

## Systematic Review Title Registration Form

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

1. A web space for distance learning and support (Moodle - <http://moodle.org/>)
2. Training for conducting systematic reviews: face-to-face workshops and distance learning
3. IT solutions for information management from downloading the outputs of electronic searches to preparing final reports
4. On-line review software to support qualitative, quantitative and mixed methods reviews
5. Tools for screening search outputs, deleting duplicate citations, critical appraisal, statistical meta-analysis and qualitative synthesis
6. Advice about involving potential review users in shaping the focus of a review and interpreting the emerging findings
7. Ongoing distance support, by email, Skype and telephone
8. Organising peer review of protocols and final reports

We have ten years' experience of supporting review groups, working with the international development community since 2007. Recent topics have included health insurance, social franchising, workforce management, microfinance, infrastructure procurement and aid delivery. Funding in this area has come from the Alliance for Health Policy and Systems Research, WHO; and the UK Department for International Development. Systematic reviews are relatively new for international development so methods are still developing and everyone will be learning, both review teams and EPPI-Centre staff.

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: 3ie** (delete as necessary)

**Number and title of review originally requested from funder:**

What factors affect take up of voluntary and community-based health insurance programmes, and do medical care seeking behaviors change with take up?

**Title of review agreed at time of confirmed funding:**

What factors affect take up of voluntary and community-based health insurance programmes in low- and middle- income countries? A systematic review

**Host organisation(s) for review team:**

Micro Insurance Academy (MIA), New Delhi, India  
International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B)

Review team members			
Surname	First name	Email address*	Role
Panda	Pradeep	<a href="mailto:pradeep@mia.org.in">pradeep@mia.org.in</a>	Lead Principal Investigator
Dror	Iddo	<a href="mailto:iddo@mia.org.in">iddo@mia.org.in</a>	Principal Investigator
Koehlmoos	Tracey	<a href="mailto:traceylynnk@hotmail.com">traceylynnk@hotmail.com</a>	Lead Mentor
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\* We shall use these email addresses to register each person for accessing the Moodle web space for ongoing 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.**

Although health shocks are stochastic, a large part of health care spending in developing countries is private and out of pocket (OOP). India is typical: two-thirds of spending is private, of which 74 percent is OOP (World Bank, 2009). While the government is expanding public insurance through programs such as Rashtriya Swasthya Bima Yojna (RSBY)<sup>1</sup>, OOP expenditures remain high (Karan et al., 2012). Moreover, private insurance rates remain below 5 percent (Maa et al., 2008). Health insurance coverage is woefully lacking in other developing countries as well. Poor households must often resort to high-cost loans or asset sales to finance healthcare, and may be forced to forego essential treatment altogether (Binnendijk et al. 2012).

One possible explanation of low enrolment rate is that individuals, especially in poorer areas, do not have faith in insurance schemes and cannot rely on the enforcement of contracts they sign with insurance companies. A solution to the problem is community-based health insurance schemes (CBHI) which are owned and run locally, at the village level. This is an arrangement under which communities mutualise risks and resources in locally-managed healthcare funds (Dror and Jacquier, 1999), where villagers set their own coverage and premiums and settle their own claims.

Development organisations have increasingly recognised the role that micro health insurance (MHI) can play as a poverty reduction tool (ILO, 2006; UNDP, 2007). One form of MHI is CBHI. CBHI have been implemented extensively throughout Rwanda and Tanzania as well as in India, Afghanistan, Nepal, Burkina-Faso, Mali, Senegal, Nigeria, and elsewhere.

Acharya et al. (2012) and Spaan et al. (2012) conducted systematic reviews on the impact of social health insurance in LMIC and on the impact of health insurance in Africa and Asia, respectively. A number of papers examined the impact of CBHI / MHI schemes on health and financial outcomes among members (Gnawali et al. 2009, Aggarwal 2010). However, a

<sup>1</sup> Government of India launched the Rashtriya Swasthya Bima Yojna (RSBY) in 2008, mainly targeting the below-poverty-line (BPL) population in the unorganized sector. RSBY provides insurance coverage for hospitalization costs (up to five members in a family) up to Rs.30, 000 (roughly \$600) per year at both public and private hospitals on family floater basis. The scheme also includes cashless attendance for hospitalized care for listed ailments, pre-existing diseases and transportation cost for the patient with a ceiling of Rs.1000.

logical precursor to understanding the impact of MHI is an understanding of the patterns of uptake of such insurance. To the best of our knowledge no systematic reviews exist on this topic at present, and there seems to be no ongoing work to review the literature on this topic either. This is why such a review is needed. In fact, Cole et al. (2012) conducted a systematic review on take-up and impact of index-based micro insurance, and found that levels of financial literacy, liquidity, trust, marketing and product design factors affect demand for index-based micro insurance products. Our systematic review will focus on several of these factors in the context of CBHI take-up.

