Evidence Building and Synthesis Research

Effective Health Care Research Consortium

Programme Completion Report

Version: 5 July 2018 (Final)

effective health care
RESEARCH CONSORTIUM

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Title: Evidence Building and Synthesis Research – Effective Health Care Research Consortium		
Programme Completion report		
Report date:	5 July 2018	
Programme Value:	GBP 7,999,775	
Programme date:	**Start:** 15 November 2010	**End:** 14 May 2018

SUMMARY

Overarching summary

The DFID investment in this Consortium has had substantial and far-reaching impacts on global policy in diseases of poverty in infectious diseases and health systems. Through the World Health Organization (WHO), our reviews have informed global guidance and influenced policy and funding decisions in malaria, HIV care delivery, tuberculosis (TB) diagnostic tests, typhoid vaccines, Crimea-Congo haemorrhagic fever, and health systems; the WHO malaria vector control group are adopting our approach; and Consortium partners have led the methodological advances in qualitative syntheses used in guidance development at WHO. At country level, our work has influenced national guidelines in primary care in Ghana and Kenya, in emergency care in South Africa, and in services for extrapulmonary tuberculosis in India.

Our reviews have raised questions about several strongly promoted views on global interventions. We showed that iron is a safe supplement in malaria-endemic areas; that the claims of benefit of routine soil-transmitted helminth programmes have been overstated; and that single dose primaquine effects on malaria transmission are, at best, modest. We have also contributed to debates about diet and fat in preventing cardiovascular disease in Africa.

The management strategies we have developed are now used across Cochrane: strict priority setting of topics; a strategic plan; bespoke review-stakeholder dissemination; and we used an innovative approach to analyse Cochrane's strengths and deficiencies. We were also instrumental in Cochrane's classification of review updates, and developing global guidance for review updating that goes beyond Cochrane.

Our work has highlighted problems with scientific integrity in some research domains, and stimulated public and scientific debate in a wide range of topics, including the lack of published protocols in animal research studies.

We have exceeded all expectations and targets year on year. In this process, from Years 1-7 a total of 75 low- and middle-income country (LMIC) authors were, for the first time, lead authors of a Cochrane review.

The top five issues

Impacts on policy require dialogue, debate, and time: our reviews are only one part of the policy process, and once policies are embedded, change takes time: about 5 to 10 years, particularly if the results of the review question global opinion or investment. Understanding the players, their arguments, and their power is an important part of policy engagement.

Our independent reviews help counter the effects of political bias and conflicts of interest: financial and non-financial conflicts of interest influence whether data is published, how it is analysed and reported, and the inferences made. Researchers are reticent to criticise topic experts. Independent, critical systematic reviews that take the quality of the evidence into account in interpreting the findings are an important innovation to improve the integrity of policy formulation. UK aid funding is central to this independence.

Capacity development needs to be bespoke and at an advanced level: for true LMIC partnership, we need to train at an advanced level. Our group is the first to develop advanced level training through case studies and real-life examples through a "community of practice" approach with six web conferences a year.

Collateral benefits are substantial: the impacts of the investment go beyond our outputs and outcomes, as our advocacy and leadership helps assure global and national policy agendas take reliable research summaries into account; with visible, attributable evidence in the WHO, and in South Africa, India, and Nigeria. We demonstrate effectiveness of systems in our Cochrane group, and this helps lever change in Cochrane in inclusiveness, review quality, and editorial systems.

Cochrane reform presents an opportunity: function and structure are being reformed in Cochrane. The Consortium is an active player in the reforms being introduced, enabling further leverage on this unique, influential organization.

Description of the programme

This Consortium works closely with policy and donor organizations at global and national level, preparing rigorous evidence summaries with the intent to improve the effectiveness of care by increasing the number of evidence-informed decisions. This focuses on areas relevant to the health of the poor living in LMICs. We strive to build the capacity of groups worldwide, equipping them with the skills and knowledge to prepare, interpret, and utilize these reviews. The Consortium operates within Cochrane largely and, within recent restructuring, we are part of the Public Health and Health Systems Network.

