



COVID, Long COVID, & the Equality Act 2010

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Recap

- COVID is a multi-system illness: *Davis et al.* (2023), including
 - Cardiovascular; fatigue; neurologic; cognitive; pulmonary; musculoskeletal; etc.
- The risk of long COVID increases cumulatively with repeated infections: *Al-Aly et al.* (2022)
- Long COVID is “. . . a complex, multisystem disorder that can affect nearly every organ system and can be severely disabling”: *Al-Aly et al.* (2024)
- Overall (current) point prevalence in adults is 6 – 7% (much lower in children): *ibid.*
- Impact on the global economy estimated at \$1 *trillion* (1% of the entire global economy): *Al-Aly et al.* (2024)

Statistics Canada / Statistique Canada

Kuang, s. et al. (2023) [*Experiences of Canadians with long-term symptoms following COVID-19*](#) Insights on Canadian Society

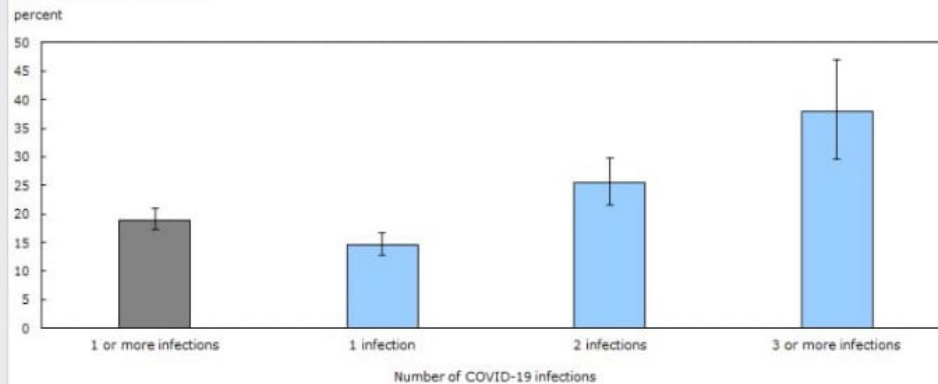
Headlines:

- Risk of Long COVID gets worse with repeated infections
- More than half of respondents (58.2%) who ever reported long-term symptoms continued to experience them as of June 2023

The percentage of adults experiencing long-term symptoms increased with the number of COVID-19 infections reported

The potential impact of re-infections on the risk of developing or exacerbating pre-existing long-term symptoms is important considering the endemic nature of COVID-19. However, studies providing evidence of increased risk are limited in number and generalizability. ¹⁸ As seen in Chart 2, Canadians reporting two known or suspected COVID-19 infections (25.4%) were 1.7 times more likely to report prolonged symptoms than those reporting only one known or suspected infection (14.6%), and those with 3 or more infections (37.9%) 2.6 times more likely.

Chart 2
Percentage of Canadian adults with long-term symptoms, by number of self-reported COVID-19 infections, June 2023



Source: Statistics Canada, Canadian COVID-19 Antibody and Health Survey - Follow-up Questionnaire, 2023.

► Data table for Chart 2

People that had their first infection early in the pandemic, though, were also more likely to report multiple COVID-19 infections. For example, in this study the average date of first infection for those with three or more infections was May 2021, compared to September 2021 for those with two infections, and May 2022 for those with one infection.

ONS data (2023 recap)

- Of people with self-reported long COVID, 1.3 *million* (69%) first had or suspected that they had COVID-19 at least one year previously . . .
- . . . 764,200 (41%) first had or suspected that they had COVID-19 at least two years previously
- ONS statistics for 2019 = 2.118 million long-term sick (at the end of 2019)

ONS data (2025 update)

- Now 2.813 million (to November 2024)
- Not necessarily a direct consequence of COVID: could be e.g. disengagement with healthcare.
- Appears to be levelling off
- IFS (in 2022) estimated 110K workers missing as a result of long COVID at a cost of £1.5bn / year

Consequences need not be felt to be real

- “Infected volunteers showed statistically lower baseline-corrected global composite cognitive scores than uninfected volunteers . . . [m]emory and executive function tasks showed the largest between-group differences. **No volunteers reported persistent subjective symptoms.**” *Trender et al* (2024) (NB relatively small study)
- June 2022 – July 2023: excess deaths up overall; deaths attributed to all cardiovascular diseases, heart failure, ischaemic heart diseases, up in particular. Middle-aged adults (50 – 64) particularly affected: deaths involving ischaemic heart diseases 44% higher, cerebrovascular diseases 40% higher, heart failure 39% higher. *Pearson-Stuttard et al.* (2024)

