to use zebrafish, gene editing and predatory bacteria.

In the first days of a zebrafish's life, it is completely translucent, so, under a microscope, it is possible to see what biological processes are happening in a live environment. The use of zebrafish is an emerging approach to studying infection and LSHTM's Professor Serge Mostowy has helped to pioneer this approach.

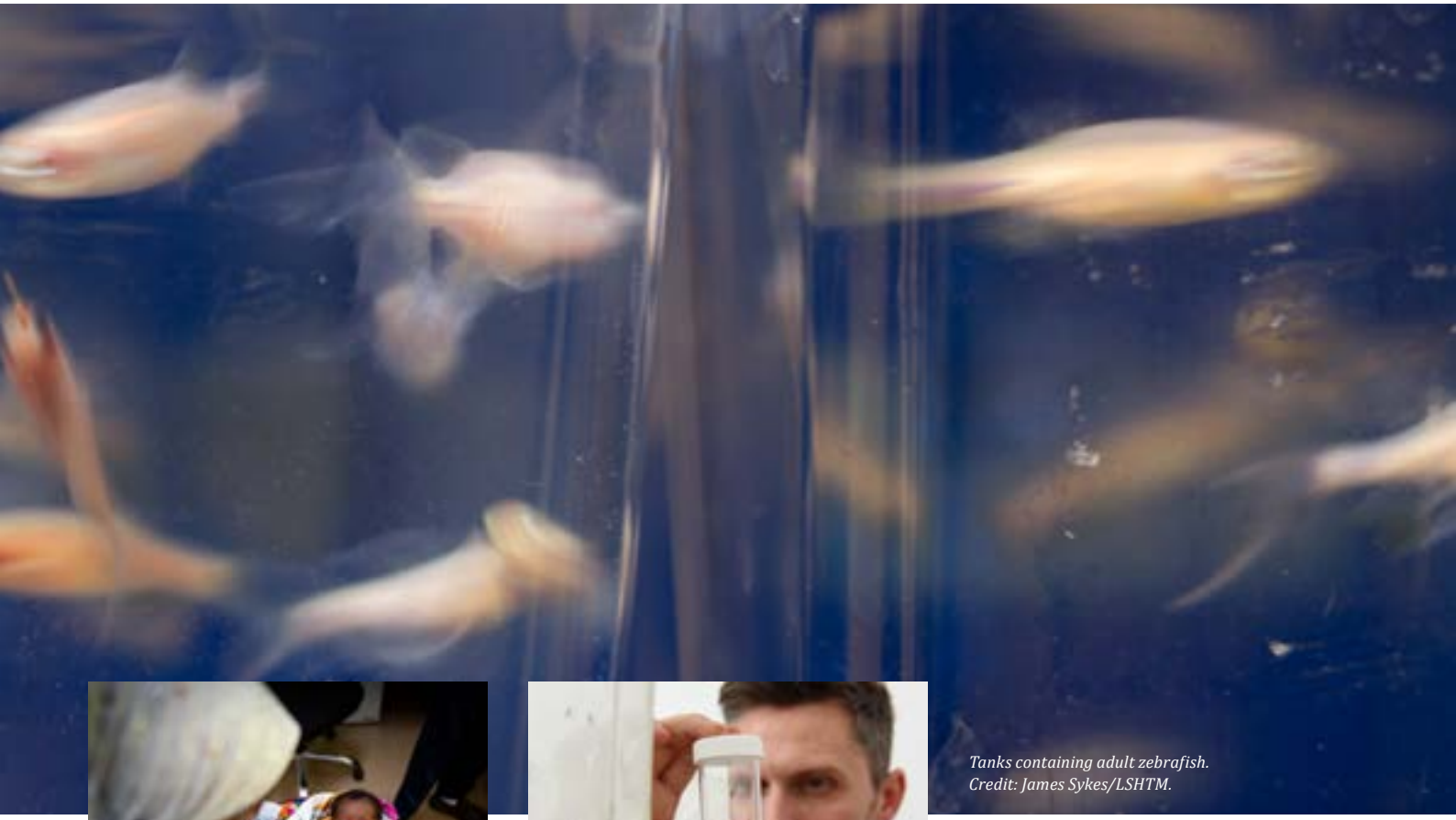
"Evolution is a powerful force and we need to start thinking outside the box to stay ahead of the game," says Professor Mostowy. "Often that means going back to fundamental biology to understand exactly what's happening when our body becomes infected, so we can develop more creative ways to disrupt the pathogen's ability to infect. Fortunately, recent advances in technology are allowing us to do just that".

Friendship Bench

How a wooden bench in Zimbabwe became a community-led revolution in treating depression.

"Everyone everywhere, should have someone to turn to." Dr Dixon Chibanda.

The Friendship Bench project is an evidence-based intervention developed in Zimbabwe to enhance mental well-being and improve quality of life. Dr Dixon Chibanda, Associate Professor of Global Mental Health at LSHTM, founded the innovative programme which trains 'community grandmothers' to help improve the symptoms of patients with mental health problems, including anxiety and depression. Today 400 grandmothers are helping 35,000 people on 70 benches across Zimbabwe and there are pilots running in a number of other countries with plans to expand the project worldwide. Low-income countries face a particularly heavy burden of mental illness and many have a chronic lack of professional support to face these challenges. The Friendship Bench project is designed to bridge this mental health treatment gap.



Tanks containing adult zebrafish. Credit: James Sykes/LSHTM.

Left to right: Photo 1: Retina scan using Peek. Credit: Rolex/Joan Bardeletti. Photo 2: Long finned zebrafish. Credit: James Sykes/LSHTM. Photo 3: The friendship bench on display at the 120th anniversary reception. Photo 4: Mother with vaccinated baby in Serekunda. Photo 5: Professor James Logan in the insectary. Credit: Christian Sinibaldi.

NEST360°

Solutions and technologies to halve newborn deaths in sub-Saharan Africa by 2030.

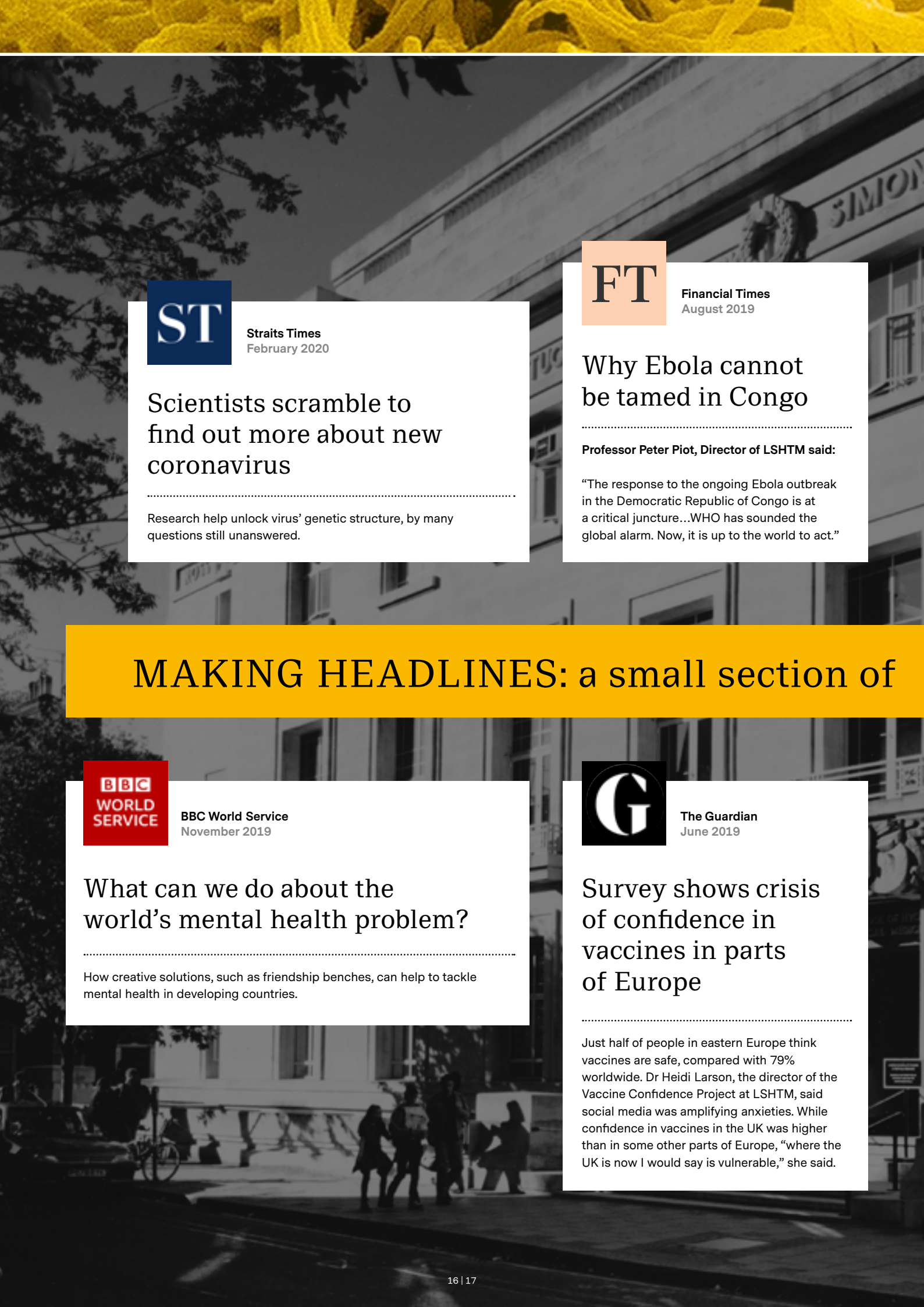
According to UN data, approximately 7,000 newborns die every day around the world and over 1 million African babies are estimated to die in the first four weeks of life. NEST360°, a proposal developed with international collaborators, aims to reduce newborn death in Africa by 75% within the next 10 years. Newborn Essential Solutions and Technologies (NEST) is a package comprising 17 affordable technologies that have the potential to tackle all the main causes of newborn deaths, and deliver quality and comprehensive care. These technologies have been available in high-income countries for the past 50 years. However, due to conditions such as intermittent electricity and harsh environmental conditions, their use is not sustainable in African hospitals and, additionally, the existing market does not ensure a reliable distribution of medical devices.

Logan Research Group

Using smell to detect malaria.

Progress on the control of malaria has stalled in recent years. There were an estimated 216 million cases of malaria in 2016, an increase of five million cases over the previous year. Detecting malaria-infected but otherwise healthy people is a laborious and time-consuming process that requires collecting a blood sample to be then processed in a well-equipped laboratory.

The Logan Research Group investigates novel ways to control arthropod vectors that transmit pathogens, including Zika, malaria and dengue. One innovative approach is using sniffer dogs to provide a non-invasive, portable and rapid test for identifying malaria carriers. There is significant potential to train dogs to detect tropical disease where diagnostics are poor, such as leishmaniasis and trypanosomiasis. Although the research is in its early stages, researchers hope trained sniffer dogs could help to stop malaria spreading between countries and lead to infected people being spotted earlier and treated more quickly.



Straits Times
February 2020

Scientists scramble to find out more about new coronavirus

Research help unlock virus' genetic structure, by many questions still unanswered.

Financial Times
August 2019

Why Ebola cannot be tamed in Congo

Professor Peter Piot, Director of LSHTM said:

"The response to the ongoing Ebola outbreak in the Democratic Republic of Congo is at a critical juncture…WHO has sounded the global alarm. Now, it is up to the world to act."

MAKING HEADLINES: a small section of

BBC World Service
November 2019

What can we do about the world's mental health problem?

How creative solutions, such as friendship benches, can help to tackle mental health in developing countries.

