

The burden of long COVID-19 in Hackney and the City of London

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Outline of the presentation

- Long COVID-19 estimates
- Long COVID-19 patient profiles
- UKHSA long COVID-19 projections up to mid-June 2022
- Key findings
- Limitations
- Recommendations

1.7 Million people in England and Wales were experiencing long COVID-19 up to 5 March 2022

- An estimated **1.7 million** people living in private households in England and Wales (2.7% of the population) were experiencing self-reported long COVID-19 as of 5 March 2022.
- **1 in 3** people had persisting unexplained symptoms a year after infection with COVID-19, and **1 in 5** reported that their ability to undertake day-to-day activities had been "limited a lot".
- Due to the complexity of characteristics associated with long COVID-19, various UK studies have resulted in a wide range of estimates.
- Initial estimates ranged from as little as **2.3%** (COVID-19 Symptom study) to **37%** (REACT-2).
- Long COVID-19 diagnoses can therefore be extremely challenging.

Data sources:

1. ONS, <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/prevalenceofongoingsymptomsfollowingcoronaviruscovid19infectionintheuk/latestintheUK>: 7 April 2022.
2. Thompson, E. J., et al. [Risk factors for long COVID-19: analyses of 10 longitudinal studies and electronic health records in the UK](#). MedArvix. 2021
3. Sudre, C. H., et al. [Attributes and predictors of long COVID-19](#). Nat Med. 2021;27(4):626-31.
4. Whitaker, M. et al. [Persistent symptoms following SARS-CoV-2 infection in a random community sample of 508,707 people](#). 2021

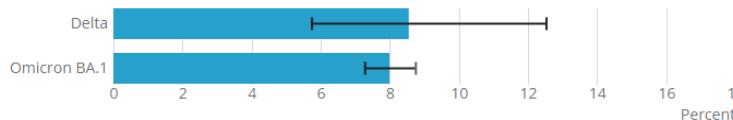


8-9% in England and Wales are reporting long COVID-19 after infection even after boosters

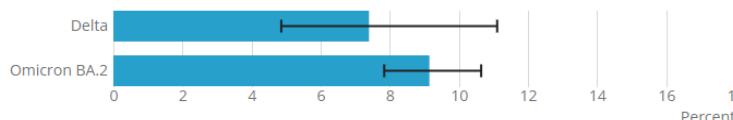
Figure 1: Proportion of triple vaccinated people reporting long COVID-19 after their first infection by variant

For **triple-vaccinated participants**, self-reported long COVID was more common after infections compatible with the Omicron BA.2 variant than the Omicron BA.1 variant

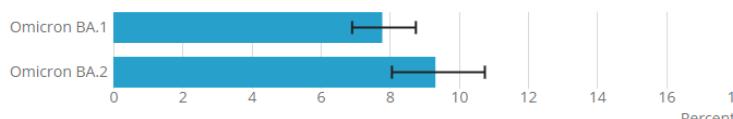
Delta compared with Omicron BA.1, triple-vaccinated



Delta compared with Omicron BA.2, triple-vaccinated



Omicron BA.1 compared with Omicron BA.2, triple-vaccinated



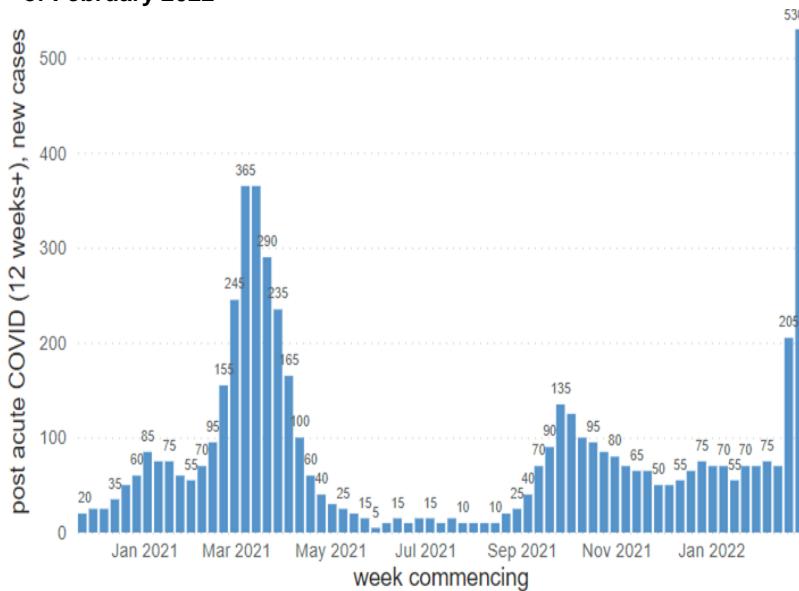
Source: Office for National Statistics – Coronavirus (COVID-19) Infection Survey