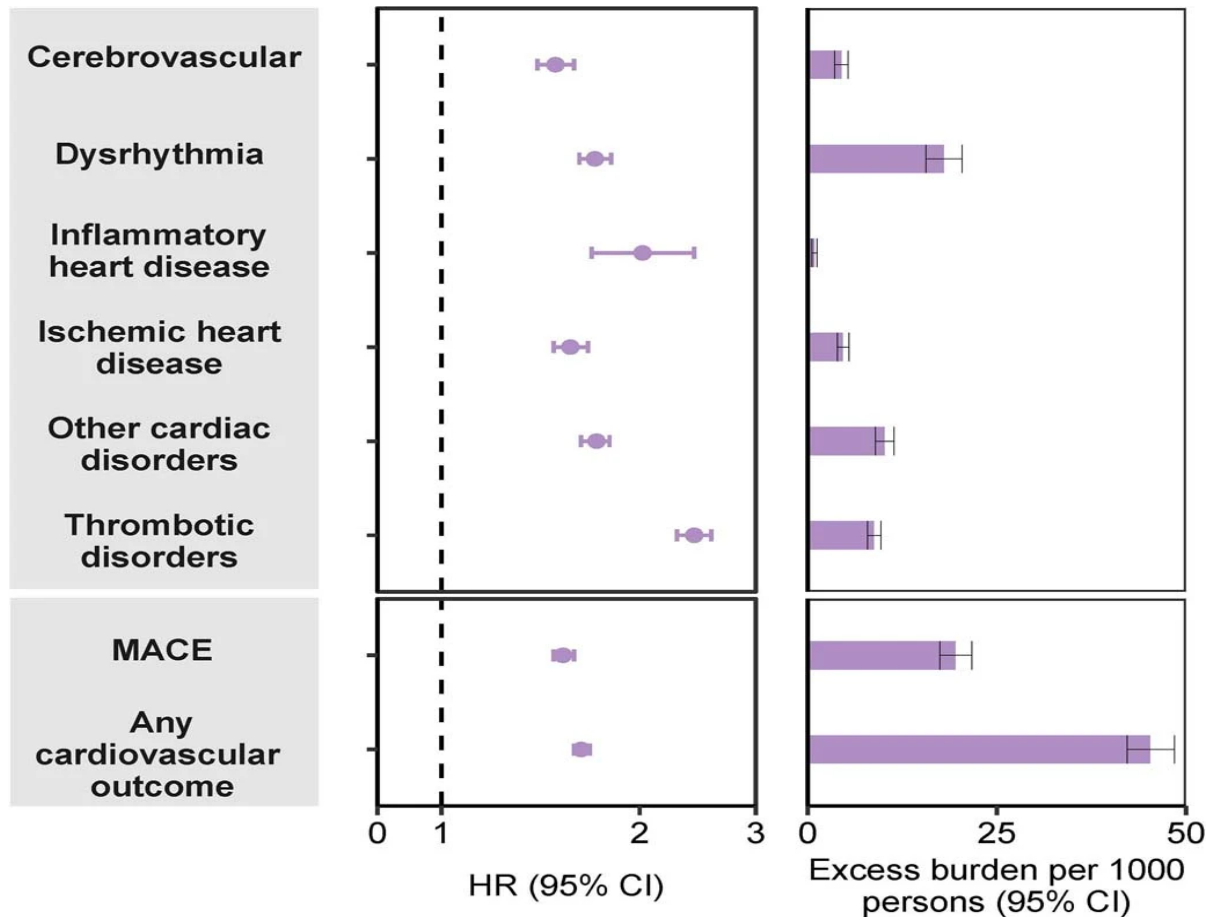
COVID & the brain: *Douaud et al. (2022)*

N=785, 2 x MRI, 401 tested positive for Sars-CoV-2 between the scans

“There is strong evidence of brain-related abnormalities in COVID-19 . . . we identified significant longitudinal effects when comparing the two groups, including (1) a greater reduction in grey matter thickness and tissue contrast in the orbitofrontal cortex and parahippocampal gyrus . . . and (3) a greater reduction in global brain size in the SARS-CoV-2 cases. The participants who were infected with SARS-CoV-2 also showed on average a greater cognitive decline between the two time points . . .”