The Guardian
June 2019

Survey shows crisis of confidence in vaccines in parts of Europe

Just half of people in eastern Europe think vaccines are safe, compared with 79% worldwide. Dr Heidi Larson, the director of the Vaccine Confidence Project at LSHTM, said social media was amplifying anxieties. While confidence in vaccines in the UK was higher than in some other parts of Europe, "where the UK is now I would say is vulnerable," she said.

New York Times
June 2019

How Dengue, a Deadly Mosquito-Borne Disease, could Spread in a Warming World

Climate change is poised to increase the spread of dengue fever, which is common in parts of the world with warmer climates like Brazil and India, a new study warns.

The Telegraph
October 2019

Pioneering women to be formally honoured on noted frieze to right 'historic injustice' in science

The names of Alice Ball, Marie Curie and Florence Nightingale will be chiselled into the 90-year-old historic frieze.

LSHTM news stories you may have missed

The Times
October 2019

Tranexamic acid to stop brain bleeds could save thousands of lives

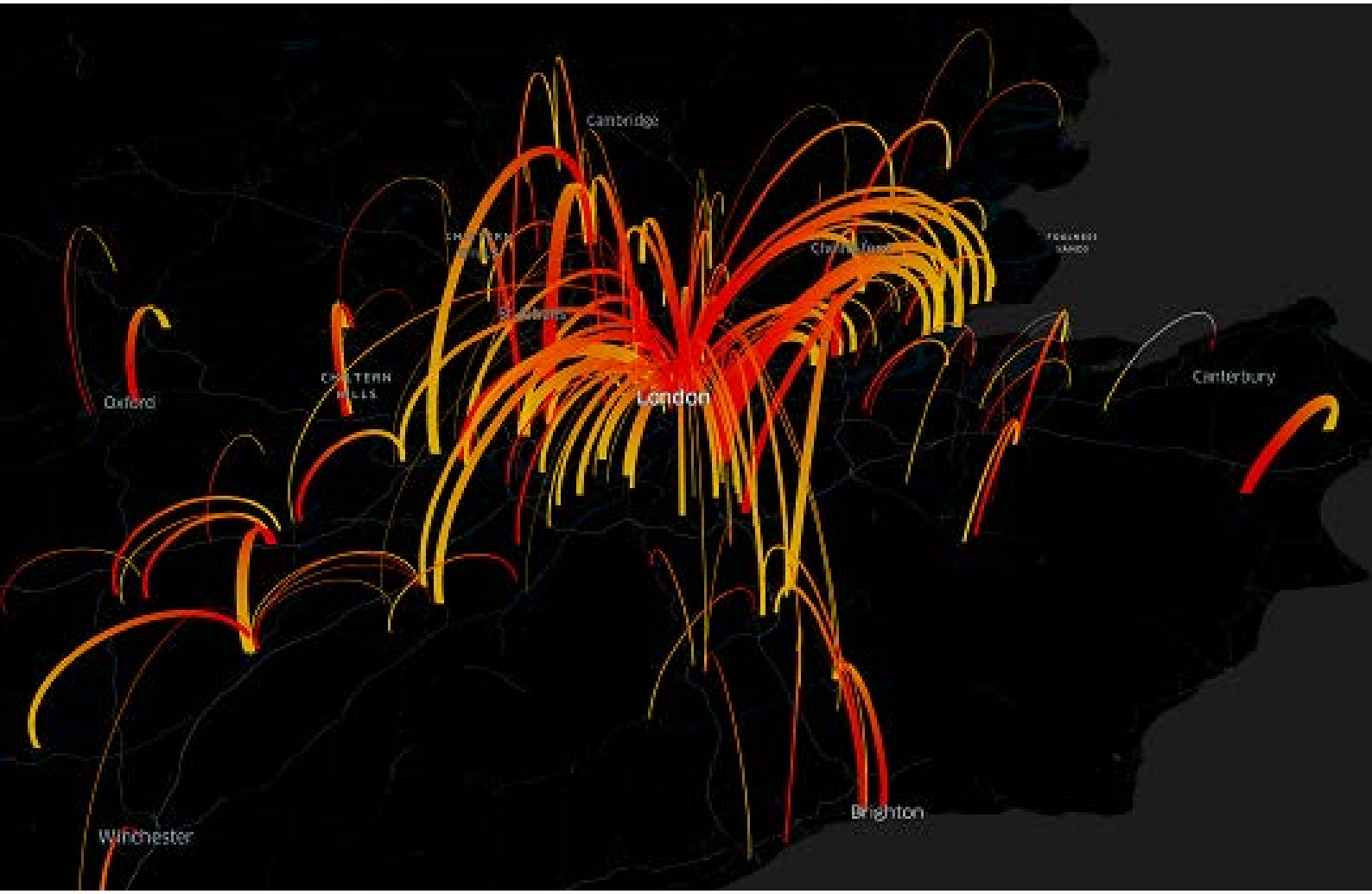
Thousands of lives could be saved worldwide every year after scientists showed for the first time that a drug can reduce the risk of death after traumatic brain injury. The treatment, tranexamic acid, works to prevent bleeding in the brain and so arrest the damage that can continue after the initial injury.

The Telegraph
May 2019

Countries face a "wake-up" call as 20 million babies are born underweight every year

More than 20 million babies were born underweight in 2015, according to the first global estimates of low-weight newborns – a figure experts say is a "wake-up call" for governments.

"Low birthweight is probably the single piece of information about you that most predicts your health throughout your whole life," said Joy Lawn, Professor of Maternal, Reproductive and Child Health at LSHTM, and lead author of the *Lancet* report.



Greater London map. Credit: Facebook.

Facebook Disease Prevention Maps developed to help respond to outbreaks

LSHTM is part of a new Facebook initiative to develop Disease Prevention Maps, to help non-profit organisations plan and respond to public health emergencies.

One of the challenges in public health is predicting where disease outbreaks may strike. When combined with epidemiological information from health systems, the Disease Prevention Maps could aid organisations in reaching vulnerable communities more effectively and in better understanding the pathways of disease outbreaks spread by human-to-human contact.

The maps use a combination of satellite imagery, census information, and aggregate information from people who are using Facebook on their mobile phones. To preserve privacy, the movement data consists only of approximate population flows between different spatial areas.

LSHTM will incorporate data from the maps into analysis of respiratory infections like flu and measles. In particular, our researchers are looking at how connectivity between different areas might be influencing measles outbreaks in Europe.

LSHTM ranked top UK University for open access and gender diversity in research

LSHTM has been ranked as the UK's top university for the proportion of academic research with women listed as authors in the 2019 CWTS Leiden Ranking.

LSHTM also retained its position as first in Europe and eighth in the world for research impact in sciences, for the proportion of its total publications ranking in the top 10% of most cited research.

In another new addition to the ranking, LSHTM came first in Europe and third in the world for publishing open access research. In total, over 80% of research published by LSHTM is open access.

Professor Peter Piot, Director of LSHTM, said: "The latest Leiden Ranking confirms our School's position as one the world's leading centres for research.

"It demonstrates our aims to make our research accessible to as many people as possible, to enable our work to influence policy and have real-world impact around the globe.

"The new rankings for gender diversity and open access provide important benchmarks against which we will work to continue to improve our performance. We are committed to further strengthening equality, diversity and inclusion at LSHTM - principles which provide the platform for our world-leading research and teaching."

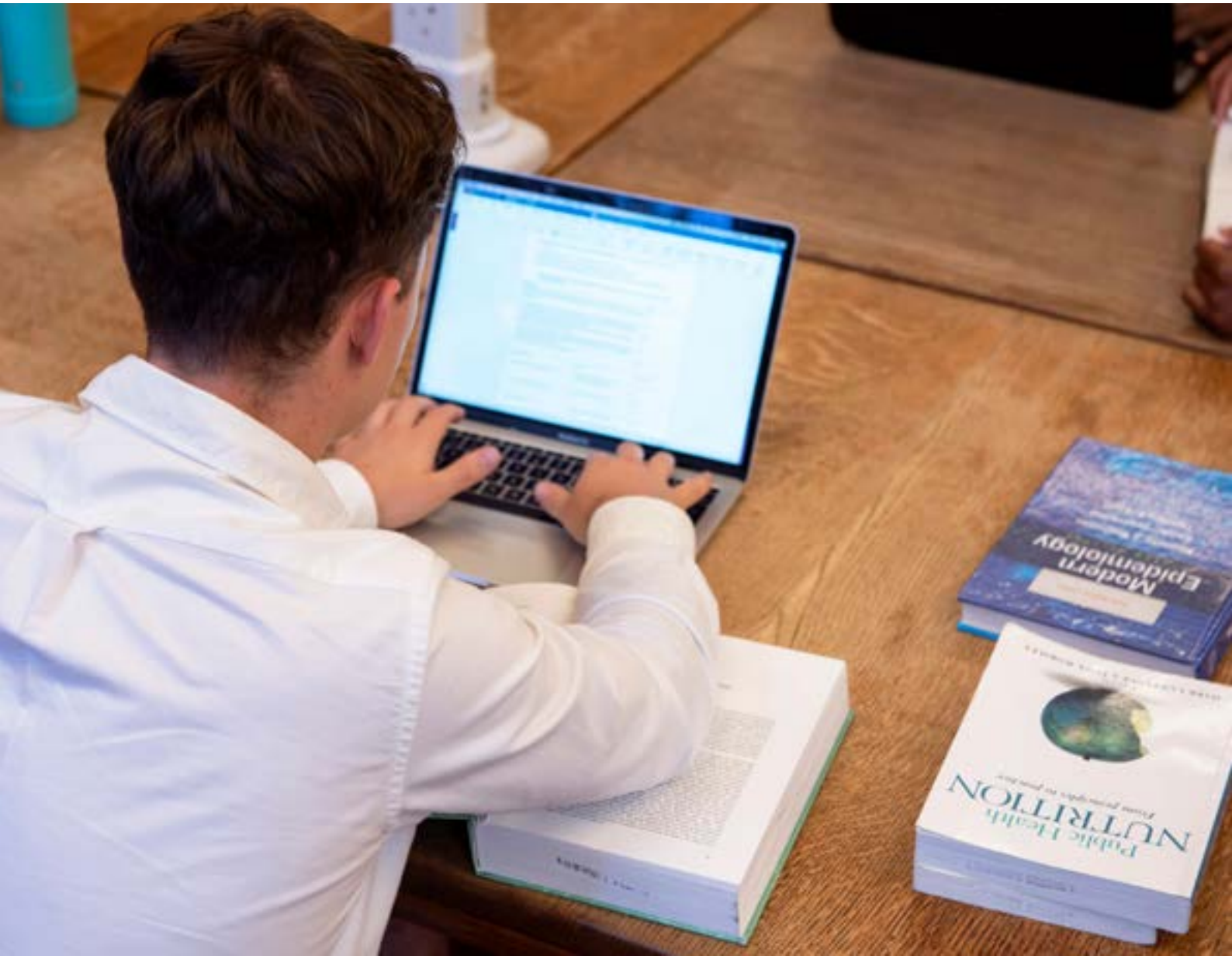
LSHTM's Keppel Street Library.

LSHTM awarded £7million to help improve the health of disabled people in low and middle-income countries

LSHTM is leading a major new project that aims to reveal which interventions should be implemented to improve the well-being of people with disabilities in low and middle-income countries.

Despite millions of people escaping poverty over the last 20 years, the global situation and well-being of the majority of people with disabilities has not sufficiently improved. Running over five years, the £7m Penda project (meaning love in Swahili), funded by the Department for International Development, will evaluate interventions so policy-makers can make evidence-based decisions on issues including poverty, health, education, stigma and discrimination.