Taryn Young, Director of the Centre for Evidence-based Health Care (CEBHC) at Stellenbosch University, joined the management team and became Deputy Director in June 2016.

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 Cameroon
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

Progress 2017-8

Achievements

In Year 7 we had major impacts on policy, practice, and discourse globally.

Typhoid vaccines: this Cochrane review helped inform the WHO SAGE (Strategic Advisory Group of Experts on immunization) meeting in October 2017, and a recommendation to adopt conjugate typhoid vaccines for global policy, alongside some large efficacy trials to quantify the effect sizes.

Mass drug administration for lymphatic filariasis: authors from Cochrane Nigeria helped assemble evidence on mass triple drug administration regimen for the 2017 WHO guidelines. This will be more effective than previous regimens.

Primaquine for reducing *Plasmodium falciparum* transmission: this edition incorporated new studies stimulated by our earlier edition, showing a small, probably unimportant effect on malaria transmission, and is contributing to debates on whether this impacts on malaria control.

Health systems overviews: two Consortium partners, the Cochrane Effective Practice and Organization of Care (EPOC) Group and the South African Cochrane Centre, summarized evidence across 124 systematic reviews in four overviews; these provide research summaries for delivery arrangements, financial arrangements, governance, and implementation.

Total fat intake in children: Cochrane Nutrition have completed a systematic review to inform WHO policies; and Cochrane South Africa prepared evidence leading to the South African National Department of Health removing hydroxyethyl starch for hypotension in women who have caesarean sections.

TB candidate vaccine (MVA85A): this is an example of the Consortium influencing discourse in media. The BMJ published the investigation of selective reporting on animal studies on the MVA85A vaccine. This arose from our systematic review, and the investigation was widely reported in The Times, The Independent, and the Daily Mail.

Organizational developments and partnerships

Cochrane Africa Network: the Consortium and UK aid were instrumental in developing this network. Now formally approved by Cochrane, this will help leverage on additional funds and policy influence.

The **Global Evidence Summit** was a major event organized by the Consortium Africa team; this was a tremendous success with over 1,300 participants. The Consortium organized a session about the DFID-funded research successes.

Cochrane evaluations: we contributed to the National Institute for Health Research (NIHR) review of investment in Cochrane; and an institutional analysis of Cochrane.

Challenges

Encouraging Consortium-level joint working: we strive to add value of the Consortium through joint working on more advanced methods and approaches. Competing priorities has meant this has not always been possible with all partners. As we move forward, joint working is being built into contracts.

Challenges drawing in new partners: we are also encountering challenges in drawing in new groups in Kenya. We are now focusing on topic areas where we have demonstrable leadership to draw in these groups.

Some Cochrane editorial groups have slow editorial transit times: authors report difficulties in completing reviews for publication. This is on the agenda for the new Cochrane Editorial Board to tackle.

Disappointments

Succession planning in India: the lead partner in Vellore is retiring, and has been unable to appoint a successor. This threatens the viability of the Cochrane Centre. We are currently working with people in Sri Lanka and Nepal who may, in due course, take a regional role.

A. DETAILED OUTPUT SCORING

Output title	**1. High-quality, up-to-date Cochrane or related systematic reviews relevant to improving health outcomes in the poor**
Impact weighting (%):	40% unchanged

Output indicator(s)	**Year 7 only Total/Milestone**	**Years 1-7 Total/Milestone**
1.1 Number of systematic reviews relevant to the content and delivery of poverty-related health programmes: new Cochrane reviews	17/10	100/70
1.2 Number of systematic reviews relevant to the content and delivery of poverty-related health programmes: updated Cochrane reviews	6/10	61/50
1.3 Number of other systematic reviews relevant to the content and delivery of poverty-related health programmes incl. qualitative synthesis, scoping reviews	9/10	45/30

Year 7: for Cochrane reviews, we reached our target on aggregate, although we published more new reviews than updates.