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/selfreportedlongcovidafterinfectionwiththeomicronvariant/6may2022>

- Among double-vaccinated adult study participants, **16%** reported long COVID-19 symptoms after first infection with the delta variant vs. **9%** with Omicron BA.1 variant.
- Among triple vaccinated, adjusted prevalence was higher for infections compatible with **Omicron BA.2 (9.3%)** than it was for those compatible with **Omicron BA.1 (7.8%)**.
- Among triple vaccinated **5-6%** have activity limiting symptoms.

Less than 20% of long COVID-19 cases in Hackney and the City of London are thought to have needed specialist care

Figure 2: Projected long COVID-19 cases in Hackney up to 28th of February 2022

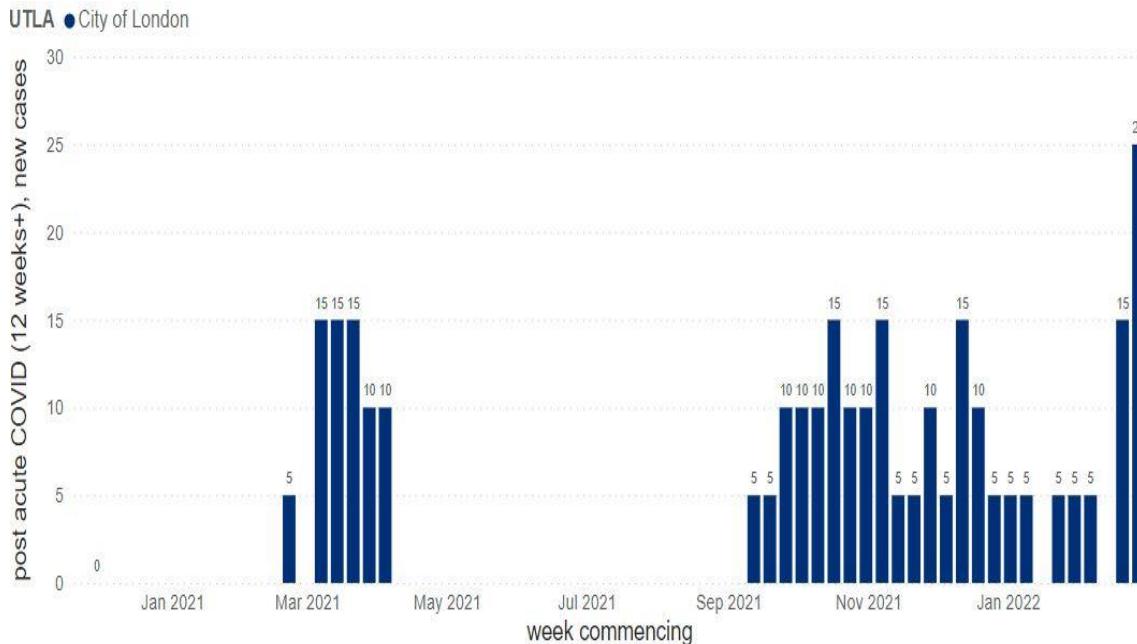


- Between 11th November 2020 and 28th February 2022, the UK Health Security Agency (UKHSA) estimated 5,500 long COVID-19 cases in Hackney
- Of these, less than 1,000 cases in Hackney (~18%) are likely to have needed specialised care.
- Peaks in the number of long COVID-19 cases have followed the pandemic waves.

Data source: UK Health and Security Authority-COVID-19 Situational Awareness Explorer

Similarly less than 20% of long COVID-19 cases the City of London are thought to have needed specialist care

Figure 3: Projected long COVID-19 cases in the City of London up to 28th of February 2022



