Evidence Building and Synthesis Research

Effective Health Care Research Consortium

Annual Report

Implementation Year 4: 15 May 2014 to 14 May 2015

Version: 30 June 2015 (Final)

effective health care
RESEARCH CONSORTIUM

UKaid
from the British people

Cover photo:

Participants at the Cornell/WHO/Cochrane Collaboration two week summer school with their certificates.

1. PROGRAMME DESCRIPTION

Title of RPC:	Effective Health Care Research Consortium
Reference number:	PO 5242
Period covered:	Year 4: 15 May 2014 to 14 May 2015
Report authors	Paul Garner, Anne Marie Stephani, David Sinclair, Prathap Tharyan, Paula Waugh, Taryn Young Email: Paul.Garner@lstmed.ac.uk
Report Date	30 June 2015

The focus of the group is for Cochrane Reviews in infectious diseases, particularly malaria, tuberculosis (TB), and diarrhoea; HIV; mental health; reproductive health; and health systems. We also focus on producing systematic reviews relevant to the health of the poor, particularly women, in LMIC. The investment builds on DFID support since 1992 in building the science, the reviews, the networks, and the influence of Cochrane in Africa, Asia, China and globally, through the World Health Organization (WHO).

This Consortium aims to increase evidence-informed decisions to improve health and health care for the poor in low- and middle-income countries (LMIC). We synthesise relevant and reliable research to contribute to a global evidence-base to make health care more effective, improve health, reduce illness and death, and avoid the public and providers wasting money on ineffective health care. We strive to build capacity of groups worldwide to prepare, interpret, and use these reviews.

The grant adds value to an existing network of researchers within Cochrane. Engaged in this Consortium are three large lead research networks in Africa, South Asia, and China; and two lead global teams synthesising research in infectious diseases and health service organization and financing.

The DFID investment allows considerable innovation and development of good practice. This exerts considerable leverage on Cochrane as a whole, including focusing on health priorities in LMIC, capacity development in these regions, and helping ensure uptake of research findings.

Systematic reviews by the group are at a distance from the primary researchers. This helps provide a balanced view. As systematic reviews become more widely used, this independence and attention to methods is increasingly important.

Lead and partner organisations

UK Lead:	**LSTM: Consortium Co-ordination Team, and Cochrane Infectious Diseases Group.**
Africa Lead:	**Cochrane South Africa & the Stellenbosch Centre for Evidence Based Policy** Including partners in Nigeria, Kenya, Cameroon
India Lead:	**Cochrane South Asia**
China partners:	**China Evidence Network** (Chongqing Medical University and Fudan Medical University)
Norway Lead:	**Cochrane Effective Practice and Organization of Care Group**

Budget

Actual expenditure by end-DFID financial year 4 was £1,059,215.94. Quarterly claims submitted to DFID as required within the DFID financial year (Annex 2).

2. OVERVIEW OF THE YEAR

Progress and achievements

Capacity development

1. **High success in outputs reflecting capacity development:** The DFID grant combined with academic leadership in Liverpool, Cape Town, Vellore, Nairobi, Yaoundé, Calabar and Chongqing continues to produce internationally recognised, rigorous research, mainly as systematic reviews:

	Total	% women
LMIC primary author/total: peer reviewed research publication.	44/53 (83%)	20/44 (45%)
Cochrane authors who led a review for the first time	15	8/14 (57%)
New Cochrane editors appointed from LMIC	6	3/6 (50%)
LMCI-led Cochrane reviews used in WHO malaria guidelines	8	4/8 (50%)

2. **The Cochrane Colloquium in Hyderabad:** in India, the Consortium lead organized the Cochrane Colloquium, an international conference with over 800 people, and an extremely high quality programme.
3. **WHO/Cochrane/Cornell Nutrition Summer School in systematic reviews:** the Consortium were primarily responsible for the delivery of this two week course sponsored by WHO and the Micronutrients Initiative, and included mainly authors from developing countries.
4. **Learning Initiative for eXperienced Authors (LIXA):** Without a doubt, the single biggest challenge to the group is the lack of available senior staff time for advising people on how to improve their reviews. Whilst the implementation of the GRADE approach is a great advance, it requires considerable staff input and mentoring during the review process. We have started a new advanced author training scheme (LIXA), a series of monthly online sessions involving 6-12 senior authors and editors in Africa and India.

Impact, debate, influence

5. **Malaria treatment guidelines**: The third edition of the WHO malaria treatment guidelines was published in 2015, and pages 145-204 contain the GRADE summaries from Cochrane Reviews that underpinned most of the main changes in the guidelines. We are particularly proud that the majority of the Cochrane Reviews cited are led by people from LMIC (eight reviews) with a few in staff from Liverpool (four reviews). Lead authors are from South Africa (1), India (2), Nigeria (2), The Gambia (1), Uganda (1), and Mali (1).
6. **Malaria:** Use of single dose primaquine is being promoted by WHO and others as a public health measure to reduce the spread of drug resistant malaria, although this is based on limited evidence – as shown by the Cochrane review – and some question the transparency of the WHO decision making process.
7. **Low carbohydrate diets for weight loss:** In South Africa, low carbohydrate, high saturated fat diets are widely promoted. The Consortium carried out a systematic review that questioned the claims being made by the advocates, and resulted in considerable debate in the national press and television around an area of important policy relevance for middle income countries.
8. **Extra-pulmonary TB guidelines in India:** The Consortium has been invited to participate in the development of these national guidelines for treating extra-pulmonary TB. The India partner provided training in evidence based guidelines, and Liverpool and Chennai staff are members of the Guideline Panel.

9. **Contribution to scientific integrity**: The 2012 update of the Cochrane Review of deworming highlighted that data from one of the largest trials ever conducted (the DEVTA trial) had not been published, despite the trial being completed in 2005. This attention led to the DEVTA trial finally being published in March 2013; and has contributed to 3ie commissioning replication of Miguel and Kramer Kenya study, the study most widely quoted in support of the intervention, which is due for publication in 2015.

10. **Minimising bias from trialists being authors of Cochrane Reviews:** We have highlighted the problem of people who have conducted trials on a topic being authors of Cochrane Reviews. Whilst this may be useful, or indeed unavoidable in some circumstances, these individuals need to declare their conflicts of interest, and quality assessment of their studies needs to be done by other authors**.**

Consortium management successes

11. **Stakeholder analysis extremely positive:** An independent evaluation carried out as specified in our log-frame provided an extremely positive evaluation of our internal communication.

