

VOLUME 3:

APPENDICES

Appendix 1. Methodological Issues

What is CBPHC?

Include publication bias/reporting bias

What constitutes an intervention

Methodological issues in assessing mortality impact

Issues of statistical significance, RR, OR etc.

What qualified as an intervention study

Issue of overlap of studies

Emphasize that we are reviewing the effectiveness of program interventions on population-based child health, not on subsets of children, and we are not using observational epidemiologic studies of existing current behavior (although this is the beginning point for many interventions, obviously).

Appendix 2. Reviewers of Documents

Last Name	First Name	Degrees	Other Information
Aftab	Asma	MD, MPH	Assistant Scientist, Department of Family Medicine and Community Health, University of Miami School of Medicine, Miami, FL
Aitken	Iain	MD, MPH	Principal Program Associate, Center for Health Outcomes, Management Sciences for Health, Cambridge, MA
Altobelli	Laura	MPH, DrPH	Country Director, Future Generations/Peru, Lima, Peru
Ashworth-Hill	Ann	PhD	Emeritus Professor of Community Nutrition, London School of Hygiene, London, UK
Asgary	Ramin	MD, MPH, MSc, CTM&H	Assistant Professor, Departments of Internal Medicine and Family & Social Medicine, Montefiore Medical Center, Bronx, NY
Berggren	Gretchen	MD, MPH	International Public Health Consultant, Boulder, CO
Berggren	Warren	MD, DrPH	International Public Health Consultant, Boulder, CO
Bottex	Erve	MD	Harlem Hospital Center, Division of Medicine/Infectious Diseases, New York, NY
Bryant	Jack	MD	Adjunct Professor, Department of International Health, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD
Capps	Jean	RN, MPH	International Public Health Consultant, Takoma Park, MD
Chang	Stephanie	MD, MPH	Clinical Research Fellow, Division of General Internal Medicine, Department of Medicine, Johns Hopkins University, Baltimore, MD
Cheatham	Elizabeth	MA, MPH	Operations Manager, Konbit Sante, Portland, ME
Chitnis	Ketan	PhD	Programme Communication Officer UNICEF New York
Christie	Len	MD, MPH	Cardiology consultant, Eugene, Oregon

Last Name	First Name	Degrees	Other Information
Crouse	Deanna	MHS	Senior Program Manager, Social & Scientific Systems, Inc., Washington, DC
Davachi	Christine	MSc (Development Economics, School of Oriental and African Studies, University of London, London, UK)	Washington, DC
Dowell	Duane	MD	Pediatrician (retired) and former Medical Director, Hospital Albert Schweitzer (Haiti), Ann Arbor, Michigan
Emami	Ashkan	JD candidate	Law student, American University, Washington, DC
Finnegan	Karen	MPH candidate	MPH Program, Rollins School of Public Health, Emory University, Atlanta, GA
Freeman	Paul	MD, DrPH, MPH	International Public Health Consultant, Seattle, WA
Grant	Juliana		EIS Program, Centers for Disease Control, Atlanta, GA
Gupta	Sundeeep	MD, MPH	US Centers for Disease Control and Prevention, Kampala, Uganda
Habarta	Nancy	MPH	ORISE Research Fellow, Atlanta, GA
Haq	Nowreen	MD, MPH	Research Program Coordinator, Division of General Internal Medicine, Johns Hopkins Medical Institute, Baltimore, MD
Hashemi	Paymon	MPH	Research assistant, Environmental Epidemiology Service, Department of Veterans Affairs, Washington, DC
Hill	Zelee	PhD, MSc	Research Fellow, London School of Hygiene and Tropical Medicine, London, UK
Hoar	Sandy	MPAS, PA-C	Assistant Clinical Professor of Health Sciences Programs and Global Health, George Washington University, Washington, DC

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Last Name	First Name	Degrees	Other Information
Jani	Asim	MD, MPH	Medical Epidemiologist, Coordinating Office for Global Health, Centers for Disease Control and Prevention, Atlanta, GA
Joseph	Gabriel	MD	MPH student, Department of Health Administration, Faculty of Medicine, University of Montreal, Montreal, Canada
Kim	Dennis	MHS candidate	Candidate, Masters of Health Science, Reproductive and Cancer Biology, Johns Hopkins University School of Public Health, Baltimore, MD
Laswell	Stacy	MPH	ORISE Fellow (Reproductive Health for Refugees), Division of Reproductive Health, Centers for Disease Control and Prevention, Atlanta, GA
Mataya	Ron	MD	Chairman and Assistant Professor, Department of Global Health, Loma Linda University School of Public Health.
McCord	Colin	MD	International Public Health Specialist, Oxford, England
McMorrow	Meredith	MD, MPH	Malaria Branch, Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA
Menager	Henri	MD, MPH	Epidemiologist, Cancer Prevention and Control Program, Office of Health Promotion, Kansas Department of Health and Environment, Topeka, KS
Mirchandani	Gita	PhD, MPH	EIS Fellow, Epidemiology and Disease Control Programs, Maryland Department of Health and Mental Hygiene, Baltimore, MD
Paredes	Patricia	MD, MSc, DrPH	Global health consultant, Washington, DC
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Last Name	First Name	Degrees	Other Information
Poehlman	Jon	PhD	Health Communication Researcher, RTI International, Research Triangle, NC
Premkumar	Ramaswamy	PhD	Schieffelin Leprosy Research & Training Center, Karigiri Via-Katpadi , Vellore District Tamil Nadu, India
Rassek	Bahie	PhD	Public Health Specialist, The World Bank, Washington, DC
Ricca	James	MD, MPH	Capacity Development Advisor, Child Survival Technical Support Project, ORC Macro
Rohde	Jon	MD	International Public Health Specialist, Cape Town, South Africa
Sacks	Emma	PhD candidate	PhD student, Department of International Health, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD
Sillan	Donna	MPH	International Public Health Consultant, Mill Valley, CA
Stake	Stephen	MHS candidate	MHS candidate, Department of International Health (Social and Behavioral Interventions), Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD
Steinhardt	Laura	MPH	PhD Student, Department of International Health-Health Systems, Johns Hopkins School of Public Health, Baltimore, MD
Suchdev	Parminder S.	MD, MPH	Epidemic Intelligence Service Officer, Pediatrician, Maternal and Child Nutrition Branch, Centers for Disease Control and Prevention, Atlanta, GA
Taylor	Henry	MD, MPH	Senior Associate in Applied Public Health, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD
Teller	Charles	MA, PhD	Senior Advisor in Evaluation, Global Health Bureau, USAID, Washington, DC
Yuan	Jean	MD	CDC EIS Officer working with the Infectious Disease Branch of the California Department of Health Services, Richmond, CA