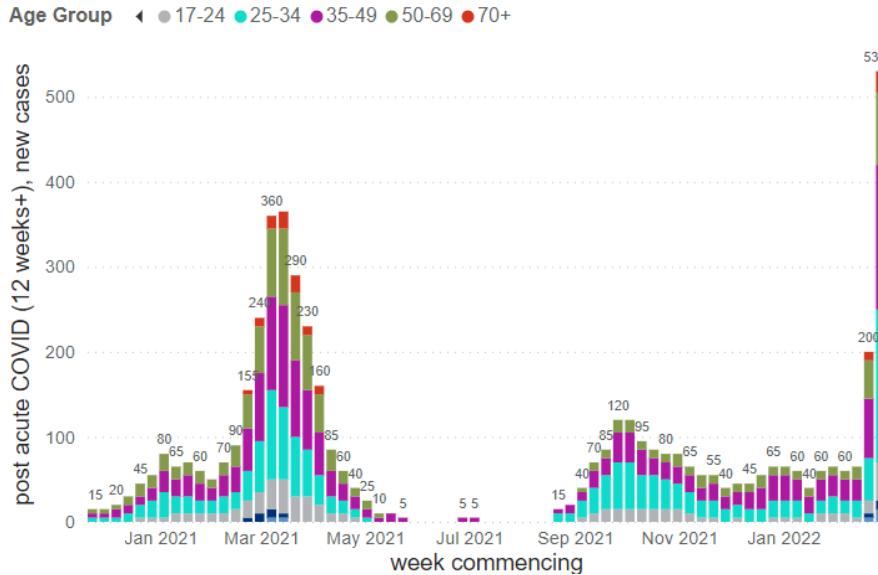
- Between 11th November 2020 and 28th February 2022, UKHSA estimated 370 long COVID-19 cases in the City of London (CoL).
- Of these, around 70 cases in the CoL (~19%) are likely to have needed specialised care.
- Peaks in the number of long COVID-19 cases have followed the pandemic waves.

Data source: UK Health and Security Authority-COVID-19 Situational Awareness Explorer



A higher proportion of long-COVID-19 cases have been projected among younger and female residents

Figure 4: Projected long COVID-19 cases in Hackney by age group

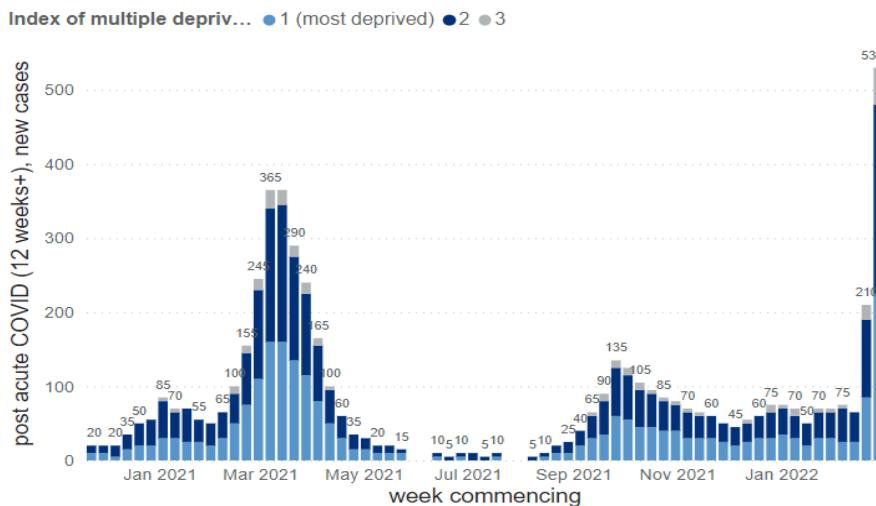


Data source: UK Health and Security Authority-COVID-19 Situational Awareness Explorer

- Hackney residents aged 65 years and over had the lowest projected proportion of long COVID-19 cases.
- More than 50% of long-COVID-19 cases were projected among residents aged 25-49 years in Hackney.
- Up to 28th of February 2022, a higher number of long COVID-19 cases were projected among females than males in Hackney, with 66% cases projected among females.
- Breakdowns by age and sex could not be provided for the City of London due to small projected numbers,
- Primary care data showed that 94% of those with long COVID-19 symptoms were below 65 & 66% were females.

A higher proportion of long-COVID-19 cases have been projected among residents living in more deprived areas

Figure 5: Projected long COVID-19 cases in Hackney by Index of Multiple Deprivation



- In Hackney, 90% of all projected long-COVID-19 cases were among residents living in more deprived areas (areas in the first and second IMD quintile).
- This is in line with the proportion of residents living in these areas of deprivation and therefore projections could simply reflect the population structure.
- Due to the small projected numbers for CoL, it was not possible to provide a breakdown of long COVID-19 cases by deprivation.