Professor Tom Shakespeare with Marta (10), a disabled girl who had been out of school in Buzi, Mozambique. Credit: Carlos Litulo.



New Master's programme in Health Data Science

Funded by Health Data Research UK (HDR UK), LSHTM's new programme will help address the skills shortage in data science in the UK.

The UK has a rich and diverse scientific talent base, thanks to the strength of the NHS, academic institutions and innovative scientific and digital industries. The new Master's level degree programme in health data science forms part of HDR UK's ambition to harness this talent and create a community of health data scientists with new skills that will dramatically change medical research and open up new, faster, smarter pathways to patient care.

Liam Smeeth, Professor of Clinical Epidemiology at LSHTM, said: "The increasing availability of computerised data offers amazing opportunities for health research. However, to make the most of these opportunities, we need new sorts of scientists - individuals who can use their expertise in data to research major health challenges.

"This MSc will allow LSHTM to develop its teaching further in this vital area. It will provide students with an ideal springboard towards a career in global health research, using data to help make the world a healthier place."

Lung section of TB infected mouse. Credit: Maria Podinovskaia.

TB can be eliminated within a generation

A world free of tuberculosis (TB) is possible by 2045 if increased political will and financial resources are directed towards priority areas, according to a *Lancet* Commission on TB.

The report is the work of 37 commissioners from 13 countries, including LSHTM. It highlights that efforts must be focused on providing evidence-based interventions to everyone, especially to high-risk groups, and increasing research to develop new ways to diagnose, treat, and prevent TB.

Anna Vassall, Professor of Health Economics at LSHTM, said: "TB interventions offer one of the best value investments in global health today. With relatively modest sums of money, we can prevent millions of deaths among the most vulnerable on this planet. Investment is affordable but will require the attention of policymakers, matched with financial co-operation and commitment between high- and middle-income countries. It is hoped that our work in analysing the capacity of countries to finance TB interventions will play a critical role in supporting this effort."

TB remains the leading infectious killer of our time, responsible for 1.6 million deaths worldwide in 2017, with drug-resistant forms of TB threatening control efforts in many parts of the world. In addition, in 2017, around a quarter of the world's population were living with TB infection.

1 in 7 babies worldwide born with a low birthweight

Births at the Health Centre. Credit: IDEAS/Paolo Patruno.

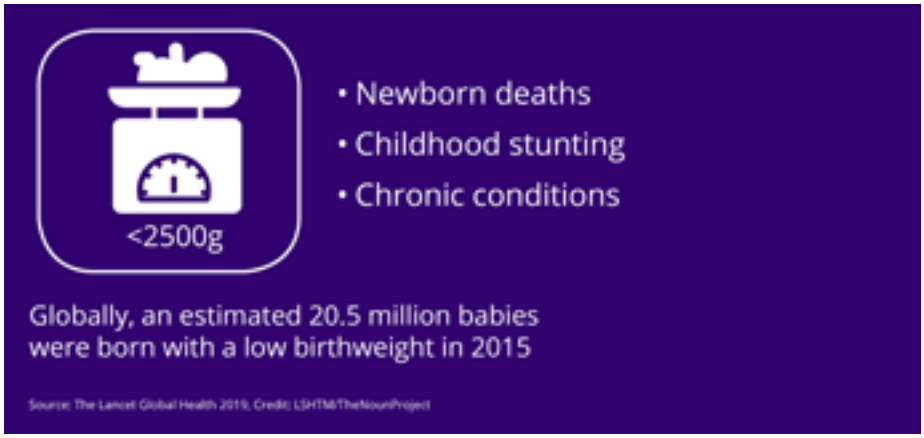
More than 20 million babies were born with a low birthweight (less than 2500g/5.5 pounds) with almost three-quarters born in Southern Asia and sub-Saharan Africa, where data is most limited, according to new research published in the *Lancet Global Health*.

The study was led by LSHTM with partners the World Health Organisation (WHO) and the United Nations International Children's Emergency Fund (UNICEF). 281 million births in 148 countries were included in the analysis, which showed that the problem of low birthweight also remains substantial in high-income countries in Europe and North America, and in Australia and New Zealand, where virtually no progress in reducing low birthweight rates has been made since 2000.

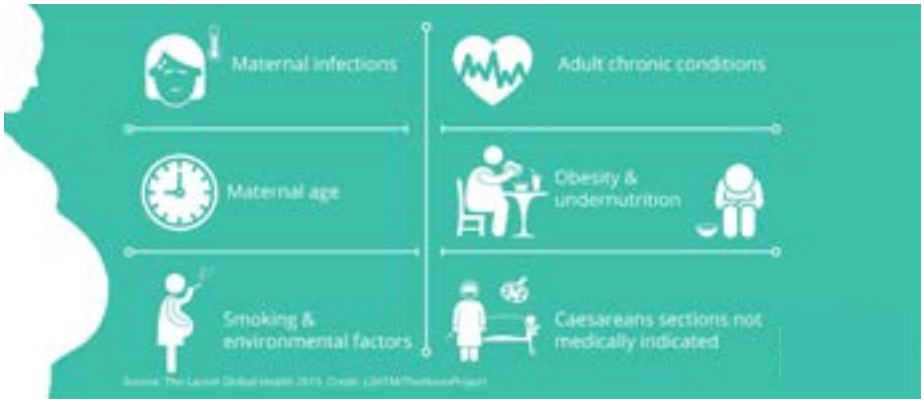
Low birthweight is probably the single piece of information that most predicts health through the whole life course, including death. More than 80% of the world's 2.5 million newborns who die every year are low birthweight because they are born preterm and/or small for gestational age. Low-birthweight babies who survive have a greater risk of stunting and poor development, as well as ill health later in life, including chronic conditions such as diabetes and cardiovascular disease.

Lead author Dr Hannah Blencowe Assistant Professor at LSHTM, said: "Despite clear commitments, our estimates indicate that national governments are doing too little to reduce low birthweight. We have seen very little change over 15 years, even in high-income settings where low birthweight is often due to prematurity as a result of high maternal age, smoking, caesarean sections not medically indicated and fertility treatments that increase the risk of multiple births. These are the underlying issues that governments in high-income countries should be tackling. To meet the global nutrition target of a 30% reduction in low birthweight by 2025 will require more than doubling the pace of progress."

Long- and short-term health risks of low birthweight



What factors influence low birthweight around the world?



Highest estimated rates of low birthweight around the world in 2015

Ancestral clans of malaria parasites in each region of Africa share drug resistance genes

In the first continent-wide genomic study of malaria parasites in Africa, scientists have uncovered distinct regional populations of the deadliest malaria parasite, *Plasmodium falciparum*.

The genetic features of these regional blocs shed new light on the way that drug resistance is emerging in different locations and moving by various routes across Africa.

The research, published in *Science*, was led by a team of African scientists at the MRC Unit The Gambia at LSHTM, in collaboration with the Wellcome Sanger Institute.

The research brings together the first network of African scientists, the Plasmodium Diversity Network Africa, to work with genomic tools to study the diversity of malaria parasites across the continent. Whole genome sequence analysis of malaria parasites and other pathogens could pave the way for improved understanding of infections and development of new intervention approaches for elimination.

Anopheles albimanus mosquito.

Alumni Innovators: Dr Bobbi Pritt

Medical Director, Clinical Parasitology Laboratory, Mayo Clinic

Dr Bobbi Pritt studied MSc Medical Parasitology and DTMH at LSHTM.

"I was extremely fortunate to have full Mayo Clinic sponsorship for obtaining specialty training at the school of my choice. Therefore, I did a careful evaluation of the available schools and LSHTM clearly came out on top. I was very impressed with LSHTM's history, the esteemed professors, and the opportunities available to students. The opportunity to live in London was also very appealing!

"My degree and experiences at LSHTM were life-changing. Not only did I gain knowledge and skills that I needed for my future career at Mayo Clinic, but I also formed invaluable connections with experts in the field, and gained cherished friends from across the globe.

"To me, innovation is to approach problems with a fresh outlook, and not be afraid to ask 'why' when told that something must be done in a certain way. Two of the most valuable skills I learned as a leader were when to challenge the norm and how to do so in a way that maintains relationships and facilitates team-building.

"A large component of my job focuses on innovation – creating new laboratory tests for improving patient care, formulating more efficient ways to run the laboratory, and advancing the science in the field of human medical parasitology through research. I love my job – I get to care for patients, carry out research using cutting edge technology, and teach the next generations of parasitologists!"

Innovation Fellow: Dr Kevin Tetteh

Dr Kevin Tetteh is one of three new Innovation Fellows to undertake studies to produce novel diagnostic tools for infectious diseases.

The Fellowship appointments are sponsored by the Bloomsbury SET, a £5m research programme funded by Research England's Connecting Capability Fund, which is designed to deliver on the objectives of the UK Government's Industrial Strategy.

In total, Dr Tetteh will receive £334,943 over two years to work on the simian malaria parasite, *Plasmodium knowlesi*. Originally infecting macaque monkeys, *P. knowlesi* is a zoonotic infection that has recently become the main cause of human malaria in Malaysian Borneo.

The main aim of Dr Tetteh's project is to develop a diagnostic test to help identify infections caused by *P. knowlesi*. This approach could be used as a blueprint to help guide strategies for the design of novel diagnostic and surveillance tools for other neglected causes of parasitic infections, such as malaria caused by *Plasmodium malariae* and *Plasmodium ovale*. It could also help non-malaria diseases including trichomoniasis, a common sexually-transmitted parasite infection affecting over 156 million people each year.

Alumni Innovators: Patricia Mechael

Co-Founder and Policy Lead at HealthEnabled

Patricia Mechael completed a PhD at LSHTM in 2006 on health-related uses of mobile phones in Egypt.

"In 2000, when I applied to doctoral programs to research how mobile phones could be used to improve access to health services and health information, LSHTM responded with incredible enthusiasm (unlike the other programme to which I had applied). I had the great fortune to study under Simon Carter, a science and technology studies sociologist and Judy Green, a leading qualitative researcher."

"My degree from LSHTM spring-boarded me into my work in mHealth and now in digital health. Without it, I would never have had the opportunity to work with WHO to landscape and define mHealth and to work on the national and organisational strategies, policies, and research needed to increase the effective use of technology for health.

"Innovation means making the most of the technology and science that currently exists, while staying a few steps ahead on where it is going and evolving. We have not scratched the surface in using many of the tools and innovations that exist to solve global health challenges. In the digital health field, we spend a lot of time using technology to strengthen health systems. However, we don't do a very good job of engaging people in using technology that they already have to improve their own health and the health of their families. The same goes for better equipping health professionals with tools to make their work better and increase quality of care.

"I spend a lot of time helping governments, international agencies and organisations define their health priorities and outcomes of interest, or problems they want to solve. I then either strengthen early-adopted innovations or introduce new innovations to address them. Even though I do a lot of work in digital health, my primary focus is better health and well-being. The technology is a means to an end, not the end.

"No matter how wild you think your idea is, pursue it with all that you have until you reach a natural conclusion or launching-off point. Most of my public health colleagues thought I was a little crazy when I started my research on mobile phones and health. It took years for the field to catch up with me, but I learned so much and met so many amazing colleagues along the way that, whether or not it had taken off as a field, that made the pursuit of the idea worthwhile."

Left: Dr Matshidiso Rebecca Moeti and Dr Carissa F. Etienne. Credit: PAHO/WHO. Right: Professor Peter Peter and Dr Tedros Adhanom Ghebreyesus.

LSHTM alumni re-elected as WHO Regional Directors

Two LSHTM alumni, Dr Matshidiso Rebecca Moeti and Dr Carissa F. Etienne, have been re-elected as WHO Regional Directors.

