

## **CACH Strategy 2024-2029**

### **Centre overview:**

The Centre for Academic Child Health (CACH) was established in 2003. It is a joint venture between the University of Bristol and the University of the West of England, Bristol (UWE). CACH has a long tradition of collaborative multidisciplinary research to improve the health of children and young people in the UK and overseas. We are one of the four academic centres within the University of Bristol that deliver the University's vision. We conduct high-quality, high-impact research to improve various facets of child health. We attract and inspire students through our flagship intercalated BSc programmes in Global Health and Child Health Research enabling them to gain future skills needed to thrive in a changing world. We foster a nurturing environment, prioritising the well-being of staff and students.

### **Key areas of Strength:**

CACH comprises multidisciplinary researchers with diverse strengths and interests targeted at improving the health and wellbeing of infants, children, and adolescents. Our research interests include sudden infant deaths, perinatal adverse exposures, birth asphyxia, child development, injury prevention, infant health, mental health, continence problems, nutrition, visual disorders, infection, population health and mortality. We employ a range of research methodologies including epidemiological methods (observational studies, randomised controlled trials, novel methods to improve causal inference) and qualitative methods. We use datasets of national importance that are hosted locally, including the Avon Longitudinal Study of Parents and Children (ALSPAC) and the National Child Mortality Database (NCMD) with linkage to national administrative datasets such as NHS Digital and the UK Department for Education.

We conduct multidisciplinary research that identifies modifiable risk factors or pathway/system failures and develop and evaluate interventions to address them. We undertake population level studies that address prenatal, perinatal and childhood adverse exposures, birth asphyxia, brain development, nutrition, infection control and vaccine development, mortality, continence problems, vision disorders and injuries.

We deliver a range of well-evaluated child health teaching and training including coordination of the child health / paediatrics component of the MB ChB curriculum at the University of Bristol, intercalated BSc degrees in Child Health Research and Global Health, MSc dissertation supervision and PhD supervision. CACH members oversee and coordinate around 300 medical students per year across 6 academies through their undergraduate

paediatrics training. In the last 5 years, 133 students from Bristol, across the UK and overseas have come through the Global Health iBSc programme and have produced 12 peer reviewed journal publications and national / international conference presentations and posters. The Child Health Research iBSc has also recruited students from across the UK and internationally with a strong record for converting CACH supervised students research projects into publications and presentations.

We have led a major component of the Year 1 MB ChB programme, Evidence Based Medicine (previously Clinical Epidemiology), since 2013 and promote the highest academic standards. This includes the transformation, in 2017-18, of the teaching of epidemiology and statistics during the radical reform of the medical curriculum to the new 'MB21' programme to ensure that the curriculum provides a strong foundation for medical students to become effective evidence-based practitioners in line with GMC outcomes. Since 2022, we have been working to decolonise the MB ChB curriculum, in line with the University's Decolonisation Framework. This is a challenging, but rewarding, task that will ultimately reform epidemiology teaching for subsequent generations of students.

Our programme of work has attracted £49m in research funding in the last 5 years from a wide range of national and international funders. We are committed to training the next generation of child health clinicians, clinical and non-clinical researchers and educationalists. We contributed two impact case studies to the Research Excellence Framework exercise in 2021 ( [REF 2021](#) [REF2021b](#)). Eleven CACH staff were awarded 13 fellowships in the last 5 years. Awards were made from a range of funders, including 8 awards from the NIHR. Awards supported staff at different stages of their careers including doctoral, career re-entry, and senior/advanced awards.

### **Challenges and opportunities:**

The Centre for Academic Child Health has survived a range of challenges over the last five years; a global pandemic, a period without a Centre Director in post, and developing the centre without core funding from the University of Bristol or UWE except for administrative support. Over the next five years we anticipate the need to work in an environment with increasing financial challenges, a health system under pressure and we note that we need to work in a more crowded academic field with the development of an increasing number of research centres nationally that focus on maternal, child and adolescent health and wellbeing.

The next five years provide us with a number of opportunities for growth and impact. A new Centre Director taking up post in July 2024 will drive our vision forward. The new University of Bristol strategy and faculty restructuring provide an opportunity to elevate CACH profile internally. Our completed and ongoing research holds strong potential for REF 2029, where there is an increased importance given to impact case studies. We also have unparalleled access to a large population of children and families in the Southwest, with no competing child health research centres in the region. Additionally, renewed government focus on school readiness and mental health creates a powerful platform for influence. Finally, this period offers an opportunity to refine and enhance our teaching and training programs, ensuring we continue to shape the future of child health research and education.

### **Vision:**

Our vision is to improve the health and wellbeing of children from preconception to late adolescence through collaborative multidisciplinary team science and to support the next generation of child health researchers.

### **Strategic aims**

1. Improve the national and international profile of the Centre for Academic Child Health by strengthening partnerships across health and care providers, higher education institutions and commissioning organisations, establishing ourselves as a regional hub for evidence-based child health.
2. Develop as a beacon of child health research, conducting high quality studies with impact
3. Train the next generation of healthcare providers, researchers and educationalists in child health
4. Support and mentor early and mid-career researchers in CACH to develop their academic careers

### **Objectives, outcomes and actions:**

1. Improve the national and international profile of the Centre for Academic Child Health by strengthening partnerships across health and care providers, higher education institutions and commissioning organisations, establishing ourselves as a regional hub for evidence-based child health.

