

Congratulations on securing funding for your systematic review.  
The EPPI-Centre has already agreed to register and offer support for your review with:

Please complete the form below to help us work with you and your team. Where there have been no changes since you submitted a proposal feel free to cut and paste text into this document. Extend the boxes as necessary.

**Funder:**

**Title of review originally requested from funder:** How effective are public works programmes in stimulating local economic transformation in low- and middle-income countries?

**Title of review agreed at time of confirmed funding:** How effective are public works programmes in stimulating local economic transformation in low- and middle-income countries?

**Host organisation(s) for review team:** PUBLIC HEALTH EVIDENCE SOUTH ASIA, MANIPAL UNIVERISTY, MANIPAL, KARNATAKA

Review team members			
Surname	First name	Email address*	Role
Nair	N. Sreekumaran	nskknairmanipal@gmail.com	Principal Investigator
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Nair	Reshmi	reshmi.b.nair@gmail.com	Co-investigator
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Vijayamma	Ratheebhai	rathee63@gmail.com	Information Scientist
Guddattu	Vasudeva	vasudev.guddattu@gmail.com	Statistical Expert

\* We shall use these email addresses to register each person for accessing the Moodle web space for on-going support

**Situate the question in the literature, including describing the existing evidence and literature, estimated size and quality of the evidence base and your familiarity with it.**

The evidence for the effectiveness of PWPs is mixed. PWPs are extremely popular in LMICs and although they vary in design and implementation strategies, some findings are common to them. Most of the programmes are highly effective in targeting the neediest sections of the population, however, cases of unmet demand for work have also been documented.<sup>3, 5, 8</sup> Some programmes are only effective in providing safety nets for poor households but have shown very little effects on the poverty estimates of the country.<sup>3, 5, 7, 9</sup> They are found to be more effective than traditional cash transfer programmes, however, one of the major challenges is setting the wage level. There is a clear trade-off between setting the level high enough for it to have a substantial impact on the income of the participants and setting it low enough for it to not disrupt local labour markets and attract only the extremely poor sections of the society.<sup>1, 3, 4, 6, 10, 11</sup> They also suffer from serious implementation issues (like pilferage, rationing, corruption and mismanagement) which reduces their impact.<sup>12</sup> There is evidence showing a positive effect of community participation in PWPs on the share of the budget spent on labour, increasing the participation of women and reducing the cost of transferring income to the poor.<sup>10, 13, 14</sup> However, most of the research focuses on the short-term effects either due to short durations of the programme itself or due to limitation of data. The long-term effects are not well explored.<sup>4</sup>

**Please describe the limitations of the systematic review, including issues of evidence type, issues resulting from different methodological approaches to studies and issues arising from contextual challenges. [up to 300 words].**

The proposed review will restrict to studies published in English language. Since the studies included in the review will be from different countries, there is a possibility that some studies will not be included in the meta-analyses, however, in such cases data will be analysed and interpreted narratively. A majority of the available literature evaluating the effectiveness of PWPs is country-specific, thus generalising the findings of the review will be a challenging task, however, the team will make an attempt to analyse and interpret data accordingly.

### **Methodology**

**What types of studies are to be included and excluded, and what methods of analysis are envisaged, including critical appraisal approach, methods(s) of synthesis and analysis of heterogeneity of results? Describe eligible study designs, outcome measures and list possible studies to be included in the review (this list need not be comprehensive) [up to 500 words excluding list]. If you wish to include a methodology list; please add as an appendix.**

The PICOs will be clearly defined at the protocol stage. At this stage we propose the following PICOs:

**Population:** This study will include sections of the population targeted by PWPs in LMICs. Most of the PWPs are targeted at rural households, women, agricultural labourers, non-agricultural labourers, landless labourers, extremely poor sections of the population.

**Interventions:** At this stage, we propose to include PWP implemented to stimulate local economic transformation of LMICs. This review will include studies that have evaluated the effectiveness of either one and/or multiple PWPs on local economic transformation in LMICs. However, the inclusion criteria for interventions will be determined after stage 1.

