

Executive Summary 12 January 2015

Evaluation of the Developing Operational Research Capacity in the Health Sector Project

**A Technopolis Group evaluation carried out for the UK
Department for International Development (DFID)**

Executive summary

Introduction and project background

Operational Research (OR), defined as research into strategies and interventions that improve health service delivery, provides evidence to influence actions and policies to promote better public health in developing countries. Unfortunately there are few developing country professionals who are trained and supported in the field. In response, DFID provided £1,160 000 million over three years (October 2011 to August 2014; by the end of 2014, the figure has reached £1,250,000) to the International Union Against Tuberculosis and Lung Disease (The Union) to support the expansion of an innovative capacity building programme in OR. The project provided targeted training and mentoring support to improve the capacity of front line health practitioners in low income countries to carry out OR. This was done through training courses in OR and support of in-country OR fellowships.

The objective of the present evaluation is to assess the project's performance and impacts during the period October 2011 to August 2014, and provide feedback to the wider research and development community on the OR capacity building model. While the direct users of the evaluation are DFID's Research and Evidence Division (RED) and The Union, the evaluation will serve for accountability and learning purposes for the OR community, research capacity building programmes, research funders and others, feeding into the design of the next phase of the project and investigating the application of the model in other areas of practice.

The evaluation assessed the effectiveness, efficiency, relevance and sustainability of the project with respect to eighteen evaluation questions, using a mix of quantitative and qualitative techniques:

- Deskwork on documentation and monitoring
- Collection of available project data
- Interviews with internal stakeholders
- Questionnaires with participants and non-participants
- Case studies on course-level and two benchmark cases on OR capacity building models
- A bibliometric analysis of the publication output and patterns of the OR-course participants

Findings

The Union/MSF¹ deliver OR courses that are inter-connected with each other and focus on practical aspects and learning-by-doing. This approach aims to enable participants to benefit substantially. 79% of the participants report that the course they took was 'very useful'; another 15% report that it was 'quite useful'. Trained participants increased not only their knowledge of OR concepts, but also their skills and engagement in supervising research team members, collecting safe and ethical data, implementing study design and disseminating results.

Course participants publish the results of their research in a number of scientific journals. Over the last five years, participants published 272 articles in 84 scientific journals, mainly in medicine (86%), immunology and microbiology (20%). The top journals in which publications appeared are Plos One (45) and the International Journal of Tuberculosis and Lung Disease (44). Sixty-six of the articles were published in the Journal of Public Health Action, The Union's open access online journal. The

¹ Médecins Sans Frontières.

proportion of contributions from low-income and low-middle-income countries' institutions and researchers (especially from Malawi and India) are substantial and encouraging for North-South and South-South collaborations.

Course participants publish substantially more than non-participants. For example, the average annual number of paper submissions are 3.1 for participants compared to 1.7 for non-participants, and 1.6 compared to 0.6 regarding number of papers accepted in peer-reviewed journals.

Another positive outcome of the OR courses is the spill-over effect. OR course participants engage in stimulating the development of their colleagues through sharing OR knowledge, mentoring and teaching, participating in OR research projects external to their own department, and using OR findings in their daily work. When compared with their situation five years ago, when only a few percent used OR at least on a weekly basis, now about one third report that they use OR that frequently.

OR skills appear to be appreciated and increasingly required by institutions and non-profit organisations. One third of participants indicate that their individual efforts have made a large difference to their organisation in terms of institutionalising OR. Around half of the participants indicate that their organisations give high or very high priority to OR and two thirds indicate that OR features to some extent in the strategy documents of their organisation. Hence the training tends to boost trainees careers, as it opens doors to job opportunities within their own organisations or when applying for new jobs. Notably, there is no evidence of any brain drain from Southern countries to Northern countries.

There is evidence of institutionalisation of OR capacities in the organisations where the former course participants work. In total 71% of the participants indicate that this has improved over the past five years. There are also reported changes in policy and practice following publication of OR; from "closer collaboration between tuberculosis (TB) and HIV/AIDS programmes at central level" to "increasing trends in the proportion of HIV-TB patients receiving ART (Antiretroviral Therapy)". The most common impact on health systems has been the improvement of monitoring and screening of patients, reported by 56% of the participants. Around one third of participants indicate that their research led to improved policies and around one third indicate that their research led to improved guidelines. In total 19% of participants indicate that their research led to the improvement of existing treatments, 3% mentions the development of a new treatment. A majority of the participants estimate that significant numbers of patients were reached by their activities following their OR training; figures of both hundreds and thousands are mentioned. A large majority of the respondents claim that they intend to continue to carry out research, take OR training, and that their organisations are sustainably committed to OR.

Twelve OR-Fellows were supported through the project, all being very appreciative of the quality of the training and support provided, as well as the opportunities it created for them in terms of publications and careers. The OR-Fellows undertake a number of research projects, publish at quite a high rate and invest significantly in facilitating Modules on the courses, reviewing papers and presenting papers at conferences. Fellows report that the OR course increased their skills in structuring their research; in data collection and analysis, and in writing and publishing research. They feel more confident in the use of OR, work more autonomously and with greater freedom and responsibility, train other people in OR either at The Union/MSF courses, or in other ways in their home countries. The interaction between Fellows is less well developed, hence The Union is engaged in developing a more formal alumni network.

The OR-Fellows' participation in the project has led to cultural changes in their own organisations and new strategic orientation in integrating OR, changes in training provided within institutions, in the visibility of their organisation, as well as increasing national networking. In funding organisations, OR data has become of interest. The involvement of MSF and the growing capacities of MSF in OR have resulted in a more global presence with the opportunity to expand to other areas.