> Internal communication
>
> EHCRC shares information and provides support to their internal stakeholders considerably better than other organizations, remarkable given their work is so global. Stakeholders find working with EHCRC professionally and personally rewarding – resulting in high levels of collaboration, productivity, accountability, capacity and quality. Clear, regular, and responsive communications are central to the effectiveness of the consortium's work
>
> External communication and influence
>
> EHCRC is exceptionally well regarded by their key external stakeholders. Their level of commitment and influence meets or exceeds that of comparable groups. The leadership of the principal in particular is valued and is seen as a model for achieving effective evidence-based health care and policy in LMICs. EHCRC's strategic planning around succession, additional capacity and infrastructure, and sustainability should be supported
>
> Jocalyn Clark, independent evaluation 2015

12. **Results-based financing:** Our careful Consortium contracts and six monthly monitoring against outputs has helped us achieve value for money by reducing budgets when performance is lower than contracted with no good reason, and diverting the funds to other partners who are performing well.

13. **Explicit attention to succession planning:** This is being addressed with a multipronged approach, with the appointment of a Joint Co-ordinating Editor, and similar approaches to diversify and increase technical and managerial skills of partners in South Africa, Nigeria, and India.

14. **Cochrane Infectious Diseases Group influence on Cochrane:** As highlighted in the mid-term review, the work of the Consortium continues to have a strong influence on Cochrane as a whole, exerting considerable leverage. For example, we are the first group to take over a failing group (see 15 below); the first group to formalise the relationship with the Central Editorial Unit (see 16 below); demonstrate how to use GRADE in summaries (see 17 below); and contribute to enduring participation of good people from LMIC are able to contribute.

Opportunities

15. **Taking on HIV/AIDS Cochrane portfolio:** The Cochrane HIV/AIDS Group editorial base stopped operations in 2014. After some debate, we took over this function, without additional resources. This was seen as an opportunity to expand our funding base and improve reviews in this area.
16. **Memorandum of understanding/contract with Cochrane:** At this time we developed a Memorandum of Understanding with the Cochrane Editorial Unit for our work as CIDG and in HIV. This model was seen as good practice, and it has recently been agreed should be a template for all the other Cochrane Review Groups.
17. **Implementing summary of findings and GRADE:** We have made it mandatory within our group that all reviews should be assessed using GRADE and should have a published summary of findings table, which goes above and beyond standard Cochrane policy. We believe this has improved quality, clarity and precision.

Challenges and disappointments

18. **Decision making within Cochrane is slowing down**: Since 2010, we have been trying to implement a policy of classifying reviews to help readers understand the updating status of reviews. However, despite agreement by the Steering Group and others within Cochrane, a lack of technical leadership and development, plus disagreements with the publisher means that this policy has not yet been implemented.
19. **Assurance of Cochrane quality across all Cochrane Review Groups:** There remains an enduring concern with quality of the reviews and quality of editorial process in some other Cochrane Review Groups.
20. **Delays in editorial processing with some Cochrane Review Groups:** the Consortium proposed a team to take over a current highly topical review published by another group, were required to complete a new protocol, and after two years this has not yet been finalised. This has been taken up jointly with the South African Cochrane Centre and with the Editor in Chief, but progress in ensuring delineation of the issues and an open debate within Cochrane has been poor. Review Groups appear to be overburdened.
21. **HIV Backlog:** As the previous HIV/AIDS editorial base wound down operations during 2014, the breakdown of editorial processing, communications and record keeping resulted in a considerable backlog of reviews stuck in the editorial process, and with significant flaws in content and methodology. One of our biggest challenges is the poor quality of existing HIV reviews and protocols. Turning around this portfolio is going to be a major challenge, and will not be possible within our current resource base. We are approaching the Cochrane Executive for help.

Context (update)

22. **Changing landscape:** The work is being carried out in the context of increasing production of systematic reviews worldwide, so Cochrane is not the single supplier. However, Cochrane is unique in trying to avoid duplication; in updating reviews (although other journals have now started doing this); and in its' routine use of GRADE to assess the quality of the evidence. In the Consortium, we are staying at the front of the game methodologically as far as possible.
23. **Independence:** One of the important values of Cochrane Reviews is their independence from commercial and academic competing interests. This is particularly valuable as synthesis methods become more widely used, to ensure quality of reviews.

3. LOGFRAME OUTPUTS

OUTPUT 1: High quality, up to date Cochrane or related systematic reviews relevant to improving health outcomes in the poor

	Indicator	Target	Achieved
1.1	New Cochrane Reviews, relevant to the content and delivery of poverty-related health programmes (1.1a on Annex 4: Outputs)	10	20
1.2	Updated Cochrane reviews, relevant to the content and delivery of poverty-related health programmes (1.1b on Annex 4: Outputs)	5	8
1.3	Qualitative reviews, scoping reviews, overviews, systematic reviews relevant to the content and delivery of poverty related programmes (1.2 on Annex 4: Outputs)	2	11

Malaria

A whole suite of new and updated reviews were completed, including:

- **Artemether for severe malaria**: this drug is not recommended by WHO but is widely used in Africa. Careful assessment allowed the WHO panel to recommend it as an alternative to quinine when artesunate is not available.
  Led by an author from Nigeria.
- **Rectal artesunate prior to referral for severe malaria (Altmetrics score 31):** This topic was subject to a large multi-centred trial which had paradoxical findings of higher mortality in older children and adults who received artesunate. Although it was recommended by the WHO in the second edition of the guidelines in 2010, this was done on the basis of the expert opinion of people on the panel that knew the trial. A subsequent analysis critiqued the trial, calling it "flawed". The Cochrane Review allowed for a careful, independent, critical appraisal of the trial findings, and allowed the WHO panel to form considered and appropriate guidelines based on the evidence (page 72, 3rd Edition). This is an important example of independent, formal critical evaluation of the evidence in a systematic review with GRADE summaries provides a solid basis for a transparent and clear decision.
  Led by an author from The Gambia.
- **Pyronaridine-artesunate for treating uncomplicated malaria:** This review was important as it summarised not only the benefits but the serious adverse effects, with liver function tests raised four fold. This was important in WHO's decision making in the malaria guidelines process. This review contrasts with a much more optimistic "systematic review" by the Medicines for Malaria Venture, which included authors from the company.
  Led by author from Uganda.
- **Intermittent presumptive therapy with sulphadoxine/pyrimethamine in children with anaemia** (Altmetrics score 51): important review as researchers in LSTM and Tanzania were considering embarking on a trial on this topic. Helped clarify that the intervention was not as effective as initially thought.
  Led by a new author from Tanzania, supported by our partners in Cape Town.
- **Tafenoquine for preventing relapse in vivax malaria:** Important review summarising this new drug that is potentially important in *Plasmodium vivax*. It is an interesting example of a drug that is likely to have advantages, as the course required is shorter; but the long half-life could have more serious side effects in people with G6PD deficiency.
  Led by a new team from Sri Lanka.

