Social Research Call

Quantifying Socio-Economic Barriers to Pharmaceutical Access in Portugal Using Digital Records

Acronym: EQUI-PHARM

Project leader: *Lília de Fátima Gomes Perfeito*

Host organisation: *Laboratório de Instrumentação e Física Experimental de Partículas (LIP)*

Main purpose of the project: This project maps financial and geographic barriers preventing Portuguese citizens from accessing essential medication. By analyzing prescription data, we identify where vulnerable groups struggle with affordability. We provide policymakers with evidence to create targeted support, reducing health inequalities. Ultimately, we turn data into actionable insights for a fairer healthcare system.

Design/methodology/approach: We use national databases to track when medications are prescribed and when they are actually purchased. Working with practitioners, we will build statistical models that allow us to disentangle the different reasons behind non-adherence to medication.

Potential results: The primary functional output is the EQUI-PHARM Monitor, a Business Intelligence tool for health administrators. This monitor provides a localized atlas of pharmacy access, regional hardship triggers, and a Therapeutic Vulnerability Matrix highlighting treatments abandoned due to economic pressure. The longitudinal analysis and the methodological approach will be published in a Q1 journal.

Social relevance of the research: The project addresses medication access for an aging population facing rising chronic diseases and stagnant purchasing power. The quantitative nature of the results enable cost-effective, targeted policy interventions over broad measures and equip Local Health Units with quantitative equity indicators.

Originality/value of the project: Methodological innovation lies in applying survival analysis to quantify the temporal friction of medication access, moving beyond binary adherence metrics. It leverages existing digital infrastructure for sustainable population monitoring. The project develops dual equity indices to mathematically isolate geographic barriers from financial constraints, while integrating continuous clinical feedback to prevent the misinterpretation of legitimate medical practices.