**Proposed Use of a $250K, $1M, or $5M gift to US-based Cochrane Activities**

**Objective**

 To outline how donations of $250,000, $1 million and $5 million would be used by the Cochrane Collaboration to build methodological capacity that will support the production of Cochrane reviews, and to increase the number of Cochrane reviews and review authors overall.

**Rationale**

 The Cochrane Collaboration is a multifaceted, global organization that produces systematic reviews recognized as the reference standard for evidence on which to base healthcare decision-making. Cochrane reviews address health interventions used in high, middle, and low income resource settings. Due to its collaborative organizational makeup, the Cochrane Collaboration leverages extensive global and regional volunteer contributions and financial support (largely government mechanisms) contributed by the Cochrane “entities” that raise the funds (i.e., centers, review groups, fields, methods groups each raise funds that support their contributions to Cochrane as a whole). Centralized Cochrane functions, such as support for the Steering Group, day-to-day operations, and the office of the Editor-in-Chief, are funded through royalties from subscriptions to *The Cochrane Library*. Cochrane Centers typically support Cochrane collaborators in their region to contribute to the overall mission of the Cochrane Collaboration.

Although the US has made major contributions to the Cochrane Collaboration, it remains a region of tremendous untapped potential and capacity. Because US government funding of the Cochrane infrastructure has been unstable, funding of this infrastructure to support the production of reviews is what is needed most. The following two figures illustrate this concept from an examination of 2004 systematic review production worldwide (PLoS 20074(3):e78.doi:10.1371).

Fig. 1 Systematic review production by country – The US is second only to the UK in percentage of all reviews produced worldwide

Fig. 2 Systematic review production per million population - The US ranks far down the list, however, when the number of reviews produced, given its large population, is considered. For example, in 2004 New Zealand produced 10 times as many reviews per million population as the US (2.5 reviews per million versus 0.23 reviews per million).

Data are similar for use of *The Cochrane Library.* Whereas US users are among those accessing *The Cochrane Library* most often, when one examines usage statistics in the context of total population, those from the US are among the least frequent users (comparable to Israel and Hong Kong).

Data from the Cochrane Collaboration indicate that authors of Cochrane reviews tend to cluster in regions where there is a review group, regardless of author country. For example, in the US, more than twice as many US authors produce reviews when the review group is US-based as when the review group is elsewhere. This indicates that new review group satellites in the US will likely to lead to an increase in number of authors and reviews where there are new satellite topic areas.

 **Plan**

 *Our plan is to dramatically increase the number of Cochrane reviews and review authors as well as build methodological capacity that will support the production of Cochrane reviews worldwide.* The entire Collaboration would benefit from a strengthened US contribution, and we have a good chance of success, given our already demonstrated productivity. One of the ways we propose to increase capacity is to increase training opportunities for review authors. Another way is to provide centralized methodological support for review authors, specifically on meta-analysis, creation of GRADE tables, incorporation of data from studies using special designs (e.g., cluster randomization), network meta-analysis (analysis comparing multiple interventions simultaneously), analysis of the accuracy of diagnostic tests, and informatics (e.g., identification of relevant research for the reviews; creation of standardized database functionality; and text mining approaches to streamline systematic reviews). We will also contribute to modernization of Cochrane reviews by incorporation of patient-centeredness through the US coalition of consumer groups organized by the US Cochrane Center.

 Our model mirrors what has been done in other countries with core funding and in the US by development of review group satellites. For example, in Canada, over a 5-year period since the Canadian Centre obtained core government funding for the Network, over 1100 people have been trained in how to perform a Cochrane review and the number of review authors has doubled.

 *In the US, investment in a Cochrane Eyes and Vision Satellite by the National Institutes of Health (2002 to the present time) has resulted in a remarkable increase in US-based review authors, from 8 to 150 in just 10 years, a nearly 20-fold increase.* This increase is almost surely related both to locating a new review group in a country where there was previously no locus of activity. And it also is likely to reflect the untapped potential for authors in the US generally.If the number of US-based review groups and satellites were to increase to 10, we might enjoy a similar increase in capacity to produce reviews on all topics.

