

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Implementation of a quality improvement programme using the Active Patient Link call and recall system to improve timeliness and equity of childhood vaccinations: protocol for a mixed-methods evaluation
<b>AUTHORS</b>	Marszalek, Milena; Hawking, Meredith; Gutierrez, Ana; Dostal, Isabel; Ahmed, Zaheer; Firman, Nicola; Robson, John; Bedford, Helen; Billington, Anna; Moss, Ngawai; Dezateux, Carol

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Bettampadi, Deepti Abbott Laboratories
<b>REVIEW RETURNED</b>	07-Sep-2022

<b>GENERAL COMMENTS</b>	<p>This is a well written paper describing a mixed methods protocol for evaluating the implementation of APL-Imm system to improve vaccine uptake and reduce inequalities in childhood vaccination in northeast London. The following are the comments that need to be addressed:</p> <p>Major Comments</p> <ol style="list-style-type: none"><li>1. Assumes that delayed/lack of vaccination is due to provider factors. Does not address any patient related factors such as vaccine hesitancy that may result in delayed vaccination/ non vaccination. Maybe the authors should outright state that the APL-Imm tool addresses provider related factors/ helps parents remember to vaccinate their children but may not address other patient factors such as religious reasons/ vaccine related misinformation resulting in vaccine hesitancy.</li><li>2. The study mentions findings from the paper “Interventions to reduce inequalities in vaccine uptake in children and adolescents aged &lt;19 years: a systematic review” by Crocker-Buque, Edelstein, and Mounier-Jack as the rationale for using call and recall system for increasing vaccine uptake. However, the Crocker-Buque, Edelstein, and Mounier-Jack study concluded that the evidence for text-based reminders being effective was mixed. It has to be noted that in this paper, the authors mention that “Staff can export lists of children due appointments for import into automated messaging systems used by the practice to contact parents or carers with appointment reminders or other information”. No other intervention is mentioned. But given the prior evidence, are text-based reminders going to be effective in the target population? Are there any other interventions (such as phone calls/ postal reminders/ in person visits)? The authors should elaborate on this.</li></ol> <p>Minor Comments</p>
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	<p>1. Box 1: Do you have the framework of Local Incentive Scheme for northeast London for meeting childhood vaccination target(s)?</p> <p>2. References should be formatted properly.</p>
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**VERSION 1 – AUTHOR RESPONSE**

Reviewer 1		
1	<p>Assumes that delayed/lack of vaccination is due to provider factors. Does not address any patient related factors such as vaccine hesitancy that may result in delayed vaccination/non vaccination. Maybe the authors should outright state</p>	<p>Thank you for this thoughtful comment. We have added this to the introduction and ‘purpose of the study’ sections making clear that the focus of our intervention is on the provider services.</p> <p style="text-align: right;">Introduction Purpose of the study</p>

<p>that the APL-Imm tool addresses provider related factors/ helps parents remember to vaccinate their children but may not address other patient factors such as religious reasons/ vaccine related misinformation resulting in vaccine hesitancy.</p>		
<p>2 The study mentions findings from the</p>	<p>Thank you for this comment. We have added some other evidence which support the use of call and recall systems to improve vaccination uptake.</p>	<p>Introduction Purpose of the study Vaccination Quality Improvement programme: target audience,</p>

<p>paper “Interventions to reduce inequalities in vaccine uptake in children and adolescents aged &lt;19 years: a systematic review” by Crocker-Buque, Edelstein, and Mounier-Jack as the rationale for using call and recall system for increasing vaccine uptake. However, the Crocker-Buque, Edelstein,</p>		<p>components, and implementation plan Discussion</p>
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<p>and Mounie r-Jack study concluded that the evidence for text-based reminders being effective was mixed. It has to be noted that in this paper, the authors mention that “Staff can export lists of children due appointments for import into automated messaging systems used by the practice to contact parents or</p>		
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<p>carers with appointment reminders or other information". No other intervention is mentioned. But given the prior evidence, are text-based reminders going to be effective in the target population? Are there any other interventions (such as phone calls/ postal reminders/ in person visits)? The authors should elaborate</p>		
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	ate on this.		
3	Box 1: Do you have the framework of Local Incentive Scheme for northeast London for meeting childhood vaccination target(s)?	Box 1 refers to the national payment scheme. We have added the following reference as a footnote to Box 1. A local incentive scheme has not been agreed at the time of writing. <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/975395/GMS_SFE_2021.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/975395/GMS_SFE_2021.pdf</a>	Vaccination Quality Improvement programme: target audience, components, and implementation plan
4	References should be formatted properly.	Thank you for highlighting this. References have now been updated to ensure they are complete and standardised.	References

**VERSION 2 – REVIEW**

<b>REVIEWER</b>	Bettampadi, Deepti Abbott Laboratories
<b>REVIEW RETURNED</b>	25-Dec-2022
<b>GENERAL COMMENTS</b>	The authors have addressed reviewers' concerns. However, I have two minor concerns:  1. In Page 7, paragraph 2 ("Target Audience"), the references are not correct.

	2. In the APL-Imms tool guidance website, the tool is referred to as "APL-Imms". However, in the paper, the tool is referred to as "APL-Imm". Why is this discrepancy present?
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### VERSION 2 – AUTHOR RESPONSE

Reviewer 1			
1	In Page 7, paragraph 2 ("Target Audience"), the references are not correct	Thank you for highlighting this. References have now been updated to ensure they are complete and standardised.	References
2	In the APL-Imms tool guidance website, the tool is referred to as "APL-Imms". However, in the paper, the tool is referred to as "APL-Imm". Why is this discrepancy present?	Thank you for this comment. We have rectified this discrepancy, correcting the name of the tool to "APL-Imms" throughout the paper.	Introduction Purpose of the study Vaccination Quality Improvement programme: target audience, components, and implementation plan Methods and Analysis Discussion

### VERSION 3 – REVIEW

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**VERSION 3 – AUTHOR RESPONSE**

**VERSION 4 – REVIEW**

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**VERSION 4 – AUTHOR RESPONSE**

**VERSION 5 – REVIEW**

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**VERSION 5 – AUTHOR RESPONSE**