

A conversation with Doug Altman and David Moher on 03/08/13

Participants

- Doug Altman — Director, Centre for Statistics in Medicine, and Professor of Statistics in Medicine, University of Oxford
- David Moher — Senior Scientist, Ottawa Hospital Research Institute, and University Research Chair in Systematic Reviews, University of Ottawa
- Alexander Berger — GiveWell, Senior Research Analyst

Note: This set of notes was compiled by GiveWell and gives an overview of the major points made by Doug Altman and David Moher. Doug Altman and David Moher were speaking on behalf of the EQUATOR Network, and their statements are not meant to represent their employers.

Summary

Doug Altman is the chair and David Moher is a member of the Steering Group of the EQUATOR Network. The EQUATOR Network is an initiative that promotes transparent and accurate reporting of medical research studies.

GiveWell spoke with Professor Altman and Professor Moher as a part of our investigation of opportunities to improve the practice of biomedical research. The main topics of conversation were the EQUATOR Network's mission, potential future activities, and need for funding.

The EQUATOR Network

The EQUATOR Network's mission

Before founding the EQUATOR Network, Professor Altman and Professor Moher spent several years developing guidelines for reporting research. They founded EQUATOR Network to promote these guidelines, because they realized that merely publishing the guidelines wasn't having the impact they wanted. The primary goal of the EQUATOR Network is to ensure that all research conducted is completely and transparently reported. The EQUATOR Network collaborates closely with research organisations, journals, reporting guideline developers, educators, research ethics committees, research funders, and other key stakeholders.

The most important outcome of EQUATOR work is a freely available comprehensive online collection of resources supporting responsible publication of research (EQUATOR Library for Health Research Reporting, www.equator-network.org). During its short existence the EQUATOR Network has gained international recognition and reputation as the leading authority and resource portal in the area of health research reporting. Examples of key supporters are the Committee on Publication Ethics and the Council of Science Editors. Reference to EQUATOR is included in the *Uniform Requirements for Biomedical Manuscripts*, the most fundamental guidelines for research articles, developed by the International Committee of Medical Journal Editors and followed by most biomedical journals.

EQUATOR is a long-term programme of research support and improvement and not a closed

fixed term project. Ongoing EQUATOR activities are expected to increase the usability and value of published research for clinical practice and for further research, thus ensuring that maximum value is gained from financial investment in research to improve the health of future patients.

The EQUATOR Network's need for funding

While many people in the medical research community support the EQUATOR Network's mission, the organization has struggled to find funding.

The EQUATOR Network currently has a budget of about £200,000 per year. However, the funding takes the form of two 2-3 year grants, and so the organization doesn't have a reliable stream of funding. As a result, its employees don't have job security. Further, the current funders of EQUATOR have indicated that further funding for the Network is unlikely unless some other sources of funding are achieved.

The funding supports three full time staff. EQUATOR Network is hoping to secure a steady stream of funding at a higher level so as to be able to offer employees job security, to guarantee maintenance and further development of its valued resources, and to extend its activities.

The difficulty getting funding is a generic problem for organizations working to improve biomedical research. Funders are far more inclined to fund targeted biomedical research projects than they are to fund broader interventions intended to improve the structural features of research, even initiatives aimed at improving the value of research on a wide scale. Funders invest heavily in providing grants, and other research funding, to initiate groundbreaking research. Most funders spend a sizable portion of their budgets funding such innovative research. Funders are not, however, overtly concerned about ensuring high quality outputs from the research that they fund. Indeed, we do not know of any that actively funds projects or programs focused on the reporting of medical research. This is surprising given the extensive body of evidence indicating the seriously inadequate quality of reporting of medical research regardless of the medical specialty or sub-specialty and journal where it is published. As a consequence most research funders have not been willing to support activities such as EQUATOR.

The EQUATOR Network's potential future activities

The key core activity of the EQUATOR Network is the further development, maintenance and promotion of the online Library for Health Research Reporting and other resources on the EQUATOR website and the development of a dedicated training programme to support the use of these resources. Both of these activities must be informed by a research program that is adequately funded for reasonable increments of time, such as five years.

