

COVID-19 AND DOWN SYNDROME

T21RS SURVEY, REPORT JULY 24, 2020

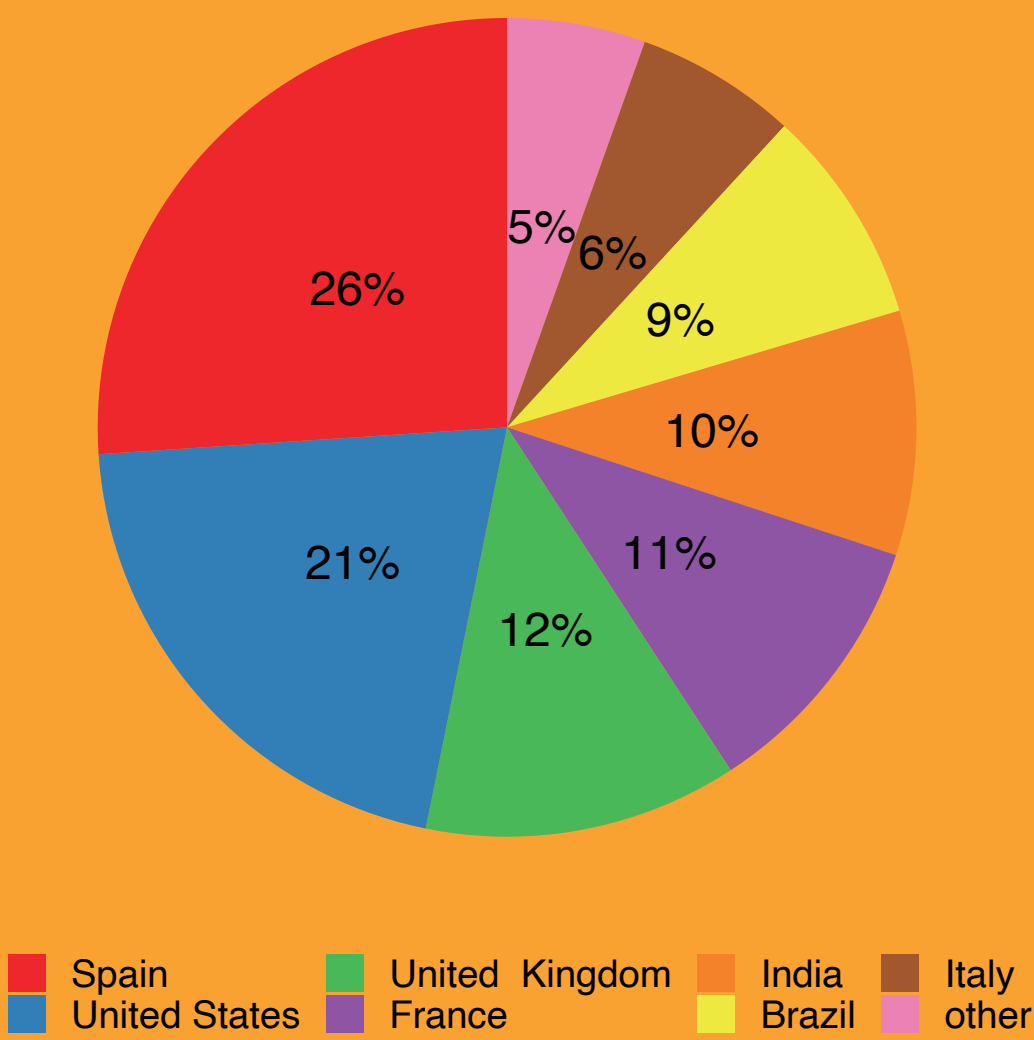


TAKE HOME MESSAGES

- Monitor for the same symptoms as in the general population
- Additional vigilance in those over age 40 and young people with additional risk factors
- Risk factors for mortality similar as in the general population (age, male sex, obesity, dementia)

