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Title: The social urgency of a growing elderly population: Building sustainable home care services.

Main purpose of the project

Improving home care services for elderly throughout innovative quantitative methods applied to supply chain and logistics problems in the field. This will help decisions makers, policymakers and care managers to make better decisions leading to a positive impact on the society in terms of health, social benefit and cost efficiency.

Design/methodology/approach:

The project is structured in supply chain and logistics topics important to achieve an integrated home care system. The methodology consists of:

- Collection of data and application of Descriptive Analytics
- Forecasting of future scenarios using Predictive Analytics
- Extension of Mathematical Models and Algorithms from Prescriptive Analytics
- Application to real cases

Potential results:

The cost associated to home care services is high and is growing, and the resources are limited. Therefore, it is clear the need of optimizing them. This project allows the development of decision-making tools that lead to a better integrated home care for elderly people and to a cost reduction.

Social relevance of the research:

This project focuses on the increasing ageing population and the need of optimizing the home care services to fulfill their wellness. The idea is to guarantee their quality of life through a better use of limited resources, allowing to extend the benefits of these home cares to this increasing population.

Originality/value of the project:

The innovation comes from three dimensions:

- The proposal of an integrated and coordinated system to offer home health and social care services to elderly more effectively and efficiently
- The orientation to elderly people, extracting their necessities and peculiarities
- The mathematical models and advanced algorithms to obtain an integrated care system