

Conversation between Dr. Kay Dickersin (Director of the U.S. Cochrane Center and the Eyes and Vision Review Group, U.S. Satellite) and GiveWell (Holden Karnofsky and Stephanie Wykstra on July 9, 2012

- The Cochrane Collaboration has review authors in many countries and each of the 53 review groups has an “editorial base” (for example the editorial base of the HIV/AIDS group is in San Francisco. The editorial base is the managerial home of the review group (it is comparable to a journal’s editorial base). Editorial bases can be located anywhere in the world and are tied to where the “coordinating editor” (often a volunteer) happens to be located. The editorial base also includes paid staff, typically a managing editor and “trials search coordinator” (they are not always full time staff, however). The review group’s associate editors and other editors (usually volunteers) are located worldwide. Authors (usually volunteers) also can be anywhere in the world.
- The choice of whether to register a review group in a given topic area is based in part on whether there is somebody already interested in heading a satellite . There are many individuals that are eager to lead a satellite but they need modest funding to be able to support the editorial activities for which they will have responsibility. The Collaboration does not provide money to its entities, instead, each entity (including review groups and centers) is responsible for raising and maintaining its own funding. Specifically, coordinating editors for each review group are required by the Collaboration to raise the funds to support the group’s editorial base staff. The funding status of each entity is regularly monitored, along with the ability of the entity to meet key performance indicators.
- Having a review group editorial base in a given country tends to attract a large proportion of its review authors (generally volunteers) from local researchers (ie, an editorial base in a country tends to build capacity in the region). Accordingly, the Cochrane Collaboration in its strategic planning (eg, at Split in 2011- see <http://www.cochrane.org/sites/default/files/uploads/Split%20Strategic%20Session%20Report%202011.pdf>) asked for an increase in “satellite” review group editorial bases, to increase the production of reviews. An example of how having a satellite in a country has increased the number of review authors in the region is the Cochrane Eyes and Vision Group (CEVG) US-based Satellite (CEVG@US). Before CEVG@US existed (pre 2002), CEVG had only eight review authors from the US, while as of June 2012 there were 150 authors based in the US. It is not clear why having a review group or satellite in a region increases the number of authors and number of reviews in that review group, but it may be related to increased opportunities for people in the geographic area get to know the Collaboration through talks, workshops, and Cochrane Collaboration participants and representatives having a presence at local meetings. The Collaboration places responsibility with the regional Cochrane center to assist existing review groups with meeting their targets and to assist new review groups or satellites get established. Centers (including the US Cochrane Center [the USCC]) can also assist in identifying a person to lead a review group satellite.

•Because systematic reviews are increasingly complex, incorporating studies using many different designs and applying new methods of analysis, review groups need additional resources to be able to keep abreast and maintain leadership in systematic reviews. Thus, in 2010, the USCC developed a new model for conserving resources that also responds to review groups' need to obtain methodological expertise in specific areas. A strategic meeting was held involving US entities and the Cochrane leadership to develop and endorse a model that provides centralized methodological "hub" support to the traditional Cochrane review groups. The USCC coordinates activities within the model, and assists with development of "hubs" in areas where review groups have asked for help and support because they do not have the expertise on staff. For example, a single methodological hub focusing on statistics and meta-analysis can provide assistance for multiple review groups and satellites needing expertise in how to incorporate studies of different designs, such as cluster randomized trials. A methodological hub on diagnostic test accuracy (DTA) can assist review authors who wish to conduct reviews in their topic area (eg, neonatal) on DTA. In this way, review groups do not each need to have all types of specialized expertise "in house," rather they can focus on having subject matter expertise within their group and rely on centralized Cochrane Collaboration "hubs" for specialized methodological expertise. The hubs can be available to Cochrane contributors around the world who want to conduct reviews and need assistance. This model is only being used in the US right now, within the Collaboration.