- **Primaquine for preventing transmission (review update):** used in the WHO guidelines-still highlighting concerns about the lack of good evidence of quantitative important impact on transmission in the doses that WHO currently recommend.

Diagnostic tests

Neglected tropical diseases: two important Cochrane Reviews were completed evaluating new diagnostic tests. These were large undertakings and concerned newly developed tests.

- In visceral leishmaniasis (24 studies, led by an author from Belgium).
- Schistosomiasis (90 studies, *led by an author from South Africa*).

Malaria: we completed the diagnostic test reviews in malaria, publishing the evaluation of tests to detect *Plasmodium vivax*. This review included 47 studies enrolling 22,862 participants, and showed the more recent tests to be better than the older pan-tests. It seems likely that JAMA will publish a summary of this review in 2015.

Tuberculosis: The diagnostic accuracy of the GenoType® MTBDR***sl*** assay for the detection of resistance to second-line anti-tuberculosis drugs. This review was cited within a week of publication in Lancet Respiratory Medicine.

HIV-comparison of eligibility for Antiretroviral Therapy (ART) using clinical staging against CD4 count: a review CIDG assisted with methodologically showed that, when used for individual treatment decisions, WHO clinical staging misses a high proportion of individuals who are eligible for ART by CD4 count, with sensitivity falling as CD4 count criteria rises.
Led by an author from Malawi.

Infectious diseases

Antibiotics for treating cholera: This was a massive review (39 studies, 4263 patients) that we have been trying to complete for almost 10 years. Many of the false starts were due to the inexperience of the author teams and the complexity of the topic-in particular making sense of data with rapidly shifting antibiotic resistance in place and time. The study successfully quantified the effect of antibiotics in cholera.

Impact

- *Altmetics* score 78 (Puts article in the top 5% of all articles ranked by attention).
- Discussed at the Permanent Secretary, DGS and all Directors of DFID Monday meeting.
- PLOS Medicine Blog quoted the review extensively.

Infectious diseases and organization of care

Task shifting in HIV: This review was completed, complementing the review of decentralization of HIV care that had been used in WHO guideline development.
Led by an author from South Africa.

Improving adherence with prompts and reminders in TB (update): Policies of sending reminders to people pre-appointment, and contacting people who miss appointments, seem sensible additions to any TB programme, and the limited evidence available suggests they have small but potentially important benefits. Future studies of modern technologies such as short message service (SMS) reminders would be useful, particularly in low-resource settings.

The update is important because it shows a) how small the benefits with these strategies are; and b) the lack of evidence around mobile phone technologies with TB. It is likely that mobile phones are unlikely to be the fix for adherence, and any improvements in adherence are unlikely to be dramatic.
Led by authors from China and Philippines.

Nutrition

Low carbohydrate diet: South Africa partners led this review, which was managed outside of Cochrane to speed delivery and was in response to policy makers request for an evidence assessment (reported below in output 2). It is a policy relevant question in the country, and was carried out to gain traction for the methods in the country.
Led by authors from South Africa.

Review methods

We helped with a review in HIV that examined transfer of HIV drugs to breast milk in women on ART. If infants are infected but not on ART, then this could contribute to resistance developing. This review was important as there have been few systematic reviews of pharmacokinetic data.

OUTPUT 2: Accessible products for knowledge uptake

	Indicator	Target	Achieved
2.1	Number of new dissemination platforms identified that we can then regularly contribute to. Such as regular column in a journal, a blog that the Consortium regularly contribute to[1] (target 1; quantity 1).	1	
2.2	Number of discrete demand projects (specific reviews, training courses, or synthetic technical products to support guidelines commissioned by national decision-makers or intermediary organisations and networks ("pull" products)[2]	2	
2.3	Level of stakeholder engagement and satisfaction assessed via establishment and evaluation of stakeholder management plans	1	1

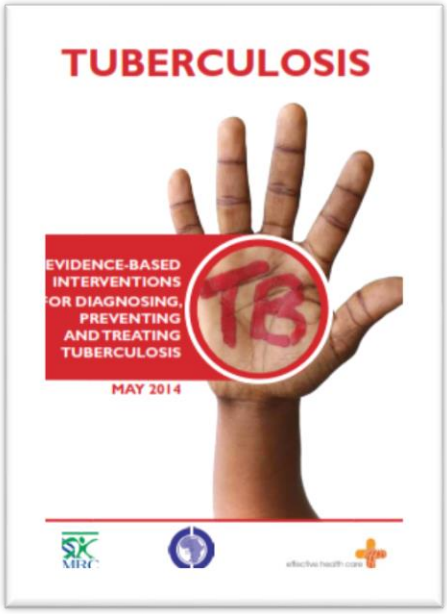
2.1 New dissemination platforms

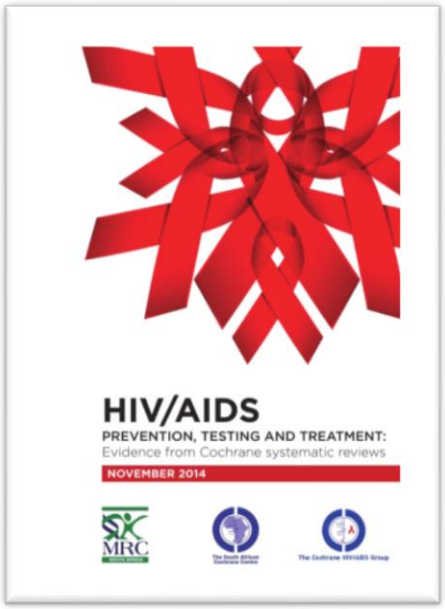
Citizens News Service (CNS) India

Our partners worked closely with this organization in India, and have developed a whole series of interesting articles related to Cochrane, knowledge translation, and specific reviews (see Annex 4, section 5.2).