Open Access compliance is high, with all 23 of the Cochrane reviews and all 9 of the other systematic reviews being gold open access. In addition to outputs 1.1, 1.2, and 1.3, 27 original peer-reviewed research papers have also been published (25 being gold open access).

For all publications, LMIC researchers were the lead author on 37% (22/59); and of these 7/22 (32%) were female authors from LMICs.

Years 1-7: across the 7-year programme on outputs 1.1, 1.2, and 1.3 we have overperformed on average by 37% (206/150). For each year, we have been on target or slightly over target on all three indicators.

Strengths: our strength is in achieving our targets in Cochrane reviews and, at the same time, making sure a high proportion of them are relevant to current decision-making in primary care in LMICs. We actively manage our review portfolio and our author teams; and we have comprehensive support through our editors and staff to help an author team complete reviews. We have a strong reputation for high-quality reviews, and reject reviews that do not meet the required standards.

Challenges: reviews are becoming more complex, global standards are increasing, and there are absolute deadlines for reviews for policy. We find balancing reviews as part of capacity development and assuring delivery is a challenge. We need advanced teams that can include inexperienced authors; however, we are short of high-level expertise. Using contractors has helped.

Lessons learnt: authors need dedicated time and need to work alongside experienced authors. Editorial bases must be timely in providing feedback and only accept reviews in priority topics that will make a difference; we need to tackle poor performance in a systematic structured approach. Authors also become isolated quickly; ensuring the team meets or communicates regularly is important to assure progress.

Recommendations: more formal contracts for authors; more formal full-time secondments to Consortium Partner offices. Better marketing of the support people required; teams with experienced authors who themselves have time. We will explore linking LMIC authors with contractors.

Output title	2. Accessible products for knowledge uptake
Impact weighting (%):	30% unchanged

Output indicator(s)	Year 7 only Total/Milestone	Years 1-7 Total/Milestone
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 Research Programme Consortium (RPC) regularly contribute to	Maintained/10	10/10
2.2 (a) Dissemination pull products-collections of review summaries commissioned by a customer for dissemination (introduced 2016)	1	2/2 (years 6-7 only)
2.2 (b) Guideline pull products-collections of reviews commissioned to prepare for a guideline (introduced 2016).	3	4/2 (years 6-7 only)
2.3 Level of stakeholder engagement and satisfaction assessed via establishment and evaluation of stakeholder management plans	Assessed in Year 4	1/1

As indicated in the above tables, we have surpassed our targets for Output 2.

Strengths: we have had high stakeholder engagement in some areas, with some technical departments in the WHO and with some national governments. This has led to clear products that feed directly in to guidelines, for example, in India with the TB guidance; and in Sri Lanka, contributing to their meeting establishing international policies for migrant screening. The external stakeholder engagement report particularly commended the programme internal and external communication.

Challenges: the challenges have been as much about the indicators as the output. In the life of the programme, Cochrane reviews themselves have become much clearer with 'Summary of findings' tables, so the requirement for "dissemination products" is lower. We also don't blog our own reviews as we aim to be independent, not provide a view, and allow others to interpret.

Lessons learnt: increasingly, columns and reviews are less required as the base product becomes more accessible.

Recommendations: in the future we need to re-examine this output in relation to our logic framework and its contribution to the programme outcomes.

