## Editorial

## Typhoid fever research in developing countries

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J Infect Developing Countries 2008; 2(6):411.

Received 10 December 2008 - Accepted 17 December 2008

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Typhoid fever remains a major public health problem in the developing world with very poor estimates of the number of cases and deaths annually. Continued research on the epidemiology, ecology, pathogenesis, diagnosis, treatment and prevention of typhoid can most optimally be pursued in the endemic regions which, unfortunately, also suffer from a lack of research capacity, funding support, and institutional infrastructure. Much needs to be done to promote and strengthen typhoid fever and other infectious disease research in these regions if true progress is to be made.

It is thus reassuring to see that the two special issues of JIDC on enteric fever contain so many regional reviews written by scientists based in, and mainly from, developing countries. There is a great deal of very valuable and unique information in these articles. In Indonesia, Hatta et al. explain the increasing problems on the island of Sulawesi where resistance to Salmonella Typhi has only developed very recently. Yang et al. in China describe the increasing problems associated with Salmonella Paratyphi A, a serovar which—at least for isolates from the Aga Khan University laboratories in Karachi, Pakistan—was resistant to multiple antibiotics (MDR) but is now becoming susceptible once again. This is at the same time and in the same population as increasing MDR in S. Typhi. Information across sub-Saharan Africa is very scarce and the issues clearly require urgent and rapid action, particularly in Malawi, where the burden of nontyphoidal Salmonella is increasing, and in East Africa (Ethiopia and Kenya) which seems to have a high burden of typhoid fever.. India and Nepal remain major focal points for typhoid and paratyphoid fever and even in southern Europe (Italy) transmission is occurring.

What is reported in these articles builds on the knowledge base which has been captured in the series

of international conferences on typhoid fever and other salmonellosis, beginning in 1991 and to be continued in Kenya in 2009. Over the nearly 20 years of their existence, these conferences have illustrated the important contributions made by researchers in the developing countries towards a better understanding of enteric fever in all its dimensions. The World Health Organization has been a key partner in all these conferences and sees the diagnosis, prevention, and control of typhoid fever as an urgent public health priority. In the context of rapidly changing knowledge on all aspects of typhoid fever, the JIDC plays a very important role in disseminating such knowledge and bringing together the scientific communities from both the developed and developing world to share knowledge and experiences, and jointly address this important threat to human health security.

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Conflict of interest: No conflict of interest is declared.