Department for International Development: Research and Evidence Division

Title: Evidence Building and Synthesis Research – Effective Health Care Research Consortium		
Annual Report: Implementation Year 6: 15 May 2016 to 14 May 2017		
Report date:	6 July 2017 (Final)	
Programme Value:	£7,999,775	
Programme date:	**Start:** 15 November 2010	**End:** 14 May 2018

Summary of progress and lessons learnt since last review

Guideline development - We are actively engaged in and have made substantive contributions to:

- Community programmes for soil transmitted helminth infections: We participated in the WHO Guideline Panel for community programmes and presented the Cochrane review;
- Crimea-Congo Haemorrhagic Fever: We participated in the World Health Organization (WHO) Guideline Panel for treating and preventing this disease, and were part of the team summarising and presenting the evidence;
- Typhoid vaccines: we have updated the Cochrane review for the forthcoming WHO Guideline Panel;
- Cryptococcal meningitis: the HIV base in Cape Town are updating reviews for the forthcoming WHO Guideline Panel.

Our reputation and achievements have led the Global Malaria Programme at WHO to plan that their malaria vector control guidelines emulate the malaria chemotherapy guidelines and commissioned us to lead the work generating the evidence reviews and summaries for this.

In India, the national guidelines on extra-pulmonary tuberculosis, which were developed under our guidance, were launched; and our work influencing paediatric guideline development in Kenya has recently been published. In South Africa, we are contributing to a guideline for South African emergency care (paramedics).

The World Health Organization also approached us to develop a repository for guidelines for primary care volunteers in refugee camps, and this is in our work plan for 2017-18.

Scientific integrity - We have made progress in three important areas:

- In relation to research used in policy, we published a systematic review of long term follow up studies in deworming programmes for soil transmitted helminths. The review raises substantive questions over the way practitioners of development economics collect, analyse and interpret evidence, and was accompanied by eight commentaries.
- In relation to research, we were part of a BBC File on 4 investigation of the ethics around the translation of the candidate MVA85A TB vaccine from animals into humans. This arose out of our systematic review in 2015. The uncertainties and debate around this topic continue.
- We have a new research portfolio around research integrity and have developed a course for institutional capacity development in research reporting.

Broader contributions to Cochrane - we have contributed to three major advances:

- By supporting the establishment of a new Cochrane Group, Cochrane Nutrition and evaluating stakeholder priorities;
- By publishing, with Cochrane colleagues, global guidance for systematic review updating that Cochrane has adopted;
- By providing continued support for the Cochrane African Network, now being formally registered as a Cochrane entity.
- At the first day of the upcoming Global Evidence Summit being hosted in Cape Town https://www.globalevidencesummit.org/, the Consortium has a prime dedicated slot to showcase our work (13 September 2017). The organizers have invited UK's DFID Secretary of State for International Development.

Cochrane as a whole has extended its uptake, spread and influence, evident from the dashboard performance figures, and documentation of the relationship with WHO on video following a Cochrane meeting at WHO quarters in April 2017.

Cochrane now has a knowledge translation strategy (2017). Taryn Young and Pierre Ongolo-Zogo were part of the working group, and many aspects reflect what the Consortium has been doing for some years, mostly because of our translation being part of DFID's key performance indicator.

We have a lot exciting developments in the pipeline, including several important new reviews and updates, including the use of mefloquine for malaria prophylaxis in travellers; and a project with WHO establishing a repository of guidelines for clinicians working in refugee camps.

Actions from previous recommendations

DFID raised issues in the Year 5 annual report on 13 October 2016:

- Clarification about the basis for output 2.2 in the report;
- information updating DFID on the implementation of the gender monitoring plan;
- details of recent changes we had made to the risk register;
- an update on actions taken from the DFID report on our Year 4 report;
- explain how we had followed recommendations from the independent stakeholder engagement and satisfaction report; and recommendations in the mid-term report.

We responded to these points in full to DFID on 18 October 2016.

DFID had also asked to arrange a meeting with DFID advisers and the CEO and Editor in Chief of Cochrane, which we did (15 April 2016).

A. Introduction and Context

How we came together: This Consortium has, over the last 25 years, a) completed ground-breaking systematic reviews that have influenced policy; b) helped develop research synthesis methods; and c) contributed to ensuring these reviews are used in policy formulation in tropical and infectious diseases; and d) have grown substantive capacity in conducting syntheses, in using evidence, and in research conduct, in partner countries.

Uniqueness: Systematic reviews are now mainstream, with this rapid adoption mainly due to Cochrane. Cochrane and this Consortium maintain a very substantive lead in the field, and we have unique advantages. Cochrane remains independent of commercial and academic pressures, and it is becoming evident that independent appraisal and summary of the research needs to be done by methodologists, not specialists in the field (whilst they may be consulted). The Consortium is at the cutting edge of evidence-synthesis methods, and is an innovator and earlier adopter of methods that improve review reliability and uptake.

Outcomes: We inform policy and influence change through increasing the number of evidence-informed decisions. This is to improve health and health care for the poor in low- and middle-income countries (LMICs). We synthesise relevant and reliable research, contributing to a global evidence base that enables health care to become more effective, thereby improving the health of populations, and avoiding public and providers wasting money on ineffective health care or poorly informed research questions.

- **The grant adds value to an existing network of researchers within Cochrane.** Engaged in this Consortium are three lead research networks in Africa, South Asia, and China, and two lead global teams synthesising research in infectious diseases, and in health service organization and financing, assuring effective outputs, influence, and capacity development.
- **The DFID investment allows considerable innovation and development of good practice.** This exerts considerable influence on Cochrane, including focusing on health priorities in LMICs, capacity development in these regions, and helping ensure uptake of research findings into policy and practice.
- **Good reviews are great science and develop tomorrow's leaders.** Systematic reviews help young researchers learn about rigor and give them a tangible, useful research product. Participation in the process is great training in research, which promotes understanding of evidence synthesis and develops advocates of the approach.