Appendix 3. Members of the Expert Review Panel

Name	Organizational Affiliation	Title	Location
Raj Arole	Jamkhed Comprehensive Rural Health Project	Director	Jamkhed, India
Rajiv Bahl	World Health Organization	Medical Officer, Child and Adolescent Health and Development Unit	Geneva, Switzerland
Abhay Bang	Director, Society for Education, Action and Research in Community Health (SEARCH)	Director	Gadchiroli, India
Al Bartlett	United States Agency for International Development	Senior Advisor for Child Survival, Bureau for Global Health, Office of Health, Infectious Diseases, and Nutrition, United States Agency for International Development	Washington, DC, USA
Robert Black	Bloomberg School of Public Health, Johns Hopkins University	Professor and Chairman, Department of International Health	Baltimore, MD, USA
Anthony Costello	University College London London, UK	Professor, International Perinatal Care Unit, Institute of Child Health	London, England
Dan Kaseje	Tropical Institute of Community Health and Development	Director	Kisumu, Kenya
Betty Kirkwood	London School of Hygiene and Tropical Medicine	Public Health Intervention Research Unit, Professor of Epidemiology and International Health	London, England
Rudolph Knippenberg	UNICEF	Senior Advisor for Health (Principal Global Advisor Health Systems, Strategies and Policies)	New York, NY, USA
Claudio Lanata	Institute of Nutritional Research	Senior Researcher	Lima, Peru
Adetokunbo Lucas	Harvard University	Adjunct Professor of International Health	Ibidan, Nigeria
Pang Ruyan	World Health Organization	Regional Advisor, Reproductive Health	Manila, Philippines
David Sanders	School of Public Health, University of Western Cape	Dean	Cape Town, South Africa
Agnes Soucat	The World Bank	Lead Economist, Human Development, Africa Region	Washington, DC, USA
Carl Taylor, Chairperson	Bloomberg School of Public Health, Johns Hopkins University	Professor Emeritus, Department of International Health	Baltimore, MD, USA
Mary Taylor	The Gates Foundation	Senior Program Officer, Community Health Solutions	Seattle, WA, USA

Appendix 4: Copy of Data Forms and Guides

Data Extraction Form for Reviewers

**Systematic Review of the Effectiveness of
Community-based Primary Health Care**

**Working Group on Community-Based Primary Health Care
International Health Section
American Public Health Association**

27 March 2007

Instructions

Please read the article or document carefully from cover to cover and make notes as appropriate. Then answer the questions as best you can. Your answers should be typed electronically using Microsoft Word and this version of the questionnaire. When you finish, please email it to Henry Perry (henry@future.org). Each article will be reviewed independently by two reviewers, and one of us (Henry Perry, Paul Freeman, Sundeep Gupta, or Bahie Rassekh) will reconcile any differences encountered in the two reviews and submit the final consolidated review for analysis.

Identifying Information

1. List the complete reference (*authors, title, location of document*)

2. What type of document is this?

- a. Scientific article in peer-reviewed journal []
- b. Other journal publication []
- c. Unpublished project document (including evaluation) []
- d. Review article []
- e. Other []
(describe) _____

Level and Location of Project/Program/Study

3. At what level is this project/program/study?

- a. Single community []
- b. Set of communities []
- c. Sub-province (or district) []
- d. Province []
- e. National []
- f. Multinational []
- g. Policy []
- h. Other (describe) _____
- i. Unknown []

4. Country(ies)

5. If the project/program/study is within one country, indicate the name of the specific location of the study

6. Type of geographical area (check all that apply)

- a. Urban
- b. Peri-urban
- c. Rural
- d. Tropical lowlands
- e. Tropical mountainous
- f. Mountainous desert
- g. Non-Tropical area

h. Other

(specify)

- _____
- i. Unknown

Study Interventions (check any that apply)

7. a. Is there any other ongoing intervention or program that this specific report is a part of?

Yes

No

b. If "yes", please describe it:

c. Is this project/program/study a part of a larger project/program/study? If so, please describe the larger effort. (Use the paper's own words if possible)

Note: All subsequent questions will refer to the specific project/program/study which the paper you are reviewing refers to and not any other broader ongoing assessments at the study site.)

8. What was the objective of the project/program/study? *(Use the paper's own words if possible)*

9. Child health topic area *(Mark 'X' for Yes; leave blank for No)*

- a. Child weight/height []
- b. Breastfeeding []
- c. Complementary feeding []
- d. Micronutrients []
- e. Diarrhea prevention []
- f. Diarrhea treatment []
- g. Pneumonia prevention []
- h. Pneumonia treatment []
- i. Malaria prevention []
- j. Malaria treatment []
- k. HIV prevention []
- l. HIV/AIDS treatment []
- m. Neonatal tetanus prevention []
- n. Neonatal tetanus treatment []
- o. Measles prevention []
- p. Measles treatment []
- q. Congenital syphilis prevention []
- r. Congenital syphilis treatment []
- s. Immunizations []
- t. Neonatal/perinatal health []
- u. Childhood illness/IMCI (integrated management of childhood illness) []
- v. Primary health care []
- w. Other []
(specify)_____
- x. Unknown []

10a. Interventions *(one per line for first 4)*

- a. first (major one)_____

- b. second _____
- c. third _____
- d. fourth _____
- e. all others _____

10b. Is there any additional important information about the interventions?

