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Round table discussion

A key piece of the jigsaw for improving world health

Alma Swan^a

“Open access is good for science, the research community and mankind.” Sir John Sulston, biologist and Nobel Laureate

Impaired access to research information in health-related fields is not solely the preserve of developing countries but it is hugely exacerbated in poorer regions of the world. While these regions bear the brunt of the world's health problems, only 10% of health research effort goes into these areas (referred to as the “10/90 gap”).¹ If we are going to achieve what the World Conference on Science held by UNESCO and the International Council for Science in 1999 termed the true “orienting of scientific progress towards meeting the needs of humankind”, then we must improve the research effort on the health problems that afflict the greatest part of the world's population. That cannot happen until research communication is optimized: at the turn of the new millennium more than half of research-based institutions in lower-income countries had no current subscriptions at all to international research journals.²

Open access changes this. It permanently delivers free research information to any would-be user. The security of long-term free access is relevant here because other programmes that purport to deliver health research information on an equitable basis to the developing world are not guaranteed for the long-term.³ Access may be discontinued because new rules have been applied. No health research or practitioner programmes can operate properly under such circumstances.

Open access literature, by definition, is freely available on a permanent basis. Some distinguished examples of open access journals in the health sciences are *PLoS Neglected Tropical Diseases* and BioMed Central's *Malaria Journal*, which have the top two impact factor scores in the tropical medicine category of Thomson Reuter's Journal Citation Reports service, and *Environmental Health Perspectives*, the journal of the National Institute of Environmental Health

Sciences in the United States of America (USA), which has recently recommitted itself to an open access policy.

Open access journals are just one route to open access for health research literature. Open access repositories or archives are perhaps even more important, collecting as they do the outputs from research organizations around the world. Currently over 1400 in number, they have been established at an average of one per day for the past 3 to 4 years. Two of the largest, PubMed Central at the National Institute of Health, USA,⁴ and United Kingdom PubMed Central⁵ (run by a consortium of medical research charities and the British Library), presently provide free access to 1.4 million biomedical research articles.

“Key areas of critical need include: open access to CDC's research publications for other scientists and the public (rapid, free, and unrestricted online access) to CDC sponsored peer reviewed research and access to ‘data in progress’ among scientists, especially during emergencies like SARS.” Dr Julie Geberding, Director, Centers for Disease Control and Prevention (CDC), USA.

Why are such influential bodies as the Australian National Health & Medical Research Council, the Canadian Institutes of Health Research, CDC and the National Institute of Health in the USA, the United Kingdom Medical Research Council and the Wellcome Trust promoting open access? Because it brings such benefits to health research including: (i) increased visibility for research outputs; (ii) a concomitant increased usage and impact; (iii) an increase in the speed at which scientific research progresses; (iv) the facilitation of interdisciplinary research; and (v) the enabling of new semantic computing tools to create new knowledge from existing knowledge.⁶ Open access is a key piece of the jigsaw for improving world health. All stakeholders in that vision should commit themselves to its implementation. ■

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