Cambridge Institute of Public Health

Cambridge: A Leader in Public Health
What We Do

We are a membership organisation:

The Cambridge Institute of Public Health is part of the School of Clinical Medicine at the University of Cambridge. It is a multi-disciplinary partnership of public health researchers and professionals contributing to the improvement of the health and wellbeing of the global population. We believe that respecting and understanding the different types of contribution and knowledge, achieved through essential and equal partnerships, must underpin any chance of sustainable change.

Our Mission

Improve the health of the public through research, teaching and analysis and promote wellbeing, prevent disease and reduce health inequalities.

In public health and population sciences, our members:

- Produce world leading research
- Educate scientists, clinicians and public health professionals
- Analyse and interpret population health evidence and data
- Lead the way with novel methodological approaches
- Inform and support health policy development and implementation

Strategic Aims

The Cambridge Institute of Public Health (CIPH) works to achieve our mission by acting as a:

- **Gateway to public health at Cambridge**, providing an overview of what’s happening in public health across the University, highlighting our members’ research and latest discoveries
- **Facilitator of new research collaborations**, between our members, our cross-University PublicHealth@ Cambridge Strategic Research Network and our globally located collaborators
- **Supporter of research impact**, making sure our members’ research makes a difference in the real world through our work with public health professionals outside of academia, including policymakers and practitioners
- **Producer of future leaders in public health**, through our multi-disciplinary graduate teaching, supervision, mentorship and career development events for early to mid-career researchers
- **Resource hub** for our members, providing them with funding guidance, communications and networking resources
The art and science of public health has historically transformed the health of populations around the world. Improving and sustaining the health and wellbeing of the whole population can only be achieved through the organised efforts of society. This effort encompasses many disciplines and approaches tackling a broad range of topics, such as understanding the role of socio-economic, cultural and environmental conditions, lifestyle factors and health inequalities, to the study of infectious diseases and genomics. We bring together leading scientists, public health leaders and stakeholders to tackle these pressing public health issues.

**Why Does Public Health Matter?**

**Determinants of Health and Wellbeing**

Recreated, based original The Dahlgren-Whitehead rainbow, 1991
Who We Are

Members
Our members include academic departments and research units from the University of Cambridge, Public Health England, the Medical Research Council, the PHG Foundation and Institute-based public health research programmes.

Management & Governance
Professor Carol Brayne has been Director of CIPH since 2007. CIPH is steered by its Executive Committee, comprising of senior members and appointed representatives, who report annually to its Committee of Management.

CIPH projects and activities are delivered by the CIPH Strategy and Coordination Team, led by Dr Danielle Cannon.

Find out more: www.iph.cam.ac.uk/governance

PublicHealth@Cambridge Network
We host the PublicHealth@Cambridge Network, a community of Cambridge based researchers. The Network connects academics working across disciplines, from economics and engineering to computer science and law, to foster innovative collaborations that have the potential to tackle today’s most pressing public health issues.

Members can find collaborators, publicise their public health expertise online, attend events, such as the annual Network showcase and early career researcher events, and access free resources such as our funding hub and special interest groups (Health Economics, Evidence, Nature Health and Built Environment group).

All Cambridge University researchers or associates through CIPH, whose interests intersect with Public Health are eligible to join the Network.

Sign up to our Network here: www.iph.cam.ac.uk/network
Contact our Network Coordinator to find out more: coordinator@publichealth.cam.ac.uk

Public Health at the University of Cambridge – PHE Academic Liaison Committee
The CIPH has longstanding links to public health colleagues in the NHS, and since 2013, in Public Health England (PHE). These relationships provide an excellent vehicle for the development of strong strategic collaborations that will enable the direct engagement of public health researchers with key policymakers and advisors in government.

Through our PHE Academic Liaison Committee and Dr Rosalind Parkes-Ratanshi, a PHE funded lecturer at CIPH, we aim to highlight and strengthen collaboration between these organisations.

CIPH Honorary Positions
Our network of CIPH Honorary Positions connects us with international leaders in public health working in policy, practice and academia beyond Cambridge.
Global Public Health

Our members’ research, teaching and practice places a priority on improving health and health equity for populations worldwide.