OR-Fellows report that their OR research led to better screening protocols and guidelines, changes in the way HIV patients are educated, an increasing availability of training in OR, use of the OR work to improve the OR training courses and studies, improving the use of local and national evidence to improve programme design and delivery, and an increasing visibility of OR through disseminating research results.

The Developing OR Capacity in the Health Sector project is assessed to be highly effective. With reference to interview and survey results, the relevance and the quality of the training is high, and The Union's model of holistic training including research protocol development, data analysis, and public dissemination of results is an innovative undertaking that may set the standard for other OR capacity building models. Not least the mentoring of the course participants seems successful, given the prominent scientific output in terms of publications in reputed journals. The support provided to participants, both during and after the course, is considered to be very good. The overall quality of the teaching is consequently assessed to be high. The current course content and its delivery achieve high impact in a cost efficient manner. The support given to the OR-Fellows varies in intensity but is also considered to be at the right level. Additionally, the project has reached its intended goals in terms of gender balance. The Union/MSF applies a selection procedure taking into account the geographical location of participants to enable more local capacity building. This is an important change, which will influence the longer-term sustainability of project impact.

Value for money is in part difficult to ascertain from the data provided and collected, especially as there are elements of *pro bono* work by people employed by The Union and also the good will of the local institutions/faculties in supporting the participants during the course. Nevertheless, value for money is increased by the goodwill that is prevalent throughout the implementation as well as the recent integration of Modules 1 and 2 (out of altogether three Modules for each course; see detailed description of course structure in section **Fel! Hittar inte referenskölla.**). While course costs vary by location, with, as expected, the Paris and Luxembourg course being more costly than those held regionally, both types of location have pros and cons. The Union is considering locating more of the courses regionally in order to give OR training a stronger country focus. In any case, the substantial scientific output of the participants and the strong impact of the OR Fellows means that value for money is deemed most sufficient, even high.

The availability of expert mentors and facilitators for the courses, functioning as key individuals, sharing their personal networks, is a critical element with respect to both quality and sustainability. Therefore scalability could be a potential issue if this project was to expand to more courses or other health domains.

Recommendations

Recommendations in relation to the courses

1. A strong country-focused approach to the sourcing of participants is needed to create critical mass and a supportive local network of OR researchers and sustain the course's achievements with maximum impact. The strategy to date has been to source course participants widely, which worked well to raise visibility in the early years of running the OR courses, but has left some newly trained OR researchers isolated.
2. Team-based projects rather than individual projects should be considered as these proved effective in the benchmark cases of OR courses. This delivery method creates shared learning and management practices, and potentially nucleates sustainable networks. This delivery method could be particularly useful when course participants come from the same organisation. It is however important to ensure that teams are small enough that members can learn all aspects of OR to a high standard.

3. The selection of participants and the process of assessment should be made more transparent. An objective scoring system should be established so that potential participants are aware of the requirements at the time of application.
4. There is scope for involving ministries of health and national TB programmes in the course participants' home countries, for instance in selecting the research topics for projects. This should increase the likelihood of projects being aligned to national and regional priorities as well as increasing the influence and potential uptake of results by policy makers. This appeared to be a practice adopted by benchmark OR training courses.
5. Research output and its implementation should be better linked through improved dissemination practices (beyond open access publications). An implementation plan should be drawn up and shared with policy makers as an integral part of the project. Access to established networks through, for example, the WHO and MSF is crucial in this regard.
6. Introduce short courses for OR consumers to facilitate the uptake (and future funding) of OR in national settings. This type of course proved effective at benchmark programmes.

Recommendations in relation to the fellowship programme

7. Develop a clearer structure for the fellowship programme and define roles and responsibilities. Strengthen support to Fellows in their career development by providing access to mentorship, knowledge sharing and skill-development workshops.
8. Encourage Fellows to develop course material relevant to their own region and organise and facilitate OR courses in addition to The Union's courses. This 'spill-over effect' would be a practical way to further spread knowledge regarding OR.

Recommendations in relation to sustainability and value for money

9. Build a wider pool of experts and facilitators with knowledge relevant to the diversity of topics apparent in research projects. This could mitigate against some of the risks associated with reliance on a very small number of people at The Union. Thought needs to be given to succession planning in relation to the pioneers of the project in order to ensure its sustainability.
10. Establish 'training the trainers' and other courses in partnership with universities and research organisations that would continue activities without The Union's assistance after set up. These courses could ensure motivated participants and organisations and have been seen at benchmark organisations to work well. If such partnerships are established, there may be opportunities to introduce new, cost-shared models.
11. Consider reducing the ratio of facilitators to participants, particularly if team-based projects are introduced. This could increase the value for money but needs to be done with due consideration to maintain the current high quality of course delivery.
12. Consider supporting course participants to access further independent funding for future OR projects. Explore whether existing support to proposal writing and budgeting skills in the form of short courses can be further developed.
13. Improve community building among past and new OR practitioners with a Community of Practice IT platform so that virtual networking can take place. This could also store questions, answers, issues encountered and solutions.

Generalisable lessons

14. In the view of the study experts, there is a strong potential for applying The Union's modular training model linked to research projects in other areas of health research and beyond. Therefore it is recommended that DFID considers this training model to support OR development in other projects in their portfolio.
15. Sourcing course participants from selected organisations in a given country may enhance cooperation and cost-sharing of training courses. The Union should consider working increasingly at organisational level, as this was a positive lesson learnt from the benchmark programmes.
16. MSF also has multiple disease areas of interest where OR could be usefully applied. However, additional facilitators would need to be trained as the current Union/MSF pool is relatively specialised on TB and HIV.
17. There is potential for further use of this training model in cooperation with the WHO and their wider programme environment, giving access to networks, policy makers and practitioners, which would widen the model's ability to influence.