Data source: UK Health and Security Authority-COVID-19 Situational Awareness Explorer

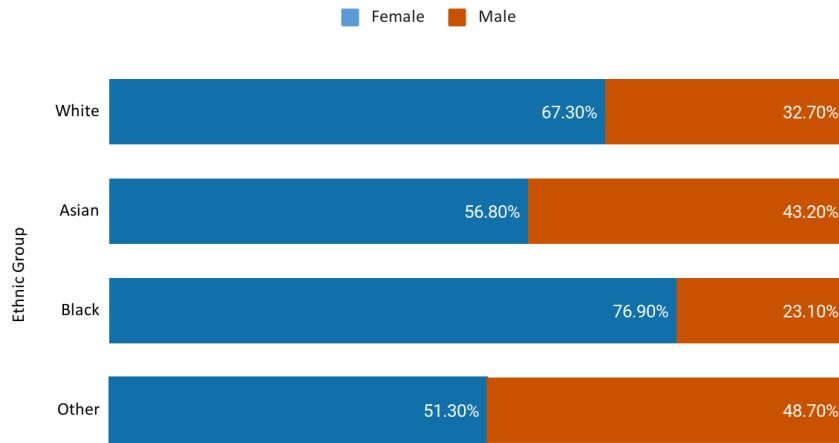
Fewer residents with long COVID have been diagnosed with long COVID and referred to Hackney and CoL rehabilitation services than UKHSA projections

- Between 26 January 2021 and 20 December 2021, **269** residents of Hackney and the CoL (~ 1.2% positive COVID-19 cases) were referred and accepted by the Homerton assessment clinic and rehabilitation service for long COVID-19 related care.
- At the same time, UKHSA projected that **750** residents had experienced long COVID-19 symptoms requiring specialist care, suggesting a subset of patients in Hackney and the City living with Long COVID are currently known to the system
- Combining data from CEG and CH rehabilitation services, primary care accounted for **36%** of long COVID referrals to Homerton specialised services. This is in comparison to **66%** across London.

Data sources: UK Health and Security Authority-COVID-19 Situational Awareness Explorer. Clinical Effectiveness Group (CEG).
Hackney rehabilitation service (Homerton Hospital).

GP data showed that White, Black and Asian females across all ethnic groups were more likely to have long COVID-19 symptoms up to November 2021

Figure 5: Breakdown of Hackney and the City of London's residents with long COVID symptoms (N=304) presented in GPs by gender and ethnicity

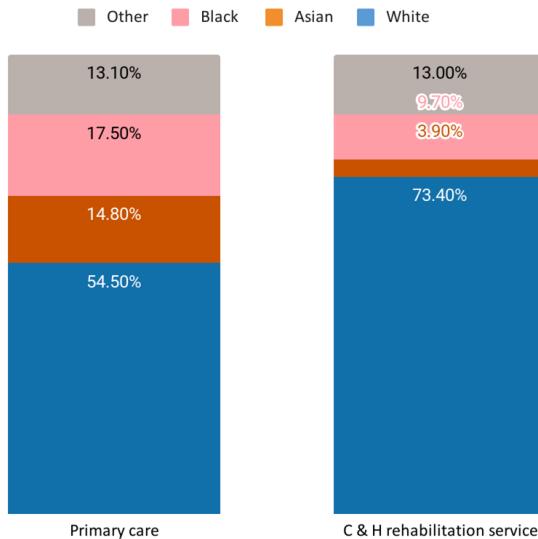


Data source: Clinical Effectiveness Group (CEG)

- Of residents that presented to GPs with long COVID-19 symptoms (all ages), 53% were white, 14% asian, 17% black and 13% identified as other ethnic group.
- The higher proportion of females with long COVID-19 symptoms was seen across all ethnic groups with an exception of GP patients identifying as other ethnicity where the difference is negligible.
- This tendency might be due to the differences in health seeking behaviour whereby males are less likely to present to their GP when unwell.

White populations with long COVID-19 are over-represented in the City and Hackney rehabilitation service

Figure 7: Ethnic breakdown of residents presented to GPs with long COVID-19 symptoms vs. long COVID-19 patients within the City and Hackney rehabilitation service