CIPH academics have long-standing links with collaborators in low, middle and high-income countries around the globe. Their projects include:

- **South Africa, Cameroon, Kenya, Caribbean**
  The Community Food Production and Health (CFaH) project is designed to help establish a research programme that has the combined scientific disciplines and approaches necessary to carry out high quality evaluations of community-based food production initiatives in low and middle income countries (LMICs). Lead: Dr Nigel Unwin (MRC Epidemiology). Award: Global Challenges Research Fund.
  www.mrc-epid.cam.ac.uk/research/global-public-health/community-food-production-health/

- **Sri Lanka**
  The Strengthening Health research by Improving Noncommunicable disease Epidemiology in Sri Lanka (SHINES) is a 20,000-person prospective cohort study in Sri Lanka. UK leads: Dr Rajiv Chowdhury, Professor John Danesh and Dr Emanuele Di Angelantonio (DPHPC).
  http://www.phpc.cam.ac.uk/people/ceu-group/ceu-senior-academicstaff/rajiv-chowdhury/

- **Malaysia**
  The Malaysian Acute Vascular Events Risk (MAVERIK) study is a 5,000-person case-control study of cardiovascular disease. UK leads: Dr Rajiv Chowdhury, Professor John Danesh and Dr Emanuele Di Angelantonio (DPHPC).
  http://www.phpc.cam.ac.uk/people/ceu-group/ceu-senior-academicstaff/rajiv-chowdhury/

- **Bangladesh**
  - The Cambridge Programme to Assist Bangladesh in Lifestyle and Environmental risk reduction (CAPABLE) study has the ambitious goal of recruiting 100,000 people from landscapes ranging from the green paddy fields of rural Bangladesh to the slums of the densest city in the world – Dhaka. From their data, engineers, sociologists, health researchers and a host of other disciplines will try to understand how the risk factors interact and build a model that can be used to test interventions before they are implemented. UK Leads: Professor John Danesh and Dr Rajiv Chowdhury (DPHPC). Award: Global Challenges Research Fund.
  - The Bangladesh Risk of Acute Vascular Events (BRAVE) is a pioneering 16,000-person case-control study of cardiovascular disease. BRAVE has recruited over 7,500 first-ever myocardial infarction cases and 7,500 healthy controls from the capital Dhaka city. Information and biological specimen routinely collected include data using a 400-item questionnaire, physical measurements, blood, toe-nail and extracted DNA samples from all participants. UK leads: Dr Rajiv Chowdhury, Professor John Danesh and Dr Emanuele Di Angelantonio (DPHPC).
    www.phpc.cam.ac.uk/ceu/internationalvascular-health/braive/
  - The BangladEsh Longitudinal Investigation of Emerging Vascular Events (BELIEVE) is a 100,000-person prospective cohort study in Bangladesh. UK leads: Dr Rajiv Chowdhury, Professor John Danesh and Dr Emanuele Di Angelantonio (DPHPC).
    www.phpc.cam.ac.uk/ceu/internationalvascular-health/believe/

- **Uganda**
  - The Anti-Retroviral Therapy Access Application (ARTACESS APP) project aims to develop a mobile phone application for delivery of HIV drugs to patients through community pharmacies in Uganda. UK Lead: Dr Rosalind Parkes-Ratanshi. Award: MRC DFID Health Systems Research Initiative.
  - Pictures of Ageing in Uganda; A partnership to explore demographics, phenotype and self-perception in a community of older people. UK Leads: Professor Carol Brayne, working with Dr Alice Reid (Department of Geography), Professor Zoe Kourtzi (Department of Psychology), in collaboration with Makerere University and 32° East, an arts NGO in Uganda.