Situation today: When we started, systematic reviews were not mainstream, but they are now. The main problem is that there are now large quantity of conflicting and poor quality reviews. Now, more than ever, there is a need to help teach people how to spot good reviews and interpret them; and to help people use the best possible methods to prepare reliable reviews.

For example, this year we published an appraisal of the conflicting systematic reviews of influenza vaccination in health workers in the UK. Even though the underlying trials were basically the same, the reviews were conducted in different ways with different levels of rigor. Sorting out conflicting reviews, and assuring the quality of our own reviews, are key to our work.

Lead and partners

Africa	Lead	Centre for Evidence-based Health Care (CEBHC) at Stellenbosch University
	Partners	Cochrane Nutrition; Cochrane South Africa; Cochrane HIV/AIDS Editorial Base of the Infectious Diseases Group; Cochrane Nigeria; and partners in Cameroon and Kenya
Asia	Lead	Cochrane South Asia at the Christian Medical College (CMC) in India
	Partners	Chongqing Medical University and Fudan University (China Evidence Network)
Europe	Global lead	Liverpool School of Tropical Medicine (LSTM)[1]; Consortium Co-ordination Team, and Cochrane Infectious Diseases Group (CIDG) incorporating HIV/AIDS
	Partner	Cochrane Effective Practice and Organization of Care (EPOC) Group, Norway

[1] WHO Collaborating Centre for Evidence Synthesis for Infectious and Tropical Diseases

Expected results

All partners have a set number of systematic reviews that they intend to complete or update. Partners also have a variety of specified activities around helping ensure policies and practice follow reliable research. The results we seek, at outcome level, include changes to global and national guideline development, as well as evidence of shifts in investment in interventions; and we are now seeking evidence that decision makers are drawing on evidence criteria in making their decisions about resource allocation. At the same time, we are developing the capacity of the consortium in the science of evidence synthesis and interpreting and using the results of systematic reviews.

Our approach makes the investment extremely cost-effective:

- If we influence a global guideline, then this has a high potential long-term for adoption; and the global reach means it will influence health care and health outcomes for millions of people.
- If our reviews challenge a global policy, then this has considerable implications for investment and policy long term-we have seen this both with iron supplementation in malaria areas and soil-transmitted deworming programmes;
- Our capacity development – in developing leaders and people working at a high level in evidence synthesis - exerts high levels of leverage in that these people can then influence policy processes globally and in countries with a consistent methodological approach around summarising all reliable research evidence, and making decision making transparent.

Whilst the policy impacts are becoming numerous, impact on the way research is done is taking longer. Whilst there are many examples of specific review topics being carried out in response to gaps identified by our reviews, the broader issues over researchers more consistently drawing on systematic reviews in their research reports is taking time.

Systematic reviews often help improve the quality of subsequent primary research studies, and we have seen this in randomised controlled trials in malaria, and in research into diagnostic tests for malaria, probably as a direct result of our work (with researchers seeing the studies appraised in the systematic reviews and the quality criteria used); and from the indirect effects, of the establishment of minimum standard checklists for reporting research.

Cochrane Africa Network and the Consortium

Cochrane is a large multinational organization funded from multiple sources. It includes 5,060 active authors, published 408 reviews and 394 updated reviews in 2016, and had over 10 million visits to its website, www.Cochrane.org, in 2015. In 2016, 18 WHO Guidelines were published; 14 of these (78%) cited or used a total of 73 Cochrane reviews from 11 Cochrane Review Groups.

The Consortium represents a substantive investment for DFID in Cochrane. The DFID investment emphasises prevention and health in LMICs, with a focus on women and for the benefit of the poor. The topics are wide ranging, but include infectious diseases, nutrition, health systems, and aspects of child and women's health, as well as public health. This is a contribution to the public good generated by Cochrane.

Cochrane now has an immediate open access option for authors, which is mostly used by the Consortium to be in line with DFID policies. On top of this, there is free one click access for people in low income countries, and many middle-income countries have national licences, including India (renewed in 2017) and South Africa (started in 2017). Cochrane Executive estimates, taking into account green open access (where reviews are made available 12 months after they have been published) that by the end of 2016, 44% of all Cochrane Systematic Reviews are available to everyone around the world.

The Cochrane Africa Network is now formally registered as a Cochrane entity. This network was initiated in 2007 at the African Cochrane Contributors Meeting. It has been developed over the years, funded by EU, WHO and DFID, consolidated at the Indaba in 2013. The formal registration is a credit to DFID and Consortium support, which totals £1,670K during the period 2010-2016, with an additional Cochrane Central grant of £100K for a one year period 2016-17 (on top of the Consortium contribution of £268K to the Africa contributors in Stellenbosch, Cape Town, Nigeria, and Cameroon during 2016-17).

B: PERFORMANCE AND CONCLUSIONS

Annual outcome assessment

Outcome Indicator(s)	Milestones	Achieved by end-Year 6
1. New or amended policies or guidelines influenced by RPC products:		
Global	1	1
National	1	1
2. Major funding decisions by bilateral or multilateral agencies influenced by RPC outputs	1	1
3. National/ global decision making bodies change information requirements for funding decisions as a result of RPC work	1	1

Outcome achievement details[1]