Dr Matshidiso Moeti from Botswana graduated with a Master's in Community Health for Developing Countries in 1986. She became the first female WHO Regional Director for Africa in February 2015 and will now serve a second term in her role.

Dr Moeti said: "I am very honoured to be nominated for a second term as Regional Director for Africa. During the past five years, I have worked to transform the WHO Secretariat so that we better respond to the health needs of millions of Africans. This nomination is an endorsement of the many achievements we have reached together with health ministries. I intend for us to scale more mountains together over the next five years."

Dr Etienne from Dominica graduated with a Master's in Community Health in Developing Countries in 1982. She became WHO Regional Director for the Americas in February 2013 and will now also now serve a second term in her role.

In her acceptance speech, Dr Etienne cited her "commitment to deliver to all of our peoples, from all walks of society, a long and productive life, with quality care into our senior years; access to quality health services without fear of impoverishment; access to medicines and vaccines that we can afford, including effective antibiotics; freedom from preventable diseases, with reduced exposure to disease vectors."

Dr Moeti and Dr Etienne will continue to work alongside LSHTM alumnus Dr Takeshi Kasai, WHO Regional Director for the Western Pacific, who graduated with a Master's in Public Health in Developing Countries in 1996 and WHO Director-General, Dr Tedros Adhanom Ghebreyesus who completed a MSc in Immunology of Infectious Diseases at LSHTM in 1992.

Professor Peter Piot, Director of LSHTM, said: "Many congratulations to Tshidi and Carissa. LSHTM has a proud history of supporting the development of global health leaders, and there is no better example than these two outstanding women whose passion, dedication and expertise is helping to save lives. I wish them well for their second term in their respective roles."

Alumni Innovators: Bismarck Dinko

Senior Lecturer, Parasite Biology and Immunity at the University of Health and Allied Sciences, Ghana

Dr Dinko completed his PhD with LSHTM in 2013.

"My PhD in Infectious and Tropical Diseases equipped me with the expertise required to be a research scientist specialising in tropical diseases in developing countries. It afforded me the right opportunities, such as winning competitive grants and becoming a research group leader in my home country of Ghana, and the network to enable my career to flourish."

"To me, innovation is about using new ideas and tools to solve existing problems or to address emerging challenges, or better still to predict future problems. In fact, innovation is required to solve global health challenges, because our health problems are dynamic and continue to change, as humans are changing in behaviour and the world continues to change as well. Therefore, innovative tools, strategies and opportunities are needed to address these challenges.

"I study malaria parasite biology and immunity, particularly the sexual stages. Therefore, with the ever-changing nature of the malaria parasite, I use new techniques/technologies to decipher parasite genetic and immune changes as transmission changes; that might be useful in the search for the ultimate cure for malaria.

"My advice to current students is to apply innovation in their thinking as they carry out their project work, to take advantage of the mentorship from their supervisors and to keep in touch with the junior and senior colleagues who form their immediate and future scientific network."

> My advice to others? Be authentic. Follow your gut. Go outside the box. And don't be afraid to own your narrative.
>
> Vanessa Kerry

Alumni Innovators: Vanessa Kerry

Co-Founder and Chief Executive Officer, Seed Global Health

Dr Kerry graduated with an MSc in Health Policy, Planning and Financing in 2005.

"I was in training as a medical doctor when I studied for my Master's. I knew that LSHTM had one of the premier public health programmes in the world, with faculty who were leaders in their field and which attracted a diverse, multinational student body. It was important to me to study in a system that was outside the United States and which explored the multifaceted aspects of health, including the historical, political, scientific, economic and social influences."

"My time at LSHTM was a remarkable educational experience. The subjects and themes I studied have been central to my career to date. In 2011, I founded Seed Global Health, a non-profit which focuses on the power of investing in health and the health workforce to transform countries. We are on an ambitious campaign to promote the power of health for social well-being, economic growth, and equity. Through partnership with governments and in-country academic institutions, we have helped train over 16,000 doctors, nurses and midwives over the last five years and have impacted hundreds of thousands of lives. Seed's unique role is in its leveraging model, where it can not only provide better care to patients but can also train future generations and support the health sector and catalyse change in the health system. Seed's vision is unique and game-changing, focused on closing the gap in healthcare that still exists in 2019."

"Innovation is finding creative solutions to make life better. In health, it means finding ways to deliver better healthcare to more people and to make meaningful improvements in reducing the pain, suffering and disease of many. For me, it can range from the dynamic new technology to – critically – an engaged and in-depth approach to systems which has never been tried. It is about solving a problem in a way no one has thought about or implemented."

"Innovation is central to solving any challenge in global health or in health writ large. There are vast health problems facing the world today, including population growth, growing inequality, existing burdens of communicable disease and growing burdens of non-communicable disease. In order to close the profound gaps in health around the globe, we need to commit to innovative thinking and audacious investment. Both are possible."

"Seed Global Health's entire approach to addressing healthcare gaps in sub-Saharan Africa is rooted in innovation. We are focusing on one of the root causes of many of the health burdens – there are not enough doctors, nurses or health providers to deliver quality care and to ensure that no patient is left behind. As we look to the global goal of Universal Health Care to which the world just committed at the United Nations this autumn, we must acknowledge that people will be essential to scaling up that care, and to ensuring we can train future generations of caregivers. Today there just are not enough providers and people are dying because of it. Healthcare will always be a human intervention, even when augmented by technology. Seed is investing in scaling up the essential health workforce that serves as the backbone of a health system, and empowering them to deliver more and better care. We leverage innovation daily to make our investments go farther and deeper, and to lay the foundation of a health system for years to come."

Innovating in global health by developing equitable leadership

When WHO Director-General, Dr Tedros Ghebreyesus, announced his leadership team in October 2017, he stated that the selected individuals reflected his "deep-held belief that we need top talent, gender equity and a geographically-diverse set of perspectives to fulfil our mission to keep the world safe."

Dr Tedros addressed a concern that we share at LSHTM: the persistent lack of true equity in global health, notably due to the lack of diversity and inclusion of leaders from the Global South on an equitable basis in decision-making. We all have a role to play in addressing this issue, including LSHTM, which is renowned for its continuing education in global public health.

LSHTM is aiming to tackle the much greater leadership education challenge: removing the current imbalance in decision-making that exists between the Global North and Global South. Our innovative 10-month programme, delivered in partnership with Chatham House London, the Graduate Institute of Geneva, and the University of Cape Town, is ambitious and distinctive. It aims to bring the art and science of ethical and equitable leadership to the field of global health. Combining three one-week residential phases with inter-residential components, the Fellows are enabled to continue their leadership positions, with the programme offering them bespoke 1:1 support from executive coaches, and senior academic mentors as support in evidence-based policy and decision-making.

The Executive Programme team strongly believes that it is only through equipping those who have direct knowledge of their communities and countries with strategic leadership skills, that we will be able to tackle major public health challenges successfully, for the benefit of populations worldwide.

If you are interested in finding out more about the Programme, either as a potential supporter or Fellow, the Executive Programme team would be delighted to hear from you.

Website:
www.lshtm.ac.uk/executive-programmes
Email:
executive-programmes@lshtm.ac.uk
Programme Director:
Dr Claire Bayntun, Clinical Consultant in Global Public Health

Executive Programme students.

Takeda and LSHTM establish the Takeda Chair in Global Child Health

LSHTM is delighted to announce the establishment of the Takeda Chair in Global Child Health, endowed by a £3million donation from Takeda Pharmaceutical Company Limited. This will support vital research to help reduce child deaths in low and middle-income countries.

Professor Peter Piot, Director of LSHTM, said: "We are honoured that Takeda have chosen to support the establishment of this Professorial Chair. It will enable a rising star to bridge research, public policy, and healthcare delivery by developing thought leadership in child survival and health through innovative research, including vaccines, neonatal care, under-nutrition, and infection diagnostics and treatments. We are deeply thankful to Takeda for their generosity as we work together to transform the health of future generations."

Professor Peter Piot, Director of LSHTM, Professor Joy Lawn, Director of the Centre for Maternal, Adolescent, Reproductive & Child Health at LSHTM, His Excellency Mr Koji Tsuruoka, the former Japanese Ambassador to the UK, Christophe Weber, President and CEO of Takeda. Credit: Takeda.

Daisy and Justina at the film screening in Nairobi; Albie Charlie films a nightclub scene; a member of the new study team. Credits: Winfred Nduku, Annie Holmes, Albie Charlie. Annie Holmes produced the film with study PIs Dr Tara Beattie and Dr Joshua Kimani, funded by a small grant from the MRC Film Festival.

Sex workers confront violence

At least 39,000 women sell sex in Nairobi, Kenya; one in four has experienced violence over the past six months. To establish the context for a new research programme, a short film introduces Justina and Daisy – their lives, challenges, humour and emerging advocacy.

Film can convey lived realities, evoke emotion, provoke strong views and, ideally, future action. Art and science can and increasingly do reinforce each other. In this case, the film provides the background to Maisha Fiti, a three-year MRC-funded study that examines the associations between violence against women, mental health concerns, alcohol and drug use, biological changes to the immune system and HIV risk. For the first time, researchers investigate the impact of gender-based violence (GBV) from the structural level to the biological. A powerful element of the study is the engagement of sex workers in its design – in the spirit of "nothing for us, without us" – so that the research contributes to the collective organising and voice of women who sell sex.

The film – **Be Your Sisters' Keeper** – was produced for the MRC Festival of Science and shown in Nairobi and London in the summer of 2019. Discussion was heated among the audience of sex workers at the Nairobi screening. Some felt that the women in the film dressed too conservatively and should have proudly worn miniskirts. One wrote: "I like the film. It's educative, emotional and has passed the message of GBV to sex workers and some solutions available, unlike in the dark past! At least there is some light at end of the tunnel."

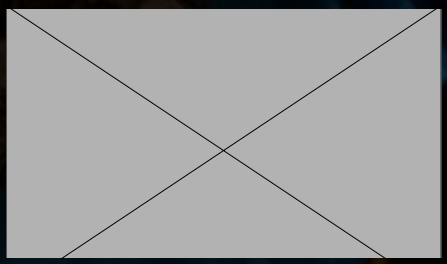
The London screening drew primarily students and lecturers in Public Health, but also practitioners working in locations including Ethiopia and Mozambique. "Really great film! Made me feel angry and sad at different points," one viewer commented. "Highlights the importance of hearing and seeing individual stories to tackle stigma rather than just hearing more statistics." We invite you to watch the film on the Maisha Fiti YouTube channel and reach your own conclusions.

Fighting infectious diseases in challenging environments: my experience with the Global Fund in Mali

The Global Fund / Catalina Martin-Chico / Panos.

My name is Chiara Valdesolo and I graduated from LSHTM in 2018 after following the distance learning MSc in Global Health Policy. I work for the Global Fund to fight AIDS, TB and malaria, a public-private global health body based in Geneva, Switzerland. Its mandate is to support countries fighting the three diseases through grants managed by local implementers, or in exceptional cases by multilateral organisations.

I am currently Programme Officer for Mali, where I am part of a team ensuring the implementation of four disease-specific grants (two HIV, one TB and one malaria) and a special initiative to strengthen the health system for a total amount of 116 million Euros. There are multiple situations



to be taken into account in the global health arena, especially if dealing with countries that not only struggle with a high burden of disease but also have limited resources. Mali is a perfect example of this: its political and security situation has been volatile since the 2012 coup d'état and its Northern and central regions face significant conflict and violence.

A UN peacekeeping mission (MINUSMA) was established in 2013, although jihadist groups keep on extending their reach in Mali and neighbouring countries. In addition to insecurity, Mali has to deal with poverty and a massive burden of communicable diseases: out of a general population of 19 million inhabitants, the estimated prevalence of malaria is 7 million cases a year, 10,000 cases of TB of all forms, with hotspots in urban settings, 1.2% prevalence of HIV (with higher rates between sex workers and men having sex with other men).

