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Creating Active Schools (CAS): Investigating sustained implementation and long-term (cost)-effectiveness on children's physical activity in multi-ethnic and socioeconomically challenged communities in Bradford

Submission date 08/05/2026	**Recruitment status** Recruiting	[X] Prospectively registered [X] Protocol [_] Statistical analysis plan [_] Results [_] Individual participant data [X] Record updated in last year
Registration date 20/05/2026	**Overall study status** Ongoing	
Last Edited 15/06/2026	**Condition category** Other	

Plain English summary of protocol

Background and study aims
Children's physical activity is important for physical health, mental wellbeing and learning. However, many children in England do not achieve the recommended 60 minutes of physical activity each day, particularly those living in socioeconomically disadvantaged and ethnically diverse communities. Schools are an important setting for improving physical activity because they reach almost all children. Creating Active Schools (CAS) is a whole-school physical activity programme that helps schools increase opportunities for activity across the school day through changes to school policy, environments, staff practices and activities. This study aims to evaluate the long-term effectiveness, cost-effectiveness and implementation of CAS in primary schools.

Who can participate?
Primary schools participating in the Creating Active Schools programme and matched comparison schools not involved in CAS can participate. Children in Years 1–3 (approximately aged 5–8 years) attending participating schools will be eligible to take part in study measurements. Parents/carers, teachers and school staff may also take part in questionnaires, interviews and implementation activities.

What does the study involve?
Intervention schools will continue delivering the CAS programme, while comparison schools will continue usual school practice. The study will collect data during 5-year (2026–2027) and 7-year (2028–2029) follow-up periods. Children will wear a physical activity monitor for seven consecutive days and complete height, weight and waist measurements at school. Parents /carers will complete questionnaires about their child's physical activity, sleep and wellbeing, and teachers will complete questionnaires about children's wellbeing and behaviour. The study will also collect information about school physical activity provision, implementation of CAS and school-related costs. Interviews and focus groups will be conducted with school staff and

stakeholders to understand how CAS is delivered and sustained over time. Educational outcomes, including attendance and attainment, will also be assessed using routinely collected National Pupil Database data.

What are the possible benefits and risks of participating?
The study may help schools, researchers and policymakers better understand how schools can support children's physical activity, health and wellbeing over the long term. Risks are minimal and mainly relate to minor discomfort during physical measurements or inconvenience associated with wearing the physical activity monitor and completing questionnaires.

Where is the study run from?
The study is coordinated by the University of Bradford in collaboration with the University of Cambridge and the University of York. Data collection takes place in primary schools in Bradford and matched comparison schools in Yorkshire.

When is the study starting and how long is it expected to run for?
June 2026 to February 2030.

Who is funding the study?
The study is funded by the National Institute for Health and Care Research Public Health Research Programme (NIHR174726).

Who are the main contacts?
Professor Andy Daly-Smith
University of Bradford
A.Daly-Smith@bradford.ac.uk

Dr Daniel Bingham
University of Bradford
d.bingham@bradford.ac.uk

Contact information

Type(s)
Principal investigator

Contact name
Prof Andy Daly-Smith

ORCID ID
https://orcid.org/0000-0003-4830-9376

Contact details
Institute for Health and Social Care Research
University of Bradford
Richmond Road
Bradford
United Kingdom
BD71DP
+44 1274 232102
A.Daly-Smith@bradford.ac.uk

Type(s)
Scientific, Public

Contact name
Dr Daniel Bingham

ORCID ID
https://orcid.org/0000-0002-5809-7357

Contact details
Institute for Health and Social Care Research
University of Bradford
Richmond Road
Bradford
United Kingdom
BD71DP
+44 1274 232102
d.bingham@bradford.ac.uk

Additional identifiers

National Institute for Health and Care Research (NIHR)
174726

Study information

Scientific Title
Long-term effectiveness and implementation of the Creating Active Schools (CAS) programme compared with usual practice on physical activity, health and wellbeing outcomes in primary school children: a mixed-methods natural experimental evaluation.

Acronym
CAS

Study objectives
The overall aims of this research are to:
1. Evaluate the sustained implementation, long-term effectiveness and cost-effectiveness of the Creating Active Schools (CAS) programme on children's physical activity and health and educational outcomes in multi-ethnic and socioeconomically deprived communities.
2. Build a policy, practice and research knowledge mobilisation community to support evidence-informed whole-school physical activity

The research aims will be achieved through different research questions which will be answered through work occurring with five different Work packages (WPs).