**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 focus of the review will be about the determinants of CBHI uptake in LMIC, and our research will aim to cover the following broad areas: Equitability and Socio-economic factors; Trust in insurance scheme provider/scheme management; Barriers to enrolment; and Aspects relevant for setting up a local, self-run health insurance plan (insurance education and technical assistance in insurance domain knowledge). It is recalled that many systematic reviews in other fields of health policy and systems research using the most rigorous form of review methodology (meta-analysis) have produced empty reviews or have found limited studies for inclusion, particularly studies conducted in low- and middle-income countries. It is well discussed that one reason for this is the methodological difficulties of performing such large studies of complex interventions in a rigorous manner particularly in the light of policy changes that must accompany new health systems interventions. This is a particular challenge for capturing information on uptake of CBHI. There is also a lack of funding for health systems and policy research, coupled with a lack of capacity to conduct such research in low- and middle-income countries. Further, some researchers argue that gold-standard methodologies for the clinical sciences may not be held as the gold standard for the social sciences both for primary research and for methodologies for synthesis (Alliance, 2007; Mills et al., 2008; Petticrew, 2009; Waters, 2009). Each CBHI intervention and its population exist in a unique context. This study will strain to capture elements of success across settings, populations and political situations, and our analysis will attempt to synthesize items based upon existing typologies.

### **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.**

#### **3.1 Criteria for including studies in the review [PICOS]**

##### **Participants:**

Members who voluntarily choose to affiliate and pay a premium of the CBHI schemes will be included, as well as those individuals offered to join such schemes and decline to do so. CBHI participants will be included if they take place in low- and middle- income countries (World Bank, 2011).

##### **Interventions:**

Interventions will only be considered for inclusion in this review if they are voluntary, contributory and community-based, and in low- and middle- income countries.

“Voluntary” in our context means an informed and independent choice of the members to enrol (or not); and “contributory” means that all members pay an insurance premium. The

review excludes mandatory insurance affiliation, regardless whether the obligation originates from a different transaction (e.g. an insurance policy added onto a microcredit loan, or compulsory payments that may apply either to individuals linked to group participation).

“Community-based” in our context means that CBHI members have an active role to play in in one of the following components: insurance design / benefit package composition, claims processing and adjudication control over how surpluses/profits are used or deficits covered.

Comparisons:

Although comparisons may not always be feasible, this review will include comparisons between those individuals who join CBHI programmes and those that do not, or those who might select other types of insurance programmes where available.

Outcomes:

Although our methodology is more conducive to inclusively exploring the literature, we propose to collect information on a tentative list of outcomes as mentioned below:

Primary outcomes:

- 1) Enrolment rate
- 2) Size of enrolment
- 3) Willingness to pay

Secondary outcomes:

- 1) Equitable access to health insurance
- 2) Attitude/Perception towards risk
- 3) Knowledge/Exposure to health insurance/CBHI (insurance awareness)
- 4) Availability of health care facilities (Supply side)
- 5) Clients' satisfaction (scheme reputation)
- 6) Trust/Social capital

Study types:

All type of studies that have been taken place in low- and middle- income countries (LMIC) as defined by the World Bank (2011) will be included in this review, but will be sorted according to the type of addressed research questions. Following the World Bank's main criterion for classifying countries, that is gross national income (GNI) per capita, we will consider all countries that are classified as low or middle income.

Observational studies such as surveys, cohort studies, case-controlled studies and case studies (with or without economic or equity analyses) will be considered potentially suitable. While we do not expect to find many, randomised and non-randomised trails, where treatment groups are compared to a suitably selected counterfactual (control groups), with well identified methods of comparison pre-post, simple difference, d-in-d, other quasi experimental methods and randomised experiments, and interrupted time series will also be considered potentially suitable for inclusion, as would be systematic and non-systematic reviews. A list of primary studies that will be reviewed is presented in Appendix A. Publications describing and/or analysing theoretical frameworks will also be reviewed to contribute to the goals of the study, but opinion pieces and policy documents will be excluded. The research questions would be answered using broad evidence (including quantitative and qualitative).