South Africa review summaries

Booklets of Plain Language Summaries for HIV and TB. The South African Cochrane Centre has produced two booklets to serve consumers of evidence (mostly clinicians, researchers, and patients). These have been disseminated electronically to networks in South Africa and the region, and hard copies sent to those requesting them. The feedback has been very positive, the collection of the summaries in booklet format increase the accessibility of evidence on HIV and TB reviews





[1] Logframe revised 6 January 2015: Previous log frame (7 August 2012) stated "Number of "push" summary series (on web and in journals), training and web innovations/multi-media"

[2] Logframe revised 6 January 2015: Previous log frame (7 August 2012) "Number of reviews, training or synthetic technical products commissioned by national decision-makers or intermediary organisations and networks ("pull" products)"

Cameroon Translations

This matured, with many new reviews translated into French (see Annex 4, section 3).

2.2 Demand projects

Guidelines

We have had several guidelines projects this year.

- The malaria treatment guidelines were finished this year (reported elsewhere);
- Paul Garner and David Sinclair were invited on to the WHO HIV/AIDS Operational Guidelines Panel;
- The Kenya Paediatric Association Guideline Panel is working to inform three national guideline panels in Kenya now scheduled for June 2-4th 2015. Over 40 Kenyans drawn from policy-makers, professional associations and practice will take part and will receive an introduction to reviews and GRADE.
- The Government of India and the All India Institutes of Medical Sciences (AIIMS) requested Cochrane India and the Cochrane Infectious Diseases Group to assist with the development of national guidelines in treatment of extra-pulmonary TB.

Reviews

The low carbohydrate diet review was completed by the South Africa Centre in response to a request from the Heart and Stroke Foundation in the country.

The malaria mass drug administration review was completed and immediately used by Gates and the University of San Francisco and formed the basis for a WHO meeting about malaria eradication in April 2015, which Dave Sinclair participated in.

Training

WHO/Cochrane/Cornell Nutrition Summer School: Paul Garner, David Sinclair, Marty Richardson, and Jimmy Volmink were trainers at the first WHO/Cochrane/Cornell University Summer School for Systematic Reviews for Global Policy Making. This two week course was sponsored by WHO and the Micronutrients Initiative, and included mainly authors from developing countries.

The Consortium co-funded the course by paying for faculty airfares and contributing to the airfares of two of our authors to complete their reviews: Qin Liu from Chongqing to complete the Growth Monitoring Review, and Tarun Gera from Delhi to complete the review of Integrated Management of Childhood Illnesses.

TB Union (India)/Cochrane Infectious Diseases Group TB synthesis course: Along with Karen Steingart, we have been asked to run this course. The design is complete and the date fixed for August 2015.

2.3 Stakeholder engagement

This report is attached (Annex 6). The summary points are in Box 1.

Box 1. Stakeholder engagement and satisfaction: an independent evaluation

Jocalyn Clark (February 2015)

Summary of recommendations

Internal communication

- EHCRC shares information and provides support to their internal stakeholders considerably better than other organisations, remarkable given their work is so global. Stakeholders find working with EHCRC professionally and personally rewarding – resulting in high levels of collaboration, productivity, accountability, capacity and quality. Clear, regular, and responsive communications are central to the effectiveness of the consortium's work, and are driven by a small number of individuals.
- Communications should continue to be prioritised and might be expected to grow with demand for cross-consortium learning, interaction and capacity building. The EHCRC could consider adding more capacity for communications, perhaps in conjunction with the recommendation for external communications mentioned later in this report.
- Capacity building and training support must continue for EHCRC to meet its aims. Attention to the balance between UK led and LMIC led capacity building could help with sustainability, and it may be that additional resources and strategies to achieve this are required.

External engagement and influence

- EHCRC is exceptionally well regarded by their key external stakeholders. Their level of commitment and influence meets or exceeds that of comparable groups. The leadership of the principal in particular is valued and is seen as a model for achieving effective evidence-based health care and policy in LMICs. EHCRC's strategic planning around succession, additional capacity and infrastructure, and sustainability should be supported. Developing additional strategies for spreading and sustaining international influence could be undertaken, and would find support among the external stakeholders interviewed here.
- To meet increasing demands for communications around 'impact,' EHCRC should undertake proactive dissemination planning, including perhaps more routine use of the dissemination checklist that provides a structure, prompts, and a shared tool for the review team to be working from. EHCRC could add a small section that focuses on 'messaging' (helpful for general audiences) and on expected impact. This too should be undertaken early in the process because it can help review teams clarify the purpose and implications of their work. It could also make writing lay summaries of reviews easier, and feel less 'last minute.' Any enhanced use of the dissemination checklist and message sheet should be evaluated, perhaps with routine post-mortems after the publication and dissemination of reviews.
- To build external communications with low-burden in terms of cost and time, EHCRC might consider better utilising two widely used social media assets – Facebook and Twitter, for example – to highlight activity, news, events, publications, etc. It's worth noting that Facebook and Twitter are not accessible in China, where EHCRC has extensive links. EHCRC could consider for reviews that are topical and/or particularly relevant to a general audience, a specific digital media strategy that supplements traditional press releases with placement of blogs (Guardian, PLOS, BMJ, Nature etc.), and a rolling set of social media posts. For efficiency it might seem reasonable that EHCRC work with current partners on the traditional media relations, and with in-house talent on blogs and social media. EHCRC could consider adding a social media fellow/junior colleague to assist with external communications leveraging the reach of social media.