- **Global Liaison Committee**
  CIPH established the Global Liaison Committee to encourage information sharing between our members working in global public health. The committee also works with policymakers to create impact, and their cross-disciplinary expertise informs teaching at Cambridge.
Collaborators

CIPH is involved in a number of important research collaborations that enable our researchers to work with a broad range of local and global academics and professionals to produce high quality research. Our collaborations include:

University of North Carolina, Gillings School of Global Public Health (UNC)

The UNC-UC collaboration between CIPH and the Gillings School of Global Public Health was established in 2012 and builds on the two Universities’ complementary strengths in biostatistics, epidemiology, obesity, noncommunicable diseases, ageing, health behaviours and global health. To date this successful partnership has led to a variety of publications, new linkages and eight ongoing collaborations:

- Building new partnerships between health services research centres
- Advancing longitudinal and missing data methodology for ‘big data’ research in health
- Simulating New Research Initiatives and Sustainability
- Developing a novel app to link dietary behaviour to environmental sustainability
- Mobile data collection on marketing and regulatory compliance of tobacco, alcohol and food retailer
- 360° cameras to capture environmental cues in real-time for smoking, eating and drinking in the UK and US adults
- Evidence-based solutions to reduce exposure to waterborne diseases
- Reducing dementia risk factors later in life
- Did you know... Cambridge ranked in the top 3 UK Universities for quality of research output in public health, health services and primary care during the last Research Excellence Framework (REF)

Teaching And Training

CIPH members work together to train to train the public health leaders of the future, through our MPhils, PhD opportunities, career development training and fellowship programmes:

Undergraduate

Public health training is part of the University of Cambridge Undergraduate Medicine degree. CIPH collaborates with the Department of Public Health and Primary Care, School of Clinical Medicine, to provide our cross disciplinary expertise for this training. Approximately 270 students enroll on this course each year.

Postgraduate

Three Masters Programmes are offered by the University, two taught and one research. These are overseen by our members in the School of Clinical Medicine.

- The MPhil in Epidemiology was established in 1992 and admits 10-15 students each year.
- The MPhil in Public Health admits around 15-16 students each year.
- The MPhil in Primary Care Research is a research degree, although there are significant taught components. This course admits 3-5 students each year.

“"All the interesting jobs that I wanted to do required a Masters in Public Health… I found in this widely recognised Masters an opportunity to explore my interests and truly understand public health, and build the core academic skills that I needed and an introduction and the opportunities to work with world class academics and learn from peers from a range of backgrounds.”

Eleanor Turner Moss, MPhil in Public Health, 2017

PHD Students

PhD students are expected to have a Masters or to engage in our 1-year Masters course before pursuing a 3-year project-based doctoral programme. There are currently over 100 PhD students across CIPH embedded in their host research teams.

Find more out and apply here: www.iph.cam.ac.uk/study/teaching
Public Health Training

NHS Public Health Registrars undergo specialist training to enter the General Medical Council Specialist Register (for medics) and the UKPHR (for non-medics). Many registrars do the full time MPhil in Public Health in their first year of training, and then go on to do an academic placement within our members’ academic departments.

CIPH is the lead centre for a multi-institutional Cognitive Function and Ageing Doctoral Training Programme in Dementia funded by the Alzheimer’s Society.

Additional training is provided to match needs. The MRC Epidemiology Unit, for example, offers initial foundation training in the basic sciences of public health research and the completion of a PhD and post-doctoral training to develop specific research skills, topic expertise and leadership skills to support and guide researchers towards senior investigator roles.

Leadership in Public Health

The Dennis and Mireille Gillings Fellowships in Global Public Health Leadership, were established in 2016 as a collaboration between the University of Cambridge and the Institute Pasteur in Paris.

Designed to advance the next generation of public health leaders, the three year post-doctoral fellowships aim to instill financial acumen and business entrepreneurship against a backdrop of research excellence, all at a formative stage in the careers of young scientists.

The Gillings Fellows receive public health leadership skills training during the first year of the fellowship, followed by one-to-one professional coaching in years two and three.

The research focus of the two current fellows covers two areas critical to the provision of sustainable global public health solutions: emerging infectious diseases and the public health of autism.

Find out more: www.iph.cam.ac.uk/public-health-leadership

“Today’s complex public health challenges demand leaders with strategic vision, excellent leadership skills and an ability to negotiate local, national and global health systems with ease. With the generous support of Drs Dennis and Mireille Gillings, we are now able to train future public health leaders who possess these skills through the Dennis and Mireille Gillings Fellowships in Global Public Health Leadership.”