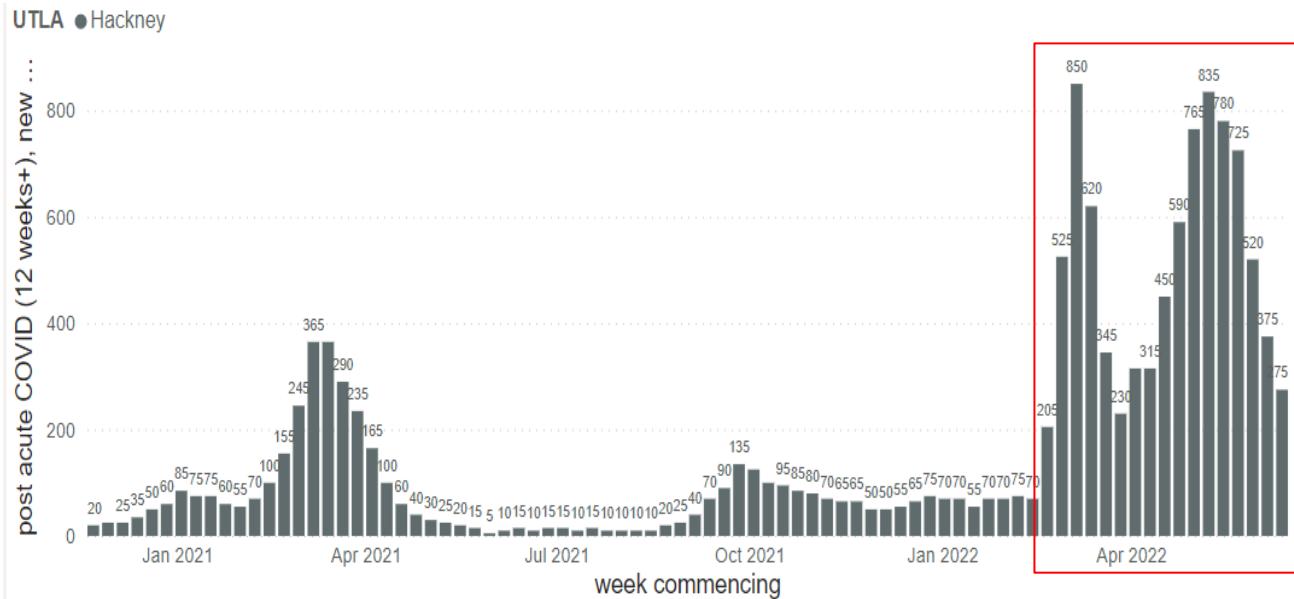


Data source: CEG & City and Hackney rehabilitation service (Homerton Hospital)

- 269 patients were accepted for treatment.
- Data on social and demographic characteristics were available for 186 patients that opted into the City and Hackney rehabilitation service within the Homerton Hospital.
- Of these, 141 (76%) were females and 9 (4.8%) were over 65.
- 91% of long COVID-19 patients within the City and Hackney rehabilitation service were residing in the top 40% of neighbourhood deprivation, which is in line with the proportion of residents living in those areas.
- When comparing data on residents that presented long COVID-19 symptoms to GPs with data on attendance at rehabilitation services, white residents were over-represented in Hackney and the City of London.

Long COVID-19 cases are projected to increase by ~150% between March and mid June 2022 compared to the earlier period

Figure 8:Projected long COVID cases in Hackney (22/11/20 to 12/06/2022)

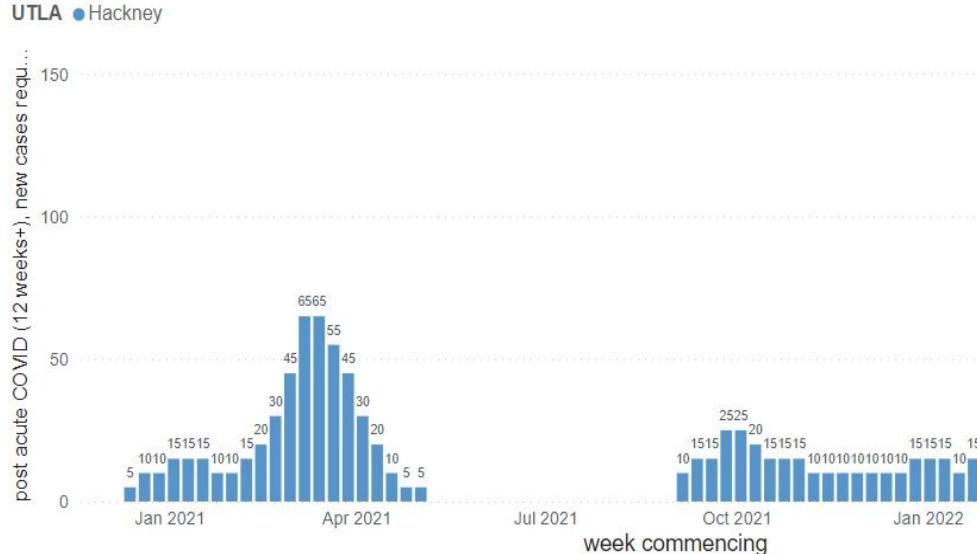


- Long COVID-19 cases in Hackney are projected to increase from **5,500** (November 2020–February 2022) to **~13,500** (March 2022–mid-May 2022)
- Similarly, long COVID-19 cases in the City of London are projected to almost triple from **370** (November 2020 to February 2022) to **900** (March 2022 to mid-June 2022)

