

# The Importance of Strengthening Mother and Child Health Services during the First 1000 Days of Life: The Foundation of Optimum Health, Growth and Development

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**T**he first 1000 days of a child's life, spanning from the time of conception until 2 years of age, are a unique period of laying down the foundations of optimum health, growth, and development across the lifespan.<sup>1,2</sup> However, the first 1000 days are also a period of enormous vulnerability. How mothers and children are cared for during this crucial time has a profound influence on a child's ability to grow, learn, and thrive.<sup>1</sup>

The role of the first 1000 days of life is well-described.<sup>1-3</sup> However, investments in this key period are scarce and the provision of adequate health care services is insufficient. The aim of this report is to further raise the attention of decision-makers and health care officers and professionals, including pediatricians, pediatric surgeons, obstetricians, nurses, midwives, dietitians, and lactation consultants, on the importance of investing in health care services to support and empower parents and families during a most critical period of their children's life. In particular, we encourage the adoption of integrated strategies to establish adequate preventive efforts and a perspective shift to strengthen or develop where lacking, efficient health care services dedicated to the first 1000 days of life as the first line of prevention.

## The Key Developmental Periods Characterizing the First 1000 Days

Three distinct periods can be identified during the first 1000 days (preconception, pregnancy and infancy), which are fundamental in promoting better outcomes in children's life.<sup>3</sup> Studies have highlighted the impact of poor parental health and well-being on the conceptus, before and from the moment of conception.<sup>3-5</sup> Specific programs and strategies have been developed to ensure that, during the preconception period, biomedical, behavioral, and social risks can be identified and modified to protect a woman's health or pregnancy outcomes through adequate prevention and management measures. Preconception care programs include distinct approaches ensuring that adequate nutritional and physiological support are provided to mothers and their developing conceptus to ensure optimal health. Identifying, evaluating, monitoring, and managing the various risks, including toxic exposures, that may predispose to adverse outcomes, is a further important element of preconception care programs.<sup>6,7</sup> Preconception is regarded as an

opportunity for mothers to adopt changes in their lifestyle.<sup>3</sup> Interconception care should also be provided to women beginning with childbirth until the birth of a subsequent child to address the continuity of risks from one pregnancy to the next.<sup>8</sup>

The factors that impact the health and development of the conceptus during pregnancy include nutrition, stress and exposure to environmental contaminants.<sup>3,9</sup> The importance of supporting parents and infants in the first 2 years after birth has been stressed for decades, and in each country several public health care interventions have been developed in this area.<sup>9</sup> The large amount of data supporting the importance of establishing efficient health care services during a time crucial for the mother-child binomial have not been efficiently converted into comprehensive and integrated programs enabling adequate support to parents and infants during this period.

## Positioning the First 1000 Days as Key to Socioeconomic Development

The insufficient attention paid during recent years to the first 1000 days of life may be justified by the global economic and health emergencies that have afflicted the world for more than a decade. However, underachievement in an area of public health may lead to the development of future social and economic costs that might become unaffordable in the long run. As reported by the World Bank, countries that fail to invest in the well-being of women and children in the first 1000 days lose billions of dollars owing to lower economic productivity and higher health costs.<sup>10</sup> Several of the world's leading economists have called for greater investments in this sensitive period of mothers health and children's development.<sup>10</sup> There are specific areas where

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greater attention is needed to improve the prospects for the next generations, irrespective of whether they live in economically advanced or challenged countries.<sup>3</sup> These areas include maternal diet and health, breastfeeding, infant and toddler diets, noncommunicable diseases, and adequate health care services and support for families, particularly the vulnerable. Programs focusing on social and economic stability of families are additional factors contributing to a balanced development of the mother-child binomial during the fundamental first 1000 days of life.<sup>11</sup>

### Implications for the Public Health Sector on the First 1000 Days of Life

In 1997 a seminal article introduced first the notion of “economics of attention,” describing it as a sub-field of the “internet economics,” which reflects the time-consuming dimension of overflowing information and its possible and often predictable negative consequences on social and public issues, including public health.<sup>12,13</sup> The increasing activity of bloggers or the intense use of social networks supports the observation that attention, rather than information or knowledge, has become a critical economic resource for decision-making. Several economists have recognized and debated the subject of limited attention, which has developed as one of the most important topics in behavioral economics, leading to important economic consequences.<sup>14</sup> This phenomenon was described as a rational inattention producing significant effects in the area of macroeconomic policies.<sup>15</sup> Central bankers now regard this phenomenon as one of the lessons to be drawn from the world financial crisis of 2008, which caused profound social and public health disorders in many countries.<sup>16</sup> Similar to the Leibniz metaphor of one’s loss of awareness of the constant sound of a waterfall, the importance of fundamental needs ensuring optimum health, growth, and development to children across the lifespan could cease to be perceived without specific attention.<sup>17</sup>

However, the socioeconomic issues raised by the scarcity of attention have stimulated innovative research aimed at finding solutions to correct the social distortions caused by inattention. Different methodologies are currently explored to enhance the understanding of the role that attention plays

in various contexts of decision-making in economics. The nudging approach pursues the idea that it is possible to counteract behavioral biases in a noninvasive way to enhance both individual and social welfare and achieve significant changes in the development of public policies.<sup>18,19</sup> The nudging approach would enable decision-makers to redirect their investment strategies toward public health solutions, such as the importance of well-being for the mother-child binomial. This process might create brighter and more prosperous conditions for future generations, while at the same time containing public health costs through adequate health prevention programs.<sup>20,21</sup>

### Conclusions

The implementation of integrated and systemic interventions, including changes to health care law and policy that promote equality of health care delivery, would improve dedicated services and target special needs during the first 1000 days.

Focusing on service provision during the first 1000 days is the most effective and efficient means of preventing poor health and diseases, while promoting well-being, learning and development outcomes later on in life.

Greater investment should be directed toward services that target the most impactful interventions for future parents and new families, such as nutrition or antenatal smoking cessation programs.<sup>22</sup> Targeted services should be provided for parents, families, and children showing greater and complex needs and in general for populations considered at risk. As emphasized by the World Bank, targeted interventions and special services should include not just provision of information and periodical schedule of controls, but where possible, direct programs aimed at helping families to implement best practice at home.<sup>10,23,24</sup> ■

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