(c.f. encephalitis lethargica in the aftermath of the “Spanish ‘flu’”)

Xie et al. (2022)



“... beyond the first 30 d after infection, individuals with COVID-19 are at increased risk of incident cardiovascular disease spanning several categories, including cerebrovascular disorders, dysrhythmias, ischemic and non-ischemic heart disease, pericarditis, myocarditis, heart failure and thromboembolic disease ... even among individuals who were not hospitalized during the acute phase of the infection ... the risk and 1-year burden of cardiovascular disease in survivors of acute COVID-19 are substantial ...”

Sub-topic: interested parties

- Certain categories of disabled person
- *Possibly* “persons with other disabilities”
- Women (and in particular pregnant women)
- Older people
- Ethnic minorities
- Persons with Long COVID (insofar as it amounts to a disability – last year’s slides refer on that point)

Table 3 JCVI Green Book (Chapter 14a), risk groups

- Chronic respiratory disease
- Chronic heart disease & vascular disease
- Chronic kidney disease, liver disease
- Chronic neurological disease (inc. all those on the learning disability register, epilepsy, Parkinson's, etc)
- Diabetes mellitus & other endocrine disorders
- Immunosuppression
- Asplenia
- BMI >> 40
- Severe mental illness
- Pregnancy

Causes of action

- Indirect discrimination (albeit not in relation to pregnancy)
- S 15 “discrimination arising”
- Reasonable adjustments

Obligees

- S 29 – provision of services etc
- S 39 – employees and applicants
- SS 44, 45, 47 – partnerships, LLPs, the Bar
- Part 6 – schools, further and higher education, general qualifications bodies
- Potential claims relating to:
 - Adjustments for those suffering long COVID, *and*
 - Adjustments for those at particular risk of adverse outcomes
- NB for service providers, duty to make reasonable adjustments is both prospective and owed to disabled persons generally
- NB also s 149 (public sector equality duty)

Reasonable adjustments: service-providers

20 Duty to make adjustments [as modified by Para 2(2) Schedule 2 & Para 2(3) Schedule 2]

[. . .]

(4) The second requirement is a requirement, **where a physical feature puts disabled persons generally at a substantial disadvantage in relation to a relevant matter in comparison with persons who are not disabled**, to take such steps as it is reasonable to have to take

(a) to avoid the disadvantage, or

(b) to adopt a reasonable alternative method of providing the service or exercising the function

[. . .]

(9) In relation to the second requirement, a reference in this section or an applicable Schedule to avoiding a substantial disadvantage includes a reference to—

(a) removing the physical feature in question,

(b) altering it, or

(c) providing a reasonable means of avoiding it.

(10) A reference in this section, [section 21 or 22](#) or an applicable Schedule (apart from [paragraphs 2 to 4 of Schedule 4](#)) to a physical feature is a reference to—

(a) a feature arising from the design or construction of a building,

[. . .]

(c) a fixture or fitting, or furniture, furnishings, materials, equipment or other chattels, in or on premises, or

(d) any other physical element or quality.

Note the “knowledge” limitation for reasonable adjustments: Schedule 8 Equality Act 2010

PART 3 LIMITATIONS ON THE DUTY

Lack of knowledge of disability, etc.

20(1) A is not subject to a duty to make reasonable adjustments if A does not know, and could not reasonably be expected to know—

[. . .]

(b) In any case referred to in Part 2 of this Schedule, that an interested disabled person has a disability and is likely to be placed at the disadvantage referred to in the first, second or third requirement.

