Perinatal Mortality, maternal age and Adverse birth Outcomes in Brazil

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Background

An estimated 2.6 million children were stillborn and an estimated 2.1 million died in the first week after birth in 2013 [1]. Perinatal infections also continue to result in a continued high number of maternal deaths and can cause permanent developmental harm to exposed children. In order to address these concerns the WHO has declared newborn health and stillbirth and global priority for the period 2013-2025 [2]. In its efforts to achieve Millennium Development Goals (MDGs) 4 and 5 Brazil has made substantial progress in reducing child mortality rates over the past 15 years, but continues to struggle with persistent high rates of stillbirths and neonatal deaths [3].

To address these continued health challenges, Brazil has implemented several major policy initiatives in recent years. One important step within these larger efforts was improving the quality of the child mortality information system through the development of PROALM (Improvement program of mortality data), a program to analyse data and improve the quality of mortality registry in the municipality [4]. Besides that, the federal Ministry of Health has created Rede Cegonha, an initiative to create care networks that can ensure women’s right to reproductive planning, appropriate attention to pregnancy, childbirth and during the postpartum period, and also to ensure children's right to safe birth, growth and healthy development [5]. In addition to this, Brazil has continued to scale up the community-based Family Health Strategy (FHS), which views maternal and child health as main priorities, with specific interventions for pregnancy and birth such as home visits in the first week after birth, and teenage pregnancy surveillance [6-8].

Maternal age and birth outcomes

A large and growing literature has highlighted advance maternal age as central risk factor for adverse birth outcomes, fetal development and early neonatal mortality [9-16]. Advanced maternal age has also been shown to be associated with increased risks of stillbirth, intrauterine growth restriction, preterm delivery and caesarean section. With declining and increasingly delayed child bearing, Brazil has increasingly been confronted with developing world problems such as multiple pregnancies resulting from fertilization techniques and increasing demand for caesarean sections, while still struggling with problems like maternal mortality and hypoxia, more commonly observed in developing countries. Considering all births from the Municipality of Sao Paulo, the proportion of mothers 35 or older has increased by almost 40 per cent, from 14.5% in 2007 to 19% in 2013. Over the same period, the proportion of pregnancy-related deaths among women 35 and older has increased from 9% to 13 % in 2013, with similar trends for stillbirth, pre-term and caesarean section [17].

The way forward

A growing body of evidence suggests that maternal age constitutes a primary risk factor for fetal development, perinatal mortality and child health. The increasing share of pregnancies over age 40 years present a new trend of late motherhood for Brazil. In order to reach with the targeted improvements in stillbirth and neonatal mortality, Brazil will have to dedicate more resources to this age-group, increasing medical attention during the pre- and postnatal periods aiming to attenuate the negative health consequences of pregnancies by older mothers.

References

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