Indicator No.	Formal Outcome achievements reported for log frame	Complementary/in progress
1	Global: the WHO Crimea Congo-Haemorrhagic Fever Guideline. National: the INDEX-TB guidelines in India were published.	Our work in Kenya guidelines on paediatric care was published; The WHO TB Guidelines for treating drug sensitive disease drew on three of our reviews; The clinical guidelines for paramedics in South Africa, to which the RPC has contributed, are out for comment; We contributed to two further guidelines: a) the WHO Crimea Congo-Haemorrhagic Fever Guideline; and b) the WHO Guideline and Soil Transmitted Guidelines. These are being finalised.
2	The Cochrane Integrated Management of Childhood Illness review was used extensively by WHO in support further investment in IMCI.	In this year, *Givewell* gave more nuanced advice on deworming, which we find has internal contradictions ("it probably doesn't work, but we recommend funding it").
3	The WHO Global Malaria Programme stated explicitly that the shift to the GRADE approach for vector control guidelines was to emulate the excellent model of the WHO Malaria Treatment Guidelines, for which we have guided the methods for 15 years.	We have published a systematic review appraising long term follow up studies from the discipline of development economics, showing most analyses were not protocol driven and probably unreliable. Long term, this may mean policy makers are more critical of such analyses and practitioners of development economics adopt more robust approaches. Our work criticising the quality of reporting and inferences made from animal studies in relation to the MVA85A TB vaccine has been followed up on a BBC File *on 4* programme, aired on 6 June. This may lead to more rigorous appraisal of translational signals from animal studies before moving to phase II trials in humans.

[1] See Annex 1b Log frame output achievement details – Years 1-6

Other outcome impacts

- Contribution to development of a tool that allows an assessment of the certainty of the evidence ("GRADE") of qualitative research. This is called CERQUAL, and several qualitative reviews completed by Oslo team.
- In terms of contribution to **Cochrane policies,** Cochrane has adopted our classification framework. This helps decide if reviews ask a "current" question and whether it needs updating. Already 25 percent of reviews have been categorised accordingly, and Cochrane aim to make this public next year; and the National Institute of Health Research Report on Cochrane, which we contributed to, has been published.
- In terms of training in evidence to policy, we provided a course in "evidence to policy" for DFID advisers; we provided a similar course to over 90 young ministry staff in Sri Lanka.
- For training and development in research integrity, we have developed a half day course in research integrity launched in May 2017 with 17 participants in the Malawi Liverpool Wellcome Trust Clinical Research Programme.
- The Campbell Collaboration produced a systematic review of deworming, which was basically a replication with additional analyses of our Cochrane review. The conclusions were very similar, and reinforce the validity of our review. The debate continues, although the Editor in Chief of the Cochrane Library noted in an editorial entitled "the end of the wormwars?" that there was a strong convergence between the two reviews.
- Vested interests related to the low-carbohydrate diet conducted in Cape Town launched an attack on the published review on this topic. We have responded to this, and also initiated a Cochrane review to update the original review published in PLOS One.

Key lessons

The uncertainty around funding in late 2016 impaired our ability to plan effectively. This adversely affected all partners. In Liverpool, we nevertheless pushed forward with the WHO Malaria Vector Reviews, and put provisional plans in place.

Reviews are becoming more complex, but WHO and others want fast turn-around: we have done this, but only with full time staff, and often in a constructive partnership with "Cochrane Response", its new consultancy service for systematic reviews on larger projects, with us providing clinical and content input within a larger team of experienced contracted systematic reviewers. We need now to extend this model to partners.

Turning around the HIV/AIDS portfolio has taken longer than expected. We have appraised most existing reviews, and have rejected many of the reviews and updates submitted, mainly because the original question and review protocol were flawed and hence the reviews would not have been possible to salvage. This has not always been a pleasant task; moreover, it means that the time and effort invested in the rejected reviews was wasted. This emphasises the importance of the protocol; and how so called "capacity development" does not actually help people in LMIC countries if the protocol and review question are poorly formulated. However, we are beginning to turn around the portfolio, with the first two large, high quality HIV reviews published.

Cochrane is generally underselling its unique selling points, including our ability to provide independent reviews carried out by people with a distance from the trial researchers; and also by updating existing reviews. These learning points came out of two pieces of work appraising Cochrane: first its participation in the NIHR review of their investment in UK Cochrane infrastructure; and the second was an analysis of Cochrane against Ostrom's theory of the commons, using the Institutional Analysis and Development Framework.

Systematic reviews may sometimes support prevailing policies, but they sometimes challenge orthodoxy. The latter remains an important function of Cochrane and synthesis specialists, even when practice is deeply embedded in the belief of the specialists (for example, community programmes for soil transmitted helminths, or routine episiotomy).

Key actions

The level of expertise in evidence synthesis and thus a resource to develop the science remains patchy in LMICs. There has been a tendency in Cochrane to focus on "entry level" support for naïve authors. Whilst this remains important, advanced training in complex reviews and editorship are critical. This the Consortium is leading in with LIXA (Learning Initiative for experienced authors). We are also developing training for teachers at medical schools in India to help ensure evidence synthesis and systematic reviews are core to the curriculae-something that has been the norm in the undergraduate curriculum in the UK for the last five years.

Has the log frame been updated since the last review?

We updated the EBSR-EHCRC log frame in response to the DFID annual review report recommendations of the Year 5 Annual report. The EBSR-EHCRC log frame update was to show the 'outcome achievements' cumulative targets from Years 1 to 5, the update was submitted to DFID on 14 February 2017 with additional information to support the other recommendations from the Year 5 annual review report.

A minor update has been made to the EBSR-EHCR log frame on 23 June 2017 to Output Indicator 3.1, see the latest log frame in Annex 1a.

C: DETAILED OUTPUT SCORING: OUTPUT 1

Output Title	1. High quality, up to date Cochrane or related systematic reviews relevant to improving health outcomes in the poor		
Output number per LF			
Risk:	Minor **Moderate** Major Severe	Impact weighting (%):	40
Risk revised since last AR?	N	Impact weighting % revised since last AR?	No

Output Indicator(s)	**Milestones**	**Achieved by end-Year 6**
1.1 Number of systematic reviews relevant to the content and delivery of poverty-related health programmes: new Cochrane reviews	10	11
1.2 Number of systematic reviews relevant to the content and delivery of poverty-related health programmes: updated Cochrane reviews	10	12
1.3 Number of other systematic reviews relevant to the content and delivery of poverty-related health programmes incl. qualitative synthesis, scoping reviews	2	3

We have significantly exceeded our targets for Output 1 by publishing 11 new Cochrane reviews, 12 updated versions of Cochrane reviews; and 3 other systematic reviews. In addition, 25 original research papers have been published. Open Access compliance is high, with 20 of the 23 Cochrane reviews being gold open access, considered in section "introduction and context". LMIC researchers were the lead author on 53% (27/51) of publications; and 55% (15/27) were women. This section is core to capacity development, and the people developed are reported in output 3. Several important reviews have been published, including those already with demonstrable impact (below).