OUTPUT 3: Consortium partner institutions and researchers in the South have increased competence for research

Verifiable indicators

Indicator	Achieved			
3.1	Number of institutions with a developed strategy and code of conduct to promote research integrity **Indicators of progress: all have adopted the publication policy within the Consortium, but achieving institutional codes of practice is more difficult as the researchers within the Consortium do not have institutional responsibilities**			
3.2 (editors)	**New Cochrane editors from developing countries for this period: 6**			
	Kenya:	1	0 Woman	1 Man
	Nigeria:	1	0 Woman	1 Man
	South Africa:	4	3 Women	1 Man
	Non-developing:			
	Canada:	1	0 Woman	1 Man
	Switzerland:	2	0 Woman	2 Men
	USA:	1	0 Woman	1 Man
	Note: 4 new Cochrane Editor's from 2011 and 1 new Cochrane Editor from 2012, not reported previously			
3.2 (authors)	**Cochrane review authors who are 1st authors for the 1st time**: **14**			
	Belgium:	1	1 Woman	0 Man
	Israel:	1	1 Woman	0 Man
	Nigeria:	4	2 Women	2 Man
	South Africa:	5	2 Woman	3 Man
	Sri Lanka:	1	0 Woman	1 Man
	Tanzania:	1	1 Woman	0 Man
	UK:	1	1 Woman	0 Man
3.3	**Grants**			
China (Fudan):	Fudan University: £2,400,000, funder: DFID, UK. Project: Pilot Interventions to Apply Relevant Chinese Practices and Experiences to Improve the Health of Women and Children in Low-income countries in Asia and Africa (contract no: GHSP-CS-OP4-VO1)			
India:	Cochrane South Asia, Christian Medical College: INR 32,239,750, funder: various sources. Project: multiplier funding sourced through the 22nd Cochrane Colloquium held by CSA in Hyderabad, India (September 2014)			
South Africa:	Cochrane South Africa: SA Rand 112,500, funder: University of Johannesburg. Project: Building Capacity to Use Research Evidence (BCURE) (May 2014 to December 2016)			
South Africa:	CEBHC: US $60,480, funder: Fogarty (Planning grant). Project: Africa Centre for Biostatistical Excellence Advancing Biostatistics Capacity for HIV/AIDS Research (December 2014 to March 2016)			
South Africa:	CEBHC: SA Rand 175,000, funder: University of Johannesburg. Project: Building Capacity to Use Research Evidence (BCURE) (May 2014 to December 2016)			
South Africa:	CEBHC: US $40,000, funder: World Health Organization. Project: Nutrition reviews (15 July 2014 to February 2015)			
UK:	CIDG (Paul Garner and Dave Sinclair): £18,800, funder: WHO-APW. Project: ARV Operational Guidelines development of the WHO 2015 guideline for the use of antiretroviral drugs for treating and preventing HIV infection (Paul Garner and Dave Sinclair) (January to December 2014)			
	EHCRC (Paul Garner and Liz Ollier): £85,261, funder: World Health Organization -TDR. Project: Evaluation of TDR's Regional Training Centres and TDR's Capacity Strengthening Grant schemes approaches and models as part of organisational learning (May 2015 to January 2016)			

Abbreviations: CSA = Cochrane South Africa; CEBHC = Centre for Evidence-based Health Care; CSA = Cochrane South Asia; EHCRC = Effective Health Care Research Consortium; CIDG = Cochrane Infectious Diseases Group; WHO = World Health Organization

3.1 Number of institutions with a developed strategy and code of conduct for research integrity

The reason for including this indicator was to develop a new area of capacity strengthening around promoting research integrity. However, we lost some time with the COO appointment and then the HR process around her leaving and this primarily institutional strengthening component got delayed.

Scientific misconduct is a very important area. As we do systematic reviews, we are constantly finding that many researchers tweak their data, and often misrepresent true findings. This includes withholding publication of studies that don't produce the results the authors or the field wants, mispresenting results, misinterpreting results, and incorrect statistical tests. We suspect we are seeing the top of a very large iceberg.

Step 1. Needs assessment and policy development

As research integrity policies are often developed and enforced at Faculty or University level, it is often difficult to influence them or their implementation from within a single group. However, within the lifetime of the project we are committed to ensuring that partners have a code of conduct for research integrity in relation to publication of research within their sphere of influence (Centre or Department).

We initially surveyed partners about what developments they wanted in this area that were realistic and feasible for us to carry out. Following this survey they requested we develop a Consortium level policy or research integrity in research publishing. This was developed with partners at a meeting facilitated by Elizabeth Wager, conducted at the same time as the Consortium Committee Planning meeting in Chennai in 2012.

Step 2. Implementation of the policy

We developed this with Elizabeth Wager at our key Consortium Partners meeting in Chennai in 2012 and now just need to make sure partners follow this through in relation to a) making sure that all staff know that it is there and understand it; and b) setting up procedures to monitor this and have procedures that staff can follow if it is not adhered to. This is currently ongoing.

Concurrent work

We also have a PhD student in Cape Town, examining the problem of scientific misconduct in LMICs, through Cochrane authors. Some of the early findings may be coming through by the end of this current programme.

To be accurate, we think this log frame indicator should be modified slightly to:

> Proposed modification to the indicator made at MTR: Number of partner departments, centres or institutions with a developed strategy and code of conduct for research integrity in research publishing.