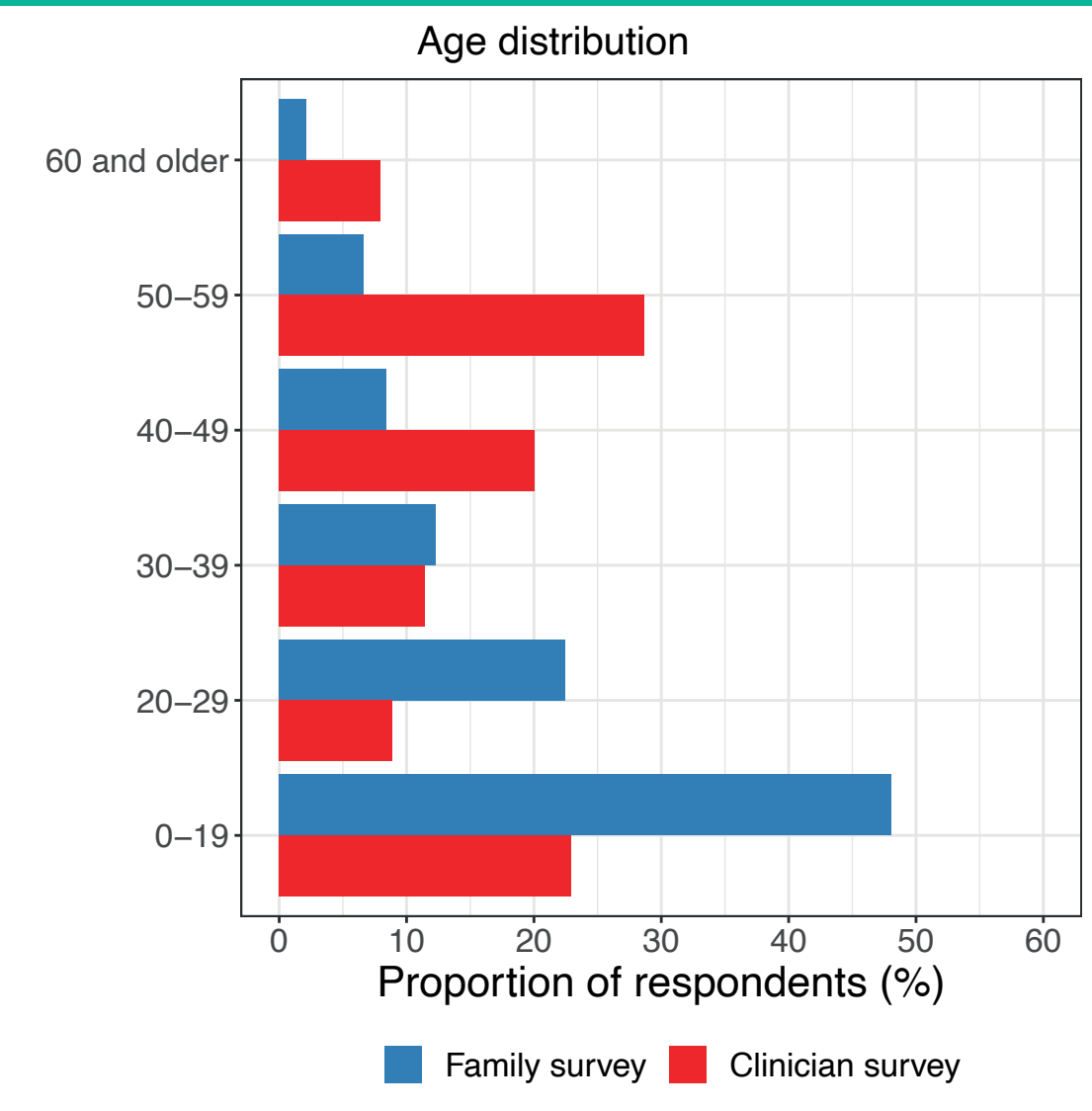
PARTICIPATION PER