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## Title registration for a review proposal: Family and Community interventions under IMCI strategy for reduction of neonatal and under-fives mortality among children in low- and middle-income countries: a systematic review

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To start a Campbell review, a title must be registered and approved by the appropriate Campbell review group. For information about the title registration and protocol and review steps, visit the Campbell website:  
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Submitted to the Coordinating Group of:

- Crime and Justice
- Education
- Social Welfare
- International Development

Plans to co-register:

- No
- Yes
- Maybe

Please complete this form to outline your proposal for a Campbell International Development Group systematic review. Email the completed form to Martina Vojtkova, Coordinator, Campbell International Development Group:  
[mvojtkova@zieimpact.org](mailto:mvojtkova@zieimpact.org). Tel: +44 20 7958 8351.

Before completing this form:

- Make sure that your proposal falls within our scope, and that it has not already been covered in another Campbell or Cochrane review. Check existing registered titles at: [www.campbellcollaboration.org/library.php](http://www.campbellcollaboration.org/library.php) and [www.cochrane.org/reviews/en/topics](http://www.cochrane.org/reviews/en/topics).
- Authors are advised to use the [Campbell methods briefs](http://www.campbellcollaboration.org/methods_briefs) and Cochrane Handbook for Systematic Reviews of Interventions (see [www.cochrane-handbook.org](http://www.cochrane-handbook.org)).
- Be aware that preparing a Campbell review requires a significant, long-term commitment. At least two authors are required before a title can be registered.

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## TITLE OF THE REVIEW

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Family and community interventions under IMCI strategy for reduction of neonatal and under-fives mortality among children in Low-and-middle-income countries: a systematic review

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## BACKGROUND AND OBJECTIVES

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Each year globally about 10 million child deaths occur mostly from preventable causes of which nearly 98% occur in developing countries. Despite the declining rates of under-five child mortality rates during the past two to three decades, the neonatal mortality has been stagnated and the childhood illness rates also have not reduced as much. However, available evidence suggests that interventions such as exclusive breastfeeding, clean and skilled care at delivery, tetanus toxoid immunization to pregnant mothers, newborn resuscitation, appropriate management of infections, can prevent majority of the neonatal deaths. In addition, prompt and appropriate management of acute diarrheal diseases, acute respiratory tract infections, and Malaria and childhood undernutrition can prevent child mortality.

The three components of IMCI strategy are 1) improving case management skills of health-care providers particularly in the outpatient facilities, 2) strengthening health systems and 3) promoting the family and community health practices. A systematic review comparing effect of standard 11-days training versus shortened 5-10 days training on quality of care has concluded that the limited available evidence showed that standard (11-days) IMCI training to be marginally better with very little difference between them. The review also recommended that there is a need for implementing other IMCI interventions irrespective of the training duration since for a third of sick children HCPs did not adhere to IMCI guidelines. However, there is lack of robust evidence on impact of family and community interventions on compliance to home-based care, care seeking behavior and preventive practices. Hence synthesizing the evidence about family and community interventions of the IMCI strategy on the reduction neonatal and other child mortality rates is timely and policy relevant. Our objective was to assess if family and community interventions of IMCI strategy have any impact on reduction of neonatal and under-five mortality rates in LMIC settings.

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## EXISTING REVIEWS

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Rowe AK, Rowe SY, Holloway KA, Ivanovska V, Muhe L, Lambrechts T. Does shortening the training on Integrated Management of Childhood Illness guidelines reduce its effectiveness? A systematic review. *Health Policy Plan.* 2012 May;27(3):179-93

Rowe AK, Rowe SY, Holloway KA, Ivanovska V, Muhe L, Lambrechts T. Does shortening the training on Integrated Management of Childhood Illness guidelines reduce effectiveness? Results of a systematic review. Final Report. World Health Organisation, Geneva, 2007 Available at [http://whqlibdoc.who.int/publications/2008/9789241597210\\_eng.pdf](http://whqlibdoc.who.int/publications/2008/9789241597210_eng.pdf) (accessed on 18/08/2012)

Amaral JJ, Victoria CJ. The effect of training in Integrated Management of Childhood Illness (IMCI) on the performance and healthcare quality of pediatric healthcare workers: a systematic review *Rev. Bras. Saúde Matern. Infant., Recife*, 8 (2): 151-162,

## Non-systematic reviews

Paranhos VD, Pina JC, Mello DF. Integrated management of childhood illness with the focus on caregivers: an integrative literature review. *Rev Lat Am Enfermagem*. 2011 Jan-Feb;19(1):203-11.