•In recent years, the Cochrane Collaboration has recognized a need to ensure that high priority reviews are conducted and kept up to date. For its first 10-12 years, the Cochrane Collaboration applied a largely "bottom up" approach where volunteers chose to work on projects of their own choosing that they were enthusiastic about. More recently, Cochrane review groups have added a "top down" component to selecting review topics, to ensure that the most important clinical questions in each subject area are covered. The CEVG group, for example, has found that if high priority areas needing reviews are identified, and requests for authors for are displayed on their website, volunteers interested in performing the reviews are quickly attracted. Thus, it seems as though it is possible to prioritize the most important areas without dampening the enthusiasm of the volunteers.

•In a proposal for funding, Dr. Dickersin said that if GiveWell were to direct enough funding to the USCC then the number of Cochrane reviews and the number of review groups would increase. GiveWell asked Dr. Dickersin what the subject areas the reviews would be in and what satellites would be started. Dr. Dickersin said that:

1. With \$100k of additional funding the USCC would allocate 40% to the San Francisco Branch of the USCC and the HIV/AIDS Review Group.
2. As the USCC receives more money it will use some of it to fund fellows from low resource countries to come to the US and learn how to do systematic reviews, taking what they learn back to their countries.
3. With \$5 million of additional funding, the USCC would be able to fund eight new review group satellites.
4. The USCC has identified existing interest in starting new heart, skin, ear, nose and throat, and public health review group satellites, and would like to see a

- review group satellite started in infectious diseases.
5. If GiveWell would suggest reviews/review group satellites in specific topic areas, the USCC would be able to investigate using GiveWell-directed funds for reviews/review groups in these topic areas.
 6. Under the model of directed funding, the USCC would like to hear what GiveWell is interested in. Under a model where GiveWell funds are not directed to a particular topic area, the USCC would invite proposals for new review group satellites and a special committee, using pre-existing criteria, would select the most promising applications for start-up funding. It is difficult to predict which groups the USCC would receive requests from.
 7. It is often hard to tell where the greatest needs are because researchers' activities can be driven by projects perceived to have potential funding rather than by what projects they believe to be most important.

Holden said that GiveWell is cause-agnostic and wants GiveWell directed funding to fund reviews that would change practice most in a positive way: in fields where there are interested volunteers, where it's most important that there be systematic reviews, where systematic reviews would be the most influential and where the influence would improve health the most. Dr. Dickersin said that she would be able to make a list of the review groups that the USCC would most likely fund if it had more money.

• Stephanie asked if there is information available concerning how much funding different Cochrane centers and review groups, with a view toward determining whether there's a case for increased central operating and review group support leading to the production of more reviews. Dr. Dickersin said that:

1. It can be hard to determine how funding translates into number of reviews done because sometimes authors in different countries do a review jointly and also costs vary by country.
2. There is a confounding factor, which is that review authors cluster where review groups are. This makes it unclear whether the variable driving the production of reviews in a country is the number of editorial bases in the country or the fact that there is funding in that country for the review process.
3. The Cochrane Operations Unit (where the Cochrane CEO resides) collects information about the budget of each of the 111 Cochrane entities (eg, each region's Cochrane center and the Cochrane review groups and satellites). However, this information is confidential (not shared among Cochrane entities).
4. Claire Allen from UK Cochrane has data on the number of reviews that have been produced by each country over the past 4-5 years.

• Stephanie asked roughly how many additional reviews would be produced if the USCC were to receive various levels of funding. Dr. Dickersin said the cost of a review depends on a variety of factors, including the topic, number of questions addressed in each review, and amount of existing primary research (eg, clinical trials). People have attempted to estimate the cost per systematic review and the range is about \$80,000-\$300,000 (USD). However, Cochrane reviews leverage existing and available resources, because funds are

invested globally in Cochrane reviews without the starting and stopping typically associated with doing systematic reviews one at a time; therefore the Collaboration probably spends less than the \$80,000-\$300,000 estimated to generate a review.