Impacts	Comment	Altmetric score
Integrated management of childhood illness (IMCI) (new Cochrane review)	Extensively quoted in: "Towards a Grand Convergence for child survival and health" (WHO Nov 2016).	79
Impact of mass deworming: (International Journal of Epidemiology)	Stimulated 12 commentaries published alongside the article	88
Influenza vaccination for healthcare workers in the UK: appraisal of policy options (BMJ Open).	Personal email from Sally Davies, CMO she has shared it with people in government who develop guidance	11
School-based interventions for preventing HIV, STI and pregnancy in adolescents (new Cochrane review)	Reported in the Daily Mail 2016 in relation to cash payments to reduce STI/pregnancy	98
Steroids for TB meningitis (Update, in 2015-16 report)	Lancet editorial 2016 exclusively about the review update	84
Interventions for preventing unintended pregnancies among adolescents (update, in 2015-16 report)	Quoted in the Daily Mail May 2017	18

Other important reviews include:

- A team from China updated the iconic Cochrane review examining routine episiotomy (AM score 109).
- A team from South Africa published a Campbell review of e-learning for evidence based health care (AM score 19).
- A team from Nigeria and South Africa Updated the Cochrane review of improving immunization coverage in LMIC (AM score 5).
- Key Cochrane reviews underpinning the India Index TB Guidelines for Extra-pulmonary TB were published, including six months therapy for TB meningitis (AM 3), six months therapy for abdominal TB (AM 3), and corticosteroids for TB pleurisy (AM 3).

Gender monitoring

We carried out an assessment of new and updated Cochrane reviews (23 in total) published against our gender monitoring framework established in Year 1. This categorises reviews into three categories (see below).

Category	Reviews	Percentage
Topics that empower women or deal directly with gender inequity	1	4%
Topics that improve women's health	4	17%
Topics that indirectly impact on women related to their gendered role, such as improving child health	4	17%

Processes

The HIV/AIDS Group editors carried out a consultation and priority setting meeting in Cape Town to identify topics for reviews. This was a process that engaged the WHO, but also research partners in Cape Town previously not working with the HIV/AIDS group.

We have active editors working on HIV/AIDS in Cape Town, with review management responsibility now primarily based from the CEBHC in Cape Town, with the larger editorial team having oversight and involvement with editorial decisions.

Forthcoming Cochrane reviews

Two important new reviews are nearing completion:

- Cochrane review of corticosteroids in TB pericarditis
- Cochrane review of mefloquine in travellers

C: DETAILED OUTPUT SCORING: OUTPUT 2

Output Title	Accessible products for knowledge uptake		
Output number per LF			
Risk:	Minor **Moderate** Major Severe	Impact weighting (%):	30
Risk revised since last AR?	N	Impact weighting % revised since last AR?	N

Output Indicator(s)	**Milestones**	**Achieved by end-Year 6**
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 RPC regularly contribute to 1	Maintain existing series	Evidence Assessments (Cameroon)
2.2 (a) DISSEMINATION pull products-collections of review summaries commissioned by a customer for dissemination	1	Neglected Tropical Diseases: the top five. Special Collection, Free review access. Cochrane Library May 2016.
2.2 (b) GUIDELINE pull products-collections of reviews commissioned to prepare for a guideline	1	Crimea-Congo Haemorrhagic Fever (meeting March 2017). Also breast feeding scoping study. Celeste Naude responded to a request from the Ministerial Committee on Mortality and Morbidity in Children (CoMMiC), National Department of Health; Directorate: Child & Youth Health to deliver a summary of evidence on: *Implementing Nutrition Actions for Improving Child Mortality and Morbidity in SA* (26 May 2016).
2.3 Level of stakeholder engagement and satisfaction assessed via establishment and evaluation of stakeholder management plans	-	Previously assessed in Year 4

Key Points

Output	**Dissemination**
Immunization coverage, micronutrients	Cited on Wikipedia
Cochrane deworming review	2,839 total downloads
CIDG impact factor	5.9 for 2015 (35 publications from 2013 or 2014 cited 208 times). This is similar to the IF for the Cochrane library (6.1)
Cochrane Plasmodium falciparum diagnostic test review for malaria	2nd most commonly downloaded paper from the LSTM repository
MVA85A animal systematic review	BBC Radio “File on 4” made a programme arising from our review
WHO Malaria Guidelines	Nominated for BMA medical book awards 2016

As indicated in the above tables, we have more than met our targets for Output 2.

NTD collection

In 2013, we provided some evidence to show that the Neglected Tropical Diseases community had, on the whole, ignored systematic reviews; and been extremely selective in its citation of systematic reviews. This year, Maya Tickell-Painter, a research associate on the programme, curated a collection of Cochrane reviews in NTD with Cochrane's Central Editorial Unit. This shows an excellent selection of systematic reviews covering many neglected tropical diseases.

Increased demand

As we have developed, there is increasing demand for pull products-direct into guideline, indicator (2.2 (b)). This reflects Consortium (and more broadly, Cochrane)'s impact on generating demand for systematic reviews for policy.

- Crimea-Congo Haemorrhagic Fever WHO Guidelines: we were approached directly.
- Typhoid vaccines WHO Guidelines: we were approached through Cochrane Response.

South Africa team have worked closely with WHO in identifying topics for guidelines around use of breast milk substitutes. They have also set up the Cochrane Nutrition Field, and they are making a formal appraisal and consultation with WHO on nutrition priorities.

