Perceptions, context, and attitudes toward COVID-19 among patients with chronic conditions

1. Background

Patients with chronic conditions are at increased risk of severe outcomes from COVID-19. Effective prevention strategies rely not only on biological risk but also on individuals' ability to perceive this risk accurately and adopt appropriate protective behaviors. However, available public health recommendations during the early phase of the pandemic were imprecise and largely targeted the general population. There is limited evidence on how patients with chronic conditions perceive their risk, how their living context exposes them to infection, and how they behave in situations involving potential exposure. Understanding these elements is necessary to identify gaps between objective risk and individual perceptions and to inform targeted interventions.

2. Objectives

- To describe how patients with chronic conditions perceive their risk of severe COVID-19.
- To describe their potential exposure to infection based on their living and working context
- To characterize their preventive attitudes in situations involving symptomatic or asymptomatic contacts

3. Methods

Cross-sectional survey nested within ComPaRe

3.1. Participants

Eligible participants are adults aged 18 years or older enrolled in ComPaRe

3.2. Data sources

Baseline demographic and clinical data, including age, sex, comorbidities, and treatments, are routinely collected within ComPaRe.

A dedicated questionnaire is developed based on the literature and expert input. The survey collects data on three domains: perception of risk, context of potential exposure, and preventive attitudes.

- Perception of risk is assessed using a binary question asking participants whether they feel at increased risk of severe COVID-19 compared with individuals of the same age without chronic disease.
- Objective risk is defined according to recommendations from the French High Council for Public Health. Patients are classified as high risk if they have specific conditions or treatments associated with severe COVID-19, including cardiovascular disease, insulin-dependent diabetes, chronic respiratory disease, cancer under treatment, immunosuppression, severe obesity, or other high-risk clinical situations.
- Context of exposure includes participants' work situation (working outside the home), household characteristics (presence of household members working outside the home or in contact with the public), healthcare utilization (visits to healthcare facilities), and regular contacts with individuals outside the household.

- Preventive attitudes are assessed through standardized scenarios involving contacts that vary by frequency (frequent versus occasional) and by symptom status (symptomatic versus asymptomatic). For each scenario, participants report whether they would refuse contact, implement physical distancing, or use personal protective equipment such as masks or gloves.

3.3. Statistical analysis

All analyses will be conducted on a weighted dataset obtained by calibration on margins to match the distribution of age, sex, and educational level in the French population of individuals with chronic conditions, based on national census data.

Two multivariable logistic regression models will be fitted. The first model will assess factors associated with perceived risk of severe COVID-19. The second model will assess factors associated with preventive attitudes, particularly the use of protective measures in situations involving asymptomatic contacts. Covariates will include demographic variables, comorbidities, treatments, and behavioral factors such as smoking.