COUNTRY

PARTICIPANTS: N=577

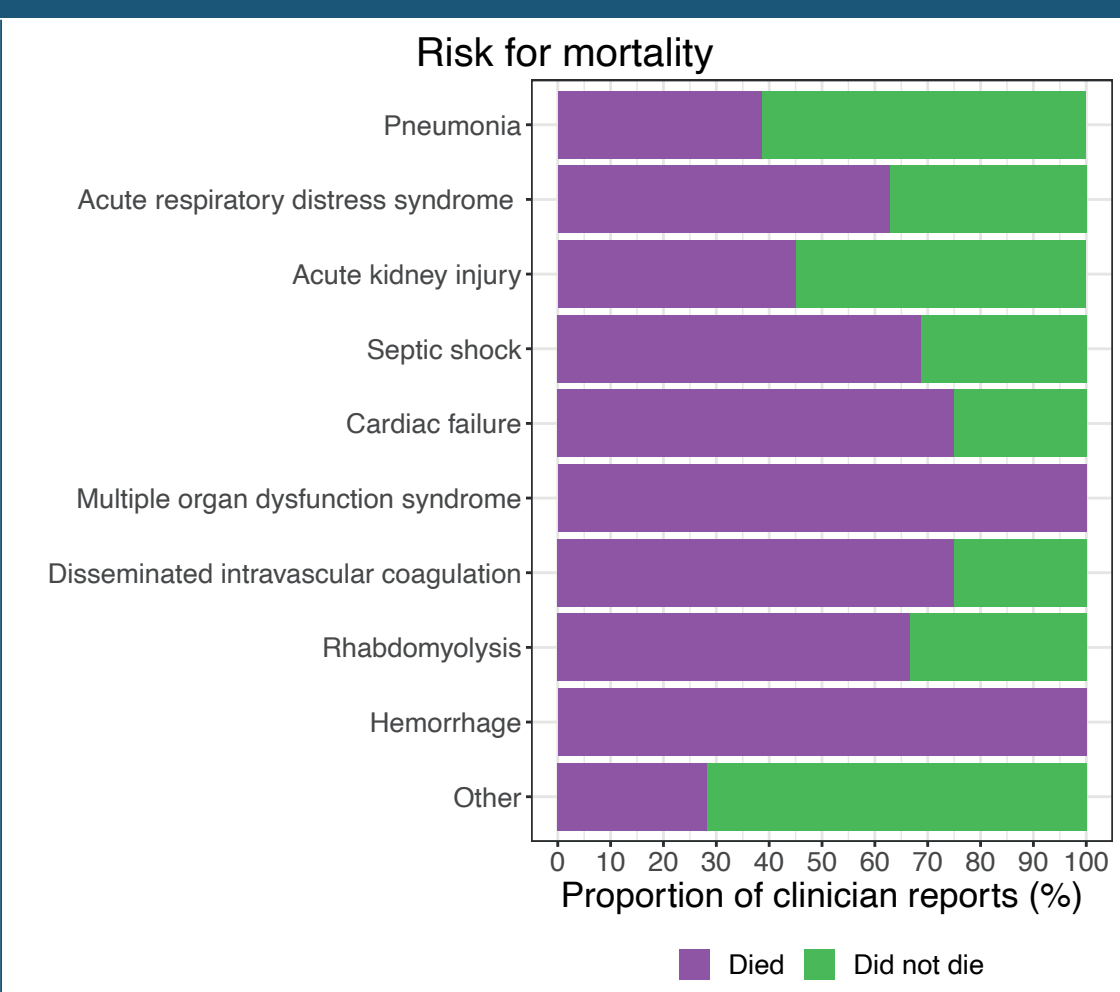