**Comparisons:** The criteria for comparisons will be determined after stage I.

**Outcomes:** We propose to consider the following outcome measures, however, the outcomes will be finalised at the protocol stage:

- Income and Poverty Outcomes: Poverty Indicators (e.g. human development index, multidimensional poverty index, etc.).
- Employment Indicators: Wage rates and patterns, migration pattern, employment creation etc.
- Macro-economic impact: Number, location (rural or urban) and quality of infrastructure, etc
- Crime and Violence: reduction in crime rates and violence
- Gender Inequality

**Study Designs:** Since the study will be divided into two stages, this review will include all the study designs for stage I. Stage II will include qualitative or mixed methods research studies, cohort studies, case control studies, cross-sectional surveys, randomised controlled trials, quasi-experimental studies, interrupted time series designs, qualitative research studies and case studies.

**III. Review Methods:** The team will be using the EPPI-reviewer 4 systematic review software throughout the project.

**A. Data extraction and critical appraisal:** A pre-tested data extraction form will be designed by the team. Two reviewers will independently pilot test the extraction form on 5 articles each. The data extracted will be discussed and any disagreements will be resolved by discussion by a senior reviewer **Quantitative Studies** - The Newcastle Ottawa Scale will be used for case-control and cohort studies and the Cochrane risk of bias assessment tool will be used for experimental and quasi-experimental studies. **Qualitative Studies** - The study will use Critical Appraisal Skills Programme

**B. Analysis:** The quantitative data will be analysed using meta-analysis. The  $I^2$  test will be used to measure the statistical heterogeneity of the included studies. A random effects model will be used if there is significant statistical heterogeneity and a fixed effects model will be used if there is no statistical heterogeneity. A sub-group analysis will also be done according to the groups determined during the protocol stage. The data will be analysed and interpreted narratively for studies which cannot be included in the meta-analysis. A funnel plot will be used to assess publication bias and Egger's test will be used to account for the funnel plot asymmetry, if any. Thematic synthesis will be used to analyse the data from qualitative studies. Coding of primary studies will be carried out to identify and list codes specific to the research questions. Similarities and differences between the codes will be identified in order to group them into descriptive themes following which the results will be synthesized narratively

Experience of systematic reviewing	
Name	Experience
Prof.N.Sreekumaran Nair	<p><b>Systematic Review Training:</b></p> <ol style="list-style-type: none"> <li>Training on network meta-analysis and comparing multiple interventions at Oxford University, UK, the Cochrane Collaboration statistical methods group (2013)</li> <li>Systematic review protocol writing and review completion training by South Asian Cochrane network (2006)</li> <li>Training in statistics and meta-analysis in Cochrane reviews by Australasian Cochrane Centre, University of Monash, Australia (2004).</li> <li>Training in introduction to systematic review and preparation of protocol for Cochrane reviews, by Australasian Cochrane Centre, at Ministry of health, Singapore (2003)</li> </ol> <p><b>Systematic Review Experience:</b></p> <p>Involved in conducting over 13 workshops on systematic reviews and meta-analyses at national and international organisations.</p> <ol style="list-style-type: none"> <li>Fortification of staple foods with vitamin A for preventing vitamin A deficiency: A Cochrane review. Duration: Dec, 2014 to present, Role: Investigator, Funding organization: WHO Brief summary: The objective of this review was to assess the benefits and harms of fortifying staple foods with vitamin A on vitamin A status and health-related outcomes.</li> <li>Neonatal Pneumonia in India: determining factors, barriers to case management and stakeholders perceptions Duration: Dec, 2015 to present, Role: PI, Funding Organisation - INCLLEN Summary - The overall aim is to study the determinants and risk factors of neonatal pneumonia and identify the barriers to case management of neonatal pneumonia in the Indian context.</li> <li>Effect of exclusive breast feeding on rotavirus infection among children: a systematic review Duration: Jan, 2015 to Oct, 2015, Role: PI Summary - The objective of the study was to assess whether exclusive breastfeeding plays protective role in Rotavirus infection among children under five years of age.</li> <li>Effectiveness of different 'gender-responsive policing' (GRP) to reduce risk of violence against women (VaW) in LMICs - A systematic review</li> </ol>