Output title	3. RPC partner institutions and researchers in the South have increased competence for research
Impact weighting	30% (unchanged)

Output indicator(s)	Milestones for Years 1-7	Years 1-7 Total/Milestone
3.1 Number of institutions with a developed strategy and code of conduct to promote research integrity in research reporting	100% of partners	6/7 operational partners[1] (86 %)
3.2 a) Cochrane editors appointed from a LMIC	Editors: 13	17/13 (131%)
3.2 b) LMIC first authors completing Cochrane reviews for the first time	Authors: 56	75/56 (134%)
3.3 Number of Partners with multiplier funding at least matching DFID investment	Maintained	Maintained

Progress: we made good progress in active partners with a research code of conduct in relation to research reporting. The model includes sensitization of senior academic staff in a briefing session, a longer session for more junior staff, and a round-up session to agree next steps with one or two senior staff.

We performed well with the editors and assuring LMIC authors lead reviews.

Strengths: the strength has been in setting these indicators because they then force performance to attend to these, particularly women have opportunities as first authors, for example.

Challenges: the challenge is influencing other Cochrane groups to draw in LMIC authors to review teams.

Lessons learnt: in research integrity, we were overambitious in being able to influence the broader policy and culture in institutions. However, we have used the opportunity to unpack some of the problems more carefully through research that helps design approaches that assist institutions strengthen research integrity.

Recommendations: use the research and the experience to gradually build this aspect of capacity development.

[1] YES: SA-Stellenbosch University, SA-Medical Research Council, India-CMC, UK-LSTM, Norwegian Institute of Public Health. Nigeria-Calabar University; NO: Cameroon-Centre for Development of Best Practices, China-Fudan University and Chongqing Medical University. Courses offered to Cameroon in September 2017 but no uptake from host. China partners have been wound down with only small grants and excluded from the denominator.

B. THEORY OF CHANGE AND PROGRESS TOWARDS OUTCOMES

Outcome assessment

Outcome indicator(s)		Achieved in Year 7 only	Achieved for whole programme Years 1-7
1. New or amended policies or guidelines influenced by RPC products	Global National	1/1 1/1	11/7 6/7
2. Major funding decisions by bilateral or multilateral agencies influenced by RPC outputs		1/1	8/7
3. National/ global decision-making bodies change information requirements for funding decisions arising from RPC work		1/1	3/2

For Year 7, we had substantial impacts on indicator 1 (see page 5). We include in the log-frame assessment the output of the additional meeting of the malaria chemotherapy guideline in December 2017 as the reviews were pivotal in at least three decisions made by the panel. In addition, the Consortium provided information that helped underpin decisions in a) typhoid vaccines; and b) triple therapy for filariasis.

Policy development

We have performed well in achieving impact through substantive numbers of global guidelines groups in the WHO that have sought our reviews, requested us to update existing reviews, or provide new summaries of the evidence. We have performed well at national level in South Africa, India, Nigeria, and the UK in national policy formulation and contributions: both from providing reviews, and with supporting the procedures for evidence-based guideline; notable is our work in India in the extrapulmonary TB guidelines, where we had a very close relationship with the government and academics and substantially contributed to the process.

The logic framework is appropriate and works for the outcomes we outline above. The "accessible products" are Cochrane reviews and 'Summary of findings' and GRADE tables. The policy networks are valid as we consult extensively in generating the topics for reviews. The logic framework assumes others are completing trials and other forms of reliable research evidence. However, the logic framework does not capture our contribution is in the following areas:

- where our research summaries have overturned conventional wisdom (for example, by showing iron supplementation is safe in malarial areas);
- where our research summaries show data errors, missing studies, authors who misinterpret the data, which can then be corrected in the review (for example, routine deworming for soil-transmitted helminths);
- where the research synthesis identifies poor research practice and research misconduct (for example, animal research in TB vaccine development);
- the stakeholder engagement that gives confidence to the process and helps uptake of the recommendations (for example, in extrapulmonary TB in India);
- how reviews can identify knowledge gaps and recommend research needed to fill them (for example, primaquine single dose for malaria transmission).

Capacity development

Although capacity development is a fundamental impact in our theory of change, it is reported in our log frame at output level only. Nevertheless, level of capacity development is substantive and it could be argued should be reflected at outcome level.