Raising the profile of CACH locally and regionally will facilitate the delivery of research with the ability to lead to real world impact on the health and welfare of children from preconception to early adulthood. We will build our profile internally at UoB and UWE and externally, developing partnerships with higher education institutions, NHS trusts, local authorities, commissioning organisations and the third sector. Working effectively across the child health system locally will enhance our reputation nationally and internationally.

One year: (i) Have forged connections with child health academics and research-interested practitioners in Population Health Sciences and Translational Health Sciences at the University of Bristol, across UWE, the Universities of Bath, Cardiff and Exeter, University Hospitals Bristol and Weston NHS Foundation Trust, North Bristol NHS Foundation Trust, Sirona Care and Health, and local the Integrated Care Boards through a programme of engagement meetings and events. (ii) Host at least one event with representatives from across health providers and academia.

Three years: (i) Have established a programme of collaborative meetings with 3 joint events /year (ii) Have at least two staff contributing nationally or internationally to research infrastructure by being members of funding panels or advisory committees.

Five years: Have submitted two grant applications (research bids, fellowships or doctoral studentships) that demonstrate cross-collaboration between health providers and academia.

#### Actions

- Re-vamp the CACH website to (i) showcase the diverse strengths of CACH and help to attract bright minds to come to Bristol for their future career. (ii) Engage with the Bristol Medical School to change the website design to include the themes of child health research showcasing people, projects and opportunities
- Grow the CACH membership by incorporating diverse child health researchers from diverse organisations and disciplines. Increase the number of PhD students and ECRs. Identify and support mid-career researchers to facilitate succession planning
- Compile a list of active child health researchers at CACH including their email addresses and host on the CACH website

## **2. Develop as a beacon of child health research, conducting high quality studies with impact**

Grow our reputation for conducting excellent research with the ability to change policy and practice and improve children's lives. Maximise the value of existing data resources and develop methodologies where gaps exist.

One year: (i) Contribute and show leadership in the development of the Healthier Childhoods research theme within the NIHR Applied Research Collaboration West of England (ARC2) submission. (ii) Invite the UoB policy unit to come and talk about feeding research into policy

Three years: Have developed 3 research bids addressing the strategic priorities of both UoB and UWE.

Five years: (i) have submitted a large programme/infrastructure grant that demonstrates effective multidisciplinary collaboration on a priority area (ii) rolling three-year research income demonstrates growth and sustainability of the centre (iii) provide potential impact case studies for REF 2029

### **Actions:**

- Engage with ARC2 Healthier Childhoods Research Oversight Group to influence the ARC2 submission and prioritisation of studies
- Engage with Division of Research, Enterprise and Innovation (UoB) and Research, Business and Innovation (UWE) to develop the large programme / infrastructure grant.
- Strengthen the multidisciplinary team leadership to develop research bids through engagement with other centres and research groups in UoB and UWE, and by hosting CACH sandpit events for large programme or infrastructure applications.

## **3. Train the next generation of healthcare providers, researchers and educationalists in child health**

Develop and adapt our training offer in response to the needs of the multidisciplinary child health workforce.

One year: (i) Review the iBSc course offer in line with the strategic direction of the University of Bristol (ii) explore opportunities for teaching across UoB/UWE programmes

Three years: (i) Develop new resources that facilitate multidisciplinary education in child health (e.g. short courses, MSc, AI for child health, speciality child health courses), in line with the Universities' strategies for teaching (ii) propose at least 1 ACF / ACL project as opportunities arise

Five years: Contribute to developing child health curricula for students at the University of Bristol and at UWE.

Actions:

- Organise meetings with intercalated lead and Head of School to align the efforts of reorganising or developing courses with UoB strategy, and discuss with Head of School and subject leads at UWE
- Regular meetings among CACH educationalists to revise existing teaching programmes where necessary, reviewing similar courses in UoB and in other institutions

**4. Support and mentor early and mid-career researchers in CACH to develop their academic careers**

Grow the next generation of independent researchers working in or with CACH to ensure effective succession planning. Enable a pathway to enter academic child health research by identifying the brightest students interested in child and adolescent health and signposting and mentoring them to opportunities such as iBSc, INSIGHT, ACF and doctoral fellowships. Enhance CACH's standing as a centre of academic excellence to host the academic clinical fellowships and lectureships to develop the next generation of researchers.

One year: Develop a programme of ECR and MCR support at CACH

Three years: Have one ECR fellowship awarded and one professorship

Five years: Have two fellowships awarded (at either ECR, Senior/Advanced, or Professorial level)

Actions:

- Re-establish the CACH wellbeing group
- Engage with GW4, SWDTP and NIHR doctoral scholarship schemes
- Support NMAHP practitioners to apply to the NIHR INSIGHT MRes scheme at UWE