Research Questions:
WP1: Evaluating long-term effectiveness of CAS on health & educational outcomes.
1a- In multi-ethnic and socioeconomically deprived primary schools, what is the impact of sustained CAS implementation (up to 7 years) on children's time spent in MVPA on weekdays?

1b- What is the impact of sustained CAS implementation on secondary outcomes including health, wellbeing and educational outcomes?
1c- Do the effects of CAS on primary and secondary outcomes differ by time, child gender, ethnicity, socioeconomic position, or CAS implementation quality?

WP2: Investigating the cost-effectiveness of CAS.
2a- What is the cost-effectiveness of CAS to promote physical activity at school?
2b- What are the expected long-term (lifetime) costs and quality-adjusted survival of sustained CAS implementation?

WP3: Assessing the long-term implementation of CAS.
3a- What are the key features and facilitators of high-quality, sustained CAS implementation within primary schools?
3b- How do primary school stakeholders and those implementing CAS perceive the factors influencing sustained whole-school PA?

WP4: Integrating implementation & effectiveness data.
4a- To what extent, and how, have the key CAS intervention components contributed to changes in children's outcomes, and variation therein?

WP5: Knowledge mobilisation and dissemination.
5a- To create an effective policy, practice and research community to promote knowledge exchange around whole-school physical activity.
5b- To promote impact in policy, research and practice through effective dissemination of project outcomes.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 07/05/2026, Humanities, Social and Health Sciences Research Ethics Panel at the University of Bradford (University of Bradford Richmond Road, Bradford, BD71DB, United Kingdom; +44 1274 236554; ethics@bradford.ac.uk), ref: E1396

Primary study design
Interventional

Allocation
Non-randomized controlled trial

Masking
Open (masking not used)

Control
Active

Assignment
Parallel

Purpose
Prevention, Mixed-methods natural experimental evaluation

Study type(s)

Health condition(s) or problem(s) studied
Prevention of physical inactivity and promotion of health and wellbeing in primary school children living in multi-ethnic and socioeconomically disadvantaged communities.

Interventions
The study will conduct a mixed-methods natural experimental evaluation of the long-term effectiveness, cost-effectiveness and sustained implementation of the Creating Active Schools (CAS) programme in primary schools in Bradford. Intervention schools will continue delivery of CAS, a whole-school physical activity programme implemented through an annual cycle of school profiling, Planning for Change, implementation and review, supported by the CAS digital hub, CAS Champions, Communities of Practice and school leadership teams. CAS aims to embed physical activity across school policy, environments, stakeholders and opportunities. Schools have been engaged in CAS since 2021. Control schools will continue with usual practice, including statutory physical education, extracurricular sport and use of PE and Sport Premium funding, but will not participate in CAS or another formal whole-school physical activity programme during the study period. Schools are not randomised, as intervention and matched control schools were identified through an existing quasi-experimental evaluation based on deprivation, ethnic composition and free school meal eligibility.

The study includes repeated cross-sectional follow-up data collection at 5-years (September 2026–March 2027) and 7-years (September 2028–March 2029) post-baseline. All children in Years 1–3 at participating schools will be eligible to participate. Physical activity will be assessed using waist-worn ActiGraph accelerometers worn continuously for seven consecutive days. Anthropometric measures will include height, weight and waist circumference collected using standardised procedures. Teachers will complete the Strengths and Difficulties Questionnaire for participating children. Parents/carers will complete questionnaires assessing child physical activity, sleep, health-related quality of life, wellbeing, contextual influences on physical activity and neighbourhood environment characteristics.

The study will also include collection of school-level cost and resource-use data to assess cost-effectiveness, alongside qualitative interviews, focus groups, surveys, documentary analysis and implementation assessments with school staff, CAS Champions and wider stakeholders to examine long-term implementation and sustainability. Educational outcomes, including attendance and Key Stage 2 attainment, will be assessed using routinely collected National Pupil Database data.