At every step, we seek to ensure LMIC author leadership. Some of these individuals are now accepting independent WHO systematic review commissions, and being invited as lead methodologists on WHO guideline panels (Solange Durao, Joseph Okebe).

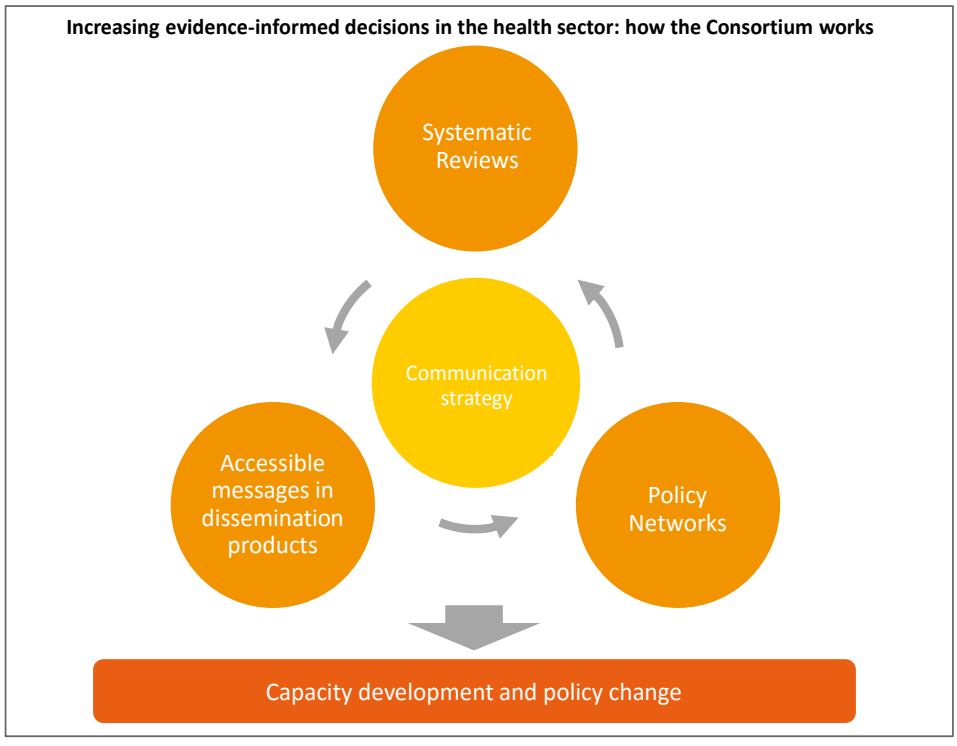
Gender monitoring

The outcome indicators do not capture impact of our gender monitoring on the balance of women participating in training and leading reviews, for example. 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 categorizes reviews into three categories. A total of 3 (2 new and 1 updated) Cochrane reviews explicitly addressed gender issues or women/girls. All three were under the category "topics that improve women's health". No reviews addressed "topics that empower women or deal directly with gender inequity" or "topics that indirectly impact on women related to their gendered role".

Other impacts

The programme has other impacts. We have a profound impact on Cochrane, outlined in the summary on page 2. The Consortium performance helps highlight the central role of LMIC capacity in contributing to Cochrane, and the Consortium strategy is to strengthen this through high-level methods development. We also ran two successful and highly-rated evidence to decision-making primers for DFID health advisers 2017-18.

Theory of change



Changes to the log frame: In Year 7: none; over the life of the programme: minor adjustments around clarifying indicators.

C. VALUE FOR MONEY & FINANCIAL PERFORMANCE

The strategy

This Consortium provides remarkable value for money. A single randomized controlled trial costs between GBP 0.5 million to GBP 4 million, yet our systematic reviews of these trials cost about 1% of each trial contained within the review.

The way we produce reviews is also extraordinarily efficient. We apply leverage to existing academic posts to help share costs so that academics gain from the experience and the publication, and we gain as we do not have to fully fund all staff costs.