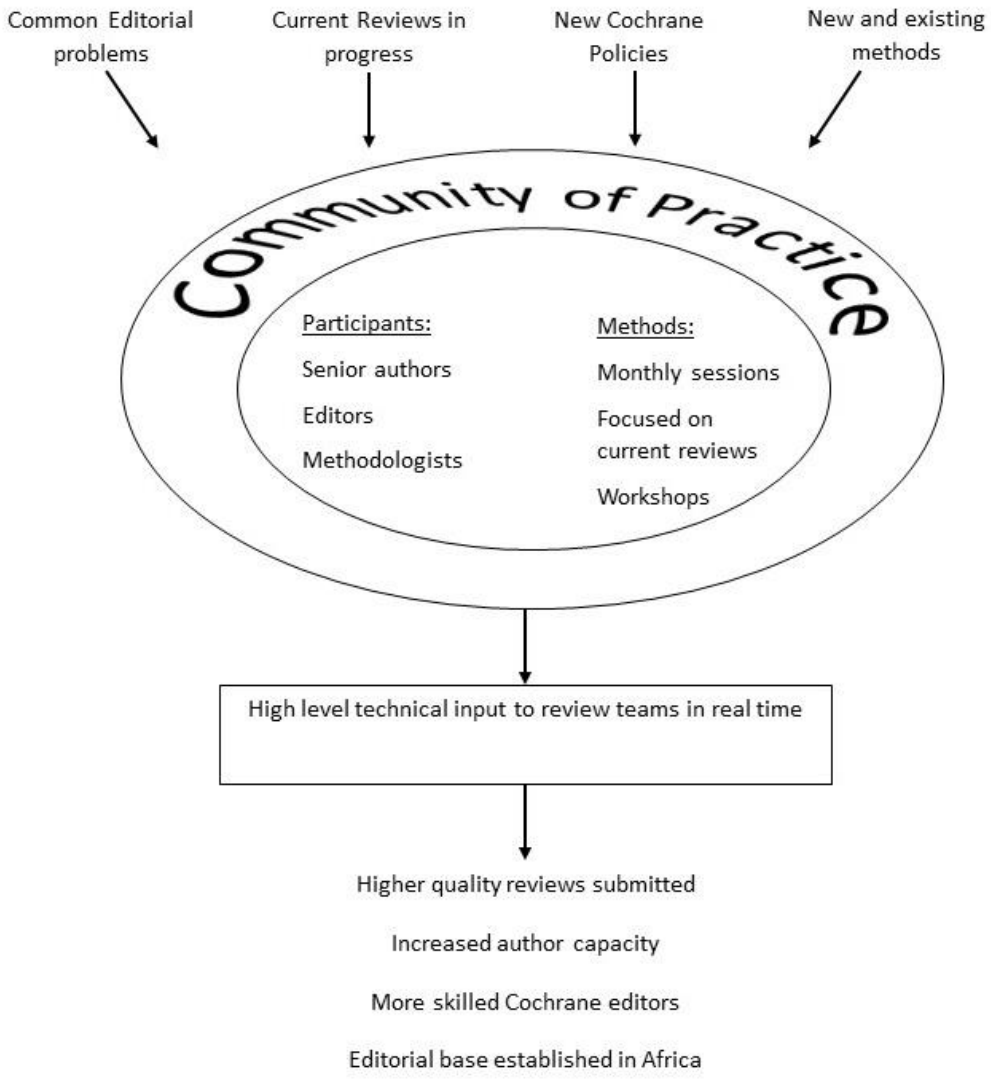
This was proposed at the Mid-Term Review meeting.

3.2 Editors

We have over-performed on this milestone this year.

We recognised that senior author and editor skills are a scarce resource throughout Cochrane, and recently set up LIXA: Learning Initiative for eXperienced Authors. There have been three one hour sessions by video-conference, involving staff from South Africa, India and Nigeria.

Learning Initiative for eXperienced Authors (LIXA): conceptual framework



Fellowships

At LSTM, there have been 14 fellowships over the last year, to complete reviews. This allows people to work closely with the editorial team.

In Cape Town, Time out Fellowships provided to Cochrane authors in the African region to help them complete their reviews. Most of the programme included time-out to work on their reviews. The fellowship also provided sessions on RevMan, Risk of Bias, meta-analysis and GRADE, and one-on-one mentoring. It is adapted to address the needs of those attending. Participants complete a timeline for review completion and we follow up with them regularly, providing further assistance where necessary.

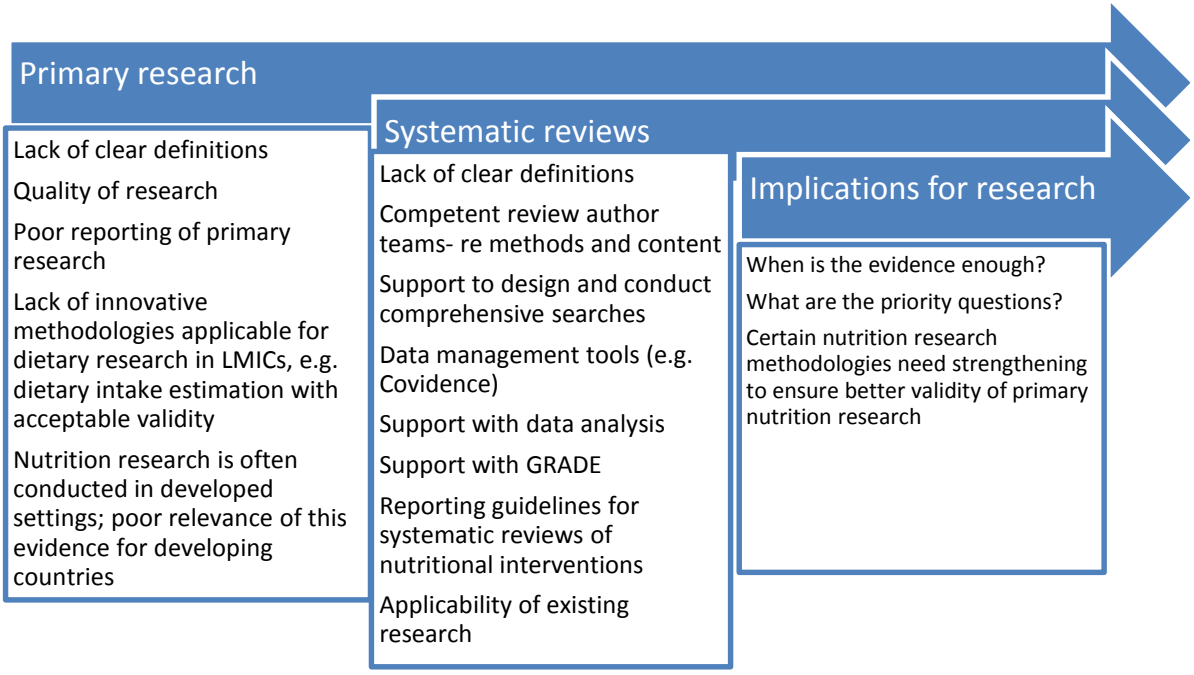
There were fellowships in July and December 2014, and in April 2015, with a total of 10 lead authors and four co-authors attending in Cape Town, and two lead authors attending in Calabar, Nigeria. The fellowships runs over 5-10 working days, depending on individual availability. Five of the 12 lead authors

have submitted their reviews for peer review. Participants who attended the fellowships are from different African countries, including South Africa, Cameroon, Uganda, Kenya, and Tanzania.

GRADE workshop for authors delivered in Kenya on 24-25 November 2014. The aim of the workshop was to cover the principles of GRADE and demonstrate how these can be applied in Cochrane Review. Eleven contributors from Kenya attended on day 1 and eight on day 2.