Note

- Ventilation is a physical feature for the purposes of ss 20 / 21 Equality Act 2010: EHRC Code paragraph 6.12

Indirect discrimination

S 19 Equality Act 2010

- (1) A person (A) discriminates against another (B) if A applies to B a provision, criterion or practice which is discriminatory in relation to a relevant protected characteristic of B's.
- (2) For the purposes of subsection (1), a **provision, criterion or practice** is discriminatory in relation to a relevant protected characteristic of B's if—
 - (a) A applies, or would apply, it to persons with whom B does not share the characteristic,
 - (b) it puts, or would put, persons with whom B shares the characteristic at a **particular disadvantage** when compared with persons with whom B does not share it,
 - (c) it puts, or would put, B at that disadvantage, and
 - (d) **A cannot show it to be a proportionate means of achieving a legitimate aim.**
- (3) The relevant **protected characteristics** are— [age, disability . . . race . . . sex]

S 19 - more artificial, but broader scope

ACAS: Long Covid – advice for employers and employees

Long covid has been found to more severely affect:

- older people
- ethnic minorities
- Women

NB the ONS adds “those with another . . . disability”

UK Covid-19 Inquiry: Covid Policy, August 2023

- Testing (c.f. NHS directives *against* testing, could well be a PCP)
- Self-isolation (c.f. NHS directive to come into work even if symptomatic, likewise)
- Masking if symptomatic (c.f. NHS directive not to mask, likewise)
- A suite of other measures

Ventilation

“A ventilation system operates throughout the ground floor and first floor of the hearing centre and has been designed and commissioned to the BSRIA Standards for Air and Water Systems.

[. . .]

10. The ventilation is evenly spread out across the room to ensure that air changes are effective throughout.

11. The hearing room is 875m³. The air change rate has been calculated as 8 air changes per hour supply, and 8 air changes per hour extract (6 ACH recommended by the Lancet COVID-19 Commission’s Task Force on Safe Work, Safe School, and Safe Travel”

Air purification

“12. We have four CAMFIL air purification units - www.camfil.com/en-gb/products/air-cleaners--air-purifiers/city-range placed around the Hearing Room, including close to the public gallery, we also have units in the Viewing Room and the Media Room.

13. The units have HEPA filters which are used to clean indoor air by mechanically filtering through highly efficient filters. Clean air is dispersed in all directions to supplement the effect of the ventilation system.”

CO2 monitors

“14. CO2 monitors will be placed around the hearing room, the viewing room and the media room.

15. If the CO2 count increases to over 1000 parts per million, the doors to the hearing room will be opened during breaks to let ventilation in. We will also be able to increase ventilation from both the central unit and from the airflow through the air purification units.”

Other measures

- Provision of adequate PPE – see *Greenhalgh et al. (2024)* Masks and respirators for prevention of respiratory infections: a state of the science review.

“... masks are, if correctly and consistently worn, effective in reducing transmission of respiratory diseases and show a dose-response effect ... respirators are significantly more effective than medical or cloth masks ...”

Resources

1. [Workers' Experiences of Long Covid: a joint report by the TUC and Long Covid Support \(March 2023\)](#)
2. [ACAS](#) (of course)
3. [ONS](#) (in relation to long COVID symptoms) and [ONS](#) (in relation to working-age adults out of the labour market due to long-term sickness)
4. Al-Aly, A., Bowe, B. & Xie, Y. (2022) [Long Covid after breakthrough SARS-CoV-2 infection](#) Nature Medicine Vol 28, pp 1461-1467
5. Bowe, B., Xie, Y. & Al-Aly, A. (2022) [Acute and postacute sequelae associated with SARS-CoV-2 reinfection](#). Nature Medicine Vol 28, pp 2398 – 2406
6. Davis, H. E., McCorkell, L., Vogel, J. M., & Topol, E. J. (2023) [Long COVID: major findings, mechanisms and recommendations](#). Nature Reviews Microbiology Vol 21, pp 133 – 146.
7. Tran, V-T., Porcher, R., Pane, I., & Ravaud, P. (2022) *Course of post COVID-19 disease symptoms over time in the ComPaRe long COVID prospective e-cohort*. Nature Communications (2022):13:1812
<https://doi.org/10.1038/s41467-022-29513-z>
8. Trender, W. *et al.* (2024) *Changes in memory and cognition during the SARS-CoV-2 human challenge study*, eClinicalMedicine 2024;76: 102842
9. Pearson-Stuttard, J. *et al* (2023) *Excess mortality in England post COVID-19 pandemic: implications for secondary prevention* The Lancet Regional Health – Europe 2024;36: 100802
10. Douaud, G. *et al.* (2022) *Sars-CoV-2 is associated with changes in brain structure in UK Biobank*, Nature 604: 696 - 707 (28 April 2022)