Intervention Type
Behavioural

Primary outcome(s)
1. Weekday moderate-to-vigorous physical activity (MVPA) in children measured using minutes per day of moderate-to-vigorous physical activity measured using ActiGraph wGT3X-BT accelerometers at 5-year follow-up (September 2026–March 2027) and 7-year follow-up (September 2028–March 2029)

Key secondary outcome(s)

1. Habitual total physical activity and sedentary time measured using mean minutes per day of total physical activity and sedentary time measured using ActiGraph wGT3X-BT accelerometers at 5-year follow-up (September 2026–March 2027) and 7-year follow-up (September 2028–March 2029)

2. In-school total physical activity and sedentary time measured using mean minutes of total physical activity and sedentary time during school hours measured using ActiGraph wGT3X-BT accelerometers at 5-year follow-up (September 2026–March 2027) and 7-year follow-up (September 2028–March 2029)

3. Body mass index (BMI) z-score measured using standardised height (m) and weight (kg) measurements converted to BMI z-scores using UK reference data at 5-year follow-up (September 2026–March 2027) and 7-year follow-up (September 2028–March 2029)

4. Waist circumference measured using waist circumference (cm) measured using standardised anthropometric procedures at 5-year follow-up (September 2026–March 2027) and 7-year follow-up (September 2028–March 2029)

5. Emotional and behavioural wellbeing measured using teacher-reported Strengths and Difficulties Questionnaire (SDQ) at 5-year follow-up (September 2026–March 2027) and 7-year follow-up (September 2028–March 2029)

6. Health-related quality of life measured using EQ-5D-Y and Paediatric Quality of Life Inventory (PedsQL) parent/carer questionnaires at 5-year follow-up (September 2026–March 2027) and 7-year follow-up (September 2028–March 2029)

7. Sleep duration measured using parent/carer questionnaire at 5-year follow-up (September 2026–March 2027) and 7-year follow-up (September 2028–March 2029)

8. School attendance measured using National Pupil Database records at 2016–2029

9. Key Stage 2 educational attainment in reading, writing and mathematics measured using National Pupil Database records at 2016–2029

Completion date
28/02/2030

Eligibility

Key inclusion criteria
1. Primary schools participating in the 5-year (2026–2027) and/or 7-year (2028–2029) follow-up evaluation of the Creating Active Schools (CAS) programme
2. Intervention schools delivering CAS since the commencement of Bradford-wide implementation in 2021, or matched control schools not participating in CAS
3. Children enrolled in Years 1–3 at participating schools during the 5-year (September 2026–March 2027) and/or 7-year (September 2028–March 2029) follow-up data collection periods
4. Children aged approximately 5–8 years at the time of participation
5. Written informed consent provided by a parent or legal guardian
6. Age-appropriate child assent provided prior to participation in study procedures

Healthy volunteers allowed

Yes

Age group
Child

Lower age limit
5 Years

Upper age limit
8 Years

Sex
All

Total final enrolment
0

Key exclusion criteria
1. Schools not participating in the 5-year (2026–2027) or 7-year (2028–2029) follow-up evaluation of the study
2. Children not enrolled in Years 1–3 at participating schools during the study data collection periods
3. Children without written informed consent from a parent or legal guardian
4. Children who do not provide age-appropriate assent prior to participation
5. Children with medical, physical or educational needs for whom participation in study procedures, including accelerometry or anthropometric measurements, may cause distress or be considered inappropriate or unsafe following discussion with parents/carers and school staff. All children are welcome to take part where participation can be supported safely and appropriately

Date of first enrolment
08/06/2026

Date of final enrolment
30/11/2028

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
University of Bradford
Richmond Road
Bradford
England
BD7 1DP

Sponsor information

Organisation
University of Bradford

ROR
https://ror.org/00vs8d940

Funder(s)

Funder type

Funder Name
National Institute for Health and Care Research

Alternative Name(s)
National Institute for Health Research, NIHR Research, NIHRresearch, NIHR - National Institute for Health Research, NIHR (The National Institute for Health and Care Research), NIHR

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Other files	Appendix1_School_InfoForm_CAS version 1.0	13/03/2026	08/05/2026	No	No
Other files	Appendix2_School_InfoForm_Control version 1.0	13/03/2026	08/05/2026	No	No

Other files	Parent_InfoForm_CAS version 1.0	13/03/2026	08/05/2026	No	No
Protocol file	version 1.1	12/02/2026	08/05/2026	No	No