Search Strategy:

We will follow an iterative search strategy, using online databases relating to the thematic areas in the objective including social science, economics and medical science(s). We will search specific electronic databases related to these areas and also other databases focusing in general to human development, academic literatures, abstracts, citations, reports and so on. The search will be further supplemented by handsearching, citation tracking, personal communication and will include grey literature. Our search will date from 1990 until the present time. We shall explore the manner in which CBHI are reported

to operate in developing countries as well as the literature around the circumstances that led to this intervention coming into being. We will restrict our search to studies published in the English and French languages.

Search strategies for electronic databases are being developed using the thesaurus or index terms specific for the databases combined with selected MeSH terms and free text terms related to thematic areas like community-based health insurance or health insurance as a whole.

#### Quantitative and Qualitative Synthesis:

So far as the determinants of health insurance uptake are concerned, we plan on using the PROGRESS-Plus framework by Kavanagh et al. (2008) including: Place of Residence, Ethnicity, Occupation, Gender, Religion, Education, Social capital (including peer experience with insurance, and specifically claims), Socio-economic position (SEP), Age, Disability, Other vulnerable groups.

We will supplement this with topic-specific determinants such as previous exposure to insurance, having followed insurance education campaigns, and financial literacy in general (i.e. previous experience with microfinance in the broad sense-credit and savings). We will create the coding tool after we have had the chance to screen the full text articles for inclusion in the event that an overarching theme emerges from this literature. Qualitative synthesis will be achieved through narrative synthesis.

#### Assessment of heterogeneity

To the extent possible, any heterogeneity in results for the primary studies will be visually explored using bubble plots or box plots (displaying medians, interquartile ranges and ranges). If there are sufficient data, heterogeneity in the findings for the primary outcomes will be explored using meta-regression.

#### Investigation of heterogeneity

We expect variations in the study findings due to the various sources of heterogeneity, such as differences in the types of CBHI activities within the intervention and outcome measurements. There may be variations in study setting (rural versus urban), the socio-economic status (e.g. income quintiles), and the cultural and health service environment of the country in which the study was conducted. We will try to explore possible heterogeneity due to the above mentioned variables using meta-regression analysis if feasible. If sufficient studies are not identified, we will explore heterogeneity via different techniques, either visually via bubble plots or via box plots (displaying medians and ranges).

We will consider equity across selected outcomes in the review (i.e. if the poorest and least poor achieve the same benefit, similarly whether urban and rural groups obtain same benefit). We will apply selected components of the PROGRESS-Plus (Oliver 2008) framework described above and conduct subgroup analyses to assess the impact of interventions on health inequalities, using methods previously reported by Kavanagh 2009. Two approaches can address questions about the impact of interventions on inequalities. The first is to inspect trials for outcome data related to subgroups unequally affected by social determinants of health.

The second is to classify study populations according to their social determinants of health and conduct subgroup analyses to test pre specified hypotheses. If there are sufficient included studies, we will carry out subgroup analysis to determine whether the interventions work for the disadvantaged. We will group studies according to the characteristics of CBHI.

#### Experience of systematic reviewing

Name	Experience
Panda, Pradeep	Attended the Colloquium for Systematic Reviews in International Development, BRAC CDM Savar, Dhaka, 10 <sup>th</sup> - 14 <sup>th</sup> December 2012
Dror, Iddo	Attended the recent 2 <sup>nd</sup> International Training Workshop on Capacity Building for Systematic Review in South Asia.
Koehlmoos, Tracey	At present, Dr. Tracey Koehlmoos and Dr. Shaikh A. Shahed Hossain lead a Department for International Development (UK) (DfID) funded project to build systematic review capacity within the South Asia Region which builds upon partnerships with the UK's Medical Research Council and the Campbell Collaboration and 3ie. (Members of the icddr,b centre for systematic review team have conducted more than eight systematic reviews. They are experienced in training and mentoring other developing country review teams in systematic review employing a diverse range of methodologies.)
Hossain, S.A. Shahed	He is a trained and experienced search strategist. He teaches courses on developing and implementing rigorous searches appropriate to the topic and methods used in reviews.
John, Denny	Currently working on updating an existing Cochrane Review Title 'Screening for prevention of optic nerve damage due to chronic open angle glaucoma'; underwent systematic review and meta-analysis course as part of MPH studies.
Khan, Jahangir A.M.	He is an experienced researcher in the field of health economics, and has conducted several systematic reviews.

