

## **Editorial for Volume 8 Number 3**

### **Mexican Infant Mortality and the data-mining applied to the prediction of treatment of diseases**

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Mortality is the number of deaths by place, time and cause (OMS, 2016). The new estimates contained in the report of 2014 levels and child mortality trends reveal that 6.3 million children and girls under the age of 5 years (17,000 child deaths each day died in 2013). The mortality rate in 2013 in children less than five years in Mexico were 15.7 deaths per thousand. And the rate of infant mortality in children younger than one year was 13 deaths per thousand in 2013 (INEGI, 2015). The Data mining is used to discover knowledge non-trivial in the form of patterns, associations, changes, anomalies and important data structures stored in the repository of public health.

The National Information System on health from Mexico (SINAIS, 2016) is responsible for generating and disseminating information on the general registry of health through information systems. The SINAIS is defined as a system unique, modern, reliable, flexible, timely and Integrator that manages the human, physical and financial data, information, and knowledge related to) the population and coverage, b) resources, c) services, d) damage to health; and evaluation of the performance of the Mexican System on health. The SINAIS has the purpose of having the information infrastructure that supports the processes of decision making of stakeholders and users of the Mexican System on health, related services of attention to health, education, research, and society in general.

Oviedo Carrascal, Oviedo Carrascal, and Vélez Saldarriaga (2015) mentioned the contributions of the data-mining to the service of health in the smart cities. With the objective of improving the quality of life of citizens, prevent, facilitate the decision-making, and analyze data from health institutions. Vega et al. (2012) proposed a methodology for the application of prediction algorithms using techniques of data mining, which incorporates mechanisms of validation from the requirements of the data analysis applied to the prediction and treatment of diseases. Gomez Lopez, González Fernández, and Rosete Suárez (2008) propose to use data-mining techniques to study the trend of the spatial dispersion of the QT interval of an electrocardiogram as a new indicator that will allow us to predict short-term cardiac complications in patients. Timarán Pereira and Yépez Chamorro (2012) presented the patterns obtaining of survival in women with a diagnosis of invasive cancer of the cervix using techniques of mining (classification based on decision trees). Rivera, Suarez, and Diaz (2014) presented the application of data mining in support of decision-making based on the study of the coronary made to patients with ischaemic heart disease. Arias Montoya, Santa Chávez, Mora (2013) applied data-mining techniques (classification) to the diagnosis of diseases using the historical information available from previously diagnosed and documented cases. Rodríguez Jara and Nieves Vallejo (2009) applied data-mining algorithms for the detection and diagnosis of the cancer of the breast (classification of mammograms). Morelos (1997) presents the estimates of infant mortality for the Mexico State according to different characteristics. The analysis of the context with the inclusion of special tabulations that combine education, the immigration status according to the place of birth and the condition of activity expands. Hidalgo Leon (2014) presented an analysis of them classifiers supervised that can generate results acceptable to the prediction of the death and survival maternal, according to features of patients complicated during its gestation determined by the experts. Reparaz et al. (2008) highlight the feasibility of applying data-mining models for the treatment of information concerning medical patient populations. Contreras Serpa et al. (2016) determined the efficiency of time Series, linear regression and Artificial Neural network models for the forecast of the demand for drugs in a private health institution.