

## Editorial

# Strategy for Zero Maternal Deaths by Hemorrhage in Brazil: A Multidisciplinary Initiative to Combat Maternal Morbimortality

## *Estratégia zero morte materna por hemorragia no Brasil: uma iniciativa multidisciplinar de combate à morbimortalidade materna*

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### Scenario of Maternal Mortality by Obstetric Hemorrhage

Obstetric hemorrhage is one of the leading causes of preventable maternal deaths in the world. There are 14 million cases of postpartum hemorrhage and 140 thousand related deaths annually worldwide.<sup>1</sup> There is also a large contingent of women who survive a postpartum hemorrhage event with related reproductive and emotional consequences. Postpartum hemorrhage stands out as the second major cause of maternal deaths in Brazil.<sup>2</sup> However, it continues to be a leading cause of numerous preventable maternal deaths in many areas of the country, especially the countryside and the Amazon region, where there is a low density of health care facilities, fewer health care professionals, and an inefficient logistic network for quickly obtaining blood supply.

Maternal mortality is an indicator of a population's living conditions and health care, and it also reflects the human development of a country. Almost all maternal deaths occur in developing countries. Low instruction levels, inadequate nutrition conditions, insufficient social support, and lack of access to health care are strongly associated with maternal deaths. In addition, maternal mortality is an indicator of inequity between the richest and the poorest, and it also reveals gender inequalities within a society. Given this scenario, the acceleration of maternal mortality reduction was established as one of the priority global

targets in the United Nation's Sustainable Development Goals.<sup>3</sup> The reduction in maternal morbidity and mortality has been widely sought, but despite ongoing efforts, the current results are still disappointing.

### Zero maternal deaths by hemorrhage in the Americas

Zero Maternal Deaths by Hemorrhage (OMMxH) in the Americas is a project of the Pan American Health Organization/World Health Organization (PAHO/WHO) and its Latin American Center for Perinatology, Women and Reproductive Health (CLAP/SMR). This center is dedicated to the prevention of obstetric hemorrhage. The initiative aims to strengthen health care systems, eliminate barriers to access to health care, qualify health care professionals to deal with obstetric hemorrhage, and ensure the availability of the medical supplies and equipment needed to deal with severe forms of postpartum hemorrhage. It also seeks to empower women, so that they can fully acknowledge their rights and preferences. The initiative has the additional objective of mobilizing governments, the civil society and communities, wherever it goes. The project has been successfully implemented in the Americas and the Caribbean since 2014.

### Zero Maternal Deaths by Hemorrhage in Brazil

Considering the experiences outlined before, PAHO/WHO and CLAP/SMR proposed that the Brazilian Ministry of

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Health develop this initiative as a strategy to accelerate the reduction of severe maternal morbidity and mortality related to obstetric hemorrhage, since postpartum hemorrhage is an important cause of maternal deaths in the country, especially in areas with low density of health care units and health care professionals.

The decision to introduce OMMxH in the country was made jointly by the Ministry of Health, through its Women's Health General Coordination, PAHO/WHO Brazil, and CLAP/SMR. The program was based on the belief that increasing the competencies of health care professionals may give them the technical skills to handle obstetric hemorrhagic emergencies, and that the ministry needs to provide close guidance and technical support to local health authorities in states and cities.

### **Phases of zero maternal deaths by hemorrhage in Brazil**

Because of Brazil's large territory, it was initially decided to implement OMMxH in some priority areas of the country. A technical evaluation of the maternal mortality ratio and the causes of maternal mortality was carried out for the Brazilian states for the period between 2010 and 2014. This evaluation was carried out by the Ministry of Health, with the support of the Technical Unit of Family, Gender and Life Course - PAHO/WHO Brazil. Based on this assessment, eight priority states for launching OMMxH in Brazil were identified: Piauí, Maranhão, Pará, Tocantins, Bahia, Ceará, Minas Gerais and Rio Grande do Sul.