 Our model of greater investment in US Cochrane infrastructure is closely aligned with increased review production and increased capacity globally. For example, we would increase review production capacity in low and middle income countries (LMIC) by providing training fellowships in the US for promising potential contributors. Through collaboration with LMIC authors, we would also increase the number of reviews relevant to LMIC. Cochrane centers, including the US Cochrane Center, have responsibility for assisting review authors and others from LMIC who wish to contribute. Producing reviews and GRADE summaries in collaboration with the World Health Organization (WHO) would lead to increased capacity to support WHO’s production of global evidence-based clinical practice guidelines.

 Funding opportunities within Cochrane will vary, depending on whether a one-time $ 1 million donation is made versus an investment of $1 million per year over 3-5 years. For example, an investment of 3 years in development of a new review group satellite would give the satellite time to attract independent funding and the Collaboration time to assess the likelihood of their success.

 Regardless of the amount donated, we would propose to set up a governance structure to assure decision-making around the best potential return on the investment and a transparent process.

**Proposed Use of a $250,000, $1 million, or $5 million Gift to US-based Cochrane Activities**

See Table 2 for a summary of the proposals for utilization of a gift to Cochrane, assuming amounts of $250,000, $1 million, and $5 million. This section itemizes the requests, by category.

**$250,000 (1 year)**

***This level of funding would have a modest impact on review production, and $250,000 per year for 3-5 years would maintain this increase.***

*US Cochrane Center (≈$116,000): Director 22%, Assoc Director 5%, Coordinator 50%, Admin/web 10%*

Funding of the US Center would provide critical infrastructure for developing new authors and reviews (e.g., education and training of review authors, communication with potential authors, assistance with getting satellites in place, coordination of work with existing entities), establishing and maintaining partnerships so that the findings from Cochrane reviews are used, and participation in global Cochrane activities (e.g., Center Director leadership).

*USCC-San Francisco ($50,000)*

GRADE support team for WHO reviews and other reviews for low resource settings

*CRG-HIV/AIDS Review Group ($50,000)*

 *Managing editor who coordinates activities of authors and review production*

*Other expenses for USCC, hubs (phone/conference calls, copying, postage) ($2,310)*

*Supplies ($2,500)*

 1 laptop

*Travel ($4,500)*

1 person travel to the Cochrane Colloquium

*“Dean’s tax”*

 The Dean at Johns Hopkins takes a 10% “tax” on gifts for hosting the gift, but no other fees are applied.

**$1 million (1 year)**

***This level of funding would have an enhanced impact on review production, and $1 million per year for 3-5 years would maintain this enhanced impact. We would add consumer engagement, methods support for review production, a small amount of support for our liaison with WHO, two new satellites with modest start-up funding, a modest fellows program, two training session for authors, one of them reduced in size to allow cost savings.***

*US Cochrane Center (≈$154,000): Director 22%, Assoc Director 5%, Coordinator 100%, Admin/web 10%*

Increasing the percentage effort for the Coordinator would increase the available education and training for review authors, and provide additional assistance for new satellites and existing review groups.

 *USCC-San Francisco ($100,000)*

Provide part time staff for GRADE support team for WHO reviews and other reviews for low resource settings and support for Cochrane participation in global activities (e.g., WHO liaison).

*CRG-HIV/AIDS Review Group ($75,000)*

Provide support for managing editor and general review production in a critical area of health.

*Meta-analysis support team (≈$247,800): Director (20%), Methodologist (2@100%), Research Assistant (50%), Admin (10%)*

Existing review groups in the US have told us that what they need most to increase production are methodologists to assist with statistical components of the reviews, network meta-analysis, diagnostic test accuracy reviews, and non-traditional study designs such as cluster randomization. A methodological “hub” (for example, specialists in network meta-analysis) would include the best methodologists who could contribute to Cochrane activities, regardless of their location in the US. Advantages of concentrating methodological support in a hub include centralized supervision and collaborative opportunities among hub staff.Decisions about location of the new hubs would be decided using a transparent process determined by a new governance body appointed to disseminate funds transparently and for maximum effectiveness.