The partnerships

The way Cochrane operates increases the value. Unlike other academic endeavours where competing groups often yields to duplication, Cochrane has systems to avoid this. In addition, the DFID spend is a contribution to this public good, with other funders contributing in different topic areas; and these other investments (for example in acute respiratory, or in pregnancy and childbirth reviews) provide DFID with important and relevant reviews.

Priority problems

The Consortium maximizes effectiveness of the product uptake by working closely with stakeholders to identify topics. We start with known priority problems in areas that we are experienced in: infectious diseases, health systems, nutrition, health of children in primary care. We then talk regularly with different groups in the WHO, including malaria, emerging new pathogens, infectious diseases, health systems, and nutrition, and with the guidelines review committee. This guides topic choice, and allows us to plan our time for anticipated meetings where aspects of the reviews may be discussed: early meetings, where the panel can provide inputs to the protocols and particularly the outcomes from the reviews; and at draft review stage, where the GRADE tables are used but the discussion can help improve the review.

Travel and review production

We minimize travel by internet videoconferencing to help review teams move forward; and we are modest in our aspirations to conference participation, preferring other routes of dissemination and learning. We use fellowships for people to come and work with the Liverpool or Cape Town technical teams, which is highly cost effective. We have also modified the Cochrane approach to improve effectiveness. We do not register titles unless the findings are likely to be relevant to DFID; we developed a rejection policy to avoid wasting resources on reviews that are unsaleable. This policy has been adapted and adopted by Cochrane.

The programme in India has been remarkably effective in engaging stakeholders but less successful in identifying hot topics and completing them. Part of the problem has been for parts of Cochrane to move on from the older structures and approaches of accepting authors whatever their capacity, and misrepresenting the difficulty of Cochrane reviews during introductory workshops.

We have designed an approach to dissemination. We take a specific review, identify the stakeholders who may be interested in this, and then work out how we are going to communicate this with each of them. This has been very successful and increases efficiency and helps us reach specific stakeholders.

Equity

About half the funds are allocated to LMIC partners. Given the co-ordination and monitoring costs, and the requirement by Cochrane to run an editorial base with a full complement of staff, we believe this to be balanced.

Our work does not directly engage marginalized groups, but our reviews are focused on problems important to the poor and disadvantaged in LMICs.

D. RISK

The Consortium level register is organized around the outcome and outputs in the log-frame. We have one risk register that is reviewed at least annually by the Consortium Management Team (Paul Garner, Paula Waugh, Taryn Young). The latest version is 21 July 2017.

Changes from 2016 to 2017: in terms of changes between 2016 to the latest version July 2017, at outcome level there were no changes to the score, or to the risks, but some minor modification to the mitigating actions; at output level there was one change from high to medium risk in relation to "problems influencing organizational culture in research integrity" as we adjusted our strategy and were able to introduce a pilot programme. We removed a risk about Cochrane Executive competing for resources after the mid-term review and a meeting with DFID, the Executive, and the Consortium management team.

Changes from 2012 to 2017: at outcome level there was a change in the risk related to serious errors with other groups' Cochrane reviews that could damage our credibility. This risk was broadened out to Cochrane losing brand credibility, the risk was increased to high, and more comprehensive mitigating actions were added-which includes the Consortium contributing to governance in Cochrane as a whole on quality.

At output level, the risks underwent minor changes, and some of the mitigating actions were altered, but overall the risk environment assessment did not change much, and some mitigating actions were modified over time.

