EDITORIAL

The Know, Do, and Quality Gaps in International Maternal and Child Health Care Interventions

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Tremendous progress has been made in reducing the mortality rates for young children, especially in low- and middle-income countries, with annual deaths down from 12.6 million in 1990 to 6.3 million in 2013.[1] Although it is unlikely that number 4 (reduce child mortality) of the Millennium Development Goals set by the United Nations in 2001[2] will be achieved by the deadline this year, an even more ambitious goal for the elimination of preventable deaths among newborns and children younger than 5 years by 2030 is likely to be set by the United Nations General Assembly in the fall of 2015.[3] Discussions about these laudable goals often center on claims such as, "we know what works, we just need to do it." In fact, estimates of coverage of proven interventions for child survival are significantly lower than needed to maximize the effects, with the most important coverage gaps seen in the areas of family planning, interventions for newborns, and case management of childhood diseases, such as diarrhea, pneumonia, and malaria.[4] This is often referred to as the *know-do gap*. In this issue, Mohanan et al[5] provide a distressing description of this gap related to the diagnosis and treatment of diarrhea and pneumonia by health care practitioners in Bihar, India.

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The authors assessed both the knowledge and practice patterns related to the diagnostic and treatment strategies of practitioners who were presented with scenarios and standardized patients. Particular strengths of this study include a population-based sample of health care practitioners and inclusion of medically qualified and nonqualified practitioners in public and private settings. Throughout the Indian subcontinent and in many other low- and middle-income countries, medically nonqualified practitioners are common sources of health care, and a high proportion of health care is provided in the private sector. To our knowledge, much of the previous research on this topic has focused only on public-sector practitioners and thus has not assessed the quality and coverage provided to a significant majority of the population. As a result of these strengths, the authors' findings likely apply to a wide area of northern India, including settings in which child mortality remains high; the population in this area is in the hundreds of millions.

In discussions of the know-do gap, we often assume the "know" is well covered. The findings by Mohanan et al,[5] as well as previous research[6] in India and elsewhere, demonstrate that even practitioners' basic knowledge regarding the diagnosis and appropriate treatment for these 2 very common pediatric disorders is low. Thus, it seems the only group for whom the know is resolved is those who are involved in advocacy for increasing coverage. Compounding this basic lack of knowledge is the wide discrepancy between knowledge about how to treat these diseases and actual practice, even among those who are well aware of what should be done. Less than 10% of practitioners prescribed the correct treatment and referral for cases of watery diarrhea and pneumonia, and inappropriate and potentially dangerous medications were prescribed for a significant proportion of the standardized patients.

Care of pediatric patients is not the only consideration for quality of care. Despite major improvements in indicators of maternal and child health, our surrogate indicators of coverage may not assess quality of care in the manner we expect. For example, a commonly used indicator for quality of antenatal care is 4 or more antenatal visits, preferably beginning in the first trimester. Hodgins and D'Agostino[7] point out that the content of these visits is often poor, with much less coverage of key interventions than indicated by the number of visits. Without better indicators of quality, coverage estimates may be biased upwards and our attention to addressing these quality gaps reduced.

Mohanan et al[5] rightly point out that improving the knowledge of practitioners will not be adequate to improve the quality of care in this environment. The incentives to offer proper care are often in direct conflict with the economic well-being of the practitioner because most medically qualified and nonqualified practitioners sell drugs in addition to providing diagnostic services and treatment prescriptions. Underrecognition of the large medically nonqualified practitioner network by governments minimizes the ability to regulate their practice and form partnerships between medically qualified and nonqualified practitioners that could provide qualified supervision of their services. Pay-for-performance strategies could play a role in improving quality of care, but only if the full range of practitioners is brought into the system. This is especially true in settings in which medically qualified practitioners cannot possibly satisfy the demand for care.

Mohanan et al[5] have provided a stark reminder that there remains a large, difficult-to-address, unfinished agenda for child health and survival in underserved populations around the world. Better understanding of how comprehensive strategies to address the know, do, and quality gaps across a range of practice environments is needed to prepare for the ambitious upcoming sustainable-development goals that call for elimination of preventable mortality among women and children.

ARTICLE INFORMATION

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