

POPULATION HEALTH INFORMATION RESEARCH INFRASTRUCTURE (PHIRI)

TASK 5.2: EXPLORING THE DETERMINANTS OF THE SEVERITY OF LONG-TERM HEALTH OUTCOMES OF SARS-COV2 INFECTION

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The aim of this WP is to support european countries to understand Covid-19 impact on population wellbeing and health, morbidities and mortality, using a multidisciplinary approach in order to better prepare for current and future crises.

→ 4 tasks

→ **Task 5.2: Exploring the determinants of the severity of long-term health outcomes of SARS-COV2 infection**

Lead: Santé publique France

Partners: *FMUL (Portugal), ISCIII (Spain), UZIS (Czech republic), Sciensano (Belgium), OKFO (Hungary)* / Deliverable : Months 15

TASK 5.2: EXPLORING THE DETERMINANTS OF THE SEVERITY OF LONG-TERM HEALTH OUTCOMES OF SARS-COV2 INFECTION

CONTEXT

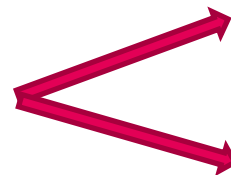
- Age and morbidities have rapidly emerged as the main determinants of Covid-19 severity
- Frailty and multimorbidity may have important impact on Covid-19 outcomes and some studies showed associations between these determinants and Covid-19 hospitalisation and mortality, independent of age
- Socio-economical factors are important determinants of SARS-CoV-2 infection and may have a strong prognosis effect in long-term outcomes
- Litterature review have been published and some more are planned on the impact of co-morbidities → we propose a complementary approach

Three main determinants

I: Frailty

II: Multimorbidity

II: Socio-economical factors



2 specific objectives

Etiological role in the development of SARS-CoV-2 infection and severity

Prognostic role in long-term health outcomes and wellbeing

→ One protocole was constituted and declared to PROSPERO

ELIGIBILITY CRITERIA

- **P** Population = general population (including nursing homes and homes for elderly) SARS-CoV-2 negative and with information on frailty, multimorbidity or socioeconomic status
- **E** Exposure = frailty, multimorbidity, socioeconomic characteristics
- **C** Control group = general population with no frailty or no multimorbidity or with better socioeconomic status
- **O** Outcome(s) = infection by SARS-COV-2, hospitalization for Covid-19, ICU admission for Covid-19, mortality by Covid-19

OBJECTIVE 2: TO EXPLORE PROGNOSTIC EFFECTS OF FRAILITY, MULTIMORBIDITY AND SOCIOECONOMIC STATUS

ELIGIBILITY CRITERIA

- **P** Population = general population (including nursing homes and homes for elderly) SARS-CoV-2 tested positive (Covid-19 diagnosed, with e.g. PCR, medical imaging, or similar)
- **E** Exposure = frailty, multimorbidity, socioeconomic characteristics
- **C** Control group = SARS-CoV-2 diagnosed population with no frailty or no multimorbidity or with better socioeconomic status
- **O** Outcome(s) = hospitalization for Covid-19, ICU admission for Covid-19, survival, functional decline, quality of life, disability, mental health difficulties and work absence/sick leave.