Project/Program/Study Implementers

11. Implementers of the intervention at the community level

a. Type of main/direct implementers of the intervention(s)

- 1. Local community members only (who are not trained to be community health workers) []
- 2. Community health workers (both paid and volunteer) []
- 3. Research workers only for this project/program/study []
- 4. Local government health professionals not selected by community []
- 5. Expatriates []
- 6. Other (specify) _____

b. Name of implementers: *(list names of the categories of people implementing the interventions which this study assesses, such as “auxiliary nurses” or “volunteer community health workers called Health Agents”)*

c. Other implementers at community level *(list any other implementers at the community level)*

12. a. Type of facilitating and/or stakeholding organization(s) *(entities which cooperated or which had a stake in the intervention or program but were not actual implementers)*

- 1. Community only []

- 2. Local NGO []
- 3. Local government []
- 4. State or national government []
- 5. International NGO []
- 6. National NGO []
- 7. Faith-based organization []
- 8. Profit or not-for-profit organization or foundation []

b. Name of facilitating organization(s) and any other information:

13. Did any donor organization(s) support the study? (We consider a donor organization to be one which has only a funding role with a limited advisory or review role.)

- 1. USAID []
- 2. AusAid []
- 3. DFID []
- 4. CIDA []
- 5. JICA []
- 6. World Bank []
- 7. WHO []
- 8. UNICEF []
- 9. Other UN Agency
(specify) _____
- 10. Private company
(specify) _____
- 11. Other
(specify) _____

Study Details

14. a. Study start year and month (MM/YYYY) _____/_____

b. Study end year and month (MM/YYYY) _____/_____

15. Please indicate the length of time during which the study took place

- Longer than 10 years 4 []
- 5 - 9.9 years 3 []
- 1.0 - 4.9 years 2 []

Less than 1.0 year	1	[]
Not applicable	9	[]

16. Design (type of study)

- 1. Randomized controlled intervention []
- 2. Non-randomized controlled intervention []
- 3. Uncontrolled intervention []
- 4. Case-control cross-sectional study []
- 5. Cross-sectional study []
- 6. Descriptive study []
- 7. Non-study activity (specify) [] _____

Study population (describe by grouping, e.g., villages, households or persons, and number of each)

17. Intervention group _____

18.a. Was there a control group? yes ___/no ___

b. If Yes, please list:

19. If control group present, please indicate:

a. Were the intervention and control groups/areas selected at random?

yes ___/no ___

b. Were there community and facility-based arms in the intervention and control groups?

yes ___/no ___

c. Were there baseline comparisons of the intervention and control groups/areas

yes ___/no ___

d. Were there notable differences in socio-demographic characteristics or in other indicators of interest between the intervention and control groups/control areas at baseline?

yes ___/no ___

If yes, please explain further: _____

20. If no control group, was there any other reference or comparison group used? yes ___/no ___

If yes, please explain

further: _____

21. Age range of study children

22. Any special characteristics of the study population? (e.g., in terms of sex, socio-economic status, characteristics of the children's mothers)

23. Other relevant characteristics of study population (e.g., ethnic, cultural, occupational, etc.)

24. Were men in the community involved in any way (e.g., fathers, community leaders, traditional healers)? yes ___/no ___/not specified ___

Explain further:

Project/Program/Study Context

25. What additional information about the context in which the intervention was implemented (aside from the study population characteristics mentioned in Questions 22-23) is significant? (e.g., epidemiological situation, status of the health services, long-term presence of research organization, etc.)

26. What "system" inputs were provided by the project/program/study for implementers at the community level? (e.g., training in health care or promotion skills, managerial support, logistics, referral, supervision, and monitoring)

Study Outcomes (refer back to Questions 7-9)

27. a. Outcome variables (one per line)

1. Major outcome

2. Second outcome

3. Third outcome

4. Other outcomes

b. Table of outcome variables and significance level

Outcome	Result (check one)		By ___%	What was the level of statistical significance?
	increased <input checked="" type="checkbox"/>	decreased <input type="checkbox"/>		
e.g., bednet coverage	increased <input checked="" type="checkbox"/>	decreased <input type="checkbox"/>	27%	<0.001
1.	increased <input type="checkbox"/>	decreased <input type="checkbox"/>		
2.	increased <input type="checkbox"/>	decreased <input type="checkbox"/>		
3.	increased <input type="checkbox"/>	decreased <input type="checkbox"/>		
4.	increased <input type="checkbox"/>	decreased <input type="checkbox"/>		

28. Comment on outcomes

29. Other key findings not mentioned in your responses to Questions 27 and 28, including unanticipated findings: include details of changes in outcomes, statistical details, and key conclusions.
(This question is intended to emphasize findings not clearly intended from the interventions mentioned in Questions 7-9.)

- a. Evidence of specific positive health effect(s) []
- b. No useful evidence of any effect []
- c. Evidence of specific negative health effect(s) []
- d. Evidence of effects worth noting other than the intended effect(s) []

Additional comments *(Make it explicit if you are highlighting findings that the authors themselves have not emphasized. List each finding separately.)*

30. Which of the following activities/processes/outcomes were included as part of the study?

Activities

- a. Micro-credit yes__/no__
- b. Income generation yes__/no__
- c. Conditional cash transfer yes__/no__
- d. Participatory rural appraisal yes__/no__
- e. Training of community health workers yes__/no__
- f. Formation and/or support of community groups yes__/no__

Processes

- a. Promotion of equity yes__/no__
- b. Promotion of leadership within the community yes__/no__
- c. Promotion of partnerships between the community and the health program yes__/no__
- d. Promotion of systems for adaptive learning yes__/no__
- e. Promotion of the use of local resources for program support yes__/no__
- f. Promotion of community empowerment yes__/no__
- g. Promotion of women's empowerment yes__/no__