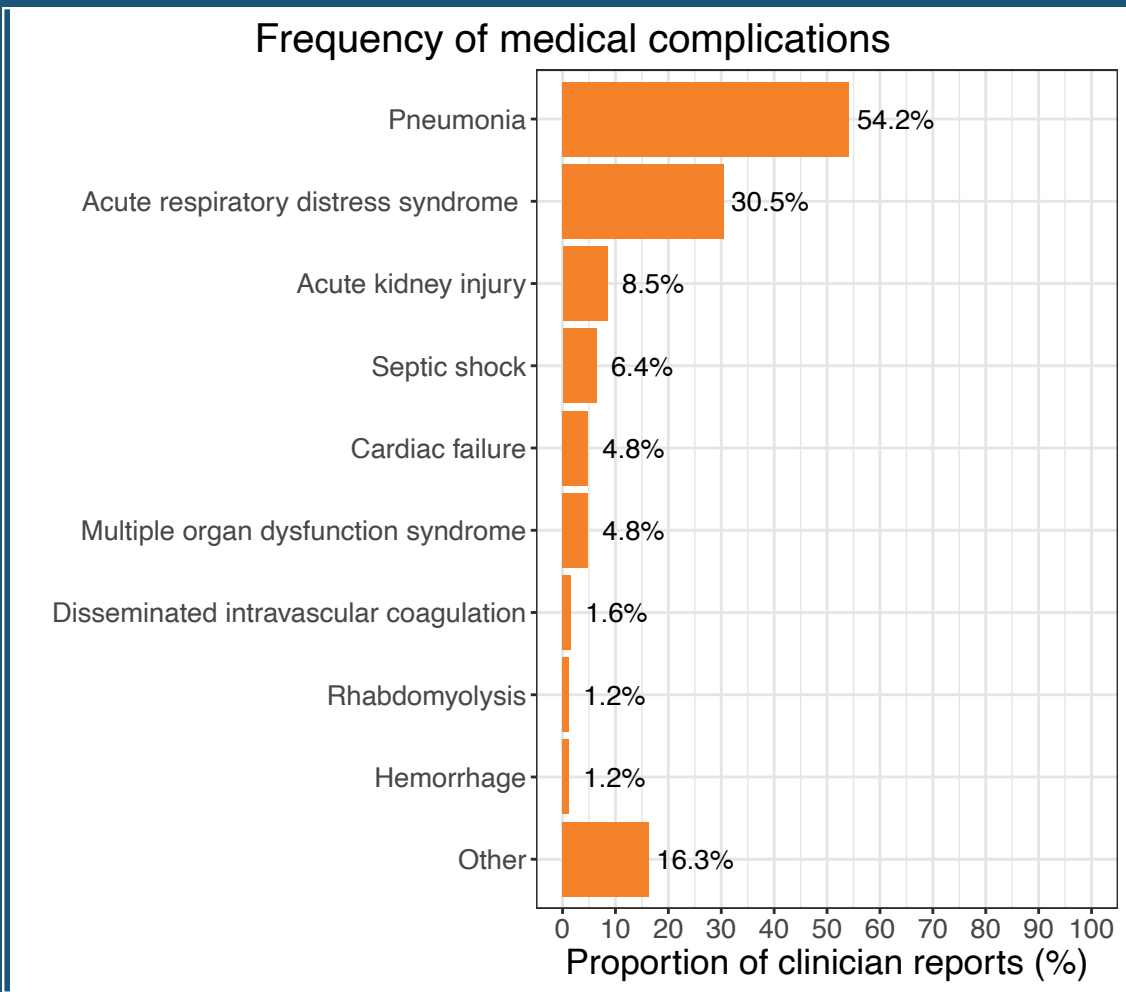


