

# Eye Heroes: A Model of Raising Awareness about Eye Health by Training Children to Be Eye Health Champions

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Receive date: November 27, 2018; Accepted date: December 06, 2018; Published date: December 10, 2018

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## Abstract

**Objective:** There is a lack of public awareness of the importance of regular eye tests to detect ocular and systemic conditions which may be asymptomatic. In many cases, timely intervention can prevent irreversible sight loss. In the absence of effective public health campaigns and screening programmes for all eye conditions except diabetic retinopathy, there is a need for awareness-raising about eye health. We report the impact of an initiative, Eye Heroes, which trains children in the UK to be community eye health champions.

**Methods:** Volunteers across the UK ran interactive workshops using Eye Heroes digital content to train school children aged 8-12 to become eye health champions. Children were taught about eye health and the importance of regular eye testing, and were encouraged to spread these messages amongst their communities. We collected impact data from a sample of 80 children across 3 UK sites (Oldham, Cardiff and Birmingham).

**Results:** Between November 2016 and November 2017, 200 volunteers delivered 119 workshops training 2,895 children to become eye health champions. 71 children from the sample of 80 (incomplete data from 9 children excluded) informed 601 people about eye health (median 6, IQR 3-10), resulting in 255 attendances for eye tests (median 2, IQR 0-6).

**Conclusion:** This study demonstrates that training children as eye health champions can translate into attendances for eye tests. Further evidence beyond this preliminary work is desirable to promote scaling up community-based interventions aimed at raising eye health awareness.

**Keywords** Ophthalmology; Public health; Education; Community; Awareness

## Introduction

Whilst there is no standard for vision screening in adults, a large proportion of sight loss could potentially be avoided if people attended regular eye testing with optometrists/eye health care professionals, allowing early detection of eye disease [1]. People having more regular eye examinations may be less likely to experience a decline in vision or functional status [2]. However, most members of the general public are unaware of the importance of regular eye testing [3]. Improving public understanding about the role of eye tests in preventing sight loss, and not just to determine the need for spectacles, should be an important public health message [4-7]. In England, preventable sight loss is an indicator in the Public Health Outcomes Framework 2016-2019 [8].

communities about the importance of regular eye tests ([www.eyeheroes.org.uk](http://www.eyeheroes.org.uk)). Children are enthusiastic and open to learning, making them potentially powerful health advocates. Each child has a unique reach into their own community and can overcome barriers that can impair traditional awareness-raising campaigns, including language, lower socioeconomic status, misunderstandings and fear. By harnessing the reach of children, Eye Heroes hopes to influence people that might otherwise be hard-to-reach, while educating future generations about eye health.

The present report aimed to quantify the number of children reached by Eye Heroes workshops held between November 2016 to November 2017, to estimate the number of contacts each child informs about eye health and the number of subsequent eye test attendances. We also aimed to collate feedback from volunteers, participating children and teachers and draw out lessons and recommendations for improvements.

## Methodology

### Eye Heroes workshops

Eye Heroes workshops were delivered in schools to children aged 8-12 years across 18 regions in England, Wales, Scotland and Northern Ireland. Workshops were delivered by volunteers who expressed interest via [www.eyeheroes.org.uk](http://www.eyeheroes.org.uk). All volunteers received matched web-based training using [www.eyeheroes.org.uk/resources](http://www.eyeheroes.org.uk/resources) with ready access to a volunteer coordinator by email, following protocols currently used by the Eye Heroes programme. Between 2016 and 2017 Eye Heroes recruited medical students, optometrists, orthoptists, teachers and parents as volunteers. These volunteers accessed the website or emailed Eye Heroes directly after reading about the initiative in online and print publications, seeing posts on social media or interacting with the Eye Heroes team at UK ophthalmic and public health events. After signing an agreement with Eye Heroes, all volunteers gained individual access to password-protected workshop material and guidance online, along with the workshop presentation file with embedded videos. All volunteers approached local schools individually to organize workshops.

An Eye Heroes workshop lasts approximately 50-60 minutes and consists of:

- Introduction to the eye and vision with a short video (3 minutes).
- Animation 1. Scene-setting about the problem of avoidable sight loss in the UK (2 minutes).
- Other activities lasting 10 minutes each from a choice including a picture quiz, 'spot the

Area	Urbanisation	Population	% age 65	% non-White	% unemployed	Sight impaired
Cardiff	Mostly urban	357,160	14	15	6	585/100,000
Birmingham	Urban major conurbation	1,124,569	13	42	10	709/100,000
Oldham	Urban major conurbation	230,823	16	23	8	625/100,000

**Table 1:** Sample area data from the Royal National Institute for the Blind sight loss data tool.

We also collected feedback from volunteers and children participating in workshops.

Feedback from volunteers and participating children

61/65 (93.8%) of volunteers responded that they would run workshops in the future

The volunteers asked children the following questions:

- How was the workshop?
- What did you learn today?
- What are you going to do after the workshop?

Feedback was collected from volunteers via a standardised online form which all volunteers were asked to complete prior to receipt of certificates.

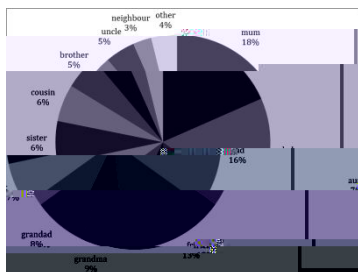
### Data analysis

A member of the study team not involved in delivering the workshops (ARB) collected data using Microsoft Excel. Statistical analyses were performed using SPSS (IBM Corp).

### Results

#### Numbers of children and contacts

Between November 2016 and November 2017, 200 volunteers were recruited to deliver 119 Eye Heroes workshops, and 2,895 children were trained as eye health champions. From a sample of 80 children from schools in Birmingham, Cardiff and Oldham, data from 9 children were incomplete and therefore excluded from analysis. 71 children informed 601 people about eye health (median 6, IQR 3-10, range 0-86), resulting in 255 attendances for eye tests (median 2, IQR 0-6). The categories of people informed included family members, friends, neighbours, people at public events, people in sports teams and people at family parties (Figure 1).



**Figure 1:** People informed about eye health by children trained as eye health champions via Eye Heroes workshops. "Other" comprises: godparents, great grandparents, people at public events, people in sports teams and people at family parties.

<b>Question</b>	<b>Respondents (n)</b>	<b>Feedback</b>
How engaged were the children who attended the workshop?	65	65/65 reported that children were very engaged.
How many children responded positively to the question? "How was this workshop?"	65	

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