Outcomes

- a. Assessment of sustainability yes___/no__
- b. Assessment of community empowerment yes___/no__
- c1. Assessment of women's empowerment yes___/no__
- c2. Assessment of equity yes___/no__
- d. Assessment of cost-effectiveness yes___/no__
- e. Assessment of scalability (ease of scaling up to a larger population) yes___/no__

31. Provide any additional details about the interventions that may be relevant (e.g., coverage, equity, quality, and quantity that were shown to be relevant to the outcomes observed)

32. Describe any evidence about cost effectiveness:

33. Describe any social empowerment processes underway in the context of the project/ program/study that might explain some of the findings or contribute to the findings:

(Include here a brief outline of specific empowerment processes that were planned whose presence you have noted in your summary answers in Question 30-Outcomes b and c. If necessary, go back and review or modify your responses. The processes we are trying to identify here include empowerment of individual local community members, of the community as a whole, or of health staff. Forms of empowerment include, but are not limited to, education and training as well as transfer of roles, skills and responsibilities. Were these processes deliberately encouraged by the project/program/study or incidental to it?)

34. a. Did the project/program/study gather and use data for monitoring and evaluation?

yes___/no__

b. If "yes", describe how:

Factors Other than Technical Design of Project/Program/Study Influencing Outcomes Studied

35. Level of community involvement (put an "X" in the appropriate box for planning, for implementation, and for evaluation)

Role of the community in:	Level of community involvement				Information inadequate to make judgment
	Highly involved	Moderately involved	Minimally involved	No involvement	
Planning					
Implementation					
Evaluation					

36. Describe the role of the community in the project/program/study. Was this intended by the project/study? What did the project/study do to realize this role for the community? (Here, give specific details regarding the involvement summarized in Question 35)

37. Do you have any additional observations regarding the level of community involvement? (e.g., source of evidence, any uncertainties regarding level of community involvement)

38. a. Are there any other influences which might have affected the success or failure of the project/program/study? (Mark "yes" if you assess that this attribute was present and influenced the outcome of the study)

	Yes	No
1. Commitments to equity and collaboration	[]	[]
2. Presence of strong local leadership	[]	[]
3. Partnerships between community, policy makers, technical experts	[]	[]
4. Systems for local adaptive learning	[]	[]
5. Local resources	[]	[]
6. Micro-credit	[]	[]
7. Income generation	[]	[]
8. Sustainability	[]	[]
9. Interdependence	[]	[]
10. Holistic and iterative action	[]	[]
11. Political or social factors, such as a recent change in government	[]	[]
12. Recent or current popular mobilizations	[]	[]
13. Other (specify) _____		

b. Further description if necessary:

39. a. Are there any substantial biases or other important limitations which are apparent to you?
yes___/no__

b. If "yes", please describe:

40. What are the conditions and contextual factors which have contributed to the effectiveness (or ineffectiveness) of the interventions? *(We have asked previously about which conditions or contextual*

factors were present. Here, we are asking you to indicate which of these had an important influence on the

study's outcomes. Consider here information about such things as appropriate and timely referrals to the

health system, identification of high-risk children -- including recognition of severe illness and danger signs, equity, gender, cost, coverage, and sustainability.)

41. a. Did this study show that community participation had an effect on health outcome? *(This question*

asks you to make a judgment on the presence of findings on community participation that you included

previously in Questions 36 and 37)

yes___/no___

b. If "yes", was it positive or negative? Positive___ / negative___

c. Describe the specific role community participation played (or did not play) in reaching the observed

health outcome? *(If information not provided, indicate this.)*

42. a. Did this study show that linkages between the health system and the community had an effect on

health outcome? yes___/no___

b. If "yes", was it positive or negative? Positive___ / negative ___

c. Describe the specific linkages and the role they played (or did not play) in reaching the observed health outcome? (If information not provided, indicate this.)

Reviewer's Assessment of Study Quality

43. Please provide your assessment of the quality of the study based on the following (If this question does not seem applicable to your study type, check NA):

43a. Methodology

a. Was there an appropriate control group?

yes___/no___/NA___

b. Was the sample size adequate to detect a meaningful difference in outcome?

yes___/no___/NA___

c. Was the data collection appropriate?

yes___/no___/NA___

d. Are there any substantial biases present?

yes___/no___/NA___

e. Does the analysis of the data appear appropriate?

yes___/no___/NA___

f. Overall, does the methodology appear sound?

yes___/no___/NA___

43b. Please indicate which of the following characteristics the study had. Each characteristic is worth 1 point. On the right-hand column please put the total number of points (8 total).

Cohort Study	Control or comparison group	Pre/post intervention data	Random assignment of participants to the intervention	Random selection of participants for assessment	Follow-up rate of 80% or more	Comparison groups equivalent on socio-demographics	Comparison groups equivalent at baseline on outcome measure	Final score (out of 8)

43c. Please add any additional comments that seem appropriate.

44. Please summarize here the deficiencies and the strengths related to the quality of the study.

Strengths: _____

Weaknesses: _____

45. What is your overall assessment of the quality of the study?

46. Please rate the overall quality of the study

- | | | |
|----------------------|---|-----|
| Exceptional quality | 5 | [] |
| High quality | 4 | [] |
| Good quality | 3 | [] |
| Poor quality | 2 | [] |
| Unacceptable quality | 1 | [] |
| Not applicable | 9 | [] |

47. Approximately how many people were included in the study?

Number of children in study > 100,000	4	[]
Number of children in study 25,000 - 99,999	3	[]
Number of children in study 5,000 - 24,999	2	[]
Number of children in study < 5,000	1	[]
Not applicable	9	[]

Reviewer Identification

48. Reviewer (type your first and last name): _____

49. Date of review (DD/MM/YYYY) ____/____/____

50. How much time did you spend reading the document and filling out the questionnaire?

Please email this form to Dr. Henry Perry (henry@future.org).

