Bottleneck analysis can improve care for mothers and newborns in poor settings

30 April 2015

In a study published this month in the Bulletin of the World Health Organization, researchers from universities including Karolinska Institutet present a new model for identifying "bottlenecks" when it comes to implementing health interventions for mothers and newborns in rural areas in low income countries.

The study is based on information from households and health facilities in two rural areas in Tanzania, East Africa. The researchers investigated five health interventions that can contribute to reduce mortality among mothers and newborns when implemented as intended: screening for syphilis and preeclampsia, monitoring child birth using a partogram, active management of the third stage of labour and care of the mother during the first two days after delivery.

By analysing the implementation chain, they were able to estimate the proportion of mothers and newborns in the two areas who received these health interventions and in what way. They could also get an idea of which deficiencies caused the potential bottlenecks.

"We show that, despite more frequent use of health care, even in rural areas in Tanzania, the proportion of mothers and newborns who receive life-saving health interventions is still small", say lead author Ulrika Baker, MD, Doctoral student. "Bottlenecks can be caused by lack of drugs or deficient clinical practice and our study shows how these bottlenecks vary considerably between nearby areas."

One conclusion made by the researchers is that further efforts are needed to facilitate access to and use of local data in order to improve health and medical care in low-resource settings. How coverage of health interventions is defined and measured is crucial to be able to prioritise efforts to reduce mortality among mothers and newborns.

"A bottleneck analysis provides deeper insights into why certain things don't work, that is more information than just stating that a certain proportion of the population isn't reached by a health intervention", says Professor Stefan Swartling Peterson, one of the researchers behind the study. "The results therefore become more useful for planning purposes. It is true that there is a great lack of many things, but it is also a matter of what health workers do with the available resources."

"We need to shift our focus from increasing access to care to increasing quality of care in low income countries", says Dr Claudia Hanson, PhD, who supervised the study. "With improved communication and development, poor quality of health care becomes the largest barrier for improved health and reduced mortality."


Provided by Karolinska Institutet

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.