

Ferri F.; Pourabbas E.; Rafanelli M.; Sindoni G., **A System to Define and Allocate Health Care Resources on a Territory to Improve the Life Quality of the Populations in Developing Countries**, Journal of biomedical informatics, Academic Press, - San Diego, CA, USA, 1997.

**Abstract:** In this paper the health resource allocation problem is discussed. An object-oriented system is proposed and its implemented prototype is illustrated. It consists of two parts: a Geographical Information System, which is able to acquire and store both geographical and social-epidemiological information (including the resource distribution on that territory), and a Decision Support System, able to decide, using optimization algorithms, the new resource allocation in order to obtain a quasi-optimal solution for the cost/benefit ratio minimization problem, after having fixed the goal (e.g., the decrease of the incidence of a given disease) and constraints (e.g., a fixed budget, a given set of available resources, etc.). The object-oriented database which is part of the system can simulate and store different scenarios, depending on the different goals and constraints defined in input, by means of a user friendly interface.