Thank you for your assistance!

Reviewer’s Guide for Data Extraction Form

If something is not clear, please use your judgement, and you are welcome to send an email of clarification to Dr. Henry Perry (henry@future.org).

Question 7a-c: If this specific paper is evaluating a larger program, or larger study, please mention the larger program/study here and describe it as it is described in the paper.

Question 8: From this question on, please answer them according to the specific paper which you are reviewing (and not any background program/study/interventions which are referred to in the paper).

Question 16: Descriptions of each Study Type:

Design (type of study)	Description
Randomized Controlled Trials	Studies that involve a random allocation of the intervention and comparison to different study groups, including measurement of the outcome before and after the intervention has been made.
Non-randomized Controlled Interventions	Non-randomized studies containing a comparison group (or groups) that were not assigned at random; measurements in the control group are usually (but not always) made at the same time as measurement in the intervention group(s). The comparison intervention may be “usual care” or another intervention. Those case-control studies where the assessment is made in a nested (i.e., prospective) manner have a stronger design than those studies where the intervention or attributes occurred in the past.
Uncontrolled Interventions	Non-randomized studies containing a before and after measurement, but without any comparison group for the intervention (e.g., a cohort study). Time series studies, where data on the cohort usually involves more than 3 data points prior to an intervention and more than 3 points after an intervention, provide stronger evidence than those with only one baseline point.
Case-control cross-sectional Studies	Case-control studies, which divide groups based on different outcomes and then assess prior “exposure” to an intervention, are considered in this group. These studies are based on surveys conducted at one point in time. Nested case-control studies may be considered as having evidence comparable to Non-randomized Controlled Interventions.

Cross-Sectional Studies	Measurement is made at one point in time when an intervention has occurred without comparable control groups.
Descriptive Studies	Descriptive case studies and expert opinions which lack comparison groups or measurement of outcome variables.

Question 34a: We are interested in knowing if the activity had an ongoing Monitoring and Evaluation system (ie: they collected data over time regarding outcomes, etc) and that this M & E system was used for other purposes separate from simply gathering study data for this report.

Question 35: Examples of levels of involvement are listed below. These are simply a rough guide and you should feel free to assign the category that seems most appropriate to you.

Highly involved:

- The community considers itself as a partner; or,
- The community was involved in the initial planning, in the implementation, and in the evaluation

Moderately involved:

- The community helped to select the staff who implemented the activity; or,
- The community provided volunteers to assist in the implementation of the activity

Minimally involved:

- Formal permission was obtained from community leaders: or,
- The opinions of the community were sought during the activity evaluation

No involvement:

- The community had no involvement other than receive the intervention

Question 39a-b: Please see following page for reference list of some common biases.

GO TO NEXT PAGE Common Biases (for Question 39 a-b): Please note that this is not a comprehensive list, and that other biases may be included when filling out the form. In addition, the bias may occur in a study-type not highlighted in this list. This is just a reference.

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Potential Bias	Bias Description	Type of study in which it occurs		
		Cohort	Case-Control	Cross-Sectional
	Many of these came directly from two sources: 1. Szklo, M.; Nieto, FJ. <i>Epidemiology: Beyond the Basics</i> . Gaithersburg, MD, Aspen Publishers Inc.; 2000. 2. Gordis, L. <i>Epidemiology: Second Edition</i> . Philadelphia, Pennsylvania, W.B. Saunders Company; 2000.			
Analytic Bias	If the data analyzers have strong preconceptions, their biases may be unintentionally introduced			
Information Bias	If quality of information obtained differs by exposure and/or outcome status in individuals			
Interviewer bias	Bias due to data collection by interviewer that differed according to person (i.e., cases and controls)			
Misclassification bias	Misclassification of exposure and/or outcome status			
Non-response and loss to follow-up bias	Non-participation and non-response, as well as loss to follow-up, can introduce bias if it does not occur at random or occurs more frequently in either the intervention or the comparison group(s)			
Outcome assessment / observer bias	Person deciding whether or not an outcome occurred may be biased if the person knows they hypothesis being tested and which cases are in the exposure group			
Publication bias	When articles published are different in their findings than unpublished articles (i.e., a greater proportion of “significant” results are published than those in which the null hypothesis is true)	Found mainly in Review Articles		
Recall bias/	Exposure may be remembered better for cases than controls			

respondent bias				
Reporting bias	A respondent may be reluctant to report an exposure / behavior because of attitudes, beliefs, and perceptions			
Selection bias	Individuals have different probabilities of being included in the study according to relevant study characteristics by disease-exposure groups (i.e., more smokers with asthma may choose not to be part of study that assesses prevalence of asthma than non-smokers with asthma in the population)			
Surveillance bias	If a population is monitored over a period of time, disease ascertainment may be higher in the monitored population than in the general population			
Survivor bias	Those who have died are not included in study. In measuring access to care for children, for example, bias exists if children who had no access may have died already.			
Temporal bias	When proper temporal sequence needed to establish causality cannot be firmly established (i.e., when determining whether a person was exposed to a risk factor before or after developing the disease)			

Other study characteristics to note:

Conflict of interest bias	Evaluation study is an internal one (carried out by staff of the program rather than by an external evaluator)			
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Form for Quality Screen of Reviews

Please fill out the below information for the paper that was reviewed:

- The author and date of publication

- The date the review carried out (DD/MM/YYYY)

Please screen each of the reviews by checking off each box once the review is complete:

- Read the entire review quickly
- Ensure that all the items are filled out appropriately
- Ensure that there aren't any obvious mistakes
- Ensure that there isn't any missing information

• Name of person who carried out the review: _____

• Name of person who carried out the quality screen: _____

• Date of quality screen (DD/MM/YYYY): _____

Systematic Review of the Effectiveness of CBPHC in Improving Child Health

Supplemental Data Extraction Form, July 23, 2007

Name of reviewer: _____ Date of review: _____

ARTNUM Document number? _____

Last NAME of first author (999=Not stated) _____

YEAR of publication (999=Not stated) _____

TITLE of document: _____

Methodological Questions:

QA1A. Study design

1=Yes, 2=no, 9=not stated

- 1. Randomized controlled intervention _____
- 2. Non-randomized controlled intervention _____
- 3. Uncontrolled intervention (prospective cohort design) _____
- 4. Case-control study _____
- 5. Cross-sectional study _____
- 6. Descriptive study _____
- 7. Non-study activity (specify) _____
- 8. Other study (specify) _____

QA2 Was this an efficacy trial, effectiveness study or program evaluation?

