# 1 IV proposal

## Y can be:

- 1. employment status (can only be done on a smaller portion of the dataset, pre-retirement: 50-66ish y.o.)
- 2. social network quality and quantity (convincing?)
  - (a) in this case having a regressor pandemic=1 or similar is crucial to avoid conflating the effects of pandemic and MH worsening

#### 3. health outcomes

- (a) decline in cognitive ability + memory tasks performance
- (b) self-reliance in everyday activities
- (c) physical activity
- (d) grip strenght (not sure what it could measure)
- (e) needing external care (from family and professionals)
- (f) prevalence/worsening of medical conditions (heart disease, dementia...)

#### Identification issues:

- 1. Reverse causality for all possible Y
- 2. Measurement error in MH (measured through questionnaires and self-reports)
- 3. ???

### IV strategy:

- 1. Instruments often used in the literature:
  - (a) number of psychiatric disorders before 18 (available in SHARE? to check)
  - (b) religious attendance to handle problems (used in Chatterji et al 2007, not convincing)
  - (c) number of parents' psychiatric disorders
  - (d) recent friends' death (not family to avoid correlation with model error, very good)
- 2. My other instruments proposals:
  - (a) Number of days spent under strict lockdown measures:
    - DATASET: Oxford COVID19 Government Response Tracker (n of deaths per 100000 and n of days with stringent control measures).

- A. BEST: OxCGRT daily STRINGENCY INDEX. Link: https://ourworldindata.org/covid-stringency-index . Filename: covid-containment-and-health-index .
- B. Stringency Index metrics: school closures; workplace closures; cancellation of public events; restrictions on public gatherings; closures of public transport; stay-at-home requirements; public information campaigns; restrictions on internal movements; and international travel controls.
- C. Containment and Health Index metrics: school closures; work-place closures; cancellation of public events; restrictions on public gatherings; closures of public transport; stay-at-home requirements; public information campaigns; restrictions on internal movements; international travel controls; testing policy; extent of contact tracing; face coverings; and vaccine policy. BETTER ONE.
- D. Both indexes between 0 and 100 (strictest).
- ii. Travel restrictions implemented to control the spread of COVID-19 are lifted in the EU.

Link: https://reopen.europa.eu/en .

- (b) Severity of childhood conditions (abuse, neglect should check the detail of this info in SHARE)
- (c) recent death in social network

#### Covariates in the model:

- 1. Individual characteristics (age, gender, educ, living conditions, income...)
- 2. Country or region FE
- 3. Having vaccine available or not (OxGRT data)
- 4. Others: ...
- 5. Age, gender, marital status (dn014 $_{-}$ ), spouse alive, spose in good health, divorced (dn018 $_{-}$ ). Check coverscreen for all of these and more.
- 6. Number of children
- 7. Number of grandchildren
- 8. Number of siblings
- 9. Amount spent on food at home (co002e) and amount spent on food outside the home (co003e) as proxy for going out.
- 10. Is household able to make ends meet (co007\_) for financial stress.
- 11. Consume home produced food (co010\_).

- 12. Household size
- 13. Immigrant (dn004\_)
- 14. Education level (dn010<sub>-</sub>) and years of educ (dn041<sub>-</sub>)
- 15. Natural parent still alive (dn026\_1 mother and dn026\_2 father)
- 16. Health of parent (dn033\_1 mother, and dn033\_2 father)
- 17. Employment and pensions (ep coded vars)
- 18. adl variable measures limitations with daily activities
- 19.

# Predicting MH:

- 1. EURO-D depression scale
- 2. UCLA loneliness scale
- 3. SN size and quality
- 4. "mh" coded vars
- 5. "te" vars for time expenditure information
- 6. conversation vars (from ch\_q10a to ch\_q10e)
- 7.

# Notes:

- 1. (firstwave) variable identifies first time individual appeared in SHARE! Use to find longitudinal sample.
- 2. "ex" coded vars measure EXPECTATIONS about the future, good for MH prediction?
- 3. "cv\_" coded vars give better named vars on children information
- 4. NUTS level 1 information on individuals location (REGIONAL, very good).
- 5. SOCIAL NETWORK has been tracked across waves 6 7 8, meaning we know how and if the networks changed. How can I use this information?