Calling on Europe to support operational research in low-income and middle-income countries

Operational research in public health is the investigation of strategies, interventions, instruments, or knowledge that can enhance the quality, coverage, effectiveness, or performance of health systems, health services, or disease control programmes.[1] By showing what works and what does not in various contexts, operational research can provide evidence to help policy makers to adapt health interventions and services for maximum public health benefit.[2]

During a recent workshop organised by the Science and Technology Options Assessment body (STOA) of the European Parliament, experts in the field of operational research concluded that the European Union (EU) should increase its support for this form of research. STOA, which provides independent assessments of scientific and technological options in various sectors including the life sciences, organised the workshop in collaboration with Médecins Sans Frontières, the International Union Against Tuberculosis and Lung Disease, and WHO/TDR.

The participants discussed several overarching themes, concluding that research is too often separate from implementation. A crucial gap remains between the development of efficacious health interventions and their optimum delivery in real-life settings. This gap is particularly true in many low-income and middle-income countries (LMICs). For example, two-thirds of childhood deaths are potentially avoidable with known technologies that are implemented to scale.[3] Similarly, results of clinical trials have shown major benefits of parenteral artesunate compared with quinine to treat malaria, but quinine remains the standard treatment in most malaria-endemic countries.[4] Operational research could show how to introduce and scale up such interventions, which could have a major effect on global health.[5]

Many LMICs are rich in data, but have insufficient information. Massive amounts of routine data are collected within public health systems such as by ministries of health (MOH) and non-governmental organisations (NGOs), but are underused, reducing the potential effect of research on policy and practice. Compounding the problem, most data collected at national level are of little use at the point of care; research instruments to assess equity need to be easily manageable at district level to prompt effective actions.[6] The World Health Report 2013 by WHO[7] recommended that all countries should become producers as well as consumers of research, and that research capacity should extend beyond academic centres to public health programmes—close to the supply and demand for health services.

In this context, the Structured Operational Research and Training Initiative (SORT IT), a global partnership led by the WHO/TDR, could serve as a global springboard for country-level capacity building. SORT IT programmes support countries to undertake operational research in accordance with their own priorities, develop adequate and sustainable operational research capacity in public health programmes, and create an organisational culture of policy and practice being informed by operational research, leading to improved programme performance.[8]

The initiative teaches the practical skills needed to undertake and publish operational research.[9] SORT IT holds training programmes of 10–12 months with clear targets. By January, 2014, 18 programmes had been run, enrolling 212 participants from 60 countries, mainly in Africa and Asia. Of the first eight completed courses, 89% of 93 enrolled participants successfully completed these courses and 93% of 96 submitted papers were published within 18 months of completion. Of published papers, 74% were reported to have had an effect on policy and practice. Moreover, the average cost per publication was only €6800. Although the comparison is not completely appropriate because of the potential greater value of long-term basic scientific research, the average cost of EU-funded research is €140 000–220 000 per publication.[10]

Researchers and experts recognised that very little funding is available for operational research within health programmes and they discussed some possible solutions. Embedding research into national programmes and health systems would be one way of ensuring cost-efficiency. In this way, the traditional call for funding applications would need

For more on the **STOA workshop** see http://www.europarl.europa.eu/stoa/cms/home/events/workshops/developing

For the **SORT IT programme** see http://www.who.int/tdr/capacity/strengthening/sort/en/

to be complemented with integrated funding made available within the programme structure, which would encourage MOHs and NGOs in LMICs to embrace operational research more fully.[11] Through NGOs, settings often excluded from research activities, such as those in conflict and disaster, could also benefit.[12] Although international institutions such as the Global Fund to Fight AIDS, Tuberculosis and Malaria allow a sizeable proportion of country grants to be invested in operational research, absorption of such funds has been poor because of the absence of operational research capacity in-country. The SORT IT model is one way to maximise the use of such funding opportunities.

Arising from these issues, identified by the European Parliament event, was the contribution that the EU could make to operational research. As the world's largest aid donor, the EU is well positioned to support international research collaboration, which works as a type of science diplomacy. Until now, EU investment in research has been directed towards innovation, an essential part of the EU Framework Programmes mission. However, knowledge of how to implement new findings for maximum public health benefit is too often insufficient and should be enhanced by complementary EU actions for social innovations that enable operational research. The European and Developing Countries Clinical Trials Partnership (EDCTP), which is part of the EU Framework Programmes, plays an important part in supporting clinical research and capacity building in African countries. However, although the new extended remit of EDCTP includes elements of implementation research, the main focus is on product development, and a necessary continuum would be to support operational research so that the results of EDCTP trials can be effectively applied.

In LMICs, the EU could effectively boost operational research, which could in turn connect organisations that have technical skills in operational research with national public health programmes and strengthen capacity building through north-to-south and south-to-south partnerships. Operational research fellows could be key to building a critical mass of researchers in the public sector who could then be retained. As part of this, the European Commission should establish a clear strategy for operational research, develop a common policy, and increase coordination between different Directorates-General (Research, Development).

The EU is one of the world's most prolific funders of both research and development cooperation, but only very few actions relate specifically to operational research in LMICs. There is ample opportunity to use the available financial and political power to better meet these ends.

For the **EU Framework Programme for Research and Innovation** see http://ec.europa.eu/programmes/horizon2020/h2020-sections

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