# DQ MATERNAL, CHILD AND ADOLESCENT PUBLIC HEALTH

## Determinants of neonatal, postneonatal and maternal mortality on models of primary health

#### Luciane Miranda Guerra

AB Guerra<sup>1</sup>, LM Guerra<sup>1</sup>, LF Probst<sup>1</sup>, BV Castro Gondinho<sup>2</sup>, GM Bovi Ambrosano<sup>1</sup>, E Azevedo Melo<sup>1</sup>, J Vilela Bulgareli<sup>3</sup>, KL Cortellazzi<sup>1</sup>, JV Octaviani<sup>1</sup>, AC Pereira<sup>1</sup>

<sup>1</sup>Health Sciences and Pediatric Dentistry, Piracicaba School of Dentistry, Campinas State University, Piracicaba, Brazil

<sup>2</sup>Dentistry, Faculty of Dentistry and Nursing, State University of Piaui, Parnaíba, Brazil

<sup>3</sup>Preventive and Social Dentistry, Faculty of Dentistry, Federal University of Uberlândia, Uberlândia, Brazil

Contact: lumiranda1302@gmail.com

#### Background:

The state of São Paulo recorded a significant reduction in infant mortality, but the desired reduction in maternal mortality was not achieved. Knowledge of the factors with

impact on these indicators would be of help in formulating public policies. The aims of this study were to evaluate the relations between socioeconomic and demographic factors, health care model and both infant mortality and maternal mortality in the state of São Paulo, Brazil.

#### Methods:

In this ecological study, data from national official open sources were used. Analyzed were 645 municipalities in the state of São Paulo, Brazil. For each municipality, the infant mortality and maternal mortality rates were calculated for every 1000 live births, 2013. The association between these rates, socioeconomic variables, demographic models and the primary care organization model in the municipality were verified. We used the zero-inflated negative binomial model. Gross analysis was performed

and then multiple regression models were estimated. For associations, we adopted "p" at 5%.

#### **Results:**

The increase in the HDI of the city and proportion of Family Health Care Strategy implemented were significantly associated with the reduction in both infant mortality (neonatal + post-neonatal) and maternal mortality rates. In turn, the increase in birth and caesarean delivery rates were associated with the increase in infant and maternal mortality rates.

#### **Conclusions:**

It was concluded that the Family Health Care Strategy model that contributed to the reduction in infant (neonatal + postneonatal) and maternal mortality rates, and so did actors such as HDI and cesarean section. Thus, public health managers should prefer this model.

### Key messages:

- Implementation of public policies with specific focus on attenuating these factors and making it possible to optimize resources, and not interrupting the FHS.
- Knowledge of the factors with impact on these indicators would be of help in formulating public policies.