

COVID-19 AND DOWN SYNDROME T21RS SURVEY, REPORT MAY 27, 2020



QUESTIONS
What are the signs and symptoms among those hospitalized with COVID-19?

Do symptoms differ by age group?

What is the clinical outcome?



Persons with Down syndrome who tested positive or showed symptoms of COVID-19

TAKE HOME MESSAGES

Monitor for the same symptoms as in the general population, plus nasal symptoms in younger patients with Down syndrome

Protect those over age 40: risk for fatality more common in middle-aged individuals

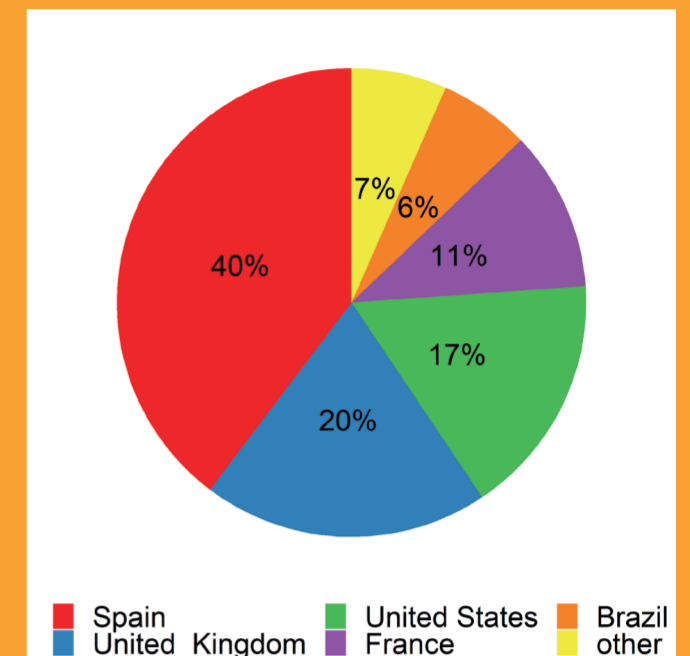
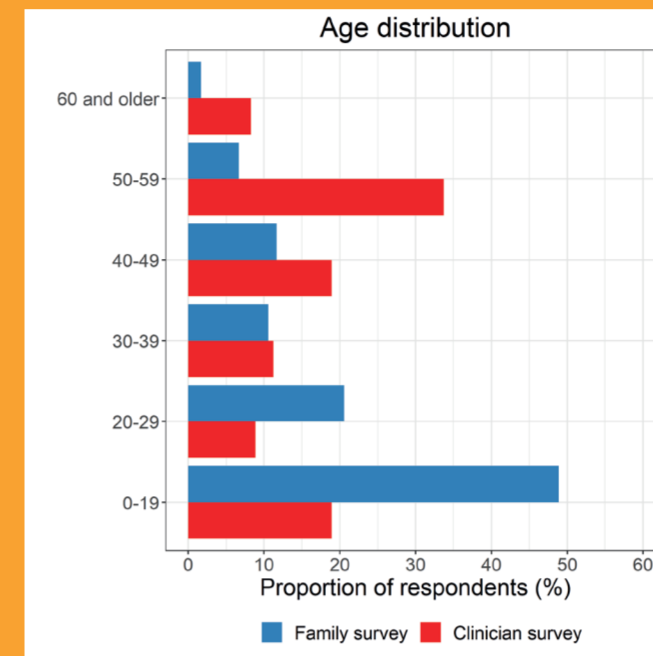
Younger individuals (< 20 yrs) do not often present with severe disease

