Abstract

Background: Family focused environment in Primary care is considered to be the future and help is required to implement new methods to perform it. One theory consists in dividing patients accordingly to geographic clusters.

Aim: To study and implement methodologies for the distribution of patients in Health Units, and develop a tool to aid in this process.

Methods: A health unit was selected to recollect and process bio-geographic data of patients. A manual division was executed and various methods were tested. An information system was developed in order to help in the division and to compare the manual with the automatic process.

Results: The original data contained a significant percentage of errors (29%). This led to the cross validation of addresses, a process that took months. Only after, various patient division techniques could be applied. One technique showed itself as having the most advantages. A robust GIS system was developed.

Discussion: The analysis took a significant amount of time. The method of dividing the patients proved itself appropriate to this situation, and could probably be applied in many urban locations. The obtained GIS provided time saving and better data comprehension.

Conclusion: Technologies in general and the system developed in particular can help patient allocation and represent a breakthrough in time-saving

Keywords

“GIS (Geographic Information Systems)”; “Public health”; “Community Health”; “Nursing”; “Family Nursing”; “Family Nursing by Geographic Area”, “Primary Care Physicians”, “Family Physician (Doctor)”