Professor Carol Brayne CBE, Director of Cambridge Institute of Public Health

“An absolutely incredible experience. Being able to mix such a broad range of different skills and sets of development areas into a single programme is something that is absolutely fascinating for young researchers.”

Andres Roman-Urrestarazu MD PhD, Gillings Fellow in Autism Research and Global Public Health

Impact

We work with public health stakeholders, policymakers and practitioners to enable the translation of research into practice. In only this way can research make a difference in the real world. Our CIPH Public Health Policy Coordinator supports our impact by:

- providing resources such as best practice guides and case studies
- hosting events that connect researchers with regional, national and international stakeholders
- enabling one to one discussions with academics
- fostering links between our researchers and policymakers

Visit: www.iph.cam.ac.uk/public-health-policy/resources, or contact our Policy Coordinator to find out more: enquiries@iph.cam.ac.uk

A sample of CIPH members’ impact activities, include:

PREDICT (www.predict.nhs.uk) is a user-friendly, web-based prediction and treatment benefit tool aimed at aiding breast cancer multi-disciplinary teams in the management of women with early breast cancer. It was developed by the Department of Public Health and Primary Care (Professor Paul Pharoah) in collaboration with colleagues at the Department of Oncology, and the Cambridge Breast Unit at the Cambridge University Hospitals NHS Foundation Trust.

Funding was provided by Cancer Research UK and other sources. One of the key decisions in the management of women with early breast cancer is whether or not to offer adjuvant chemotherapy in conjunction with primary surgery and radiotherapy.

PREDICT was developed to enable clinicians to estimate the absolute benefits of chemotherapy in order to ensure treatment is targeted at those women most likely to benefit.

Making significant contributions to the Chief Medical Officer’s Generation Genome report
Events

We run events series for our members and wider public health stakeholders, these include:

Annual Public Health Lecture

This event series presents an opportunity for public health researchers, policymakers and professionals to come together to discover and discuss the latest public health research breakthroughs at Cambridge.

Each year we invite a leader in public health to deliver the keynote lecture, previous speakers include: Dr Flavia Bustreo (former Assistant Director-General, Family, Women’s and Children’s Health, WHO); Professor Dame Sally Davies (Chief Medical Officer for England) and Dr Julio Frenk (President of the University of Miami).

Bradford Hill Seminars

Cambridge Institute of Public Health’s flagship events programme invites nine world leading public health academics a year to speak to and connect with our researchers and students.

PublicHealth@Cambridge Network Showcase

This annual conference brings together researchers from across all six schools of the University who are signed up to our Public Health Network. It encourages collaboration between researchers of different disciplines to tackle major public health challenges in novel and innovative ways.
A Guide To CIPH Members

Department of Public Health and Primary Care (DPHPC)
The DPHPC, headed by Professor John Danesh, comprises over 450 staff and graduate students and six academic groups specialising in different areas of public health and primary care: Bioresource, Cardiovascular Epidemiology Unit, Centre for Cancer Genetic Epidemiology, Primary Care Unit, The Public Health of Ageing Research Unit and The Healthcare Improvement Studies (THIS) Institute. www.phpc.cam.ac.uk

MRC Epidemiology Unit
Led by Professor Nick Wareham, the Unit studies the genetic, developmental, behavioural and environmental determinants of obesity, type 2 diabetes and related metabolic disorders.
The Unit has seven Medical Research Council funded research programmes, ranging from the aetiology and mechanisms of diabetes and related metabolic disorders, through nutritional and physical activity epidemiology, to prevention-focused programmes in young people and adult populations. It also has a number of departmental programmes in areas including public health modelling, global public health, measurement of diet, nutrition and physical activity, and mechanisms of metabolic disease. It leads the Nutrition, diet and lifestyle theme of the NIHR Cambridge Biomedical Research Group and Network (GDAR). www.mrc-epid.cam.ac.uk