More survey data are needed to confirm these conclusions

AGE AT EVALUATION

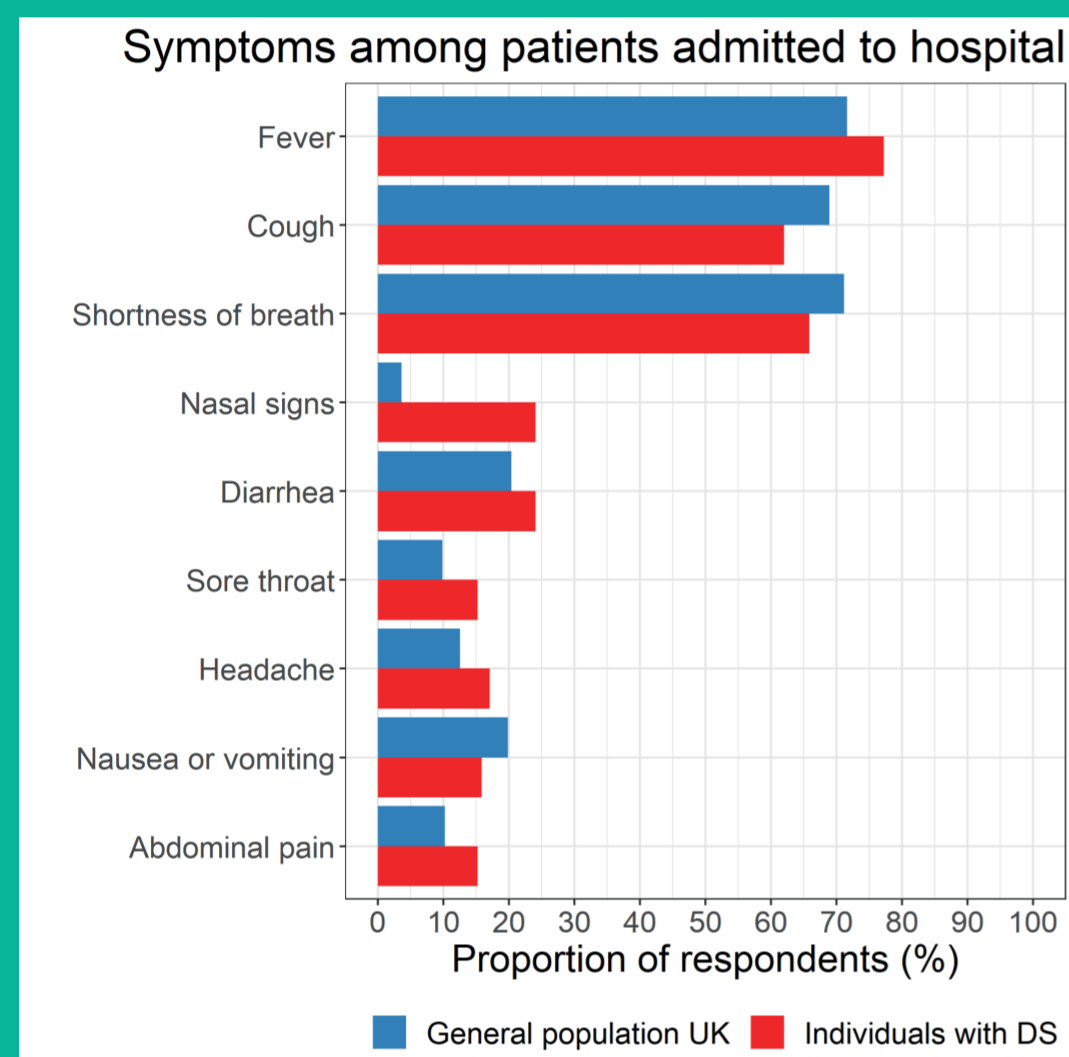
PARTICIPANTS N = 349

COUNTRY OF RESIDENCE



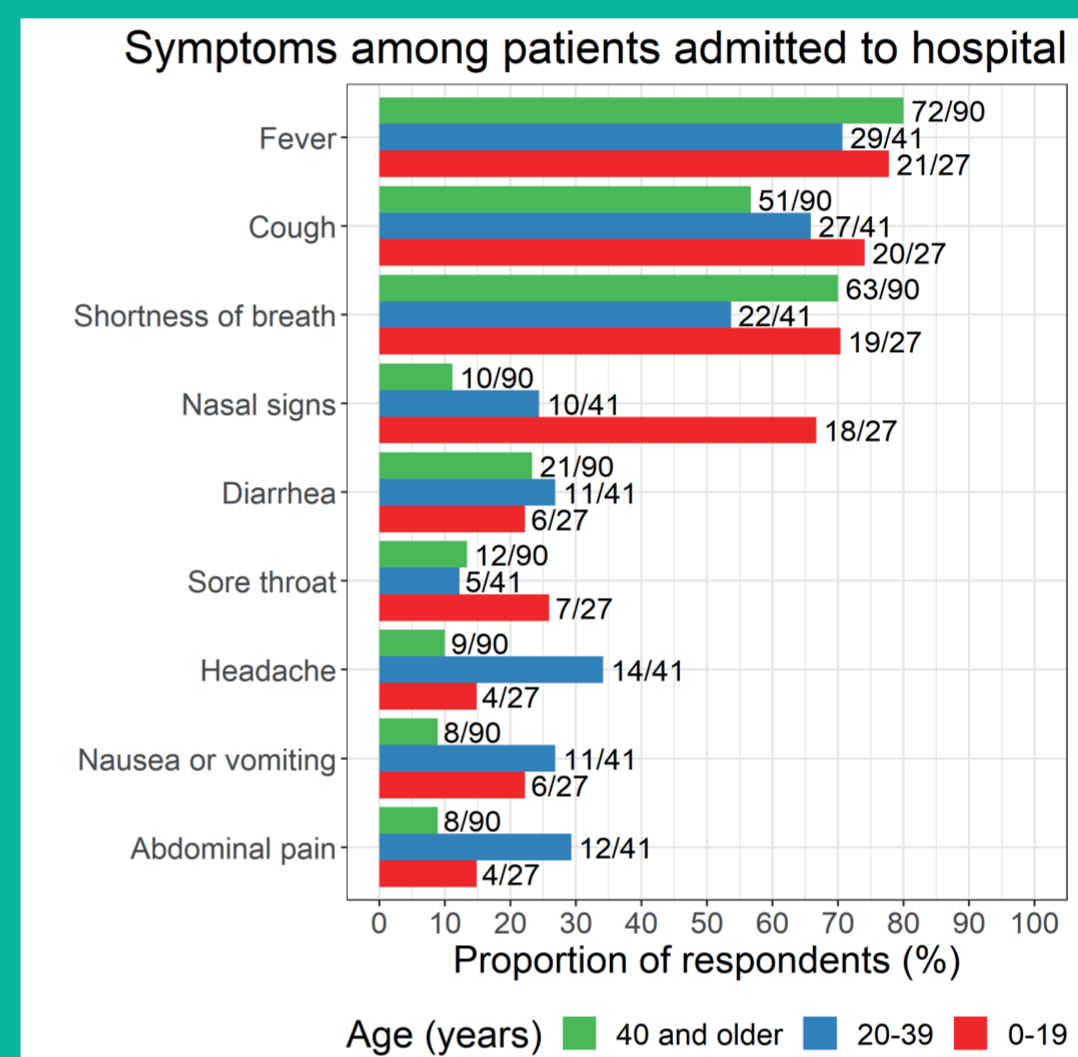
SIGNS/SYMPTOMS OF COVID-19 IN DOWN SYNDROME

- Similar to general population: fever, cough and shortness of breath
- Nasal symptoms are more common
- Shortness of breath is associated with hospital admission