Education and training

Universities don't offer courses in journalology (i.e., the study of scientific writing and publishing) thus limiting future generations of researchers from learning the importance of good reporting and several other related topics, such as effective peer reviewing.

There is a dearth of knowledge of the prevalence and impact of publication bias and selective reporting among physicians, medical researchers and journal editors.

Editors of academic journals are usually academics who have not received training on how to enforce reporting guidelines. In comparison to airline pilots, and many other professionals, editors and peer reviewers are not certified; indeed there is little consensus on what should be the core competencies of both groups. While the most prestigious journals tend to have full time editors who specialize in journal editing, almost 95% of clinical trials and systematic reviews are published in small specialty journals edited by academics who serve as editors as one of several other commitments. There are about 25,000 such journals.

There is a high demand for education and training regarding publication bias and data reporting. The demand comes from editors, other physicians and other stakeholders. To ensure future generations of researchers have early access to such training it is essential that universities, and other research-intensive centers, develop adequate training opportunities. The EQUATOR Network is interested in providing training and certification via web-based instruction. It has not been able to secure funding for this purpose. If the EQUATOR Network were to do this, it might collaborate with the Committee on Publication Ethics (COPE), which has successfully offered similar ethics training to journal editors in the past, and other stakeholders.

EQUATOR GRAD

There are over 200 guidelines for reporting different types of research. The EQUATOR Network is interested in evaluating these and spreading awareness of which guidelines are the best developed and which guidelines are less well-developed. The EQUATOR Network could potentially work with those who created less well-developed standards in order to improve the standards. Developers creating new reporting guidelines could also use the tool. The scope for such input is not diminishing; several guidelines have already been published in 2013).

Web based tools for reporting

The EQUATOR Network is interested in creating online interfaces that help authors of biomedical research papers upload their data in a way that ensures that they meet reporting guidelines. Such a system could have a particularly large benefit on the value of published research articles.

Secondary funding

If the EQUATOR Network had sufficient funding, it would act as a secondary funder to groups that want to develop guidelines for reporting.

Other Topics

The importance of reporting all research

A large fraction of academic studies are never published. About 50% of conference abstracts are not followed by substantive published journal articles. This constitutes a major loss of valuable data, and gives rise to publication bias. Non-publication has been called scientific misconduct and is unethical (declaration of Helsinki). Many people who are concerned about this. All of these issues, and others, need to part of a comprehensive training program in journalology.

There is a new organization called AllTrials, which works to promote the reporting of the results from all clinical trials.

Standardized outcomes

A group that has some commonality with the EQUATOR Network is COMET (Core Outcome Measures in Effectiveness Trials). This organization brings together people interested in the development and application of agreed standardized sets of outcomes, known as '[core outcome sets](#)'. If researchers who study a disease all measure and report the same outcomes, then it will be easier to compare the results from different studies in meta-analyses and reach conclusions about the comparative effectiveness of different treatments.

Like the EQUATOR Network, COMET also struggles to get funding.

Other people for GiveWell to talk to about these issues

- *Virginia Barbour* – Dr. Barbour is Chief Editor of PLoS Medicine. In 2007 along with the other PLoS Medicine editors she wrote an important editorial about the need to improve the reporting of systematic reviews.
- *Fiona Godlee* – Dr. Godlee is the current editor-in-chief of the BMJ and like PLoS Medicine was an early adopter of promoting complete and transparent reporting of research. In 2008 the journal developed a new section – Research Methods and Reporting.
- *Iain Chalmers and his collaborators* — Sir Iain Chalmers founded the Cochrane Collaboration and is the coordinator for the James Lind Initiative.
- *Richard Smith* — Dr. Smith is the former editor-in-chief of the BMJ and former chief executive of the BMJ publishing group.
- *Drummond Rennie* — Dr. Rennie is a deputy editor of JAMA and is the director of the International Congress on Peer Review and Biomedical Publication.
- *Richard Horton* — Dr. Horton is the current editor-in-chief of *The Lancet* and has been for about 10 years. *The Lancet* is going to be publishing a series on waste in research in 2013.
- The Seventh International Congress on Peer Review and Biomedical Publication will be taking place in Chicago during September 2013. Many journal editors who are interested in this area will attend.

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