MRC Biostatistics Unit
Led by Professor Sylvia Richardson, the mission of the unit is to advance medical science and human health through the development, application and dissemination of statistical methods.
We are committed to making an impact on dementia, ageing and Alzheimer’s disease, cardiovascular and metabolic diseases, rheumatology, autoimmune diseases, rare blood disorders, oncology, bloodborne viruses, respiratory infections and antibiotic resistance. We work with leading trial centres, clinical departments, epidemiology groups and public health bodies such as PHE. We are developing links with major programmes in stratified medicine and in big data analytics such as Health Data Research UK and the Alan Turing Institute (ATI). Our current research portfolio is organised into four themes spanning basic science to population health: Statistical Omics (SOMX), Precision Medicine and Inference for Complex Outcomes (PREM), Design and Analysis of Randomised Trials (DART), and Statistical methods Using data Resources to improve Population Health (SURPH). www.mrc-bsu.cam.ac.uk

Health Data Research UK (HDR UK)
Health Data Research UK is the new national institute for data science for health, established in 2018 with funding support from research councils, UKRI, charitable and governmental research funders. The mission of HDR UK is to drive improvements in the health tripartite of patients and populations through research at regional and national scale. To deliver this mission, the Wellcome Sanger Institute, EMBL-European Bioinformatics Institute, and the University of Cambridge and its associated hospitals came together as the HDR UK Cambridge partnership. HDR UK Cambridge aims to understand disease at a deeper than ever biological level, to enable us to better predict the onset and progression of ill-health and tailor medicines for sub-types of disease (instead of a one-size-fits-all approach), as well as predict patients’ reaction to medicines. www.hdruk.ac.uk

PHG Foundation
A non-profit health policy think tank with a special focus on how genomics and other emerging health technologies can provide more effective, personalised healthcare and deliver improvements in health for patients and citizens. Led by Dr Mark Kroese. www.phgfoundation.org

Public Health England Field Epidemiology Service
Collates and analyses information on infections and environmental exposures with the objective of rapid detection of outbreaks, incidents and trends requiring action. This Unit is led by Dr Mark Reacher.

Public Health England Knowledge and Intelligence Service, East of England
Advises public health teams based in local authorities and the NHS to make better decisions for commissioning, prioritisation and improving outcomes, by providing high-quality analysis and interpretation of population health data. Our online resources are backed up by workforce training and access to expert advice. The Knowledge and Intelligence Service is led by Professor Peter Bradley.
Public Health England Clinical Microbiology & Public Health Laboratory

Led by Dr Nick Brown, the laboratory is based in Addenbrooke’s hospital. It provides clinical microbiology services for acute NHS Trusts in Cambridge, Papworth, Huntingdon and Stevenage, as well as the surrounding GP practices.

Public Health England National Cancer Registration and Analysis Service, Eastern Office

Staff collect, process, store and analyse all malignant tumours and some pre-cancerous and nonmalignant cancers newly diagnosed in the East of England. Dr Jem Rashbass is National Director for Disease Registration at Public Health England.

NIHR School for Public Health Research (SPHR)

A national partnership aiming to build evidence for effective public health practice, looking at what works practically to improve population health and reduce health inequalities. At Cambridge, the core themes over the next five years will be Public Mental Health, Places and Communities, Children & Families. The Cambridge team is led by Professor Carol Brayne. www.sphr.nihr.ac.uk

NIHR Applied Research Collaboration (ARC) East of England

A collaboration of academics, clinicians and managers who undertake high quality work focused on engaging and involving under-represented communities in applied health and social care research; developing community-led approaches to solve problems and supporting the implementation of research evidence into practice. Professor Peter Jones is Director of ARC EoE. The ARCs Population Evidence and Data Science research theme is led by Professor Carol Brayne. www.clahrc-eoe.nihr.ac.uk

Resources

Find an Expert: search our directory of public health experts by specialisation and get in touch with them for speaker, collaboration and media opportunities at www.iph.cam.ac.uk/about-us/find-an-expert

Network: visit our PublicHealth@Cambridge Network directory to find University of Cambridge public health researchers to network and collaborate at www.iph.cam.ac.uk/network

Newsletter: sign-up today and discover our latest public health research, news and events: www.iph.cam.ac.uk