E. DELIVERY, COMMERCIAL AND FINANCIAL CONSIDERATIONS

Reporting: annual reports, following DFID guidance, are provided in full each year within one month of the end of the financial year. This includes full commentary by the management team, and complete reporting of activities, outputs, outcomes, and impact.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Reporting							
Annual RPC report plus individual Annexes (see Financial annex below): all sent within 1-month of the individual implementation year-end (by 15 June/year) Note: Year 7 submission extended until end-June 2017	X	X	X	X	X	X	X
Annual RPC Financial report (annex): sent the same date as above	X	X	X	X	X	X	X
Annual Audited LSTM Financial Statement: sent annually each year (November/year) Note: Year 7 will not be sent until after end of programme in November 2018	X	X	X	X	X	X	Nov 2018
Proactive on programme risks							
Meetings/conference calls with DFID team to discuss the Annual report and follow-up on any DFID review report queries as necessary including any risks	X	X	X	X	X	X	TBA
Provide feedback to DFID team on the Annual Review report and follow-up on any queries, recommendations and risks as necessary	X	X	X	X	X	X	TBA
Mid- and full-year Partner progress reports submitted to RPC office annually (November & May/year). RPC Management Team appraise and provide detailed assessment reports which are returned to all Partners which highlight any risks related to outputs and/or value for money	X X	X X	X X	X X	X X	X X	X X
Programme assets and monitoring							
Inventory of equipment annex: sent with the Annual report as mentioned in above Reporting table	X	X	X	X	X	X	X
Monitoring: the online RPC monitoring database is in place for all Partners to use to ensure outputs can be reported routinely, this also provides information for the Annual report and Outputs annex	X	X	X	X	X	X	X

Financial management							
Quarterly invoices submitted to DFID in timely fashion as required within the contract and provide additional background information to support the costs Final quarterly invoice for FY 2018-19 to be submitted July/August 2018	X	X	X	X	X	X	X
Forecasting accuracy: budgets revised to show actual at the end of each financial year and new projections provided	X	X	X	X	X	X	X
Forecasting variances per financial year, if any, please see below, and also detailed in RPC Financial report annex							

Forecasting	**2010-11**	**2011-12**	**2012-13**	**2013-014**	**2014015**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Underspend, against original budget	0	0	0	£53,148	£58,870	£204,207	£191,837	£103,277	£37,003
Variance % against original budget	0	0	0	5%	5%	20%	18%	9%	20%

F. MONITORING, EVIDENCE AND LEARNING

Monitoring

Consortium activities, outputs, and outcomes: these are monitored every six months from every partner. Each report is reviewed by the Programme Manager against contracted commitments; by the two Programme Directors for compliance with contracts, on judgement about overall performance, value for money, potential impact, and advice or remedial action. Field visits are not extensive, although the Director does visit the main partners once a year to work with them on their strategic and operational plans.

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

Consultation with beneficiaries: during the review process we consult with our stakeholders and beneficiaries in different ways: on which topic to select; on the review question; on what outcomes are important. This is informally, or through committees or engaging these groups in peer review. These consultations inform review priorities and also the content and details of the review.

Independent evaluation: we commissioned one independent evaluation in year 4 to help inform our information and communication strategy. This was carried out by Jocalyn Clark, a recognised scholar and editor.

Evidence and evaluation

DFID provided feedback and recommendations each year arising from our rigorous and comprehensive annual reports.

The independent evaluation in year 4 noted above. DFID conducted a comprehensive mid-term external review. This provided feedback, which was generally positive, and recommendations.

In terms of the "leave no one behind agenda", we have had a gender monitoring system since year 2. The process of monitoring has allowed management to make changes to increase gender equity. Year 7 data is shown below.

Gender monitoring: participation in research (Year 7)

Events	**Women/total (events)**	**% women**	**Number of events with 40+% women**
Dissemination and capacity building events run by Consortium partners	879/1718 (17)	51%	82% (14)
Stakeholder meetings (i.e. guidelines, committees) attended by Consortium partners	433/864 (18)	50%	83% (15)
Individuals	**Women/total**		
Prizes, expert panels, external recognition, and staff development of Consortium partners	1/2	50%	
Visiting fellows and trainees to CIDG (Liverpool, UK)	16/22	73%	

Within the Consortium, we maintain the Consortium outputs in real-time with an online monitoring database. The 'dashboard' summary is considered each year by partners to monitor progress and take remedial action as required; 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.