*Consumer Coalition (≈$66,800): 10% Director, 50% Coordinator.*

Patient centeredness has always been at the heart of the Cochrane Collaboration’s work. Consumers United for Evidence-based Healthcare (CUE) is arguably the strongest consumer coalition in the Collaboration. Ensuring a half time coordinator will contribute to maintaining CUE’s current momentum and prominent role in contributions to developing relevant research evidence.

*Education and training workshops (≈$110,000) 1 full workshop @$75,000; 1 smaller workshop or comparable mechanism of ongoing support@35,000)*

*Start up funds for two new satellite review groups ($25,000)*

 Provide partial support for administrator who can get the satellite up and running and attract new funding.

*Fellows program for low and middle income countries (1 person @$65,000 = $65,000)*

 Fellows would visit Centers or review groups for one year to develop skills in producing systematic reviews

*Other expenses for USCC, hubs (phone/conference calls, copying, postage) ($6,160)*

*Supplies ($2,500)*

 1 laptop

*Travel ($22,000)*

 *4 persons travel to the Cochrane Colloquium; travel for Training Coordinator to 2 workshops*

*“Dean’s tax”*

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**$5 M (1 year)**

***This level of funding would have a significant impact on review production, and $5M per year for 3-5 years would maintain this significant impact. We would add high level methods support for review production that could be used by other Cochrane review groups in neighboring regions (e.g., Canada), as well as six new satellites, and a fellows program for 6 individuals. A major feature would be 8 training sessions, four regular and 4 smaller sized.***

***This estimate assumes that we build significant capacity in methodological support for review authors, as requested by the review groups. We propose new hubs for network meta-analysis and diagnostic test meta-analysis, and also propose an informatics hub for streamlining the search for studies to be included in the systematic reviews, data storage, and retrieval.***

*US Cochrane Center (≈$481,100): Dir (50%), Assoc Dir (30%), Coor (100%), Training Coor (100%), Admin/web (100%)*

 Increases Director and Associate Director percentage effort to accommodate increased coordination, governance, and training responsibilities. Adds training coordinator and increases administrative support for arrangement of training sessions

*USCC-San Francisco ($154,000): Dir 20%, Coor 100%*

GRADE support team for WHO reviews and other reviews for low resource settings, support for Cochrane participation in global activities (e.g, WHO liaison), support for participation in global Cochrane activities (e.g., Steering Group).

*CRG-HIV/AIDS Review Group ($100,000)*

Provides full time support for managing editor, modest support for the coordinating editor, and general review production in a critical area of health.

*Meta-analysis support team (≈$332,900): Dir (30%), Asst Dir (20%), Methodologist (2@100%), Research Assistant (50%), Admin (10%)*

 Existing Cochrane review groups have said that what they need most is statistical support for their reviews. The proposed support team would work across review groups and satellites to contribute a portion of the review where volunteer review authors are not typically trained. A methodology support team is currently being utilized by the Cochrane Eyes and Vision Group and has been an important contributor to increased review production.

*Network Meta-analysis Support team (≈$234,200): Director (30%), Asst Director (25%), Methodologist (1@100%), Research Assistant (50%)*

 Provides a support team for satellites and review groups wanting to use a new and increasingly important statistical method. Network Meta-analysis (nMA) allows reviewers to examine what works best of all available treatments/interventions. Three convenors of the Cochrane methods group related to nMA are based in the US and would head up this support team.

*Diagnostic test Meta-analysis support team (≈$229,500): Director (25%), Asst Director (25%), Methodologist (1@100%), Research Assistant (50%)*

Cochrane has recently added diagnostic test accuracy reviews to its armamentarium, and these reviews utilize entirely different methods, statistical approaches and knowledge from effectiveness reviews. Only a few small groups have been trained worldwide on how to conduct a Cochrane diagnostic test accuracy reviews, and some of them are based in the US. We propose to establish a methodological support team to support review group authors and increase the number of reviews in this area.