AGE AT EVALUATION

- Family survey: N=263
- Clinician survey: N=314

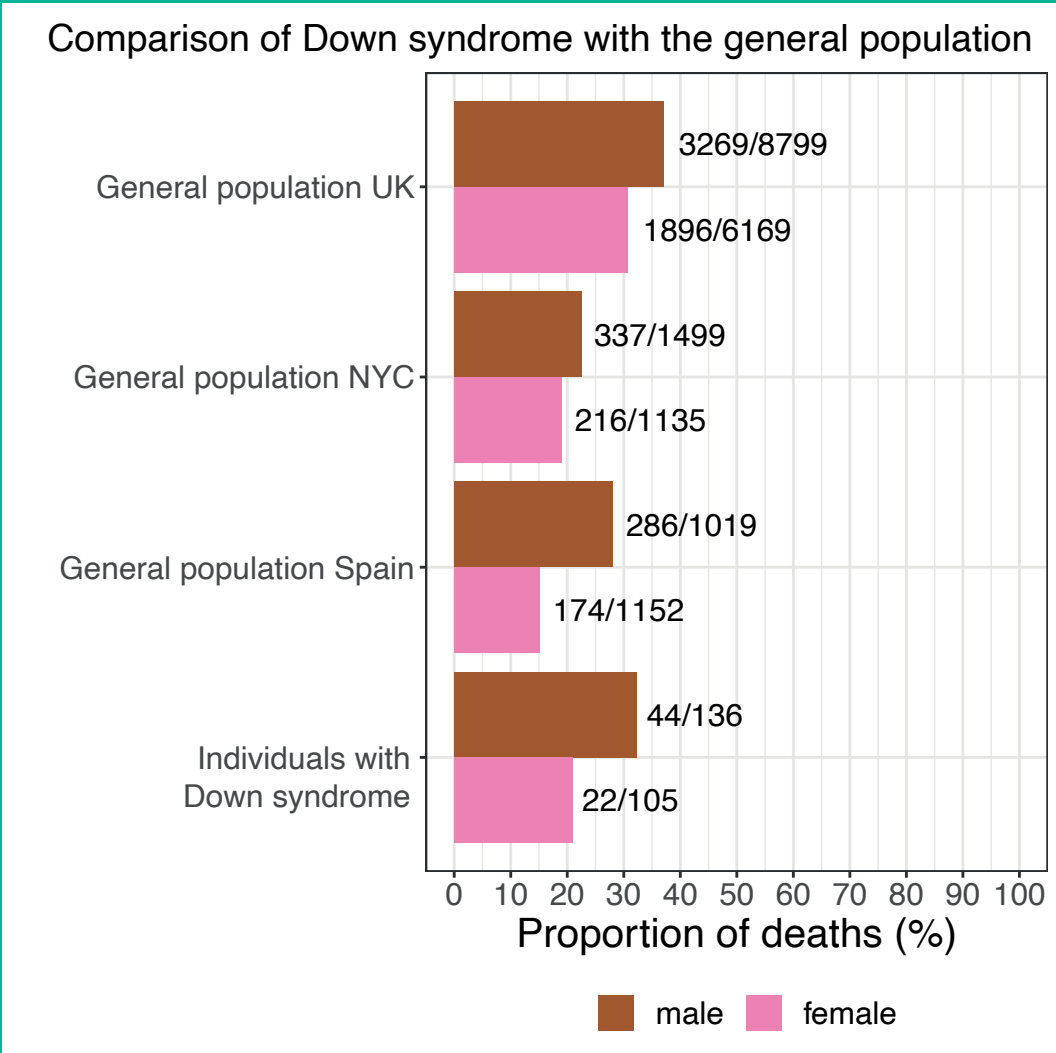


MEDICAL COMPLICATIONS DUE TO COVID-19



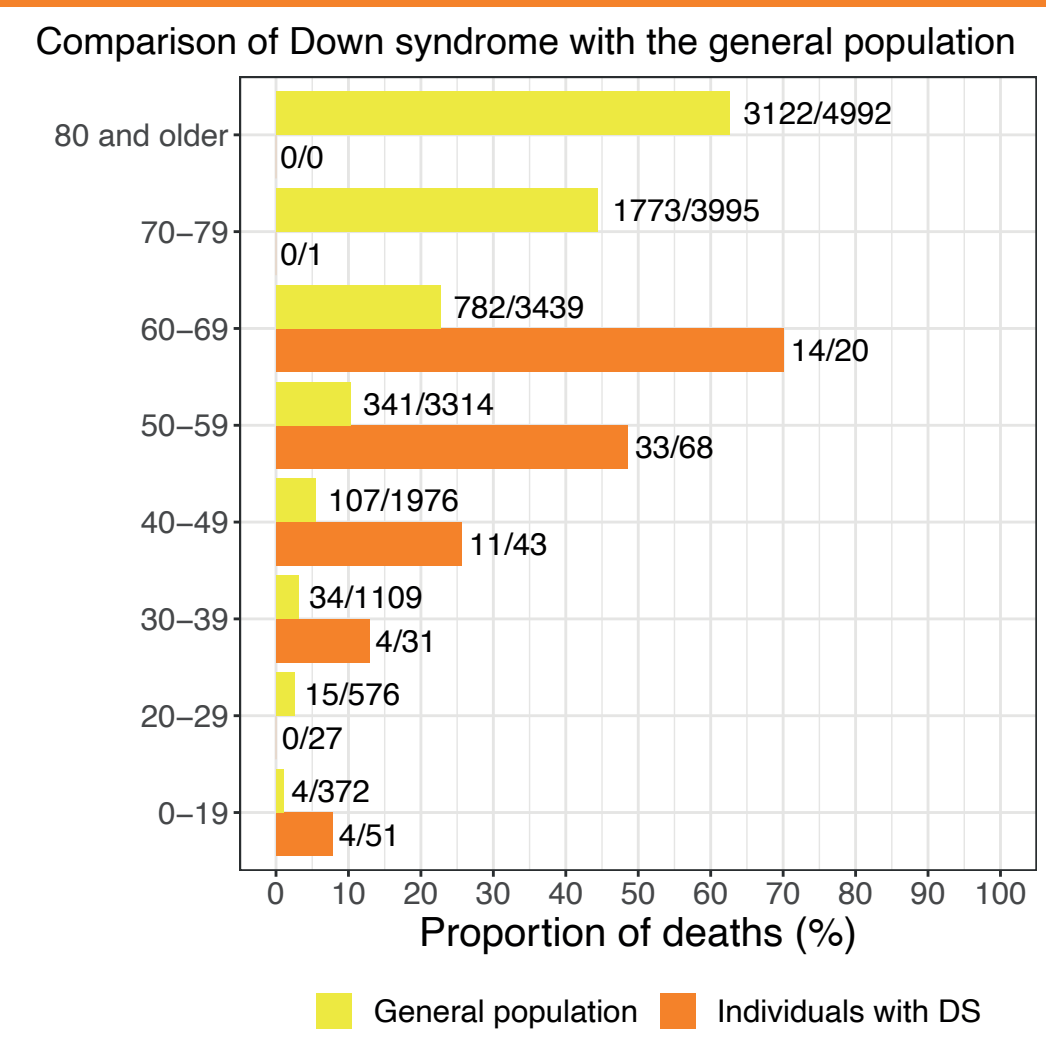
COVID-19-RELATED DEATHS AMONG HOSPITALIZED PATIENTS

- Males compared with females have a higher risk of death, similar to general population



COVID-19 RELATED DEATHS AMONG HOSPITALIZED PATIENTS BY AGE

- Risk for fatal outcome is increased from age 40
- There has been 4 pediatric (0-19 years) deaths (1 from Brazil, 3 from India), all with several comorbidities (4 on average)
- More data needed to understand COVID-19 among children



RISK FACTORS FOR SEVERE OUTCOME OF DISEASE AMONG COVID-19 PATIENTS WITH DOWN SYNDROME

RISK FACTORS

- Age (older than 40 years)
- Obesity
- Alzheimer disease/dementia
- Male

POTENTIAL RISK FACTORS

- Gastroesophageal reflux
- Seizures/epilepsy
- Obstructive sleep apnea

NO EVIDENCE FOR INCREASED RISK

- Living condition (residential care facility)
- Level of intellectual disability
- Thyroid disorder
- Congenital heart defect
- Behavioral/psychiatric condition (e.g., autism spectrum disorder)

STUDY LIMITATIONS

- Although this is the largest sample to date, more data are needed to confirm observations
- Data collection from each country varies
- No conclusions for risk of infection can be made--only patients with COVID-19 are included
- Our sample may not be representative of all COVID-19 cases in Down syndrome
- There may be unknown factors that affect the rate or reasons for hospitalization

References for comparison groups: UK: Docherty AB, Harrison EM, Green CA, et al.. Features of 20 133 UK patients in hospital with covid-19 using the ISARIC WHO Clinical Characterisation
Protocol: prospective observational cohort study. BMJ, 22 May 2020, 369:m1985 DOI: 10.1136/bmj.m1985 PMID: 32444460
NYC: Richardson S, Hirsch JS, Narasimhan M, et al. Presenting Characteristics, Comorbidities, and Outcomes Among 5700 Patients Hospitalized With COVID-19 in the New York City Area. JAMA. 2020. PMID: 32320003
Spain: Borobia AM, Carcas AJ, Arnalich F, et al. A cohort of patients with COVID-19 in a major teaching hospital in Europe. medRxiv. 2020:2020.04.29.20080853.

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