

reduce costs. Nevertheless, that should not prevent us from exploring the safest possible method of undertaking caesarean sections when they become necessary. We agree with Papadia and colleagues, however, that no matter how safe a caesarean section is, it should not change the threshold for the use of this major intervention.

We declare no competing interests.

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## The need for innovation and implementation research for maternal and newborn health

Despite substantial progress during the Millennium Development Goals era, figures remain staggering: 303 000 women died due to pregnancy or childbirth-related causes in 2015;<sup>1</sup> 225 million women wanting to avoid pregnancy do not use safe and effective family planning;<sup>2</sup> and 45% of all under-5 deaths happen during the neonatal period.<sup>3</sup>

Accelerated efforts are needed to complete the unfinished agenda in maternal and newborn health (MNH). The consolidated evidence base of what works in tackling poor MNH has not overcome the gap in implementation, for neither cure nor prevention. Policy decisions should be informed by evidence, and for this we need more investment in the collection, analysis, and dissemination of high-quality data, together with a greater investment in implementation research to understand health systems and test solutions in a range of situations and contexts.

Inequity is a key factor to consider in MNH research, particularly regarding adolescents and migrants. Innovative approaches are needed to ensure quality of care for adolescents for whom few specialised services are available, and for the large numbers of migrants with a documented lack of access to health services.

The development of effective, innovative solutions requires collaboration between academic researchers from different disciplines, scientists, clinicians, and—perhaps most importantly—women, their families, and communities. The involvement of end users in identifying problems and solutions provides vital insights and increases the likelihood that solutions will be taken up at scale; their involvement should be part of the assessment criteria of any research proposal.

The new global architecture, with the Sustainable Development Goals and the Global Strategy for Women's, Children's and Adolescents' Health, ensures that MNH remains high on the political agenda. However, we must move from political commitment to action, via the creation and dissemination of evidence.<sup>4</sup> The commitment of the research community should go beyond conducting and publishing research findings: from conception until the use of results, any research should be carried out in continuous partnership—with policy makers, politicians, development partners, and the media—to ensure that evidence is properly translated into policy and practice.

We are far from reaching the goal of safe pregnancy and childbirth for all women and girls, in all countries. Research and innovation are essential ingredients for progress. The European Union has invested over €690 million in research directly related to MNH in 2007–13, and will continue its commitment under Horizon 2020, with new funding modalities like the Birth Day Prize, which aim to mobilise new and innovative actors.<sup>5</sup>

We declare no competing interests.

\*Evelyn Depoortere, Zoë Matthews, Andrea Nove, Finnian Hanrahan, Barbara Kerstiens, Line Matthiessen, Marleen Temmerman, Ruxandra Draghia-Akli, on behalf of the speakers at the European Commission conference "Together for the next generation: research and innovation for maternal and newborn health" of Dec 8, 2015

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## Where economics and epidemics collide: migrant workers and emerging infections

Following widespread criticism about inadequate action during the Ebola epidemic in west Africa,<sup>1</sup> the global response is once again being tested by two re-emerging infectious disease threats in the form of Zika and yellow fever viruses. The public health and scientific responses to these challenges have been unprecedented.

On Feb 1, 2016, WHO declared a Public Health Emergency of International Concern (PHEIC)<sup>2</sup> in regard to the then suspected link between Zika virus infection and congenital

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