	<p>Duration: Oct, 2015 till date, Role: PI, Funding organization - DFID</p> <p>Summary - The review focuses on identifying and thematically classifying interventions related to GRP to address VaW in LMICs. It will be synthesising the existing evidence on the effectiveness of different GRP interventions designed to enhance confidence and satisfaction in policing services. The findings of both the objectives will be contextualised to the South Asian region.</p> <p><b>Cochrane reviews:</b> Completed over 10 Cochrane Reviews. Some of the recent ones are as follows:</p> <ol style="list-style-type: none"> <li>a. Prabhu RA, Nair S, Pai G, Reddy NP, Suvarna D. Interventions for dialysis patients with hepatitis C virus (HCV) infection. <i>Cochrane Database of Systematic Reviews</i> 2015, Issue 8. Art. No.: CD007003. DOI: 10.1002/14651858.CD007003.pub2.</li> <li>b. Sahoo S, Barua A, Myint KT, Haq A, Abas ABL, Nair NS: <i>Topical non-steroidal anti-inflammatory agents for diabetic cystoid macular oedema (Review)</i>. Cochrane database of systematic reviews (Online) 01/2015;</li> <li>c. Kye Mon Min Swe, Adinegara Bl Abas, Amit Bhardwaj, Ankur Barua, N S Nair: <i>Zinc supplements for treating thalassaemia and sickle cell disease</i>. Cochrane database of systematic reviews (Online) 06/2013; 6(6):CD009415. DOI:10.1002/14651858.CD009415.pub2</li> <li>d. Laxminarayan Karanth, Ankur Barua, Sachchithanantham Kanagasabai, N S Nair: <i>Desmopressin acetate (DDAVP) for preventing and treating acute bleeds during pregnancy in women with congenital bleeding disorders</i>. Cochrane database of systematic reviews (Online) 01/2013; 4(4):CD009824. DOI:10.1002/14651858.CD009824.pub2</li> <li>e. Laxminarayan Karanth, Sharifah Halimah Jaafar, Sachchithanantham Kanagasabai, N S Nair, Ankur Barua: <i>Anti-D administration after spontaneous miscarriage for preventing Rhesus alloimmunisation</i>. Cochrane database of systematic reviews (Online) 01/2013; 3(3):CD009617. DOI:10.1002/14651858.CD009617.pub2</li> </ol>
Dr.Reshmi B.Nair	<p>Participated and presented a poster “A systematic review of community based health insurance programs in South Asia - factors affecting change in health care seeking behaviour”, the International Symposium on Evidence Based Public Health Interventions in Low and Middle Income Countries and Workshop on Systematic Reviews of Public Health</p>

	Interventions held at Manipal University, Manipal on 7 <sup>th</sup> and 8 <sup>th</sup> November 2012.
Dr.Bhumika T V	<p>Organising and conducting training on systematic reviews, meta-analyses and qualitative research, coordinating with mentors and mentees of systematic reviewers mentoring programme both at national and international level, developing course materials for the training programme.</p> <p>Involved in following Systematic Reviews:</p> <ol style="list-style-type: none"> <li>a. Fortification of staple foods with vitamin A for preventing vitamin A deficiency: A Cochrane review Duration: December 2014 to present Role: Author Funding organization: World Health Organization Brief summary: The objective of this review was to assess the benefits and harms of fortifying staple foods with vitamin A on vitamin A status and health-related outcomes in the general population. Publication (Under Peer review): Hombali AS, <b>Venkatesh BT</b>, Nair S, De-Regil LM, Peña-Rosas JP. Fortification of staple foods with vitamin A for preventing vitamin A deficiency. Cochrane Database of Systematic Reviews 2016, Issue 9. Art. No.: CD010068. DOI: 10.1002/14651858.CD010068</li> <li>b. Effective Gender Responsive Policing interventions for Violence against Women Duration: December 2015 to present Role: Research Scientist Funding Organization: DFID</li> <li>c. Does atraumatic restorative treatment reduce dental anxiety in children? A systematic review and meta-analysis. Duration: June 2014 to December 2014 Publication: Simon AK, <b>Bhumika TV</b>, Nair NS. Does atraumatic restorative treatment reduce dental anxiety in children? A systematic review and meta-analysis. Eur J Dent 2015;9:304-9.</li> <li>d. Effect of exclusive breastfeeding on Rotavirus infection among children: A Systematic Review Duration: October 2015 to present Publication: Aleksandra Krawczyk, Melissa Glenda Lewis, <b>Bhumika TV</b>, Sreekumaran Nair. Effect of exclusive breast feeding and rotavirus infection. Systematic review. Indian J Pediatr. 2016. Mar;83(3):220-5. doi: 10.1007/s12098-015-1854-8. Epub 2015 Aug 27</li> </ol>