The South Africa Team ran courses for Journalism students.

The government of India renewed the Cochrane Library national licence in 2017.

Better reviews improve dissemination and impact

The "dissemination" products have been enhanced by adoption of summary of findings tables and improving the quality of the abstract and plain language summary. We expressed this in our original proposal as developing the "core product". This means there is no longer a need to rewrite the review summaries in plain language.

The high level of impact reported in output 1 is partially due to reviews being more clearly written with a clearer bottom line message, thanks to the summary of findings tables.

MVA85A animal studies (Rufaro Kashangura)

We were part of a BBC File on 4 investigation of the ethics around the translation of the candidate MVA85A TB vaccine from animals into humans. This arose out of our systematic review in 2015. The review reported a delay in publishing a trial of the vaccine in monkeys, where the vaccine appeared to accelerate the development of TB diseases (five out of the six monkeys in the new vaccine group needed to be euthanized, compared to two out of six in the BCG control). The trial was published several years after it had been completed, and after a trial in children had been funded and recruitment started. Oxford deny that the publication was delayed, that the trial in monkeys was not designed to test the vaccine but animal models, and that the regulatory authorities were fully aware of this study.

Related dissemination articles

In Annex 4 of the report, there are copious dissemination articles about evidence based health policy in Africa, translational research, building evidence synthesis capacity, developing guidelines.

There are articles about the implications of different guidelines, including communication with childhood vaccination programmes, and community health worker programmes.

There are methodological articles promoting and developing qualitative synthesis, from the Norway partners.

Dissemination series

China partner continues a blog series, and the Cameroon partner a series of translated summaries.

In addition, Cochrane Nigeria is continuing an active dialogue with the press drawing on the whole Cochrane portfolio, with some success (Annex 4, section 5.2).

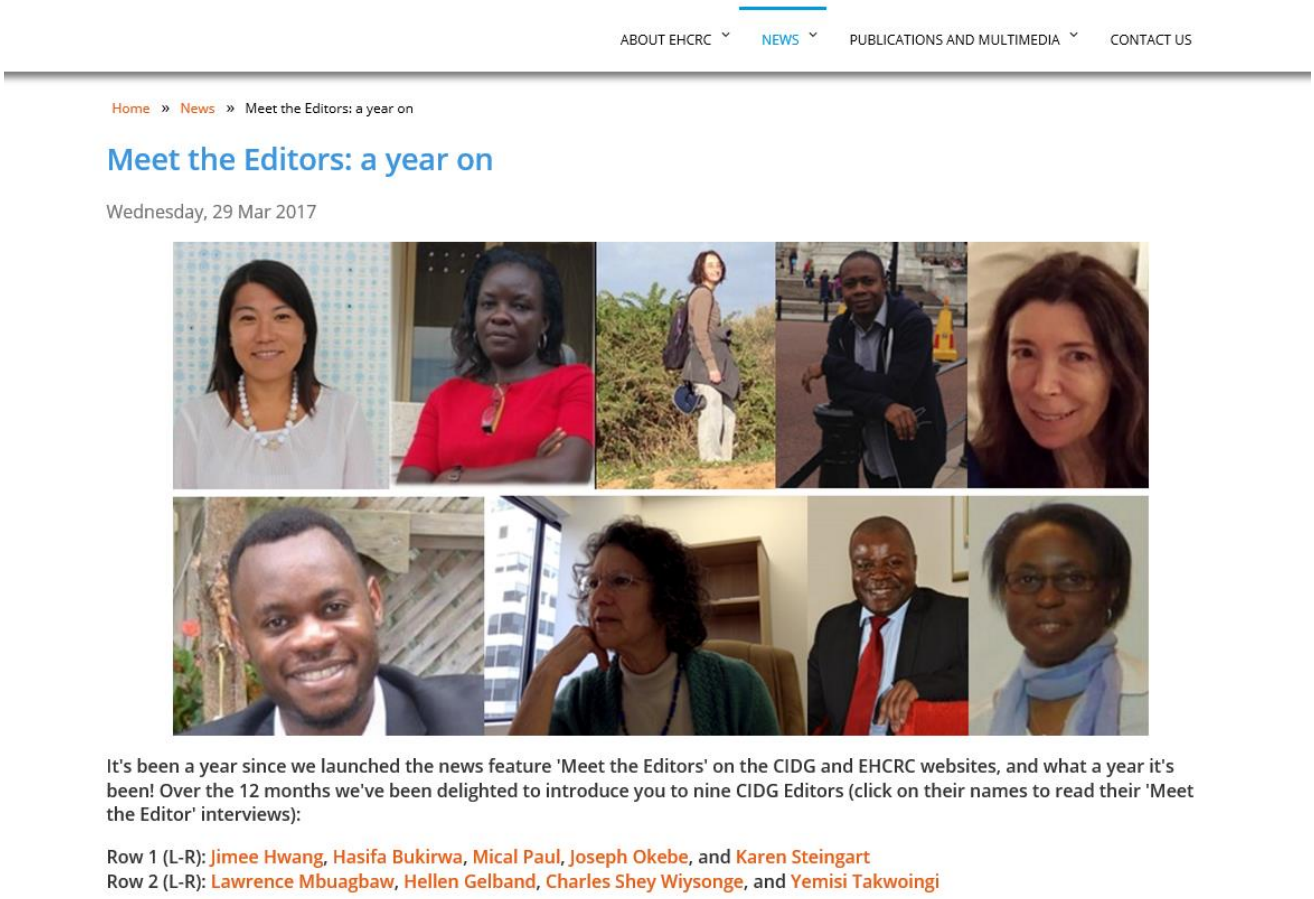
Evidence to Action? Start with the Action!