On 5 September 2014, The Centre for Evidence-based Health Care (CEBHC) and the South African Cochrane Centre (SACC) convened an event called *Nutrition systematic reviews seminar: Progress, challenges and potential solutions*. It was attended by 13 nutrition systematic reviewers and provided a platform to share activities and enhance engagement around conducting these systematic reviews, share the experiences and challenges in the process of conducting systematic reviews, and identify ways to address the challenges summarised in the figure below.

Figure 1. Issues identified regarding nutrition-related research and implications for research



4. RESEARCH OUTPUTS IN BRIEF

Published research outputs

Indicators and definitions	N	Notes
A. Published research outputs	56	New Cochrane Reviews (20) Updated Cochrane Reviews (8) Other systematic reviews (11) Original research (17)
B. Peer reviewed publications	53	New Cochrane Reviews (20) Updated Cochrane Reviews (8) Other systematic reviews (11) Original research (14)
C. Peer reviewed publications which comply with DFID Open Access policy	26	New Cochrane Reviews (10) Updated Cochrane Reviews (3) Other systematic reviews (7) Original research (6) Note all Cochrane Reviews published have totally free access in all low-income countries
D. Peer reviewed publications with a Southern researcher as the primary author	20 women, 24 men Total 44	
E. Peer-reviewed publications explicitly addressing gender issues or women/girls	9	Mainly reproductive health Cochrane Reviews
F. Data sets made openly and freely available to external researchers	None	

Technologies

Indicators and definitions	N	Notes
New technologies/products released or, where required, achieving regulatory approval	None	
Technologies halted during development stages	None	

Highlight(s)

Please see Annex 3.

5. UPTAKE / ENGAGEMENT WITH BENEFICIARIES

World Health Organization	Demand led Cochrane Reviews from WHO guideline panels in malaria treatment, malaria eradication, TB, HIV
DFID/Gates/WHO	Briefings on deworming, updating of the Cochrane Review
Provincial Health Departments, of South Africa	Engagement with evidence through Buddies Project at Provincial level
Government of India	Multiple ways, featured in the panel on the section on impact. See table for uptake of Cochrane Library in India
Centres for Evidence Based Practice, China	Hosting the national meeting; encouraging debate around evidence; blogs on key Cochrane reviews
* Engagement led to specific commissioning or production of systematic reviews	

Cochrane Library full text downloads (Jan-Sept 2014)

Rank	Country	Type of Access	Full Text Downloads
1	United Kingdom	Funded Provision	1,137,944
2	United States	Subscribers*	886,600
3	Australia	Funded Provision	591,162
4	Canada	Subscribers†	157,183
5	**India**	**Funded Provision**	**152,427**
6	Netherlands	Subscribers	127,308
7	New Zealand	Funded Provision	99,929
8	Taiwan	Subscribers	99,216
9	Germany	Subscribers	92,705
10	Italy	Subscribers	83,148

*The State of Wyoming has a funded provision

†The provinces of New Brunswick and Nova Scotia have a funded provision

6. OUTCOMES AND IMPACTS

Malaria guidelines

The third edition of the WHO malaria treatment guidelines was published in April 2015: pages 145-204 contains the GRADE summaries from Cochrane reviews that underpinned most of the main changes in the guidelines. What we are particularly proud of is the majority of the Cochrane reviews cited are led by people from LMICs (eight reviews) with a small contribution from the Liverpool team in some topic areas (four reviews). Lead authors are from South Africa (1), India (2), Nigeria (2), The Gambia (1), Uganda (1), and Mali (1).
http://www.who.int/malaria/publications/atoz/9789241549127/en/

Low-carbohydrate diet

Review on *Low Carbohydrate versus Isoenergetic Balanced Diets for Reducing Weight and Cardiovascular Risk: A Systematic Review and Meta-Analysis* has been actively disseminated to key stakeholders (academics, NGOs, practitioners, the public and media) and has included: two international and 12 national academic presentations, two national television interviews, six radio interviews, with more than 75 related contributions appearing in print and digital media. Altmetric score on 6 May 2014: 202 - In top 5% of all articles scored by Altmetric; High score compared to articles of the same age (99th percentile); High score compared to articles of the same age and source (99th percentile)

Celeste Naude gave a presentation of evidence at National Department of Health Obesity Consultative meeting in Pretoria (30 May 2014) and responded to a request for summary of options for policies and actions to address obesity requested by National Department of Health. Celeste also provided a tailored summary of the evidence that informed the WHO Draft guidelines on the consumption of free sugars by adults and children requested by National Department of Health and provided on 5 December 2014.

Memorandum of understanding

When the HIV/AIDS group ceased editorial function, in dialogue with DFID, we took over these editorial responsibilities. We worked with the Cochrane Editorial Unit to establish a Memorandum of Understanding between us and them that covered HIV and our existing CIDG functions and responsibilities. This was signed by the Editor in Chief and the LSTM Bursar.

This memorandum model of accountability was discussed by the co-ordinating editors in May 2015 at the Cochrane mid-year meeting, and it has been agreed to roll this out across all Cochrane Review Groups.

Case study: India and engagement

Given the multiple aspects of engagement, we feature highlights from one partner in this report, in India