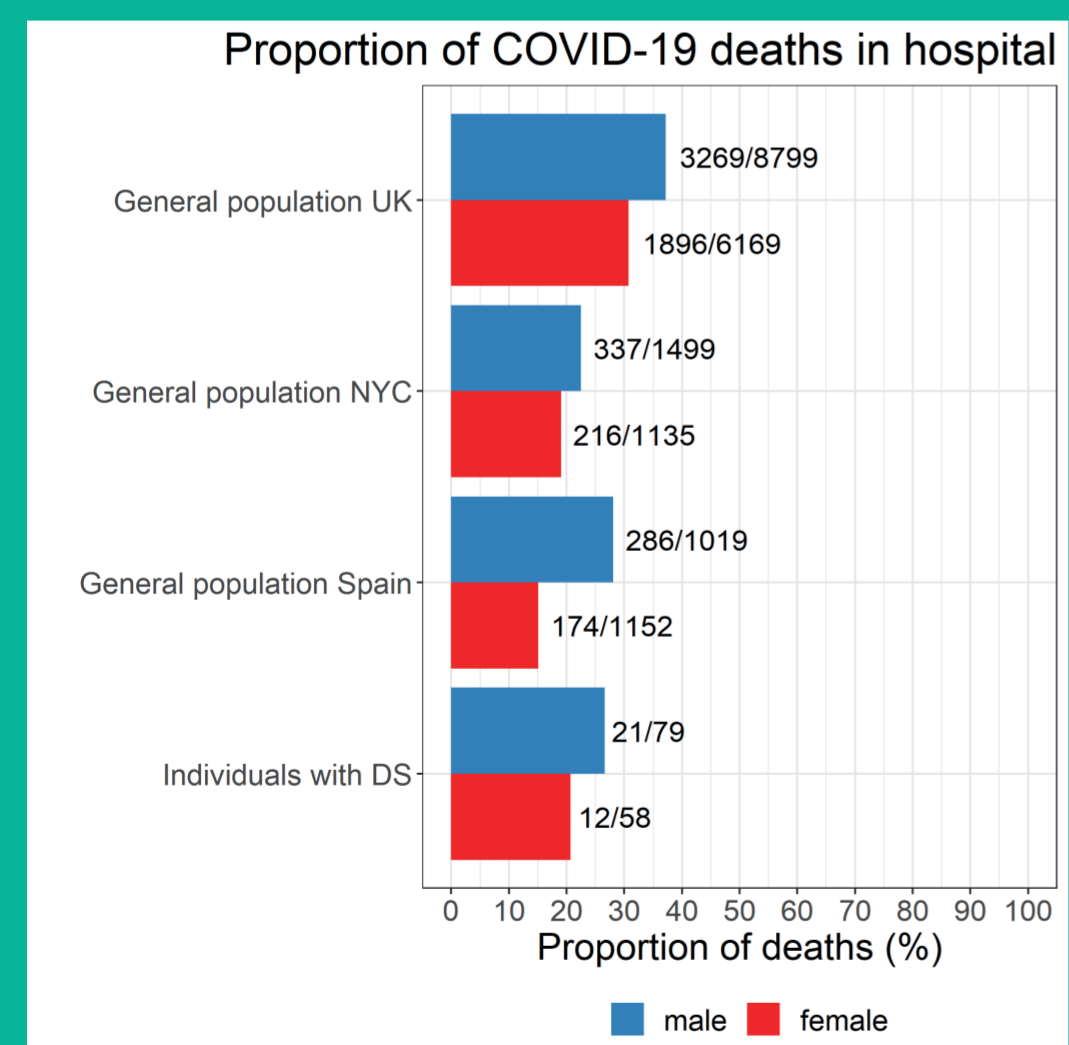
SYMPTOMS OF COVID-19 DIFFER BY AGE

- Three most common symptoms do not differ by age
- Nasal signs and sore throat are more often in the 0-19 yrs group
- Stomach symptoms and headache are more often in the 20-39 yrs group