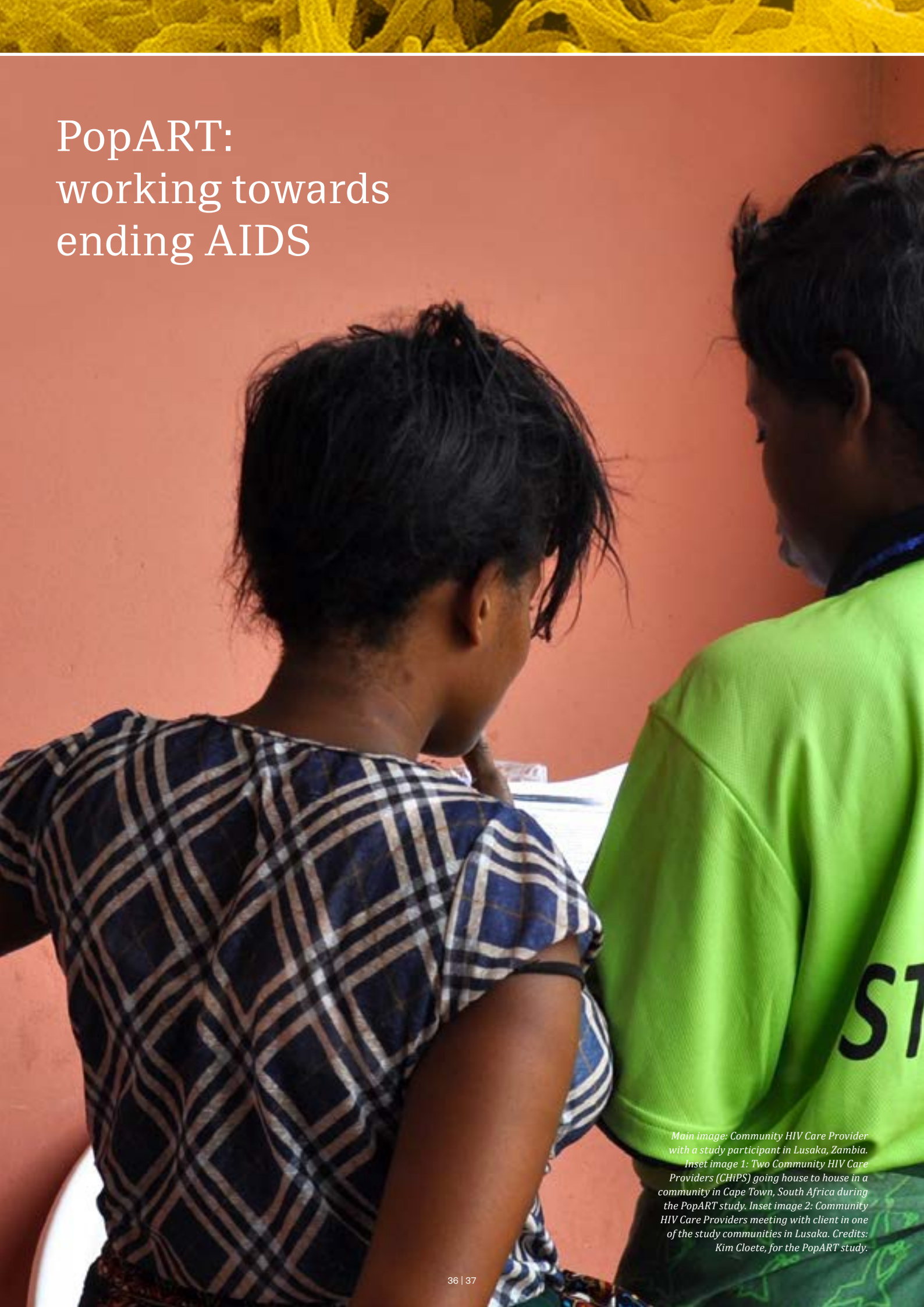
All our grants have a prevention and a treatment component to reach targets in line with the country's strategic frameworks. My work requires a strong project-management base because a grant should reach programmatic targets established in a performance framework, all the while respecting the limits imposed by the budget.

An exciting project we have now is to support the newly-launched health reform, that focuses on the reinforced role of community health workers and the elimination of user fees. The country wants to invest in its community health workers, expanding their tasks to integrate the three diseases in their service package. These health agents will go door-to-door looking for signs of infection, malnutrition and other common ailments and refer the patients to the closest community health centre. Their salary, supervision and training will be covered by the grants to offer free primary health care to the most vulnerable.

Malaria prevention is delivered through:

- Mass campaigns for the distribution of insecticide treated bed nets, including a pilot project testing second generation bed nets that reduce insecticide resistance
- Seasonal malaria chemoprophylaxis for children under five
- Intermittent preventive treatment for pregnant women
- Treatment is provided through purchase and distribution of ACT medications, or Artesunate for complicated malaria

PopART: working towards ending AIDS



Main image: Community HIV Care Provider with a study participant in Lusaka, Zambia. Inset image 1: Two Community HIV Care Providers (CHiPS) going house to house in a community in Cape Town, South Africa during the PopART study. Inset image 2: Community HIV Care Providers meeting with client in one of the study communities in Lusaka. Credits: Kim Cloete, for the PopART study.

PopART was a three-arm community randomised trial involving 21 urban communities in Zambia and South Africa, with a total population of around 1 million.

Around 37 million people live with HIV worldwide; annually nearly 2 million new infections occur. It is clear that we need more effective prevention tools for HIV if we are to bring the incidence down more rapidly and work towards the eventual elimination of HIV as a public health problem.

Universal testing and treatment (UTT) has been proposed as an approach to identify as fully as possible all individuals in a community living with HIV, testing them, and referring them to link into care and receive antiretroviral treatment (ART) without delay. This approach aims to use treatment as prevention to reduce HIV transmission and incidence at a population level. The PopART UTT intervention involved door-to-door home-based testing for HIV and referral for ART without delay by Community HIV-care Providers (CHiPs).

PopART demonstrated that:

1. UTT can be delivered at large scale.

2. UTT as offered in the PopART trial can reduce HIV incidence in entire communities – by about 20-30% - thus playing an important part in working towards "ending AIDS".

Professor Richard Hayes, Principal Investigator of the PopART Trial said: "People living with HIV who achieve and maintain an undetectable level of HIV in the blood by taking and adhering to ART, do not sexually transmit the virus to others. This is central to UTT, which aims to ensure that everyone in the community knows their HIV status, with those found HIV-positive linked rapidly to the clinic for treatment.

"These results are the culmination of 10 years of work. We are very grateful to all of our research partners, the study funders and sponsor, and especially the residents of our 21 study communities in Zambia and South Africa, without whom this research would not have been possible."

The PopART Trial was carried out by researchers from LSHTM and Imperial College London in collaboration with the HIV Prevention Trials Network (HPTN), Zambart (Zambia), the Desmond Tutu TB Centre (South Africa), and Oxford University.

It was funded by The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) –The International Initiative for Impact Evaluation (3ie) with support from the Bill & Melinda Gates Foundation–NIAID, the National Institute of Mental Health (NIMH), and the National Institute on Drug Abuse (NIDA) all part of the U.S. National Institutes of Health (NIH).

The trial was sponsored by the National Institute of Allergy and Infectious Diseases (NIAID), part of NIH.

Staff at the STRIG launch.

Introducing LSHTM's new Sexually Transmitted Infection Research Interest Group

WHO estimate that more than 1 million STIs are acquired every day, with far-reaching consequences including mother-to-child transmission, pelvic inflammatory disease and infertility in women, and an increased risk of HIV acquisition.

The Sexually Transmitted Infections Research Interest Group (STIRIG) was launched by Co-directors Dr Suzanna Francis, Dr Emma Harding-Esch and Sarah Harman, with the objective of raising awareness of STI-related research being conducted at LSHTM, and developing further collaborations.

In the opening address at the launch Professor Peter Piot, Director of LSHTM, reflected on the fact that there should be no room for complacency about STIs, despite the current euphoria about the decline in new HIV infections. Dr Teodora Wi, Medical Officer for STIs at WHO gave the keynote address, advocating for the de-stigmatisation of STIs and a more open dialogue that enables them to be discussed and treated like any other infection, in addition to a more integrated approach to STI testing and care.

New LSHTM short courses in The Gambia

We are excited to announce the launch of three new short courses this year, including our first course run in The Gambia.

Introductory Course in Epidemiology & Medical Statistics (The Gambia)

For the first time, our Introductory Course in Epidemiology & Medical Statistics will take place at the MRC Unit The Gambia at LSHTM.

The Unit is among the largest scientific research centres in sub-Saharan Africa, and for more than 70 years has developed and maintained an international reputation for ground-breaking research into some of the leading causes of morbidity and mortality in the tropics.

Modern Techniques for Modelling Infectious Diseases Dynamics

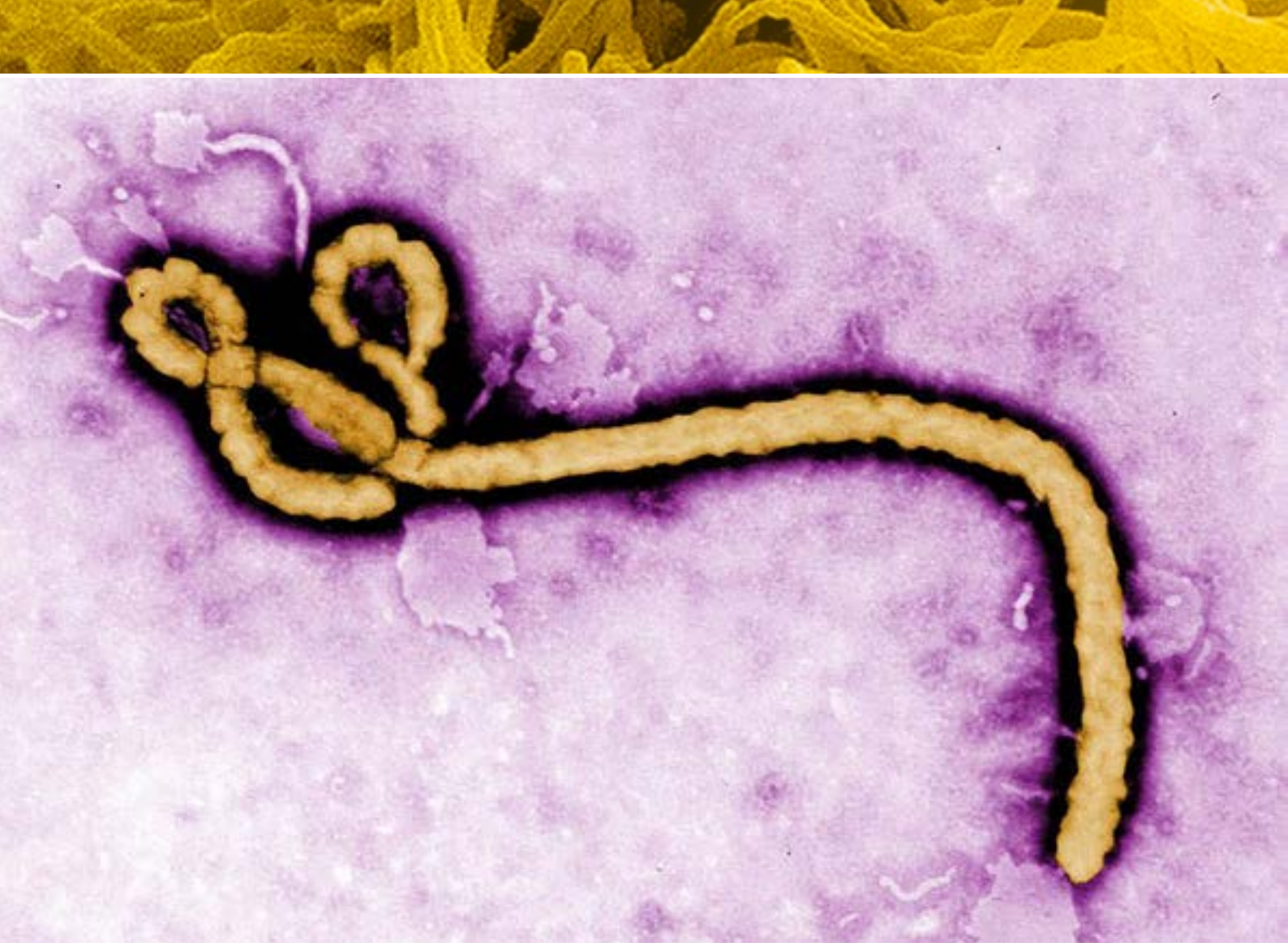
Mathematical models are used increasingly to understand the transmission of infectious diseases in populations and to evaluate the potential impact of control programmes in reducing morbidity and mortality. This new short course will aim to bridge the gap between theoretical training in infectious disease modelling, and the specialist technical skills needed for research in this area.