Box 2. Examples of impact from one of the Consortium Members: Vellore CMC

- The Indian Council of Medical Research (ICMR) has embraced the concept of evidence-based health care (EBHC) through our proactive engagement and also continued to fund the National Provision to The Cochrane Library. Our dissemination efforts have led to India recording the 5th highest number of full text downloads from The Cochrane Library from January to September 2014 (the period for which we currently have data).
- The ICMR has now funded one of the Cochrane South Asia Network Sites at the Post Graduate Institute-Chandigarh as an ICMR Centre for Advanced Research Evidence- Based Child Health (CAR-EBCH). Prof Tharyan helped Prof Meenu Singh write up the funding proposal. Prof. Tharyan is also is a member of the Scientific Advisory Group for the ICMR CAR-EBCH. This centre provides training in systematic reviews to institutions in the North East
- The ICMR has also funded six systematic reviews in Maternal and Child Health, and Prof Tharyan is a member of the Scientific Advisory Group for this process and leads trainer of the teams from six different medical institutions undertaking these reviews.
- Through our dissemination strategy and other activities, we have succeeded in fostering links between the Consortium and the National Tuberculosis Research Centre at Chennai (an ICMR funded institution). Future collaboration with the lead-partner is likely to lead to the uptake of evidence in national health policy for TB.
- **Impact on the Ministry of Health:** Cochrane South Asia mentored Prof SK Sharma, Head, Department of Medicine at AIIMS, New Delhi in completing a Cochrane Review on rifamycins for latent TB. This led to further collaboration in evaluating the hepatotoxicity of Anti-TB Drugs. Dr Sharma now Chairs the team drafting the National Guidelines for Extra-Pulmonary TB (INDEX-TB). Consortium partners from India and Liverpool are on the technical team leading the effort to embed the EBHC process in the development of these guidelines. Through this effort links have been forged between the Ministry of Health and Family Welfare and the Consortium.
- **Impact on Indian Neonatology Guidelines:** By our continued dissemination and pro-active out-reach, we have trained the National team revising the National Neonatal Guidelines (National Neonatology Forum) in how to use Cochrane Systematic Reviews in underpinning their recommendations.
- **Impact on the Nepal Heath Research Council (NHRC) and the Nepal Health Sector Programme III (NHSP III):** The Cochrane South Asia was instrumental in engaging the Nepal Health Research Council to consider setting up an Evidence Support Group within the NHRC to provide technical support in finding and using reliable and relevant evidence to inform policy decisions. It paves the way for two workshops led by Prof Tharyan where examples of Cochrane Systematic Reviews that could be useful in developing Nepal's public health policies were demonstrated and their utility appreciated. Subsequently the NHRC sent a team to the 22nd Cochrane Colloquium at Hyderabad. The SASIANCC also linked the NHRC with partners in Evidence Aid after the recent Nepal Earthquake.
- **Impact on Health Technology Assessment activities in India.** Prof Tharyan was invited by the Sri Chitra Tirunal University as key resource person to train members of a national HTA development group funded by the World Bank, ICMR and the WHO-India Office. This culminated in a formal adoption of including systematic reviews in all HTA activities by this group.
- **Impact on Guidelines development in Sri Lanka:** Following the workshop conducted by Prof Tharyan at Colombo in March 2014, the Sri Lankan Medical Association (SLMA) has now formally incorporated the use of Systematic Reviews and the AGREE and ADAPTE instruments in updating the guidelines of the SLMA that are due to be published in 2015.
- **We initially trained the Public Health Foundation of India (PHFI) team both at Delhi and Vellore.** Now we are pleased to know that its Delhi branch offers short-course on systematic reviews and meta-analysis. It's a success of our capacity building initiative which is considered as a major strength of Cochrane South Asia. www.phfi.org/component/jcalpro/view/205/456\

22nd Cochrane Colloquium, Hyderabad

This event was organized by Prathap and Ajay of the Consortium with over 800 people registered.

The Consortium ran one plenary in Capacity Development. The lead speakers were Taryn Young and Mary Ann Lansang; followed by David Sinclair, Joseph Mathew, and Gabriel Rada**. Only one speaker had ever presented at a plenary before.**

7. COSTS, VALUE FOR MONEY AND MANAGEMENT

Performance based funding

The consequences of the assessment against outputs, and the judgements on value for money, have helped manage the consortium long term, in an open and transparent way. This has been reported previously, but has allowed the expansion of the Kenya programme and inclusion of this group as partners; and the contraction of the China programme in the light of fewer staff with other priorities; and the emerging management of the performance of the Nigeria partners, as their work takes them into other areas. It has also helped enter a dialogue within the consortium about priorities, and about focusing on a few high priority topics, and to avoid dilution and impacts on quality by taking on too much work. Particularly as demand goes up, there is increasing pressure on partners to deliver for local and national research to policy projects, which needs to be done selectively.

Contracting communications

This was commented on in the last annual report and is progressing well, with a modest cost for a refresh of the website to something more accessible.

Cochrane HIV/AIDS Group

We have taken on editorial responsibilities of the HIV/AIDS group. The current organization of this, with the editorial base in Liverpool using the same resources as was available for CIDG only, is not sustainable in the long term; as more resources are required to cope with the doubling in size of the group. However, this interim situation allows us to take stock of the situation, and to place some rigor in the editorial process, with a view long term to additional investment, and joint ownership and responsibilities with colleagues in Africa.

8. WORK PLAN & TIMETABLE

Each partner, including CIDG, has a detailed annual work plan as part of their contract from 2013 to 2016. This includes number of Cochrane Reviews to be completed by partner, and details of capacity development and dissemination activities. Below we note briefly our priorities across partners. More detailed work plans can be supplied if required.

9. RISK

The Consortium level register is organized around the outcome and outputs related to the log-frame, and was reviewed and revised in February 2015. Partners have their own risk registers. We are currently going through a round of assessing and make any revisions, if necessary.

10. MONITORING AND EVALUATION

All consortium members report outputs on an ongoing basis on our online database. This allows us to rapidly harvest outputs for annual reports, and for us to monitor progress related to our assessment of the work programmes.

We have six monthly reporting of outputs, and Liverpool staff appraise these outputs. Value for money is considered annually, taking into account performance at outcome level.

11. FURTHER INFORMATION

Gender equity and esteem

Three of the six new Cochrane Editors from the region are women:

- Tamara Kredo (CIDG)
- Cathy Matthews (STD)
- Taryn Young (STD)

Celeste Naude was invited to present the ARP Walker Memorial Lecture at the 25th Congress of the Nutrition Society of South Africa and the 13th Congress of the Association for Dietetics in South Africa, 17 – 19 September 2014, Johannesburg. The title of her presentation was: *Mind the gap: the importance of evidence-based principles in nutrition research and practice*

Babalwa Zani received the Kenneth Warren award for 2014 (http://www.cochrane.org/about-us/awards-scholarships-funding-initiatives/annual-prizes-and-awards/kenneth-warren-prize). The prize is awarded to the principal author from a developing country of a review published in *The Cochrane Library* which is judged to be both of high methodological quality and relevant to health problems in developing countries. Babalwa received the award for her systematic review on *"Dihydroartemisinin-piperaquine for treating uncomplicated Plasmodium falciparum malaria"*

The CEBHC has recruited a postdoctoral research fellow Nyanyiwe Mbeye who is spending 2 years with us. She is using the opportunity to build her capacity to establish a knowledge translation centre in Malawi.

Celeste Naude has been appointed on the ministerial committee on Morbidity and Mortality in Children Under 5 Years and is a member of the Task team for National Obesity strategy. National Department of Health, May 2014 – ongoing.