	<p>e. Economic Impact Of Chronic Obstructive Pulmonary Disease: A Systematic Review; WHO-South East Asia Region.</p> <p>Duration: January 2015 to July 2015</p> <p>Role: Author</p> <p>Brief summary: The overall aim of the study was to estimate the economic burden of chronic obstructive pulmonary disease and to generate evidence on the economic impact of COPD: The direct and indirect costs Associated with COPD in South East Asia WHO region</p>
Dr. Vasudeva Guddattu	Under gone a training in systematic review conducted in department of statistics Manipal. Also have experience in conducting systematics reviews and meta-analysis.
Dr. Anup Karan	Nil
Dr. Upasak Das	Nil

#### **Communications plan and user engagement**

**Describe plans to engage with potential users of the research, to communicate the results of the research to such users, and the potential value of the research to users outside the research community. You will be expected to work closely with the EPPI-Centre and other stakeholders that initiated the review questions.**

- A dissemination plan will enable us to ensure that the findings of the review are modified to engage the end users effectively. The advisory members and the Eppi-centre will be involved from the protocol stage. The team would engage with AGMs during the protocol workshop, draft final report reporting and widely engage them during the dissemination process. We would periodically take their suggestions on important issues and get their feedbacks for all the deliverables. We would produce their comments and inputs as a separate note. We confirm to produce advisory group members inputs on various deliverables and the team will consult EPPI and Advisory group towards the end of the study to develop a dissemination strategy. Drawing on our experiences, the strategy will use practices that were proved successful in the past. Of all the dissemination tools, we will be using specific tools for specific groups of end users. The findings of the study will be presented at conferences and published in peer reviewed journals. Scientific centres involved in social and economic change, development studies, poverty alleviation, etc. will be targeted by publications in peer-reviewed journals, working papers, project presentations, dissemination workshops and conferences. The School of Communication at Manipal University will also be involved in the dissemination activities. We will also be conducting a dissemination workshop for policy-makers, organisers and representatives of government and non-government organisations.

<b>Timetable</b> (some review methods do not include these stages in this order)		
<b>Stage of review</b>	<b>Start date</b>	<b>End date</b>
Title Registration	15-Sep-16	29-Sep-16
Preparation of Preliminary Protocol	15-Sep-16	30-Oct-16
Protocol review and revision	30-Oct-16 20-Nov-16 20-Nov-16 04-Dec-16	20-Nov-16 04-Dec-16 04-Dec-16 15-Dec-16
Stage I: Mapping the Existing evidence	20-Nov-16	28-Feb-17
Preparation of stage II protocol	28-Feb-17	20-Mar-17
Stage II Protocol Review & revision	20-Mar-17 03-Apr-17 03-Apr-17 10-Apr-17	03-Apr-17 17-Apr-17 10-Apr-17 17-Apr-17
Presentation of stage II protocol	25-Apr-17	25-Apr-17
Stage II start: Data extraction	10-Apr-17	30-May-17
Appraisal	01-May-17	30-May-17
Synthesise	25-May-17	25-Jun-17
Contextualisation	25-May-17	12-Jul-17
Preparation of draft report and summary	12-Jul-17	6-Aug-17
Review and revision of draft SR report with contextualisation and SR summary	6-Aug-17	15-Oct-17
Dissemination	15-Oct-17	5-Nov-17
Finalising SR report	5-Nov-17	17-Nov-17

**Do you have any particular concerns about preparing this review?**

No

**Do you have any particular requests for support when preparing this review?**

We may require few trainings on EPPI software. We will contact when in need.