### Communications plan and user engagement

More so than the production of the requisite peer reviewed publication, the success of this project will be linked to our ability to translate the findings into action within developing countries applying or interested in applying community-based health insurance programmes as described in the Buxton-Hanney Payback Framework. We will identify groups particularly within South and South East Asia that are working on CBHI as well as through the course of the review. We will emphasize the creation of knowledge translation tools that can reach the end-line users such as policy-makers, donors and civil society organizations through conference presentations, policy briefs and contributing to the updating and maintenance of existing webpages. We will build an advisory group based upon the strong existing advisory group to MIA and to the Centre for Systematic Review at icddr,b. We will form an advisory group of 8-10 members comprising of policy-makers, donors, methodology expert and other researchers active in the CBHI field. We hope to benefit from their guidance with the ultimate objective of both creation of scientific knowledge and transferring that knowledge to the end-users such as policy makers, donors and civil society organizations. We will reach out to the members of the advisory group by sharing protocol, preliminary findings and dissemination activities not only to update them on the progress of the review but also to receive their feedback about the usefulness of the plan and the important aspects of the findings that would be turned into policy briefs or emphasized in policy briefs.

<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>
Preparing the protocol	1 <sup>st</sup> October 2012	31 <sup>st</sup> December 2012
Peer review of protocol (allow 2 months)	1 <sup>st</sup> January 2013	28 <sup>th</sup> February 2013
Searching for studies	15 <sup>th</sup> January 2013	28 <sup>th</sup> February 2013
Assessing study relevance	15 <sup>th</sup> January 2013	28 <sup>th</sup> February 2013
Extracting data from studies	15 <sup>th</sup> January 2013	28 <sup>th</sup> February 2013
Assessing study quality	15 <sup>th</sup> January 2013	28 <sup>th</sup> February 2013
Synthesising studies	1 <sup>st</sup> March 2013	31 <sup>st</sup> March 2013
Preparing draft report	1 <sup>st</sup> April 2013	30 <sup>th</sup> April 2013
Disseminating draft report (allow 3 months)	1 <sup>st</sup> July 2013	31 <sup>st</sup> August 2013
Revising report	1 <sup>st</sup> July 2013	31 <sup>st</sup> August 2013
Submission for publication with the EPPI-Centre	31 <sup>st</sup> August 2013	1 <sup>st</sup> September 2013

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

No

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

We will require support for statistical meta-analysis and for searching but plan to utilize existing networks (such as those developed through the DfID Capacity Building for Systematic Review in South Asia). For example, we will work with Ms. Jessie McGowan in U Ottawa to assist with implementing our search strategy in databases to which we do not have access.

It is likely that there will be great heterogeneity amongst our included studies but if statistical meta-analysis will be feasible, we will reach out to senior methodologists within the Campbell Collaboration such as Dr. Terri Piggott to provide quality assurance to our work.