RHaws RA, Thomas LA, Bhutta ZA, Darmstadt GL. Impact of packaged interventions on neonatal health: a review of the evidence. *Health Policy and Planning* 2007;22:193–215

## Additional reviews:

Dudley, L., Garner, P. Strategies for integrating primary health services in low- and middle-income countries at the point of delivery. *Cochrane Library*, 2011. NOTE: This review is currently being updated.

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## DEFINE THE POPULATION

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1. Newborns (age up to four weeks after birth) and children aged less than five years
2. Parents of newborns and under-five children
3. Community members/leaders i.e. Women's groups, or religious leaders or Community Health Workers (CHW) or Traditional Birth Attendants (TBAs)

All the populations to be included will be residing in the low-and-middle-income countries (LMICs) as defined by World Bank

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## DEFINE THE INTERVENTION

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The community health workers will conduct early post-natal home visits (on days 1, 3, and 7) and two visits thereafter to conduct counselling for family members about newborn care, child nutrition and care of sick child respectively. They will also arrange community meetings for sensitization about childcare and meetings with community leaders (twice a year) and women's groups (weekly) for counselling, spreading community awareness and peer education. Community Education will use traditional or local folk media and/or mass media to disseminate the health messages.

Comparison groups in controlled study design will be those individuals and clusters or communities where routine mother and child health services are ongoing without implementation of IMCI community interventions

Comparison groups in uncontrolled (quasi-experimental studies) studies i.e. before-after and interrupted time-series designs will be communities when IMCI community component was not implemented (i.e. before implementation of IMCI strategy)

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## OUTCOMES

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### Primary outcomes:

1. Neonatal mortality rates

2. Post-neonatal mortality rates
3. Infant mortality rates
4. Under-five mortality rates

**Secondary outcomes** (any of the outcome measures listed below and/or any other outcomes of interest to this review that are identified during search for studies or analysis will be included)

Newborn care practices such as (% of newborns that were)

1. Breast-feeding initiation done within 1 hours after birth
2. Not given pre-lacteal feeds
3. Exclusive breast-feeding at 4 weeks
4. Skin-to-skin on first day of life
5. Appropriate clothing first day of life
6. Nothing applied to the umbilical cord

Child nutrition and feeding practices such as (% of children who are)

1. Child younger than 6 months exclusively Breastfeeding
2. Child aged 6–9 months receiving breast milk and complementary feeding
3. Wasting in children aged 0–23 months (defined as  $\leq 2$  weight-for-height Z score)
4. Stunting in children aged 24–59 months (defined as  $\leq 2$  weight-for-height Z score)

Care during illness of child (Ex: acute respiratory infections, diarrhea and Malaria) such as

1. Proportion of caretakers who sought appropriate care during illness in last 2 weeks
2. Proportion of care takers who sought prompt (within 24 hours) care seeking during illness in the last 2 weeks
3. Proportion care takers who continued feeding the child during illness
4. Proportion of care takers who adhered to health care providers' advice on treatment

Outcomes measuring the efficacy of community mobilization program ( i.e. indicators measuring if IMCI strategy has been successful in educating community members/caregivers about childcare and healthcare seeking behavior)

1. Proportion of care takers i.e. family members/parents who were counseled in previous 6 months by a community health worker on child feeding, care-seeking etc
2. Proportion of care takers who had attended a session about community mobilization during last 6 months.
3. Proportion of mother/care takers with knowledge about Oral Rehydration Solution and/or home available fluids for management of diarrhea at home
4. Proportion of mothers with knowledge about at least two danger signs of a sick child