The Consortium has the prime spot of a threaded special session following the first plenary of the first Global Evidence Summit onin 13 September. This builds on our log-frame outcome indicator-to start with the decision you want to make, and then do the review to inform this. We intend to showcase:

- Barriers to TB/HIV adherence (Ingrid Wilson)
- Malaria chemotherapy guidelines (Joseph Okebe)
- Long term deworming studies (Sophie Jullien)
- Extra-pulmonary TB guideline development in India (Neraj Nischal)

Website revamp

A team in Liverpool have revamped the Consortium and CIDG website http://www.evidence4health.org/, and it is much more active, current and engaged.



C: DETAILED OUTPUT SCORING: OUTPUT 3

Output Title	RPC partner institutions and researchers in the South have increased competence for research		
Output number per LF			
Risk:	Minor **Moderate** Major Severe	Impact weighting (%):	30%
Risk revised since last AR?	N	Impact weighting % revised since last AR?	N

Output Indicator(s)	**Milestones**	**Achieved by end-Year 6**
3.1 Number of institutions with a developed strategy and code of conduct to promote research integrity in research reporting	75% of partners	55% (5/9) to date; anticipated 78% (7/9) by mid-year 7[2]
3.2 a) Cochrane editors appointed from LMIC 3.2 b) first authors completing Cochrane reviews for the first time	Editors: 3 Authors: 8	Editors: 1 Authors: 11
3.3 Number of Partners with multiplier funding at least matching DFID investment	Maintained (4)	Maintained

High performance on first authors of Cochrane reviews completing a review for the first time.

3.1 was overly optimistic indicator, but we now have developed and piloted a ground-breaking course in research integrity research reporting.

3.2 for new Cochrane editors: All CRGs have stopped expanding and have mature, established teams, so progress with this indicator has slowed.

Research integrity

For research integrity, we have made good progress. A survey of Cochrane authors in LMICs about authorship, plagiarism and conflicts of interest is now complete. This is important baseline to help strengthen codes of conduct. Our log-frame target and expectations of ourselves were over-ambitious. However, they have pushed us to develop a portfolio of work in training and institutional development in research integrity, and focused on code of conduct to promote research integrity in publishing research.

- Publishing policies in line with good scientific integrity have been established at the LSTM, at CMC Vellore, both directly resulting from the Consortium's work.
- There is now a programme to develop them in Malawi College of Health Science; in Cameroon; and in Calabar Medical School.

By the end of Year 6 we will have made good progress on our targets.

[2] YES: SA-Stellenbosch University, SA-Medical Research Council, India-CMC, UK-LSTM, Norwegian Institute of Public Health. NO: Nigeria-Calabar University, Cameroon-Centre for Development of Best Practices, China-Fudan University and Chongqing Medical University. Courses being conducted in Nigeria (July 2017) and Cameroon (later in the year). Note: China partners are winding down and we are currently working with all other Partners to ensure in place by end-Year 7.

Advanced authorship skills

The Learning Initiative for eXperienced Authors (LiXA) has had 9 one hour teaching sessions over the period of reporting, with up to 20 people on each Webinar. These have been extremely popular and well received. We also ran a 3-day course in Cape Town that built on LiXA with over 20 participants.

We are also increasingly systematising on-line collaboration and support through GoToMeeting with authors. Two first time-authors, one in the UK and one in Nepal, carrying out a full review using remote access.

There is a continued programme of training and support across all consortium partners in helping people initiate, contribute, complete and update Cochrane systematic reviews.

Editing skills

The Consortium has participated in a global exercise with Medical Editors to define core skills for medical editors. This is to assist with more structured approaches to developing capacity, particularly in LMICs. We anticipate this will be publicly available in late 2017.

Primer course

The primer course, to help people understand and interpret systematic reviews, has a basic structure and is modified in complexity and the examples used, dependent on the audience. It was delivered to DFID Advisers in Liverpool, with extremely positive reviews, and all in agreement this was highly relevant to their work (see box).

Primer course for DFID advisers: comments from participants

"Overall, really, really, really good"

"very good LSTM course was an efficient and effective way to update our competence in generating, evaluating and using evidence which is one of our core competencies. I left the course knowing and understanding more about current approaches to combining the results of studies on effects and qualitative studies in systematic reviews, and more confident about applying this in a variety of roles and situations in DFID including commissioning."

Other versions of the course have been provided to Countdown Partners in Ghana and in Cameroon. South Africa partners have set up as a purely online course mainly with clinical examples. Following piloting in 2016, it is ready for roll out.

Mainstreaming evidence training

This is a continued focus across all partners:

- In Cape Town, the Masters of Clinical Epidemiology has a bespoke module on evidence synthesis, as does the Masters of Public Health (MPH) in Liverpool;
- In Vellore, the Lead partner has organised a "training of the trainers" course of ex faculty teaching in other medical institutions, to bring evidence into their undergraduate curricula;
- In Liverpool, the Diploma in Tropical Medicine and Hygiene 3-month course students now have 5 half-day sessions on systematic reviews to evidence and policy.

Highlighting staff and achievements

As part of recognising capacity development and achievements, we have run a series of articles about Cochrane Infectious Diseases Group Editors (click through the links on individual authors).

Solange Durão, Cape Town, is a member of the WHO guideline development group - nutrition actions for 2016 to 2018.

Charles Wiysonge, Cape Town, appointed as Director of Cochrane South Africa.

Taryn Young, promoted to Professor; and to Head of Division of Epidemiology and Biostatistics.

D: VALUE FOR MONEY & FINANCIAL PERFORMANCE

Key cost drivers and performance

This grant is a contribution to Cochrane, and DFID obtains a much higher return because of this. The Consortium is a substantive contributor to Cochrane, and yet DFID, the WHO, NGOs and national governments benefit from many of the reviews produced by other groups in Cochrane, funded by other governments or agencies: for example, in pregnancy and childbirth. The investment in Cochrane for DFID is a contribution that has a very much larger return than would be obtained if we were working independently.

