



Research for Health Scheme

Stage 1 - Call for Challenges Application Form

- This call is open to doctors, nurses and allied health professionals employed by the NHS.
- Please use this form to describe a specific issue or challenge which you are currently facing in your area of healthcare delivery.
- The deadline for submission is 25 Feb 2014. Please email this application form to Lisa.Wheatley@Bristol.ac.uk
- If your challenge is selected, University of Bristol researchers have the opportunity to bid for funds to help them develop a solution. They will work in partnership with you to make sure the new technology, device or innovation will really work for you, your colleagues and your patients.

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Challenge Title (max 20 Words)

Understanding inequalities in oral health in Bristol

Please describe the specific problem which needs addressing

Dental decay is one of the most common and preventable of childhood diseases, causes pain, impeding quality of life, and requiring treatment. In 2003/2004 1,474 patients were treated under a general anaesthetic in Bristol Dental Hospital (mostly children), at considerable cost to both patients and health services. The inequalities

in dental health within Bristol are clear, Ashley and Lawrence Hill experience > 93 dental fillings per 1,000 under 5 years old, compared to <33 per 1,000 in neighbouring Bishopston and Redland. Dental fillings in young children probably under represents dental caries in these children since decayed primary teeth may be lost without attending dental services. Links between parental awareness, low dental attendance, diet and oral health are established.

At the moment, data is not collected or analysed centrally about decay, extractions, nor dental procedures in young children. These data exist in a number of different places, but are not yet brought together. I would therefore like to work with research colleagues to establish access to these data (which will likely involve an application for ethical review), data harmonisation across data sets, and finally analysis of data by key population demographics.

How does this issue impact on you, your colleagues and your patients?

Dental public health in Bristol is underserved by a lack of data intelligence. We have limited resources, but we do not know if they are currently being addressed to the areas or the populations in greatest need. Nor do we know whether preventive actions (for example fluoride varnishes) are being used more commonly in some areas than others.

Can you estimate how many patients or staff are affected by this problem?
Can you describe any associated financial implications for the NHS or patients?
(Don't worry if you are not able to answer this question at this stage – it is not compulsory)

We do not yet know how many children in Bristol are adversely affected by poor dental health. We estimate that approximately 8 children per working day are attending clinics for tooth extractions under general anaesthetic. We know we have data on Dental attendance for under 5's in Bristol divided by age group, but do not yet have full access to this data to be able to describe the extent of the problem.

2012 estimates suggest there are over 30,000 0-4 year olds in Bristol.