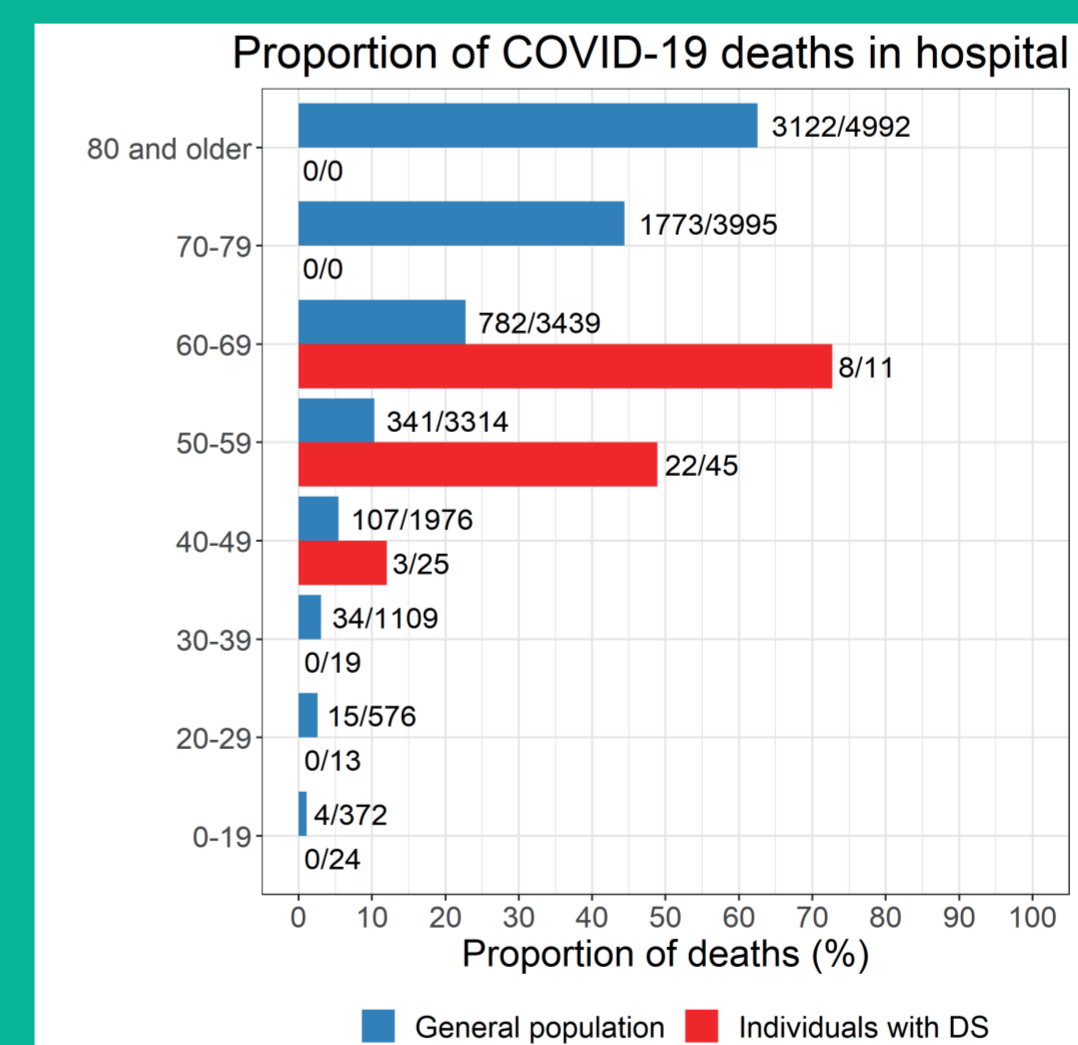
CLINICAL OUTCOME OF COVID-19 IN HOSPITALIZED PATIENTS

- The proportion of deaths is similar to the general population



CLINICAL OUTCOME OF COVID-19 IN HOSPITALIZED PATIENTS

- The risk of fatal outcome is increased from age 40, earlier than the general population
- Males die more often than females, as in the general population



Study limitations:

1. Surveys are based on one time point. Some people are still in hospital.
2. Health profile is based on those hospitalized in order to make the comparison to the general population. A later study will include both those staying at home and in hospital.
3. No data are available on whether those with Down syndrome are sent to the hospital at the same rate or for the same signs/symptoms. The criteria may or may not differ.
4. Although this is the largest sample to date, the numbers are still small and observations need to be confirmed.
5. As more surveys are completed, examination of existing co-occurring conditions can be examined as risks for clinical outcomes.

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: Cummings MJ, Baldwin MR, Abrams D, et al. Epidemiology, clinical course, and outcomes of critically ill adults with COVID-19 in New York City: a prospective cohort study. *Lancet*. 2020. PMID: PMC7237188
 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.

Acknowledgments:

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