

From research to action — a bridge to be crossed

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John Snow's removal of the handle of the water pump on Broad Street, London, in order to contain an epidemic of cholera in 1854 (1) was not only a classic in epidemiological method but also the application of an evidence-based public health intervention. Nevertheless, 150 years later, in much of the developing world the bridge between research and action still remains to be crossed. Research is necessary, good research is essential, but to translate knowledge generated by research into evidence-based actions is critical.

The papers in this issue of the *Bulletin* by Viroj Tangcharoensathien et al. (pp. 750–756) and Pisake Lumbiganon et al. (pp. 746–749) are clear demonstrations of the potential for good research and the use of its results for shaping national policies on public health. The former is a good example of the research that influenced reform of the health system in Thailand, and the latter demonstrates how a new public health intervention can quickly be applied in practice.

Thailand has increasingly recognized the value of research in tandem with its economic transition to a middle-income country. The results are formidable. For example, the Health Systems Research Institute published nine papers in 1995 and 93 in 2000, and Prince of Songkla University had 75 papers published in 1997 and 133 in 2001. Similarly, the number of Thai scientific journals increased from 88 to 133 between 1990 and 2000 — powerful evidence of the dynamic health research system in the country. This is not least due to a number of far-sighted individuals who influenced Thailand's development and health policies during the past decades. The strong health research system resulted in the establishment of a solid institutional base for health systems research and provides the practical modalities for putting good public health research to use.

The movement for health reform generated the need for new knowledge.

Prawase Wasi was a central figure in this movement: his triangular model highlights the essential interaction between knowledge generation, political engagement and societal involvement, which is a prerequisite for bridging the “know–do” gap (2). Tangcharoensathien et al. illustrate the specific result of this interaction, and Phoolcharoen has documented the broader systematic approach to the research that underpinned the health reform design (3). The fact that the systems research was planned and executed in close collaboration with the institutions that would use the study results, notably the Ministry of Public Health, was important for its application. Wasi stated correctly that “research is fun”; he also emphasized that “research should lead to development, and development lead to more research relevant to development needs”. The lessons learnt from the reform of health financing have recently been published (4), stimulating new studies.

From simple things like improving clinic supervision (5) to a new model for the use of epidemiology (6), translational research is essential. But to close the gap between knowing and doing in developing countries remains a major challenge. For example, large injections of significant resources through The Vaccine Fund have resulted in a narrowing of the gap in access to vaccines, that is, the time that elapses between the introduction of new vaccines in developed countries and their use in the developing world. Additional financial resources are clearly one of the answers.

There are numerous other obstacles that impede the implementation of evidence-based practices in poor developing countries. One attractive short-cut is to make use of large-scale systematic reviews (7) rather than rely on national health research systems. This was the basis (8) for the adaptation of the antenatal care intervention in Thailand presented by Lumbiganon et al.

If future research processes can effectively blend science, polity and the

aspirations of the community, the chasm between research and evidence-based interventions can be narrowed considerably. ■

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