Introduction to Spatial Analysis

Spatial analysis is becoming an increasingly useful tool throughout public health research with increasing amounts of spatial health data generated each year. Suited to humanitarian aid workers looking to add map-making to their rapid analysis skillset and early-stage PhD students alike, this new, hands-on short course has a practical approach to teaching and uses real-life examples.

For more information on all our courses, please visit the LSHTM website.

Lab technicians carry out tests in the lab in Fajara MRC Unit The Gambia at LSHTM.



Ebola virus. Credit: Flickr/CDC.

Uganda starts Ebola vaccine trial among healthcare and frontline workers

Researchers in Uganda have started a two-year trial among healthcare and frontline workers to provide additional information and evaluate the safety and the immune response generated by an investigational two-dose Ebola vaccine regimen.

The trial, ZEBOVAC, will also generate knowledge about Ebola Virus Disease and its transmission, and perceptions about and attitudes towards the vaccine in a subset of participants. It will be undertaken at Epicentre Mbarara, Mbarara University of Science and Technology in Western Uganda and is sponsored by LSHTM.

The study aims to enrol 800 people, including healthcare workers such as physicians, clinicians, nurses and pharmacists, as well as frontline workers such as cleaners, mortuary attendants and surveillance, ambulance and burial teams.

Other participants will include healthcare staff providing non-Ebola related care which places them in contact with patients at public and private health centres or clinics.

Frontline workers, particularly healthcare workers, are at increased risk of contracting Ebola. During the early phase of the 2014-2016 outbreak in West Africa, a study in Guinea found that up to 38% of the Ebola patients were healthcare workers, with hospital-acquired infection transmissions likely in 12 of the 14 cases.

Professor Pontiano Kaleebu, Director of the MRC/UVRI & LSHTM Uganda Research Unit and trial Principle Investigator, said: “A vaccine, alongside strong community engagement, strengthened diagnosis and real time sequencing, is key to controlling Ebola epidemics. Available vaccines have been used under study conditions as primary prevention or ring vaccination approaches. However, currently there is no licensed Ebola vaccine for international use. Developing effective vaccines and treatments against Ebola are therefore global public health priorities. In this trial we hope to avail more information that will help us work towards having a licenced Ebola vaccine.”

Innovating to analyse vaccine confidence

The Vaccine Confidence Project™ (VCP) (www.vaccineconfidence.org) based at LSHTM was founded in 2009 to establish a systematic approach to monitoring public confidence in health technologies, particularly vaccines, through population-based surveys and ongoing media-surveillance, conducting in-depth analyses of vaccine confidence issues and mapping the global spread of vaccine sentiment and its impacts.

The VCP is the only research group fully dedicated to researching the roots, trends, and impacts of vaccine confidence issues in order to better inform appropriate responses.

They believe that complex research questions require multidisciplinary approaches. For this reason, the team is composed of different and complementary expertise, including (and not limited to): epidemiology, public health, social science, psychology, digital media analytics and AI. The core team mission is to produce quality research and evidence, through different and creative mixed methods approaches, in regards to drivers of vaccine hesitancy and refusal globally.

This unique initiative has developed a Vaccine Confidence Index™ (VCI) based on a select number of factors identified through extensive analysis of areas of both low and high vaccine coverage. The VCI™ provides a baseline metric on confidence to measure change, but also to identify emerging issues and co-create strategies for confidence building. The VCI™ is now being used across major studies globally, serving as a benchmark reference for governments, NGOs and international institutions, and bringing global and regional attention to the extent of vaccine confidence issues worldwide.

The Philippines, for example, has run multiple waves of the VCI™ in order to measure the impact of the recent dengue vaccine safety scare on broader confidence in vaccines, and to inform a trust-building response. The European Union has also commissioned two waves of the VCI™ across Europe, and the 2018 Wellcome Global Monitor measuring public trust in health and science in 144 countries featured a chapter on vaccines using our VCI™ questions.

Professor Heidi Larson and Emilie Karafillakis mapping vaccine confidence issues around the world. Credit: Jon Spaull.

Future innovations:
What is next for LSHTM and global health?

Today the world faces substantial challenges. We are experiencing unprecedented demographic shifts, including ageing, huge population growth and rapidly increasing urbanisation.

Endemic infectious diseases continue to be a threat, particularly in the poorest populations. We also live with the risk of emerging and epidemic infections, as well as the high probability of drug-resistant infections taking hold.

Worsening climate change and environmental degradation, as well as conflict and humanitarian crises, add to the urgency and severity of these challenges. Meanwhile, chronic conditions are the main cause of death and ill health in most parts of the world and require global understanding and response. Existing healthcare systems in high-income countries are increasingly unsustainable and we need to make rapid progress to universal health coverage in low- and middle-income countries.

LSHTM is exceptionally well placed to lead on transformative approaches to global health. We have 120 years of experience tackling big challenges like these. It is about discovering new solutions to complex problems and acting upon this knowledge. It is about working with friends, partners, and supporters to achieve large-scale, long-term impact.

Researchers at LSHTM explore all aspects of health challenges, from fundamental laboratory science to policy appraisal and analysis, encompassing statistical, clinical, laboratory, epidemiological and social science research in the UK and globally.

Our aim as we look to the future is to build strong and dynamic leadership, push the frontiers of knowledge and make an impact where it is most needed.

Kimberly Fornace, research fellow from LSHTM under the MONKEYBAR project flies a thermal camera drone in the UMS campus in Kota Kinabalu, Sabah, Malaysia. Credit: Joshua Paul for LSHTM.

Future Priorities: Improving health worldwide

LHSTM has identified strategic priorities in our efforts to improve health worldwide. To achieve health equity for everyone, we need to work together with friends, partners, and supporters to accomplish large-scale, long-term impact.

Children playing in the village of Lete Foho, East Timor, a CBM-funded project with LSHTM's Centre for Global Mental Health.

Climate change and planetary health

Never before has humanity's footprint on Earth's natural systems been so large. Since 1950, the human population has increased by nearly 200%; fossil fuel consumption by over 550%; and marine fish capture by over 350%. To protect population health, it is necessary also to protect the natural systems that sustain human life. We work to achieve the highest attainable standard of health, wellbeing and equity worldwide through judicious attention to the human systems – political, economic, and social – that shape the future of humanity and the Earth's natural systems.

Maternal, adolescent, reproductive and child health

Every year, around 10 million newborn infants, children, adolescents and women die of preventable causes. LSHTM is home to one of the largest gathering of maternal and child health experts in the world, who are helping to address this burden through cutting-edge multidisciplinary research and training programmes. Our ground-breaking studies involve a range of fields including epidemiology, economics, health systems, and the social sciences.

Infectious diseases

Complex, sometimes chronic, infectious diseases pose major challenges to improving the health of poor populations and have a profound impact on economic development. At LSHTM we work at the interface between laboratory science, clinical medicine and population health, and collaborate with colleagues and partners in more than 100 countries. We work to ensure that the results of our research can be rapidly translated into policy and practice. We translate knowledge to develop new drugs, vaccines, diagnostic reagents and disease control strategies.

Mental health

The vast majority of hundreds of millions of people with mental, neurological and substance abuse disorders in the world are not having even their basic healthcare needs met. 80% of these live in low and middle-income countries. We are working to address this inequality by closing the treatment gap. We aim to improve global capacity in policy, prevention, treatment and care for people affected by these conditions. We must also eradicate stigma surrounding mental health.

Health economics

To overcome inequalities at a population level, we need to tailor healthcare to the needs of individuals. Characteristics such as gender, ethnicity, age, disability, poverty and sexual orientation all play a role in determining a person's experience of health, as well as their outcomes, but are too often neglected in studies of health inequalities. Our work aims to improve health by informing policy, processes and approaches used to allocate resources across health systems. Our research draws on our strengths in economic data collection, statistical analysis, valuation of health outcomes, and infectious disease modelling.

Vaccines and vaccine confidence

Vaccines are an important way of responding to outbreaks of deadly infectious diseases such as Ebola, plague, Zika and Chikungunya – and for immunisation to prevent outbreaks. Research across LSHTM assesses how diseases spread and develop into epidemics in low and middle-income countries as well as the development of software and electronic tools for use in outbreaks. We also systematically monitor public vaccine concerns and disease outbreaks, considering human and anthropological perspectives on vaccines and outbreaks.

Chronic conditions

Multiple chronic conditions often cluster at the individual and population levels, requiring comprehensive and integrated approaches to their prevention, treatment and management. We promote addressing chronic non-communicable diseases and consider their interaction with other chronic conditions, in particular mental health, and chronic communicable diseases such as TB and measles. Our research is focused on finding innovative low-cost and sustainable solutions to help individuals and communities to prevent and better manage nutrition and lifestyle related diseases such as obesity, diabetes and heart disease.

Health in humanitarian crises

Humanitarian crises present a number of distinct challenges for public health interventions and research. These include violence and insecurity, mass population displacement, severely deteriorated daily living conditions and impoverishment. The Health in Humanitarian Crises Centre brings together multi-disciplinary researchers and practitioners from across LSHTM, other academic institutions, NGOs, governments and UN agencies to focus on improving the health of populations affected by humanitarian crises.

Celebrating success: Get involved in the LSHTM alumni community

Message from the Alumni Office

There are many ways you can join our anniversary celebrations and get more involved in the LSHTM community.

To mark our 120th anniversary, we are holding **120 events around the world**. Events range from lectures, receptions and networking events to informal drinks, mixers, bbqs and picnics. Our **fantastic alumni chapters** are holding at least two events each throughout the year. Check our website for the latest event listings and email us if you would like to help organise an event in your area.

We help alumni organise **class reunions**. If you and your classmates are planning a celebration or get-together, drop us a line. We can send you merchandise, help connect you with old classmates and secure you a space at LSHTM.

We recently launched a pilot **mentoring programme**. We recruited a team of energetic and well-networked alumni mentors from around the world to support students to get the most out of their studies, discuss career aspirations and build their confidence and networks. This year the programme supports PhD students and students from MSc Public Health for Development and PGCert/PGDip/MSc Epidemiology by distance learning. If the pilot is a success, we will open it to more LSHTM qualifications so watch this space.

The LSHTM alumni community is an amazing global network. You are all doing such fascinating, different things, living and working all over the world. We would love to hear from you and share your stories. We are looking for alumni to **write for our blog and magazine** about their current work and areas of interest.