Dashboard for monitoring outputs 1 and 3: year 7

Indicators and definitions	N	Notes
A. Published research outputs	59	New Cochrane reviews (17); updated Cochrane reviews (6); other systematic reviews (9); original research (27)
B. Peer-reviewed publications	59	New Cochrane reviews (17); updated Cochrane reviews (6); other systematic reviews (9); original research (27)
C. Peer-reviewed publications which comply with DFID Open Access policy	57	New Cochrane reviews (17); updated Cochrane reviews (6); other systematic reviews (9); original research (25). 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 22	7 women, 15 men
E. Peer-reviewed publications explicitly addressing gender issues or women/girls	4	New Cochrane reviews (2), updated Cochrane reviews (1), original research (1)

Learning

We foster a culture of equality, open dialogue, and collaboration between partners, and we encourage initiative and innovation. We aim to help partners build social capital through Cochrane and associated networks, and foster innovation and change through these mechanisms.

Synthesis science learning: we encourage authors to seek solutions from specialists in the Cochrane network. For example, adjusting for interrupted time series analysis for season, our statistician used Cochrane networks for a solution.

Editorial management learning: the CIDG editorial base is recognized for a variety of innovations, but these are only made possible through dialogue and consultation through meetings and email with the other 50 or so Cochrane groups and annual Co-ordinating Editor meetings.

Capacity development learning: with a commitment to learning by doing, and advancing LMICs in the best possible methods, we try out different learning approaches that are each carefully evaluated and help develop the programme. Our editors training workshop, for example, led to the Learning Initiative for eXperienced Authors (LIXA), with approximately six one-hour web conferences a year.

G. PROGRESS ON RECOMMENDATIONS FROM PREVIOUS REVIEW(S)

Mid-term review (March 2015): the external evaluation team reported that we had performed well in generating products that have relevance to LMICS; that demand from LMIC partners enhanced relevance; that we were doing well in monitoring women's participation in synthesis. They reported good working relationship with DFID; and that the programme was highly productive in generating new knowledge; and was well-managed. There were a few relatively minor recommendations related to strengthening on work on gender and equity; more demand-side working; and mapping of pathways to impact.

> **Response:** all have these have been addressed in different ways in subsequent years. We have implemented management response to gender monitoring more fully.

Year 6 annual review: DFID recommended a) the log frame should be amended, to remove Output indicator 2.3, by March 2018; b) over the coming year, the Consortium should consider how to ensure the partners can work in a constructive partnership with Cochrane Response, with partners providing clinical and content input within a larger team of experienced contracted systematic reviewers.

> **Response:** a) the log frame has been amended; and b) we are working with partners to identify reviews and teams for this pilot.

Additional section (s)

Transparency

We have completed the AidStream submission and this was published in 2017/2018.

We have fully annual budgets linked to work plan activities and deliverables with every individual Consortium partner. These are assessed by Consortium Management Team prior to the authorization of partner agreements.

All partners report outputs, outcomes, and associated activities every six months with an individualized assessment by the Team, including any remedial action that may be required.

Leave No-One Behind

We avoid discrimination at every level in relation to our engagement with researchers in the Consortium. We monitor gender in relation to researcher engagement and all other meetings and events we participate in. Our original work plan did not include evidence synthesis specifically to address the needs of people with disabilities, but is now part of our priority setting considerations for future reviews.

Digital

Our main outputs - the reviews - are organized entirely through electronic and internet-based systems on laptop and desktop computers.

Almost all our research outputs are published through electronic publishing systems and available online through open access.

Our communication with authors is predominately digital, through *GoToMeeting.*

Our dissemination strategy is predominantly digital for reviews, and includes summaries sent through to EurekAlert! and other agencies, Twitter, and Facebook.