## Appendix A: Primary Studies for “Determinants of insurance uptake”

- Basaza R, Criel B, Van der Stuyft P (2008) *Community Health Insurance in Uganda: Why Does Enrolment Remain Low? A View from Beneath*. Health Policy 87 (2), 172-184.
- Bendig M, Arun T (2011) *Enrolment in micro life and health insurance: Evidences from Sri Lanka*. IZA Discussion paper No. 5427, Institute for the Study of Labour, Bonn.
- Binnendijk E, Koren R, Dror D (2012) *Hardship financing of healthcare among rural poor in Orissa, India*. BMC Health Services Research, 12: 23.
- Bonan J, Dagnelie O, LeMay-Boucher P, Tenikue M (2012) *Is It All About Money? A Randomized Evaluation of the Impact of Insurance Literacy and Marketing Treatments on the Demand for Health Microinsurance in Senegal*. [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1990203](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1990203)
- Chankova S, Sulzbach S, Diop F (2008) *Impact of Mutual Health Organizations: Evidence from West Africa*. Health Policy and Planning, 23(4), 264-276.
- Cole S, Bastian G, Vyas S, Wendel C, Stein D (2012) *Systematic Review: The effectiveness of index-based micro-insurance in helping smallholders manage weather-related risks*. EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.
- Criel B, Waelkens M.P (2003) *Declining subscriptions to the Maliando Mutual Health Organisation in Guinea - Conakry (West Africa): What is going wrong?* Social Science and Medicine, 57, 42-48.
- De Allegri M, Sanon M, Sauerborn R (2006) *To Enrol or Not to Enrol? : A Qualitative Investigation of Demand for Health Insurance in Rural West Africa*. Social Science & Medicine 62 (6), 1520-1527.
- Dror D, Jacquier C (1999) *Micro-insurance: Extending Health Insurance to the Excluded*. International Social Security Review, 52(1), 71-97.
- Gumber A (2001) *Hedging the health of the poor: the case for community financing in India, Health, Nutrition and Population*. Discussion Paper Series, the World Bank, Washington DC.
- ILO/STEP, GTZ (2006) *The Role of Microinsurance as a Tool to face Risks in the context of Social Protection: Geneva*. ILO/STEP & GTZ.
- Ito S, Kono H (2010) *Why is the take-up of microinsurance so low? Evidence from a health insurance scheme in India*. The Developing Economies, 48(1), 74-101.
- Morsink K, Geurts P (2011) *Informal Trust Building Factors and the Demand for Microinsurance*. Institute of Governance Studies, University of Twente.
- Msuya J, Juetting J, Asfaw A (2004) *Impacts of Community Health Insurance Schemes on Health Care provision in Rural Tanzania*. Discussion Papers on Development Policy No. 82, Center for Development Research, University of Bonn.
- Ozawa S, Walker DG (2009) *Trust in the Context of Community-based Health Insurance Schemes in Cambodia: Villagers' Trust in Health Insurers*. Advances in Health Economics and Health Services Research 21, 107-132.
- Ranson MK (2001) *The Impact of SEWA's Medical Insurance Fund on Hospital Utilization and Expenditure: Results of a Household Survey, Health, Nutrition and Population*. Discussion Paper Series, World Bank, Washington DC.

- Schneider P, Diop F (2001) *Synopsis of Results on the Impact of Community-Based Health Insurance on Financial Accessibility to Health Care in Rwanda*. HNP Discussion Paper, World Bank.
- Sinha T, Patel F, Gandhi F (2006) *Understanding Member Dropout in VIMO SEWA*. VIMO SEWA, Ahmedabad.
- Spaan E, Mathijssen J, Tromp N, McBain F, Have A. T, Baltussen R, (2012) *The impact of health insurance in Africa and Asia: a systematic review*. Bulletin of the World Health Organization. 90, 685-692A.
- Thornton RL, Hatt LE, Field EM, Islam M, Diaz FS, Gonzalez M. A (2009) *Social Security Health Insurance for the Informal Sector in Nicaragua: A Randomised Evaluation*. Health Economics, 19, 181-206.
- UNDP (2007) *Building Security for the Poor: Potential and Prospects for Microinsurance in India*. United Nations Development Programme, Colombo.

#### Other References:

- Aggarwal A (2010) *Impact Evaluation of India's "Yeshasvini" Community Based Health Insurance Program*. Health Economics, 19, pp. 5-35. Alliance for Health Policy and Systems Research, (2007) *Sound Choices: enhancing capacity for evidence-informed health policy*. Green A & Bennett S eds. WHO: Geneva.
- Clark S, Horton R (2010) *Putting research into context-revisited*. Lancet 376,10-11.
- Gnawali DP, Pokhrel S, Sie A, Sanon M, De Allegri M, Souares A, Dong H, Sauerborn R (2009) *The Effect of Community-Based Health Insurance on the Utilization of Modern Health Care Services: Evidence from Burkina-Faso*. Health Policy, 90 (2-3), 214-222.
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- Ma S, Sood N (2008) *A comparison of the health systems in China and India*, Santa Monica, CA. RAND. xiii, 44 p.
- Mills A, Gilson L, Hanson K, Palmer N, Lagarde M (2008) *What do we mean by rigorous health-systems research?* Lancet. 372: 1527.
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