

Project title:	Does the Royal Horticultural Society Campaign for School Gardening increase intake of fruit and vegetables in children?
Project reference:	09/3001/19
Cost:	£398,481
Lead applicant and institution:	Professor Janet Cade Professor of Nutritional Epidemiology and Public Health University of Leeds
Start date:	1 November 2009
End date:	31 November 2012
Website:	http://apps.rhs.org.uk/Schoolgardening/default.aspx
Methodology:	The project will consist of two related cluster randomised trials. 1) Schools in the Royal Horticultural Society (RHS) Campaign for School Gardening will be randomised to receive an intensive or less intensive gardening intervention. 2) Schools not originally part of the RHS Campaign will be randomised to receive the less intensive gardening intervention or no intervention (comparison group).
Outcome measure:	The key outcome to be assessed will be change in fruit and vegetable consumption in children. Secondary outcomes relate to the effect of the intervention on other food intake and nutrient intake. The project will evaluate the RHS Campaign over two growing seasons. We plan to measure baseline food and nutrient intakes in the children using a previously validated tool (CADET) prior to involvement in the scheme and then again after two years, allowing for two growing seasons.
Sample group:	Sample size: we will sample 50 children (two classes – years 3 and 4) from each of 26 schools (trial 1) and 32 schools (trial 2), randomising at the school level to intensive and less intensive intervention, giving a design effect of approximately 6.6 for vegetables. To have 90% power to detect a 0.5 portion difference in vegetable intake, 627 per group are required, i.e. about 13 schools per group. To have 90% power to detect a 1 portion difference in fruit intake, 482 per group are required, i.e. about 10 schools.
Abstract:	This study will undertake two linked randomised controlled trials. 1) Schools in the Royal Horticultural Society (RHS) Campaign for School Gardening will be randomised to receive an intensive or less intensive gardening intervention. 2) Schools not originally part of the RHS Campaign will be randomised to receive the less intensive gardening intervention or no intervention (comparison group). The RHS Campaign for

School Gardening promotes school gardening and growing of fruit and vegetables. The Campaign provides resources to help teachers set up and make the most of their school garden, teach the National Curriculum outdoors and inspire their pupils to live healthier lifestyles. There are two levels of intervention: more intensive involving hands on support from a regional advisor (10 schools per region) "partner schools" and less intensive "associate schools" where schools can undertake twilight training and receive support from schools involved in the intensive intervention arm.

The RHS plan to deliver their Campaign to schools in the London region starting in the spring of 2010. In study 1, we will select 26 schools who have undertaken the RHS benchmarking scheme and have indicated their interest to be involved with the Campaign. We will randomly allocate 10 schools to receive the intensive intervention and 16 schools to receive the less intensive intervention. It will not be possible to randomise schools to receive no intervention at all since the RHS is committed to providing support to all schools who register an interest in the Scheme. Due to this, we will recruit a second set of schools into a linked trial. We will contact the remaining schools in the region who have not signed up to the RHS Campaign. We anticipate that this will be about 400 schools in London and we aim to recruit 32 schools. Of these schools, 16 will be randomly allocated to sign up to the RHS Campaign and to receive the less intensive intervention and 16 schools will act as comparison schools. All schools will have baseline measures taken and then followed for 2 years and outcomes measured. Children included in the study will be at key stage 2 (ages 7-10) in years 3 and 4 at baseline.

The key outcome to be assessed will be change in fruit and vegetable consumption. Secondary outcomes relate to the effect of the intervention on other food intake and nutrient intake. The RHS Campaign will be evaluated over two growing seasons. We plan to measure baseline food and nutrient intakes using a previously validated tool (CADET) prior to involvement in the scheme and then again after two years, allowing for two growing seasons.

The project will allow us to determine whether support for gardening in schools can affect fruit and vegetable intake in primary school children.