Adverse and unintended effects, such as:

1. Improved utilisation of public health facilities or private health facilities
2. Increase in immunisation coverage according to expanded program of immunisation
3. Increased proportion of skilled attendance at birth
4. Increased proportion of childbirths at health facilities
5. Decreased incidence of respiratory infections and diarrhoea by improved nutrition status

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## STUDY DESIGNS

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Study designs to be included:

### Experimental study designs:

1. Randomized controlled trial
2. Cluster-randomized controlled trials
3. Quasi-randomized trials

### Quasi-experimental study designs:

1. controlled before-and-after studies
2. uncontrolled before-and-after studies
3. interrupted time series designs.

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## AUTHOR(S) REVIEW TEAM

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<b>Lead reviewer</b> This is the person who develops and co-ordinates the review team, discusses and assigns roles for individual members of the review team, liaises with the editorial base and takes responsibility for the on-going updates of the review	Name: Chandrashekhar T Sreeramareddy Title: Associate Professor Affiliation: Faculty of Medicine and Health Sciences, University Tunku Abdul Rahman Address: FMHS, Sg. Long campus, Bandar Sungai Long, Kajang, Cheras State: Selangor Postal Code: 43000 Country: Malaysia Phone: 0060183226459 Email: chandrashekharats@yahoo.com
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<b>Co-author</b> If applicable	Name: Harsha Kumar HN Affiliation: Department of Community Medicine, Kasturba Medical College, Mangalore Country: India

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## **ROLES AND RESPONSIBILITIES**

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- Content: Chandrashekhar T sreeramareddy, Harsha Kumar
- Systematic review methods: T N Sathyanarayana, Raghupathy Anchala, Harsha Kumar
- Statistical analysis: Chandrashekhar T Sreeramareddy, T N Sathyanarayana
- Information retrieval: T N Sathyanarayana, Raghupathy Anchala, Harsha Kumar

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## **POTENTIAL CONFLICTS OF INTEREST**

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None to declare

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## **SUPPORT**

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Do you need support in any of these areas: methodology and causal inference, systematic searches, coding, statistical analysis (meta-analysis)?

Yes, in Methodology and causal inference and meta-analysis

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## **FUNDING**

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We are planning to apply for funding from Indian Council of Medical Research (ICMR), New Delhi, India.

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## **PRELIMINARY TIMEFRAME**

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Note, if the protocol or review are not submitted within 6 months and 18 months of title registration, respectively, the review area is opened up for other reviewers.

- Date you plan to submit a draft protocol: March, 31<sup>st</sup> 2013
- Date you plan to submit a draft review: December 31<sup>st</sup> 2013

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## **DECLARATION**

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### **Authors' responsibilities**

By completing this form, you accept responsibility for preparing, maintaining and updating the review in accordance with Campbell Collaboration policy. The Campbell International Development Group will provide as much support as possible to assist with the preparation of the review.

A draft protocol must be submitted to the Group within six months. If drafts are not submitted before the agreed deadlines, or if we are unable to contact you for an extended period, the Group has the right to de-register the title or transfer the title to alternative authors. The Group also has the right to de-register or transfer the title if it does not meet the standards of the Group and/or the Campbell Collaboration.

You accept responsibility for maintaining the review in light of new evidence, comments and criticisms, and other developments, and updating the review at least once every three years, or, if requested, transferring responsibility for maintaining the review to others as agreed with the Group.

**Publication in the Campbell Library**

The support of the International Development Group in preparing your review is conditional upon your agreement to publish the protocol, finished review and subsequent updates in the Campbell Library. Concurrent publication in other journals is encouraged. However, a Campbell systematic review should be published either before, or at the same time as, its publication in other journals. Authors should not publish Campbell reviews in journals before they are ready for publication in CL. Authors should remember to include the statement: "This is a version of a Campbell review, which is available in The Campbell Library".

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**I understand the commitment required to undertake a Campbell review, and agree to publish in the Campbell Library. Signed on behalf of the authors:**

**Form completed by:  
Chandrashekhara T Sreeramareddy**

**Date: 20/08/2012**

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