She said that the CEVG-US satellite receives \$800,000 to \$900,000 per year in direct costs from the National Eye Institute (NEI), and CEVG@US has promised the NEI that it will produce a minimum of 12 systematic reviews and updates each year, teach multiple workshops, both in person and online, attend and present at key meetings in the field, conduct a number of methodological research projects, and build a database of clinical trials in eyes and vision for public use. Because there are costs associated with starting up a review group, the amount of funding associated with each review would be higher if the review group were just starting.

Gifts and grants are handled differently within a typical university setting. A gift or donation to a university, typically made to an office dedicated to identifying gifts (eg, a “development” office), is either unrestricted or designated for a special university or school project such as student scholarships, named professorships, or bricks and mortar. Although practices vary by institution, gifts may be taxed by the host university, for example at Johns Hopkins the university/school keeps 10% of the donation, a portion of which goes to student scholarships. Gifts can also grow over time as part of an endowment, which makes them attractive to both the giver and recipient. So in some cases, while there is a “tax” on the initial gift, interest can be accrued to the gift account and this is able to be used by the recipient.

A “grant,” regardless of its source, is restricted in its use, usually to a specific project(s), and the total grant would typically be apportioned to “direct” costs and “indirect” costs. Direct costs are those related to the costs of doing the work agreed to, for example salaries and supplies for the project. Indirect costs are the somewhat “invisible” costs that contribute to the environment supporting the project, for example, the space required for the study, heating and cooling the buildings, cleaning, libraries, and administration of hiring and payroll. The indirect rate can vary by project and funding organization and can vary; it is usually between 20% and 70% of the direct costs.

- CEVG engages in activities other than direct review production. Examples:
 1. CEVG@US faculty, staff and students perform research and serve in roles aimed at improving the quality of health-related reviews in general. Only 40% of systematic reviews are estimated to be Cochrane reviews.
 2. A CEVG@US faculty member is the systematic review editor at a journal.
 3. A CEVG@US faculty member has submitted a paper on statistical errors in systematic reviews (present in many reviews and not Cochrane reviews examined).
 4. CEVG@US has produced an 8-9 hour online course for peer reviewers
 5. CEVG@US is working with a journal that is interested in improving their peer reviewers' knowledge of how to make a judgment about study quality.
 6. CEVG holds workshops on how to do a systematic review.
 7. CEVG attends meetings and hosts or participates in workshops for

ophthalmologists and optometrists.

- Dr. Dickersin’s funding proposal includes provisions for more training for systematic reviewers. Stephanie asked whether there is demand for more training. Dr. Dickersin said that the workshops that CEVG runs tend to be very popular and are filled each time.

The Cochrane Group in Canada got an influx of funding which they use to run eight or nine trainings a year at various locations in Canada. Their training coordinator recruits faculty local to the training location to train local researchers. Having local teachers do the training attracts local attendees (potential Cochrane review authors). Dr. Dickersin said with more funding, the USCC would hire a full time training coordinator and follow the model that Canada has been using.

- Dr. Dickersin’s proposal contains provisions for methodological “hubs” to offer support to review authors. Stephanie asked whether the authors who would be served would be international authors or US-based authors. Dr. Dickersin said non-U.S. based authors could be supported by the U.S. meta-analysis support hub. The diagnostic accuracy support team and the network meta-analysis team would serve both U.S.-based and international authors and the meta-analysis support team could as well, but would prioritize if it were overburdened with work.

- Holden said that he understands why having methodological hubs would improve the quality of reviews, but not why it would improve the quantity of the reviews. Dr. Dickersin said that it helps to have a paid staff methodologist coordinating the review and that volunteer clinicians, with limited time to devote to the review, are quite positive about the model. The clinician-authors often need guidance at various points in the review process and having a dedicated methodologists to help the review authors work through these steps can speed the review production (in addition to improving the quality of the reviews). For example, methodologists help clinicians to set the eligibility criteria for their study (for example deciding on the population and interventions to study, the outcomes to focus on), searching for relevant studies, abstracting the data that the studies contain, using the review manager software, and deciding which steps can be done in parallel and which steps need to be done sequentially.