1=Efficacy, 2=Effectiveness, 3=Program evaluation, 9=Not clear ____

QA3. Is this an evaluation of a child survival project funded by an external donor (e.g., USAID)?
 ____ 1=Yes, 2=no, 9=not stated

QA4. If yes, was there an outside, independent evaluator? ____ 1=Yes, 2=no, 9=not stated

QA5. For randomized controlled interventions only, did the randomization seem adequate?
 ____ 1=Yes, 2=no, 9=not stated

QA6. Were the comparison groups shown to be similar? ____ 1=Yes, 2=no, 9=not stated

QA7. What was the sample size of the intervention group? (999 = not stated) _____

Categories of Interventions Implemented:

QA8A. Communications with individuals, families and communities to improve key practices / behaviors? ____ 1=Yes, 2=no, 9=not stated

QA8B. Social mobilization and community involvement for planning, delivering and using health services? ____ 1=Yes, 2=no, 9=not stated

QA8C. Provision of health care in the community, including preventive services (e.g., immunizations) or curative services (e.g., community-based treatment of pneumonia)?
 ____ 1=Yes, 2=no, 9=not stated

Specific Interventions Implemented:

QA9. Specific interventions implemented 1=Yes, 2=no, 9=not stated

a. Nutrition prevention or treatment ____

- a1. Growth monitoring (weight/height) _____
- a2. Breastfeeding promotion _____
- a21. Immediate breastfeeding after delivery _____
- a22. Exclusive breastfeeding 0-5 months _____
- a23. Continued breastfeeding 6-11 months _____
- a3. Complementary feeding _____
- b. Micronutrient deficiency _____
- b1. Zinc for diarrhea prevention or treatment _____
- b2. Vitamin A _____
- b3. Iron _____
- b4. Other micronutrients _____ Specify _____
- c. Diarrhea prevention _____
- (if zinc for diarrhea prevention or treatment, indicate above also in b1.)
- c1. Handwashing _____
- c2. Point of use water treatment _____
- c3. Sanitation _____
- c4. Safe water storage _____
- c5. Improved water supply _____
- d. Diarrhea treatment _____
- d1. ORT _____
- e. Pneumonia prevention _____
- (if handwashing, indicate above also in c1.)
- f. Pneumonia treatment _____
- g. Malaria prevention _____

- g1. ITNs (insecticide-treated bednets)** ___
- g2. IPT** ___
 (intermittent preventive therapy for malaria)
- g3. Cotrimoxazole prophylaxis** ___
- h. Prompt anti-malaria treatment** ___
- i. HIV prevention** ___
 (anti-retroviral therapy, replacement feeding)
- i1. Prevention of mother-to-child transmission** ___
- i2. Replacement feeding** ___
- j. HIV/AIDS treatment** ___
 (if cotrimoxazole prophylaxis, indicate above also in g3.)
- k. Neonatal tetanus immunization** ___
- l. Neonatal tetanus treatment** ___
- m. Measles immunization** ___
- n. Measles treatment** ___
 (If vitamin A, indicate above also in b2.)
- o. Congenital syphilis prevention** ___
- p. Congenital syphilis treatment** ___
- q. Immunizations** ___
 (also indicate in l. and/or m. if appropriate)
- r. Neonatal illness prevention/treatment** ___
- r1. Antenatal care** ___
- r2. Skilled attendant at home delivery** ___
- r3. Promotion of facility-based delivery** ___

- r4. Hypothermia treatment _____
- r5. Neonatal resuscitation or treatment of
newborn respiratory distress _____
- r6. Suspected sepsis treatment _____
- s. IMCI (Integrated Management of
Childhood Illness) _____
- t. Primary health care
(community-based clinical care) _____
- u. Family planning services _____
- v. Other _____ (specify)_____
- w. Unknown _____

Program input characteristics and contextual factors 1=Yes, 2=no, 9=not stated

- QA10. Do any of the interventions above occur in health facilities? _____
- QA11. Do any of the interventions above occur in the community? _____
- QA12. Is there a referral system between the community and health facilities? _____
- QA13. Are there Community Health Workers (CHWs) or an equivalent? _____

If NO or NOT STATED, SKIP TO QA14.

- a. Population per CHW? (999 = not stated) _____
- b. CHW selected by/with community? _____
- c. CHW member of community? _____
- d. Clear effort to select CHW from most disadvantaged part of community? _____
- e. Are the CHWs primarily female? _____
- f. Home visits by CHW? _____
- f1. If yes, frequency per year? (999 = not stated) _____
- g. Remuneration of CHW? _____

- g1. Regular salary paid by the government or NGO? ___
- g2. Regular salary paid by the local community? ___
- g3. Income-generation opportunities (through sale of items, access to micro-credit, etc.) ___
- g4. Gifts in kind (T shirts, farm chores or household work performed by members of the community for the CHW, other forms of recognition) ___
- g5. Access to certain benefits (e.g., free health care or health care at a reduced fee) ___
- g6. Recognition (formal ceremonies expressing appreciation, etc.) ___
- g7. Do the CHWs have any input into how the study/project/program is run?