The main cost in the programme is staff time. This includes people doing Cochrane reviews, people supervising, and people training; and engagement in Cochrane development and in the uptake of evidence underpinned by Cochrane reviews into health practice and policy. Staff are carefully selected, appraised and monitored, with clear performance targets. Across the consortium, the Consortium managers discuss staff performance and share issues to obtain a joint resolution.

The second main driver is travel. We assure value for money by minimising travel as much as possible-not only the flight costs, but the opportunity costs in terms of staff time with travel. We are increasing the amount of partner working by using communication software that works well. Author teams are now using this extensively, including with partners in Nepal, Nigeria, South Africa and India.

With increasing complexity and demands from WHO for rapid turn-around, we are increasingly using a service called Cochrane Response. In the past, having high level experienced authors has meant products are delivered to time and efficiently. We have had some success with this as a mixed model (us subcontracting Cochrane Response, and Cochrane Response obtaining WHO contracts and then subcontracting our technical expertise). We are also using them for completing difficult reviews, and are monitoring this expense.

Communications is subcontracted in house and is good value for money

Communications are contracted out to an in-house media team. This is good value for money, represents 60% of the cost of a full-time member of staff, with website and news items being generated internally by partners and the Liverpool team.

Quality of financial management

The lead partner has a strong financial monitoring and management system in place. Senior managers examine performance against work plans on a six-monthly basis to allow warnings to be made to partners and remedial action within the Consortium to help move outputs forward in performance based output financing previously described.

From Year 7, we are on track. For Year 6, there is some underspend explained above.

VFM performance remains high

The main cost is staff, and we have a strategy of recruiting young staff with intense supervisions.

The RPC is performing well against targets. Financial forecasting is strong. This had a knock-on effect with negotiating partner work plans. This has been achieved with existing, highly skilled and professional staff, but has NOT required us to employ a Chief Executive Officer.

The production of high quality systematic reviews that are relevant to policy are often strong policy levers and as such represent excellent value for money. Policy changes that reduce the use of ineffective interventions and increase the use of evidence-based interventions should mean that money spent in related programmes by DFID, other donors, LMIC governments and users of services has greater impact (although this improvement in cost-effectiveness cannot be quantified without additional studies).

We have also been successful in obtaining multiplier funding in the form of several additional grants for reviews and staff attached to this: from WHO to carry out reviews in malaria, and Countdown to supply an

additional post to carry out reviews, and Cochrane Executive that have funded a post to help sort out the HIV/AIDS Cochrane portfolio.

Capacity development

Some modest training is delivered on site, such as the Sri Lanka two-day course for 85 people from the Ministry of Health. Most capacity development is mentoring of teams. We have a new project “training the trainers” in India to disseminate systematic review training to medical colleges.

Quality of Cochrane review products is assured

Value for money is greatly enhanced with quality products, and substantially impaired if products are of poor quality. We assure quality of Cochrane reviews within CIDG through a rigorous editorial system; most Cochrane groups follow similar systems, and we work with the Cochrane Editorial Unit in ensuring standards are set and implemented. For more information regarding the latest CIDG Strategic Plan 2017 to 2021, see Annex 5.

For other products, Consortium leads within each group assures quality of the product by monitoring publications and providing feedback where required. There is across the Consortium and Cochrane a strong ethos of avoiding bias and assuring quality.

E: RISK

Overview of programme risk

Funding threat

There was a risk of discontinuity of work and loss of skilled staff with the delay in the funding extension. We have mitigated this as far as possible, and partners maintained their basic human resources during this time, underlining the commitment of our teams.

In Liverpool, the risk of discontinuity of funding did cause anxiety and made clear planning difficult and maintaining momentum was a considerable effort for the senior managers. We are lucky that there was no loss of critical staff in Liverpool, Cape Town or India.

Changes to the risk register

Risks have been reviewed and the mitigating actions updated and modified in discussion with the Consortium Management Team in May 2017.

Outstanding actions from risk assessment

None.

F: COMMERCIAL CONSIDERATIONS

Delivery against planned timeframe

Overall outcomes and outputs are on target across the Consortium.

Individual Partners are monitored six monthly. There are some delays in delivery with most partners related to the uncertainty over funding and some of this was out of their control. Our approach is to roll forward the outputs into this year but with no funding attached to those that were outstanding.

Performance of partnership (s)

The formal contracts are working well, and, as noted in the independent evaluation by Jocalyn Clark, communication remains good. We have routine conference calls with partners every two months, and more if required.

Asset monitoring and control

Effective systems are in place including asset registers in each country programme. These are monitored during routine supervision visits by the Director.

G: CONDITIONALITY

Update on partnership principles (if relevant)

Not applicable. DFID provides funding to the RPC through the lead institutions and no funding flows directly to governments.

Update on Aid Transparency

In response to the UK ODA strategy, published in November 2015, the Consortium has 'completed' the transparency data related to EBSR-EHCRC using the AidStream as this is the preferred portal of choice for LSTM.

The transparency data for EBSR-EHCRC which covers 15 November 2017 to 14 May 2018 is due to be verified by the Research and Business Professional Services department before it is submitted as published.

H: MONITORING & EVALUATION

We maintain the Consortium outputs in real time with an online monitoring database, see Annex 4 for detailed information downloaded from the monitoring database which is also linked to the below tables related to Gender monitoring and Outputs 1 and 3 monitoring.

No further external reviews are anticipated.

The Theory of Change has not altered since the beginning of the programme (figure on the next page).