STUDY AND SOURCES ELIGIBLE

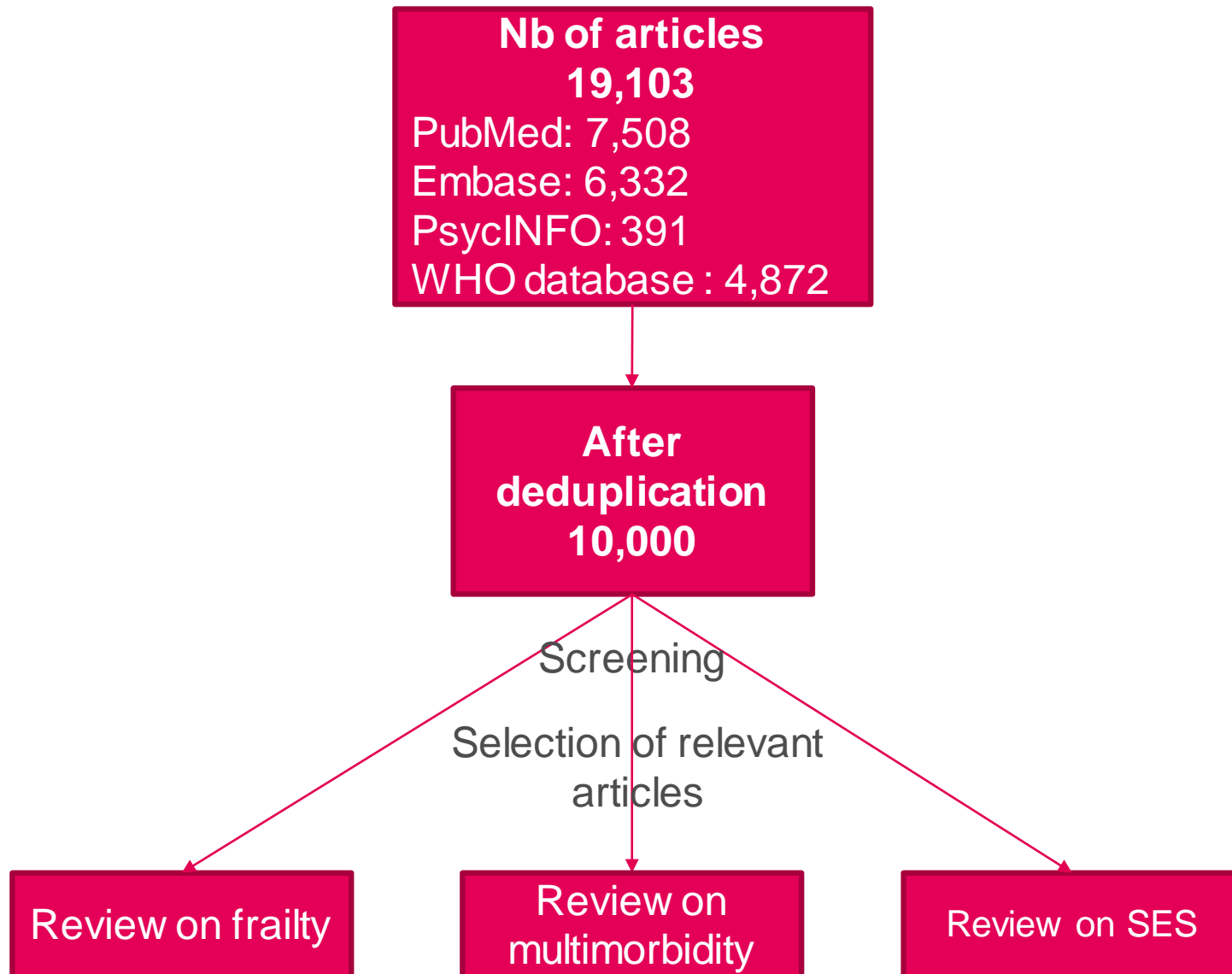
→ population-based studies

- *Prospective cohort studies*
- *Retrospective cohort studies*
- *Case-control studies*
- *Cross-sectional studies*
- *RCT (if control group is eligible)*
- *Ecological studies (for socio-economic determinants only)*

ELECTRONIC DATABASES

- **WHO Covid-19 global literature database :**
 - *include all articles related to covid-19*
 - *Search within a large number of databases (PubMed, Embase, Psycinfo, Medline, Global health, Scopus, Cinahl, CDC report...)*
 - *Allows research with keywords among this selected Covid-19 database*
- **PubMed**
- **Embase**
- **PsycINFO**

PRELIMINARY RESULTS



EXPECTED TIMELINE

- End of screening : June, 30th
- Review of selected articles : July-August
- Data extraction: August-September
- Litterature review update: October, 1st
- Screening, review and data extraction: October-November
- Report consolidation: December