 - h. Is there supervision of CHWs? ___
 - i. Supervisor from community? ___
 - j. Frequency of supervision per year? (999 = not stated) ___
 - k. Is there standardized formal training of CHWs? ___
 - l. Are CHWs part of national policy? ___

- QA14. Efforts to empower the community provided by the program? ___

 - a. Micro-credit systems? ___
 - b. Conditional cash transfers? ___
 - c. Community scorecards? ___
 - d. Community collective action? ___
 - e. Community partnerships (inside or outside of community)? ___
 - f. Community financing? ___
 - g. Vouchers for health service use? ___
 - h. Community co-management of drugs and services? ___
 - i. Joint service of access and quality? ___
 - j. Provider performance bonus or salary paid by community? ___
 - k. Community boards? ___
 - l. Revolving drug funds? ___
 - m. Complaint bureaus or hotlines? ___
 - n. Access to courts or other legal support for addressing legal problems? ___
 - o. Specific women’s empowerment? ___

- QA15. Efforts to ensure equity? ___

- a. Effort to reach 100% of community? _____
- b. Effort to prioritize the most disadvantaged or remote part of community? _____

QA16. Evidence of community participation? _____

- a. Community participation in planning, implementation, or evaluation? _____
- b. Does community use and gather data? _____
- c. Community meetings? _____
- c1. If yes, frequency per year? (999 = not stated) _____

QA17. Evidence of integration, scalability or sustainability? _____

- a. Integrated multiple interventions? (<3 vs. ≥3) _____
- b. Length of program? (months) (999 = not stated) _____
- c. Dependence on external funding? _____
- d. Evidence of government political/policy support? _____
- e. Intervention scaled-up to district or sub-district level? _____
- f. Per capita cost? (in US dollars for entire population of all ages)
(999 = not stated) _____

QA18. Contextual factors

- a. Size of population covered by program? (999 = not stated) _____
- b. Rural? (1=Yes, 2=No, 8=Rural and urban, 9=Not stated) _____
- c. Country? (888=Multiple, 999=Not stated) _____

C1-C3 for use during data entry only

- c1. HDI category of country (1=Low, 2=Medium, 3=High)** _____
- c2. Population density per square kilometer of country** _____
- c3. Region** _____

Outcome measures

QA19. Note: Please complete full table. If results are not available for specific rows or columns, please draw a line through these areas to indicate this. Nothing should be left blank.

Outcome measure		Favorable change? (1=Yes, 2=No, 9=Not stated)	Baseline value for mortality rates per 1000 live births, or for coverage of interventions in percent (if control group exists, only use intervention group) 999=Not stated			Final value for mortality rates per 1000 live births, or for coverage of interventions in percent (if control group exists, only use intervention group) 999=Not stated			Relative % change in favorable direction, or Odds Ratio/Relative Risk in favorable direction (eg, < 1 for mortality and nutrition outcomes, and > 1 for intervention coverage) 999=Not stated	Measure of comparison (1=Difference in values (including absolute percent change), 2=Relative percent change, 3=Difference-in-differences, 4=Odds ratio, 5=Risk ratio, 9=Not stated)	Statistically significant? [p-value ≤ 0.05 or Confidence Intervals do not cross 1] (1=Yes, 2=No, 9=Not stated)	Specify age range for indicator in months (e.g., 6-18) 999=Not stated
			N	D	Rate/%	N	D	Rate/%				
MORTALITY												
		1	2a	2b	2c	3a	3b	3c	4	5	6	7
Neonatal mortality	a											0-1
Infant mortality	b											0-11
1-4 mortality	c											12-59

Under 5 mortality	d											0-59
Malaria-specific	e											
Diarrhea-specific	f											
Pneumonia-specific	g											
Measles-specific	h											
Malnutrition mortality	i											
NUTRITION												
Protein-energy malnutrition, anthropometrics	j											

(weight for age, height for age, or [height for age and height for weight])												
Outcome measure		Favorable change? (1=Yes, 2=No, 9=Not stated)	Baseline value for mortality rates per 1000 live births, or for coverage of interventions in percent (if control group exists, only use intervention group) 999=Not stated			Final value for mortality rates per 1000 live births, or for coverage of interventions in percent (if control group exists, only use intervention group) 999=Not stated			Relative % change in favorable direction, or Odds Ratio/Risk Ratio in favorable direction (eg, < 1 for mortality and nutrition outcomes, and > 1 for intervention coverage) 999=Not stated	Measure of comparison (1=Difference in values (including absolute percent change), 2=Relative percent change, 3=Difference-in-differences, 4=Odds ratio, 5=Risk ratio, 9=Not stated)	Statistically significant? [p-value ≤ 0.05 or Confidence Intervals do not cross 1] (1=Yes, 2=No, 9=Not stated)	Specify age range for indicator in months (e.g., 6-18) 999=Not stated
			N	D	Rate/%	N	D	Rate/%				
COVERAGE OF INTERVENTION (HEALTHY BEHAVIORS OR PROVISION OF SERVICES)												
Immediate breastfeeding	aa											
Exclusive breastfeeding 0-5 months	bb											
Continued breastfeeding 6-11	cc											

months												
Point of use water treatment (SODIS, filter, chlorine, etc)	dd											
Hand washing	ee											
Improved sanitation	ff											
Vitamin A supplementation	gg											
ORT use	hh											
Zinc treatment for diarrhea	ii											
Antibiotics for pneumonia	jj											
Measles vaccine	kk											
Insecticide treated net use	ll											
Prompt anti-malaria treatment	mm											

Nevirapine or ART / replacement feeding for HIV prevention	nn											
Effective antenatal care	oo											
Births in health facilities*	pp											
Skilled attendant at home delivery	qq											
Tetanus toxoid coverage	rr											
Intermittent preventive therapy for malaria	ss											
Family planning services	tt											

*Implies skilled maternity and immediate neonatal care

QA20. Further information necessary for Bellagio Mortality Calculator

- a. Baseline Under 5 Mortality Rate (per 1000 live births) 999=Not stated

- b. Number of Under 5 beneficiaries in project area 999=Not stated

- c. Total population in project area [Necessary data] 999=Not stated

- d. Annual number of births in project area 999=Not stated

Time, in minutes, taken to complete the data extraction form: _____

Name of reviewer _____

Date of review (mm/dd/yyyy) _____

Supplemental Data Extraction Form Instructions (23 July 2007)

General instructions:

1. Questions which are shaded, such as ARTNUM, should not be completed by the data abstractor.
2. ALL other questions should ALWAYS be completed. As indicated, the values '9' and '999' should be used when data is not available in the document. This allows the study coordinators to know that this was not simply left blank. In the table, lines can be used to cross through sections for which data is not available.