Gender monitoring: participation in research

	Women/total (events)	% women	Number of events with <40% women
Dissemination and capacity building events run by Consortium partners	452/855 (21)	53%	71% (15)
Stakeholder meetings (i.e. guidelines, committees) attended by Consortium partners	661/1172 (12)	56%	75% (9)
Prizes, expert panels, external recognition and staff development of Consortium partners	4	25%	-
Visiting fellows and trainees to CIDG (Liverpool, UK)	11/15	73%	-

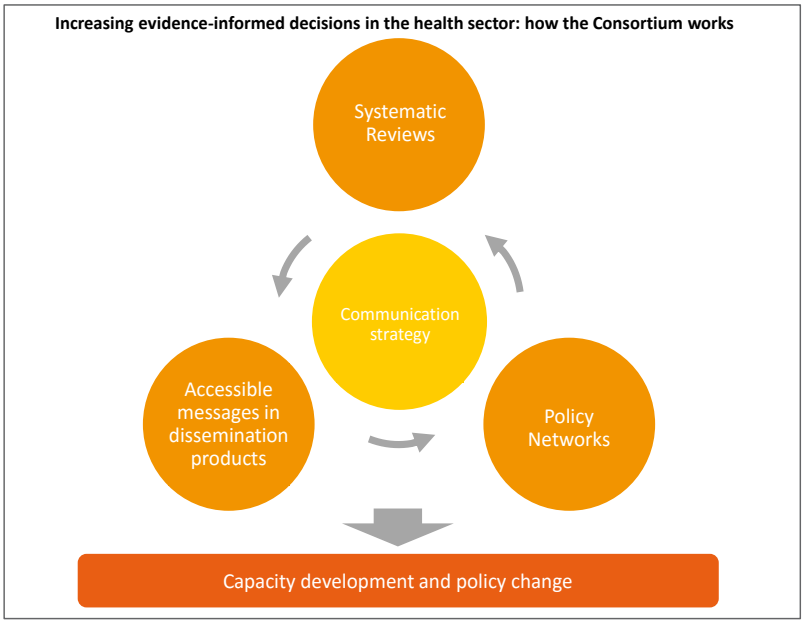
Outputs 1 and 3 monitoring: additional details

Indicators and definitions	N	Notes
A. Published research outputs	51	New Cochrane Reviews (11); Updated Cochrane Reviews (12); Other systematic reviews (3); Original research (25)
B. Peer reviewed publications	51	New Cochrane Reviews (11); Updated Cochrane Reviews (12); Other systematic reviews (3); Original research (25)
C. Peer reviewed publications which comply with DFID Open Access policy	44	New Cochrane Reviews (10); Updated Cochrane Reviews (10); Other systematic reviews (3); Original research (21). Note all Cochrane Reviews have green "open access"; and all reviews have immediate free access in all low-income countries
D. Peer reviewed publications with a Southern researcher as the primary author	Total 27	15 women, 12 men
E. Peer-reviewed publications explicitly addressing gender issues or women/girls	9	New Cochrane Reviews (5), Updated Cochrane Reviews (4)

Indicators 3.1 to 3.3	Notes related to achievements by end-Year 6
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. We continue to work on developing this area.
3.2 Editors:	**New Cochrane editors from developing countries for this period: 1** South Africa: 1 (CIDG) 1 Woman 0 Man New Cochrane editors from non-developing countries for this period: 1 UK: 1 (CIDG) 1 Woman 0 Man
3.2 Authors:	**Cochrane review authors who are 1st authors for the 1st time: 11** China: 1 1 Woman 0 Man India: 1 0 Woman 1 Man Nigeria: 1 1 Woman 0 Man South Africa: 3 3 Women 0 Man Norway: 1 1 Woman 0 Man USA: 1 0 Woman 1 Man UK: 3 3 Women 0 Man

3.3 Grants:	**Grants:** Other external funds and internal infrastructure support means that partners in India, China, SA, Nigeria and Cameroon all have at least matching funds and infrastructure support contributing to evidence synthesis and uptake of evidence. Below are new external grants funded during this period.
Norway:	Various grants awarded: Brocher Foundation, Switzerland: workshop on 'Strengthening the use of qualitative evidence in decision making for health and social interventions: innovative methodological approaches'; Campbell Collaboration: 'CERQual tool for assessing how much confidence to place in findings from qualitative evidence syntheses–Development of component 1: Qualitative Methodological Limitations Tool'; Cochrane: 'CERQual tool for assessing how much confidence to place in findings from qualitative evidence syntheses–Development of component 1: Cochrane qualitative Methodological Limitations Tool'; Alliance for Health Policy & Systems Research, WHO: 'Enhancing the use of qualitative evidence in decision making: the CERQual tool for assessing how much confidence to place in findings from qualitative evidence syntheses'.
South Africa:	BMS scoping: £16,500, funder: WHO. CAN: £100,000, funding secured for Year 1, funder: Cochrane awarded 100,000 GBP to support CAN's year one activities. Note: reported in Year 5 but only started Oct 2016. CEBHA funds cover some research synthesis activities as well as primary research and general research capacity development. CEBHA+ proposal successful: for implementation from mid-2017 for 5 years. CSA and CEBHC involved. Full proposal submitted to EDCTP for Cochrane Africa Network related work; awaiting feedback.
UK:	EHCRC-CIDG (Paul Garner/CIDG): US$62,958, funder: WHO (WHO Reg 2017/709319-0). Project: To undertake the retrieval, systematic reviews and the development of GRADE tables based on the agreed areas of review following the Guideline scoping proposal for Malaria Vector Control (April 2017 to January 2018) EHCRC-CIDG (Paul Garner/ CIDG): £15,305, funder: Cochrane Response, UK (through WHO-APW - WHO Reg 2017/702828-0). Project: Systematic Review and GRADE evidence profiles and summary of findings tables for the WHO Crimean-Congo Hemorrhagic Fever Clinical Practice Guidelines (March to June 2017)

Theory of Change



Monitoring process during the review period

We have weekly meetings monitoring review progress; and regular teleconferences with Cape Town on HIV reviews, and on the broader portfolio of reviews.

The Director and Programme Manager are in regular contact with all partners.

The Director generally meets with partners once a year, although visits with Nigeria have not eventuated. There is strong management liaison between the Director and the Deputy Director in managing the Africa Programme.

Gender monitoring and the gender policy is helping managers ensure women are given opportunities to lead reviews. In addition, we report on participation of women in meetings (see monitoring section).