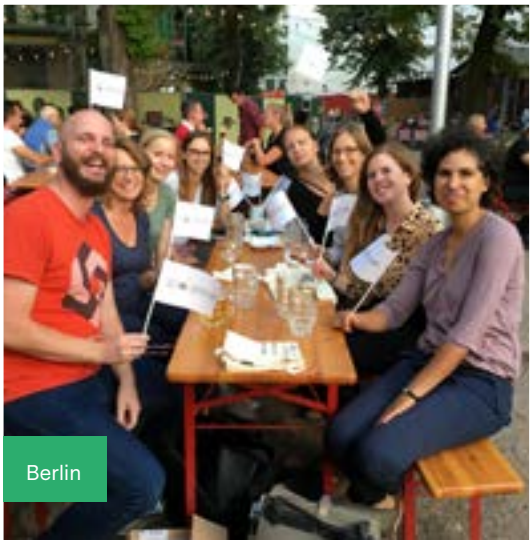
Students like to network with alumni and hear your tips and advice. This includes our programme of **lunchtime career talks** in the Autumn term and our **Alumni & Student Networking** events held several times a year in Keppel Street's Pumphandle Bar.

We love welcoming alumni (and friends and family) back to LSHTM. We will be running **tours of our London campuses** throughout the year. You can sign up to attend a tour on our website. If you live overseas and are planning a trip to London, do drop in and say hello.

Get involved – visit www.lshtm.ac.uk/alumni


Liverpool


Nairobi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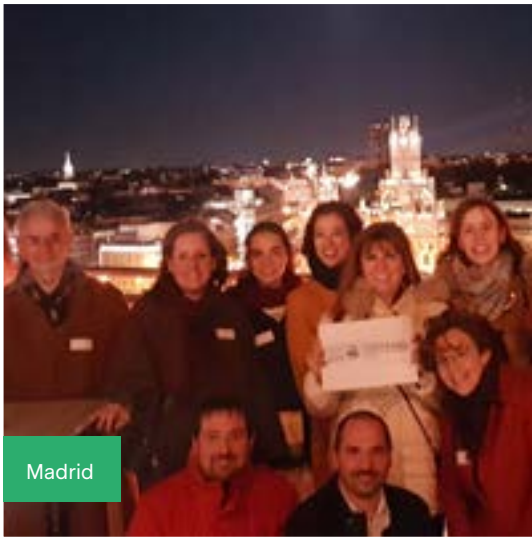
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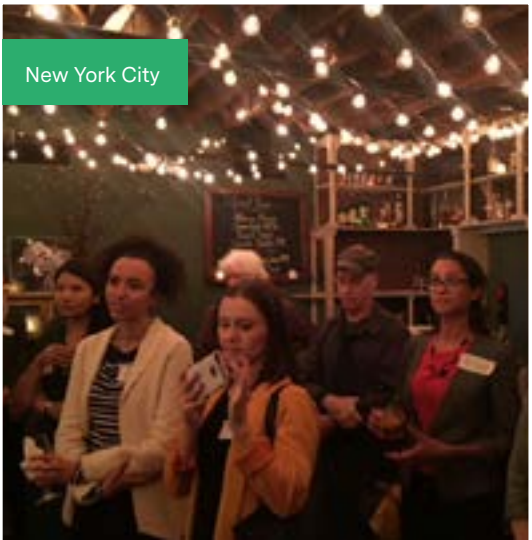

New York City


London

Building for the future through philanthropy

Innovation requires 21st-century facilities: highly flexible, technologically advanced physical spaces designed to inspire and facilitate fast-paced, interdisciplinary work. We are transforming our historic spaces to provide a high-quality, flexible and sustainable environment for research and education.

Our iconic Keppel Street building is being refurbished to include new laboratories, teaching facilities, better use of available space and essential upgrades to infrastructure. The project will see laboratories clustered together to promote collaborative working. New social spaces and write-up areas for researchers and students will provide a more versatile and effective learning environment, while fostering the exchange of ideas.

The first stage of our redevelopment project saw the creation of two new laboratories within the north courtyard of Keppel Street. The second-floor laboratory is now home to a large microbiology research group, which employs genetic, molecular, cellular and biochemical techniques to gain a comprehensive understanding of how pathogens evolve, function and interact with their respective hosts. This research will lead to the production of vaccines and antibiotics against diseases such as meningitis, pneumonia and diarrhoeal diseases.

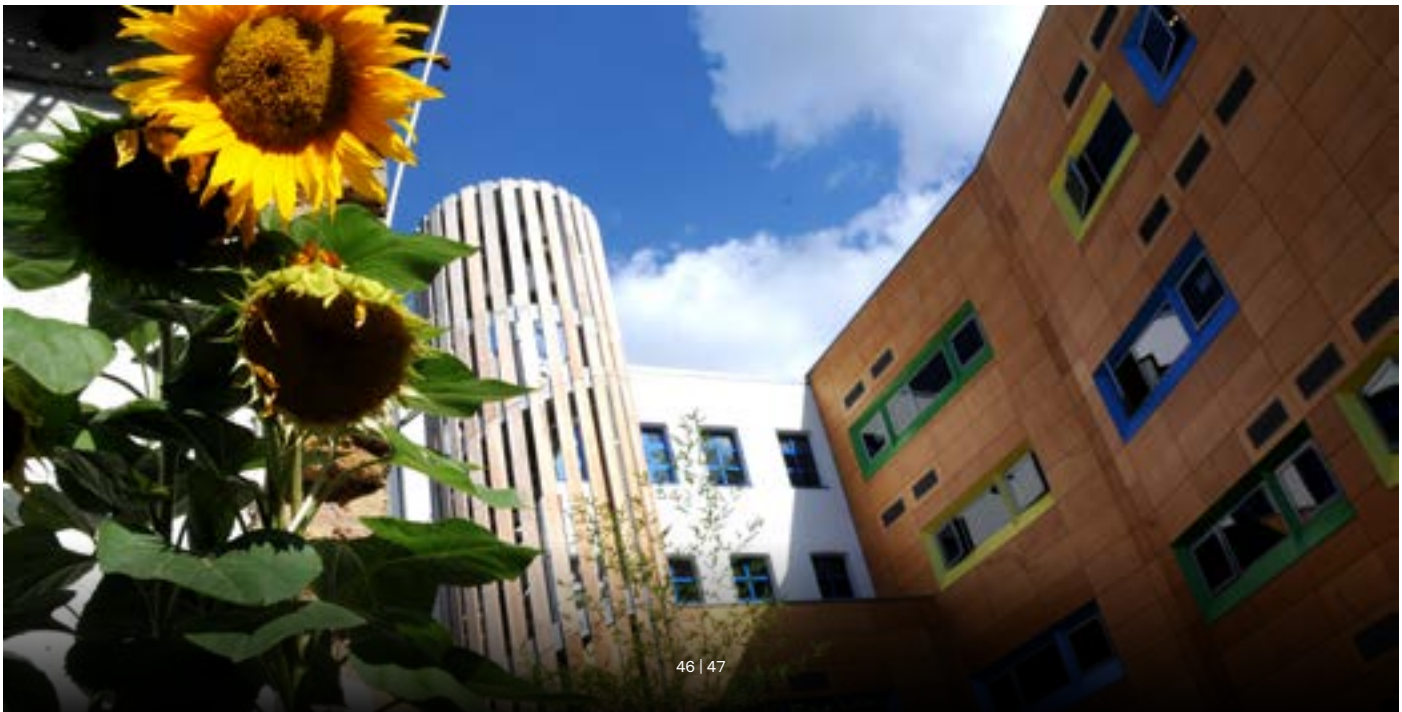
The laboratory has been named in honour of Professor Robert Wissler following a major donation made by his daughter Mary Graham and her family in 2017. The Wissler Laboratory has been dedicated to the many courageous men and women who have devoted their lives to improving public health.

The Wolfson Malaria Suite was also completed during the first stage of the project and has enabled all of LSHTM's malaria research groups to come together, sharing not only a physical environment but vision and co-direction. The facility can accommodate 35 researchers, specialised equipment, a Containment Level 3 research suite, improved housing for parasite cultures and robotics capacity to enhance high throughput processing and analysis of samples. With the generous support of the Wolfson Foundation, we have been able to install state-of-the-art equipment for the research group.

This follows decades-long support from the Foundation which has helped establish our School as a global leader in public health. The Wolfson Foundation has impacted numerous areas and aspects of our School, ensuring our ability to stay at the forefront of innovation and change. Equally as important, support from the Wolfson Foundation has helped us deploy research in real time in response to crises, develop innovative programmes for major health threats and train future generations of public and global health leaders and researchers.

Everyone at LSHTM is deeply thankful to the Graham Family and the Wolfson Foundation for their generosity and commitment to our work and mission.

> "Visionary philanthropic support, such as this, is an investment in LSHTM's world-class talent, technology and infrastructure. It will have a transformational impact on our research, learning experience and environment for years to come."
>
> Valerie Boulet, Director of Development & Alumni Relations.



World-class facilities for future health leaders

Sustained efforts over the past decades have expanded our research innovations and global impact, helping to crystallise the need to reimagine our physical spaces and what happens within them.

Today, we have the opportunity to create a new home for the Faculty of Epidemiology and Population Health and have embarked on a major construction project at Tavistock Place. We want to build our future with environments that enliven thinking, encourage interdisciplinary conversations and are equipped with technology that propels exploration and discovery. This initiative will bring together epidemiologists and related disciplines, focusing on the study and analysis of the distribution and determinants of health and disease through clinical trials, large-scale studies and evaluation of public health interventions.

This vital new facility, Tavistock Place 2, will be a four-storey, 2,350 m² addition to our School's estate. With space to accommodate over 350 staff, the building has been designed with collaboration and partnership in mind, to ignite imagination and the thrill of discovery in all at LSHTM.

Long term philanthropic support is essential for the success of this major initiative. We have already received significant support from the Garfield Weston Foundation, the MBI Al Jaber Foundation, the Charles Wolfson Charitable Trust, as well as a number of individual supporters, while continuing to seek more partners to make this project a reality.

We invite you to join us and find out how you can help LSHTM build world-class facilities by emailing Valerie Boulet, Director of Development & Alumni Relations at development@lshtm.ac.uk.

The next 120:
Predictions for the future

We asked some of our academics to gaze into their crystal balls and imagine what the future might bring. From TB testing to teleportation, they told us what could, should or might just be the stand-out future developments in global health.

Professor Anne Mills
Deputy Director

"My area of expertise does not lend itself to magic bullet-like innovations. However, collated information on the functioning of health systems is a major lack at all levels, both system-wide and at each service level, e.g. a hospital, a ward, a health centre, and from an individual patient's perspective. So, one great advance would be a method of collating and displaying real-time information about what is going on. This would mean, for example, that a manager in charge of a health centre could see at one glance number of patients waiting, being seen, and with what diagnoses and treatments; health worker activities and time use; medicines used, expenditure and so on.

"This information could then be collated daily, weekly and monthly at facility-level to track patient data, resource use and performance, and then aggregated to assess performance at a system-wide level."

Alison Grant
Dean of the Faculty of Infectious and Tropical Diseases

"Since I work on TB, if I could wave my magic wand, I would wish for an accurate, low-cost test for TB that nurses could use in rural clinics.

"If a second wish was available, it would be for a new TB treatment combination which was much shorter than the current six months.

"And the third wish would be that it worked for drug-resistant TB also."

Liam Smeeth
Dean of the Faculty of Epidemiology and Population Health

"My hope is that we turn the tide and start to focus our efforts more on how we help people live healthy, happy lives rather than a focus on treating disease. There is of course absolutely nothing wrong with treating disease and progressing medicines remains important, but a more desirable – and more ambitious – aim is to prevent disease happening in the first place. The amount of money spent developing new drugs is gargantuan compared to the amount spent developing strategies to prevent diseases happening.