Specific questions:

QA1A. Although the document may not describe a rigorous study, this question should still be completed.

QA2. Efficacy trials refer to controlled research activities which are not typical of usual conditions in the research setting. Field effectiveness trials refer to research activities in settings which are typical of the usual conditions in the respective country. Field trials may involve some special training or supervision of implementers of interventions, but usually the implementers and their main supervisors are employed by a longer-term service provider and the project/program has been established primarily to provide health benefits to the population, not primarily to carry out a study.

QA5. The answer would be 'yes' if the randomization process was described in sufficient detail or if the allocation to the intervention group was concealed from the researchers.

QA6. This specifically refers to socio-demographic variables.

QA7. For controlled trials, include the size of the intervention group only.

QA9. Specific interventions implemented

- a. Nutrition prevention or treatment: includes supplementary and complementary feeding.

- a2. Breastfeeding promotion: includes individual education, peer counseling, or other promotion methods.
- b. Micronutrient deficiency: includes any micronutrient such as zinc, vitamin A, iron, iodine, folic acid, etc.
- c2. Point of use water treatment: includes any type such as ceramic filters, chlorine solution or tablets, SODIS, boiling, PUR, etc.
- c3. Sanitation: refers to sanitary disposal of human feces.
- c4. Safe water storage: refers to storage in a covered container with a narrow opening.
- c5. Improved water supply: includes tubewell drilling, protection of springs, piped water, etc.
- d1. ORT: includes any type of ORT, including supplemental/additional home fluids.
- e. Pneumonia prevention: this includes the HIB and pneumococcus vaccines.
- h. Prompt anti-malaria treatment: this can include empiric treatment for fever in hyper- or holo-endemic areas.
- i. HIV prevention (anti-retroviral therapy or replacement feeding): this can include AZT, nevirapine, or double/triple therapy.
- k. Neonatal tetanus immunization: this refers to immunization with tetanus toxoid of women usually during pregnancy but possibly at other times as well.
- r1. Antenatal care: Refers to any antenatal care with a trained health worker.
- u. Family planning services: refers to promotion or provision of modern family planning methods.

QA13. Are there Community Health Workers (CHWs) or an equivalent?

- a. Population per CHW? Refers to population served by 1 CHW.
- b. CHW selected by/with community? Refers to a participatory process.
- c. Remuneration of CHW? Can be financial or other.

QA14. Efforts to empower the community?

- a. Micro-credit systems? This includes start-up loans to community members to establish a small business and similar activities.
- b. Conditional cash transfers? This includes programs in which participants received money with the understanding that they will obtain certain health services or practice certain healthy behaviors.
- c. Community scorecards? Regular results of intervention coverage, healthy behaviors, or morbidity or mortality data either displayed in a visible location or regularly discussed by the community.
- d. Community collective action? Organized groups within the community which take action for the benefit of the community as a whole.
- e. Community partnerships (inside or outside of community)? Formal partnerships between groups representing the community and outside groups for the purpose of benefiting the community.
- f. Community financing? Collective financing by the community for activities to benefit the community as a whole.
- g. Vouchers for health service use? Certificates which can be used to pay for health services.
- h. Community co-management of drugs and services? Community plays a substantial and direct management role in the provision of medical or public health services provided by outside groups, such as NGOs or private institutions.
- i. Joint service of access and quality? System whereby a single program specifically facilitates both access to services, and the quality of these same services.
- j. Provider performance bonus or salary paid by community? Community collectively pays a bonus to health providers, teachers, etc., for the benefit of the entire community.
- k. Community boards? External organizations, such as NGOs working in the community, have substantial representation by community members on their board of directors.
- l. Revolving drug funds? A local fund managed by the community used to purchase additional drugs.
- m. Complaint bureaus or hotlines? Specific redress mechanisms.
- n. Access to courts or legal approaches? Specific access to effective legal representation.
- o. Specific women's empowerment? Any of the above specifically for women.

QA17. Evidence of integration, scalability or sustainability?

- a. Integrated multiple interventions? (<3 vs. ≥3). Refers to child health interventions as outlined.
- b. Length of program? (months) How long the project has existed.
- f. Per capita cost? (in US dollars) For the entire package of interventions for the entire population of the project/program (not just women and children).

QA19. Note: Please complete full table. If results are not available for specific rows or columns, please draw a line through these areas to indicate this. Nothing should be left blank.

Favorable change: refers to a decrease in mortality, an improvement in any of the anthropometric measures indicated, or an increase in the coverage of interventions.

Baseline and final values: if a control group exists, only use intervention group. Include numerator and denominator if available. For mortality rates, express in terms of per 1000 live births. If this is not possible, please clearly note how the measure was calculated. For intervention coverage, express in percent.

Percent change, or measure of association. Use relative percent change preferentially to absolute percent change. Indicate numerators and denominators in previous columns to be able to calculate the alternate measure. E.g., 70% increase in immunizations. Note that this can be higher than 100%. Also, for example, Odds Ratio or Risk Ratio of child death with given child health interventions is 0.4, indicating a decrease in mortality (by 60% if Odds Ratio).

Risk ratio is the same thing as relative risk.

Measure of comparison. Choose which measure is being reported in the previous column.

Statistically significant? As indicated. This can be calculated if before and after numerator and denominator information is available. Experimental trials, with a control group, should provide this information.

QA20. Further information necessary for Bellagio Mortality Calculator

Either b. or c. is necessary to be able to use the Calculator.