Reviewer’s report

Title: Feasibility of an implementation intervention to increase attendance at diabetic retinopathy screening: protocol for a cluster randomised pilot trial

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Reviewer: Amelia Jane Lake

Reviewer's report:

Thank you for the opportunity to review this protocol which describes the assessment of an implementation intervention to increase attendance to RetinaScreen, Ireland's national diabetic retinopathy screening programme. The manuscript is well written and conforms to the CONSORT 2010 extension for randomised pilot and feasibility trials. The IDEAs study resources appear well-designed and grounded in evidence, and the cluster randomised pilot trial is well-designed.

I have four points of feedback on Methods/Design:

Line 129: This is a very comprehensive programme of research. However, I am not from Ireland and I would appreciate more contextual detail on RetinaScreen. For example, where do people go to have their eyes checked when prompted via RetinaScreen? Do the authors know the proportion of people with diabetes who are registered with the programme? Are GPs trained (and funded) to screen for diabetic retinopathy themselves?

Line 165: Individual-level inclusion / exclusion criteria for the study are:

* Aged 18 years or over
* Have diagnosed diabetes (type 1 or type 2)
* Are eligible to attend the national screening programme but have not attended the screening service (i.e., recently in the past 12 months or ever)

Individuals will be excluded if they have attended the DRS programme or are known to be having retinopathy treatment.

Can the authors please justify why people who have previously screened but who have not attended within guidelines (i.e. in the past 12 months) are not included in the feasibility study? Many retinal screening intervention evaluations have included 'lapsed' individuals (e.g. Anderson et al 2003; Basch et al 1999, Gabbay et al 2006; Lafata et al 2002; Lian et al 2013, Pizzi et al 2015; Prela et al 2000; Walker et al 2008, Weiss et al 2015, Zangalli et al 2016; Maliszewski et al 1988) and arguably, knowing whether the IDEAs intervention improves DRS return for this group is equally important as initiating uptake for those who have never screened.

Line 186: The IDEAs intervention appears to be well-designed and grounded in both evidence and theory. The DRS literature demonstrates that those who have not engaged with the behaviour often face an accumulation of barriers. Cultural and language barriers are major impediments to
uptake of DRS, yet I do not see reference to accommodating culturally and linguistically diverse populations within the intervention. For example, are the printed materials available in other languages, or will the practice nurse selected to provide verbal reminders (Line 268) be selected on their cultural and linguistic 'fit' with the clinic population?

Line 268: I am surprised by some of the scripted messages in the verbal reminders. For example, given the acknowledged confusion between standard eye check and screening for DR, I would have expected that the first message would check participant understanding of the role of the RetinaScreen programme. I would also suggest that the first message be in question format to minimise risk of defensive reaction from people who have resisted taking part to date. For example: "I am from….xxx…clinic. Are you aware of our national RetinaScreen programme?"

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