Data source: UK Health and Security Authority-COVID-19 Situational Awareness Explorer

Long COVID cases requiring specialist care are also projected to increase by ~150% between March and mid-June 2022 compared to the earlier period

Figure 9:Projected long COVID cases in Hackney requiring specialist care (22/11/20 to 12/06/2022)



- Following increases in infections/reinfections, long COVID-19 cases needing specialised care within Hackney are projected to double from **1,000** (November 2020–February 2022) to **2,500** (March 2022–mid-June 2022)
- Long COVID-19 cases needing specialised care within the City of London are projected to double from **70** (November 2020–February 2022) to **180** (March 2022–mid-June 2022)

Data source: UK Health and Security Authority-COVID-19 Situational Awareness Explorer

Key findings

- Primary care records show that 1.3% (N=304) of City and Hackney residents who were infected with SARS-CoV-2 (~24,000) had been diagnosed with long COVID-19 symptoms by mid-November 2021.
- **Primary care data** in Hackney and the City of London are highly **likely to underestimate the prevalence of long COVID-19**.
- **Females** across all ethnic groups and adults younger than 65 years were **more likely to have been diagnosed** with long COVID-19 by GPs.
- **Black and Asian** residents with long COVID-19 are likely to be **underrepresented in the City and Hackney rehabilitation service**.
- Fewer long COVID-19 patients in Hackney and the City of London needing specialised care are likely to have accessed it, possibly due to the complexity of diagnosing long COVID-19 symptoms & existing barriers to care.
- UKHSA projections highlight that the number of residents in Hackney and the City of London with **long COVID-19** symptoms, and those needing specialised care **could increase by 150%** between March and mid-June 2022 compared to the period before March 2022.

Limitations

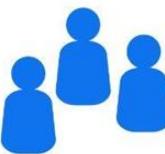
- Figures for long COVID-19 patients could not be disaggregated for Hackney and the City of London.
- Due to the relatively small number of residents with long COVID-19 in Hackney and the City of London, we could not provide more information by more detailed ethnic categorisations.
- The biggest limitations of UKSHA projections are the lack of modelling for a) vaccination effects & b) change in treatment controls). Therefore UKHSA models are likely to overestimate the number of residents with long COVID-19 symptoms and those who needed/needed specialised care.

Recommendations

- In order to address unmet need, there needs to be better recording and diagnosis of long COVID-19 cases.
- More needs to be done to increase the representation of black and Asian long COVID-19 patients in the City and Hackney rehabilitation service.



Covid-19 has disproportionately affected and exacerbated some communities, particularly people living in poverty and more deprived areas, learning disabled people, autistic people and Black Caribbean, Black African and South Asian communities.



With higher numbers of people with Covid-19 in the most recent wave of the pandemic, larger numbers are expected to develop long Covid, increasing the need for awareness, diagnosis and access to treatment and specialist care.



Between 26 January 2021 and 20 December 2021, 553 residents of Hackney and the City of London (~ 1% positive Covid-19 cases) were referred to an assessment clinic and rehabilitation service for long Covid related care. At the same time, UKHSA project that 750 residents had experienced long Covid symptoms, suggesting 78% residents sought help.



1.3% of Hackney residents who were infected with Covid-19 had been diagnosed with long Covid by November 2021, but this is likely to be an underestimate of true need.



Demand for specialised care for long Covid could double between March and May 2022.



Black and Asian residents with long Covid are likely to be under-represented in the City and Hackney rehabilitation service, indicating the need for interventions to increase equity of access to those services.



97% of long Covid patients within City and Hackney rehab service were from most deprived neighbourhoods.



UKHSA estimates there could be 6000 cases of long Covid cases in City and Hackney up to May 2022, indicating a large diagnosis gap and significant unmet need in the community. Of these, around 1,000 cases are likely to need specialised treatment.



Women across all ethnic groups and adults younger than 65 years were more likely to have been diagnosed with long Covid by GPs