"We have had some successes where I am proud to say LSHTM has played a leading role, such as vaccination programmes, reducing malaria risk, and improving antenatal care. But even in these areas, many of the world's poorest people are missing out. As well as tackling these inequalities, my hope would be to see the health research agenda fully embrace and invest in broader long-term determinants. Why do some people take up smoking and others don't? What promotes a lifelong appetite for physical exertion? What drives and what can we do about obesity in younger generations? What are the factors that determine long term resilience and mental health and that promote loving, caring relationships? What do our children most need to become the next generation that cares about the people close to them, but also cares about the planet as a whole?"

Kara Hanson
Dean of the Faculty of Public Health

"I've been thinking about how we can reduce our carbon footprint, while still engaging in the collaborative research partnerships that enable us to do great science in different parts of the world.

"The various incarnations of modern telecoms – video conferencing, Skype, Zoom – all work well when you have already established a relationship, but they don't carry the advantages of face-to-face meetings when you are starting a new collaboration. So I would like (someone) to invent some form of teleporter machine that will move me across the world instantaneously at zero environmental cost. It would nice if this could be accompanied by a pill that eliminates jetlag. Of course, this isn't really a new idea – my mother always wanted to be able to fax herself to places!"

Thank you to all our amazing fundraisers

Whether you have an interest in baking, running, sky diving, knitting, cutting your hair off or sitting in a bathtub of baked beans, there may be something you could do to help support LSHTM's important work.

Generating excitement around a challenge, or bringing people together for a cause you feel passionate about helps raise vital funds for LSHTM projects.

In 2018, MSc Public Health alumnus Luis Guerra and Epidemiologist and LSHTM scientist Dr Paul Mee ran the London Marathon, raising £3,000 for scholarships and the Steve Lawn Memorial Fund. Meanwhile, the Electronic Health Records Group at LSHTM cycled from London to Paris, raising over £20,000 for the Adrian Root Memorial Prize supporting LSHTM MSc Epidemiology students each year.

This summer Jen, a friend of LSHTM, decided to run the marathon for her brother Dave, who has ME, because, for him, every day is like running a marathon. In honour of their childhood dream, Jen decided to make the most of the opportunity and raised £3,050 to support CureME, home of the UK's first ME Biobank, leading ground-breaking research into ME/CFS, based at LSHTM.

Whether you'd like to run the London (or any other) Marathon, freefall out of a plane, ride your bike, put on an event, or host a cake sale, we would love to hear from you. By supporting LSHTM, you can raise the profile of our world-changing institution and contribute towards improving global health equity.

Please contact Alumni@LSHTM.ac.uk if you have an idea and would like to take on a challenge.

Top: Paul Mee running the London marathon. Credit: Paul Mee. Middle: ME/CFS fundraiser taking part in a sponsored run. Bottom: Sponsored cycle to raise money for the Adrian Root Memorial Prize.

Thank you to everyone who has supported LSHTM

Thank you to everyone who supported LSHTM in the last academic year (1 August 2018 to 31 July 2019). Your contributions have helped to fund scholarships enabling the brightest minds to study at our School, as well as supporting vital research projects.

THE DIRECTORS CIRCLE & THE FIRST 500

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Clarissa Oeser
Karen Ofosu-Orchard
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Graham White
Susan Wighton
Dan Wiklund
Lesley Wilkes
John Wilkie
Mairwen Wilkinson
Rachel Wilks
Geoffrey Williams
Frances Williams
Hannah Williams
Kenneth Wrixon
Wing Choy Yeen
Luisa Zuccolo

Alumni Letters

"LSHTM changed my world by opening my eyes to the international public health era. I could contribute enough to the newly designed health system of Afghanistan after 9/11. I was selected as Health Hero by the senior leadership of MoPH Afghanistan due to my contribution to the health system. I have contributed and implemented 14 different health projects for the past 15 years and committed to serve for the needy community in my country. I have dedicated myself to contribute and improve the health of the most needy people in the world especially Afghanistan."

Mohammad Khakerah Rashidi

"The 2019 outbreak simulation exercise for the module 'Epidemiology and Control of Communicable Diseases' was a unique opportunity to work in a multidisciplinary team and apply multiple skills that I had during my training at LSHTM. My team passed with distinction!"

Benjamin Momo Kadia
(Read his full profile on the LSHTM blog)

"The best outcome of my year at LSHTM was meeting my wife. Julie, now Chaccour then Oetzel, (Immunology of Infectious Diseases 2007-2008). We have been married for 10 years now and have five children. A completely undeserved turn of events for a cocky young MD."

Carlos Chaccour
(Read his full profile on the LSHTM blog)

If there is anything you want to share with your alumni community, we would love to hear from you. Email us at **Alumni@LSHTM.ac.uk**

The difference your gift makes

LSHTM attracts some of the brightest and best students from around the world. Our students drive the discovery and implementation of big and important ideas and go on to become public health leaders, medical practitioners and researchers at the forefront of global institutions. But for many students, meeting study and living costs in London is often an insurmountable hurdle, far beyond their families' financial capacity. Consequently, their place at LSHTM can become threatened by financial insecurity.

In order to remove finance as a barrier, we have worked closely with our alumni and supporters to create scholarships for deserving students who would otherwise not be able to afford the cost of studying at LSHTM. The financial stability that this support brings can often make the difference between students completing their studies or having to abandon their plans and future aspirations. Your generosity and kindness can help change someone's future, creating opportunities for LSHTM students who need them the most.

Esther, an MSc Public Health student and recent scholarship recipient says: "The scholarship I received means a great deal to me. Firstly, I am able to study at a world-class university that otherwise I would not be able to due to my limited financial background. Secondly, I can concentrate fully on my studies and maximise the opportunities provided by LSHTM. This scholarship has made my dreams come true. I intend to help other students in future to achieve their dreams and give back to the community. Thank you very much."

Support a student like Esther today
www.lshtm.ac.uk/donate

Why I volunteer

Jana Orac has volunteered for LSHTM since 2009 as Leader of our Toronto Alumni Chapter. Here she tells us why she gives her time to the School over a decade after graduating:

"I have tremendous respect for LSHTM, and for the faculty and staff. My experience at LSHTM was that instructors not only had incredible knowledge and experience, but also were sincerely dedicated to sharing it effectively - not just delivering a lecture, but making sure that students truly grasped the content and that our questions were answered. So it's really my pleasure to give my time to LSHTM.

"On top of that, we have a fantastic group of alumni in Canada, and all of our events bring out people who are smart, friendly and interesting. What's not to like?"

Jana Ora
Public Policy Consultant
MSc Public Health

Why I donate

Tanisha Carino, one of LSHTM's Court members, is one of many friends who make regular gifts to support our students and research:

"LSHTM is at the forefront of improving global health and reducing human suffering. Its role in training the next generation of leaders, giving voice to human suffering, and working with world leaders is unparalleled.

"There are great opportunities at LSHTM to collectively make a difference to health around the world and I am honoured to provide my support to their mission."

Tanisha Carino, Ph.D.
EVP, Chief Corporate Affairs Officer
Alexion Pharmaceuticals, Inc.

Why I remember LSHTM in my will

David Adams has committed to leaving a legacy to the School in his will:

"I have designated in my will that my personal library of about 1,500 books be sent to LSHTM. I support LSHTM because of the excellence of its work and because it was for me the best academic experience I have ever had, bar none.

"I hope that my books will be of benefit to future LSHTM students and researchers as they continue the important work of the School and its alumni community".

David Adams
Professor
Point University, MSc Infectious Diseases

Spotlight: Cheryl Whitehorn

What is your role at LSHTM?

Principal Scientific Officer – Entomology.

How long have you worked at LSHTM?

First started at the School in October 1988 but I have had two years off for good behaviour 1990-1992.

What is the best thing about your job?

Teaching the students to love things that they never thought they would be interested in!

Can you tell us about your office pets?

I have "Pink" a salmon pink bird-eating spider (*Lasiodora parahybana*). She is about 14 years old and a very effective staff repellent. Also about 16 Giant Spiny Stick Insects (*Eurycantha calcarata*) and a large pot of American cockroaches (*Periplaneta americana*). But of course these are not pets, these specimens all have an important role in our teaching and public engagement!

Which insect is the best?

Our colony of Triatoma infestans, triatomine bugs from Paraguay. We have had them since 2009. They are large (30 mm) blood-sucking bugs that are vectors of Chagas disease. Very expressive antennae, light on their feet and painless when biting. What's not to love?

What are some of your favourite memories from your time at LSHTM?

I used to play Right Wing on the LSHTM hockey team in the early 90s. I really enjoyed studying for the MSc in Medical Parasitology in 1992-93. In November 1999 I took part in the Lord Mayor's Show to help celebrate the School's centenary. In the autumn of 2000 I worked on a mosquito control program in East Timor with colleagues from the School. In 2007 a post doc managed to set fire to a lab 8 minutes after I lent them a Bunsen burner. They assured me that they knew what they were doing! In December 2011 MSc TMIH held a pantomime where they all dressed up in elaborate costumes as parasites and vectors. The triatomine bug costume was my favourite!

What are you looking forward to in the next year?

Our annual field trip to Slapton in Devon is always a highlight each year. We take students out to sample the parasites of large mammals (sheep, cows, ponies and pigs), small mammals (woodmice and voles) and fish (perch and roach). We look at vectors and collect blackfly larvae, freshwater snails and Lyme disease ticks.

I also look forward to meeting students again who return to the School as PhD students, research assistants, lecturers and visitors, years after I taught them as MSc students.

Top tweets

Susie Kitchens
Follow

Nairobi chapter of @LSHTM_Alumni celebrating #LSHTM120. World-class #publichealth professionals tackling big challenges: Ebola vaccine, safe surgery, malaria, maternal & child health, health policy, economics of service provision bit.ly/2lu3O12

Toyin Saraki
Follow

I was delighted to accept an invitation from Prof Peter Piot to celebrate 120 years of the London School of Hygiene & Tropical Medicine.

There is no doubt that in another 120 years the @LSHTM will still be at the forefront of research-led education programmes in public health

Claire Bertschinger
Follow

Sitting with @zambezi40 on The Friendship Bench -a wonderful initiative developed in Zimbabwe to bridge the mental health treatment gap friendshipbenchzimbabwe.org @LSHTM_Alumni #LSHTM120 #nursing #mentalhealth #zimbabwe

Royal Society of Tropical Medicine...
Follow

Happy birthday to our partner @LSHTM as they celebrate 120 years of health innovation! bit.ly/2pfpxvj

LSHTM celebrates 120 years of health innovation | LSHTM
Global and public health leaders join staff, students and alumni from the London School of Hygiene & Tropical Medicine (LSHTM) to celebrate the world-leading

Sara Dada
Follow

In honor of #AdaLovelaceDay and #LSHTM120 this year, I'm thinking about some of the FEMALE giants in #globalhealth like Florence Nightingale, Marie Curie and Alice Ball who have paved the way for other #WomenInSTEM and can't wait to see their names on @LSHTM's building! #ALD19

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YOU ARE IMPORTANT TO LSHTM...

That's why we always do our best to keep you, our alumni community, up to date with what's happening at LSHTM and engaged with events, reunions, volunteering opportunities and fundraising campaigns. However you choose to get involved, we'll always respect your rights and choices. We want you to be aware of our latest privacy statement: www.lshtm.ac.uk/data-protection

We promise to respect any personal data you share with us, and keep it safe. We aim to be clear when we collect your personal information, and not do anything you wouldn't reasonably expect. We will tell you what we will, and will not, do with your personal data.