*Informatics support team (≈$550,100): Text mining (125%); Systematic review database development (100%); Informationists for systematic reviews (100%)*

 The Collaboration is at a pivotal moment in advancing its use of informatics for streamlining the review process. Individuals based in the US are international leaders in the field and are in an excellent position to contribute their expertise to Cochrane methods overall. Areas of work and support will include text mining (e.g., streamlining the study identification and eligibility determination process); development of a database for systematic reviewers that will be open access and will prevent unnecessary duplication of effort by reviewers worldwide; and providing centralized informationist support (e.g., searching for relevant studies for systematic reviews).

*Consumer Coalition (≈$133,600): Dir (20%), Coor (100%).*

A full time coordinator for the consumer coalition, affiliated with US Cochrane will allow realization of meaningful consumer contributions to Cochrane reviews.

*Start up funds for 8 review group satellites-($150,000 per site=$1,200,000)*

Provide partial support for administrator who can get the satellite up and running and attract new funding.

*Fellows program for low and middle income countries (6@$65,000 = $390,000)*

Fellows would visit centers or review groups for 1 year to develop skills in producing systematic reviews

*Education and training workshops (≈$440,000) 4 full length workshops @$75,000; 4 smaller workshops @$35,000)*

*Other expenses for USCC, hubs (phone/conference calls, copying, postage) ($8,980)*

*Supplies ($12,500)*

 5 laptops and software

*Travel ($122,000)*

 20 persons travel to the Cochrane Colloquium; travel for 2 trainers to 8 workshops

*“Dean’s tax”*

 The Dean at Johns Hopkins takes a 10% “tax” on gifts for hosting the gift, but no other fees are applied.

**Table 2. Summary of proposed used of gift**

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| --- | --- | --- | --- |
| **Item** | **$250K/yr** | **$1M/yr** | **$5M/yr** |
| USCC-Baltimore | $116.1 (22% Dir, 5% Assoc Dir, 50% Coor, 10% admin) | $154.6 (25% Dir, 10% Assoc Dir, 100% Coor, 10% admin) | 481.1 (50% Dir, 30% Assoc Dir, 100% training Coor, 100% Coor, 100% admin) |
| USCC-SF GRADE support team  | $50,000 | $100,000 (Coor 100%) | $154,000 (Dir 20%, Coor 100%) |
| HIV/AIDS reviews | $50,000 | $75,000 | $100,000 |
| Meta-analysis support hub | 0 | $247.8K | $332.9K |
| Network meta-analysis support hub | 0 | 0 | $234.2K |
| Diagnostic tests reviews support hub | 0 | 0 | $229.5K |
| Informatics hub | 0 | 0 | $550.1K (125% text mining, 100%, sys rev database devel, 100% informationists) |
| Consumer engagement | 0 | $66.8K (10% Dir, 50% Coor) | $133.6K (20% Dir, 100% Coor) |
| Education and training –reviews | 0 | $110K (1@$75K, 1 @$35K, incl space, food, IT, faculty, travel for Coord) | 440K (4@$75K, 4@$35K, incl space, food, IT, faculty, travel for Coord) |
| Education and training – GRADE training | 0 | 0 | $110,000 (1@$75K, 1 @$35K, incl space, food, IT, faculty, travel for Coord) |
| Satellite development | 0 | 2@$25K | 8@$150K |
| Fellows program | 0 | 1@$65K | 6@$65K |
| Other expenses for support teams and USCC (phone, copying postage)  | $2,310 | $6,160 | $8,980 |
| Supplies | $2,500 (1 laptop, no software) | $2,500 (1 laptop) | $12,500 (5 laptops and software) |
| Travel | $4,500 (1 to Colloq) | $22K (4 to Colloq; 1@2 training sessions) | $122K (20 to Colloq; workshops; 2@8 training sessions) |
| Dean’s tax | $25,000 | $100,000 | $500,000 |