The first phase of OMMxH began with conversations among the Brazilian Federation of Gynecology and Obstetrics Associations, the Ministry of Health and PAHO/WHO Brazil. These conversations led to an agreement to hold two initial OMMxH implementation workshops. They were held in Brasília in September 2015, and were coordinated by CLAP/SMR, PAHO/WHO, and the Ministry of Health. Health care professionals from obstetric care units in the eight priority states were trained by international instructors from the Latin American Federation of Societies of Obstetrics and Gynecology.

Because of the experiences in the first workshops, and because of certain specific needs of Brazil, it was concluded that the original initiative should be adapted to national demands. Subsequently, PAHO/WHO and the Ministry of Health, with the technical support of CLAP/SMR, began to work on the customization of the strategy. During 2016, physicians and nurses from various parts of Brazil worked together to craft a specific format for a workshop to meet the expectations of Brazilian health care professionals. The outcome of this joint effort was the production of a course with theoretical and practical activities, called "Prevention and Obstetric Management of Postpartum Hemorrhage".

The second phase of OMMxH in Brazil was carried out with technical meetings involving the Ministry of Health, PAHO/WHO and the health secretariats from the priority states. The purpose of these meetings with local health authorities and health care professionals was to make a plan for the implementation of OMMxH in each region. In addition, these local meetings brought together local stakeholders, such as city and state health managers, health care professionals, workers involved in the transportation of patients, and those involved

in blood supply services to develop a joint plan of actions aiming to reduce maternal mortality by obstetric hemorrhage in the states. These action plans usually included the development of postpartum hemorrhage management protocols, the improvement of health care systems, seeking the establishment of referral networks, and strategies for the allocation and use of non-pneumatic anti-shock garments.

The third phase of the strategy consisted of training sessions for health care professionals from the priority states. In these workshops, the health care professionals were trained to prevent postpartum hemorrhage and to manage obstetric hemorrhage with powerful tools that were used during field simulation procedures. The effects of the training reverberated around the country. This led other Brazilian states, through their state health secretariats, to carry out these courses on their own, with the collaboration of local stakeholders such as obstetric and gynecological associations, nursing associations, and universities.

Finally, the fourth phase of OMMxH in Brazil consisted of monitoring of competency-building among health care professionals, and implementation of a CLAP/SMR instrument that allows the evaluation of the essential conditions for hospital obstetric services.

### **Advances achieved by zero maternal deaths by hemorrhage in Brazil**

Zero Maternal Deaths by Hemorrhage was only recently introduced in Brazil. However, the initiative has produced relevant and positive results since its implementation:

- ✓ It has promoted dialogue among health care professionals and healthcare managers, which has led to the development of interventions to reduce maternal morbidity and mortality due to postpartum hemorrhage.
- ✓ It has stimulated multidisciplinary teamwork and highlighted the role of pregnant women and their relatives during antenatal, labor, delivery and postpartum care.
- ✓ It has garnered the support and engagement of medical and nursing associations, as well as universities, for the dissemination of OMMxH around the country.
- ✓ It has been able to insert the theme of OMMxH into major medical and nursing events, such as regional and national congresses.
- ✓ To date, more than 500 health care professionals have been trained on the prevention and management of postpartum hemorrhage through OMMxH.
- ✓ It has introduced new low-cost technologies for postpartum hemorrhage care in several regions, such as: non-pneumatic anti-shock garments, handcrafted intrauterine hemostatic balloons, and obstetric hemorrhage toolkits. These help obstetrical health care providers, hospitals and their managers develop work processes within their facilities for the timely recognition of, and well-organized responses to, obstetrical hemorrhage situations.
- ✓ It has produced, through joint efforts by highly qualified and experienced professionals, evidence-based practice documents that guide obstetric hemorrhage prevention and management in health care services in Brazil.

## Final Considerations

Future plans for OMMxH in Brazil are to include other states and regions of the country into the initiative, under close monitoring by the Ministry of Health, local state governments, medical and nursing professionals, universities, and civil society itself.

The main mission of OMMxH is to contribute to the improvement of obstetrical care quality in Brazil, and to raise the awareness that all people, in the positions or roles they already have within society, are responsible for preventing maternal deaths. Finally, within the framework of the Sustainable Development Goals, the needs of all pregnant women should be met during pregnancy and the puerperium, and none of them should die due to preventable causes.

## References

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