

Diagnoses of Long COVID in the United States: Analysis of a Large Claims Database

Brian Buysse¹, Charles Coombs², Jessica Albano²

1. Syneos Health®, Spain; 2. Syneos Health®, United States; correspondence: brian.buysse@syneoshealth.com

Background

Post-acute COVID-19 syndrome, also referred to as long COVID, is a condition that includes a wide range of symptoms and that persists long after the acute infection with SARS-CoV-2.

Objectives

To assess newly diagnosed long COVID in a large US claims database.

Methods

- Patients with a first diagnosis of long COVID from 01Apr2020 to 30Sep2022 were identified in the Komodo Healthcare Map™, a large nationally representative database consisting of claims data from 350 million patients in the United States (US).

- Both open and payer-complete medical claims were used.
- Long COVID was defined as meeting one of the following two cases definitions:
 - A record of ICD-10 code U07.1 or U07.2 (COVID-19 with and without laboratory test, respectively) followed by a record of ICD-10 code B94.8 (sequelae of other specified infectious and parasitic diseases), or
 - A record of ICD-10 code U09.9 (post COVID-19 condition, effective since 01Oct2021)
- The number of patients with newly diagnosed long COVID (ie, the first recorded diagnosis) were evaluated over time, and patients were characterized according to age and sex.

Figure 1. New diagnoses of long COVID recorded in the Komodo Healthcare Map between 01Apr2020 and 30Aug2022

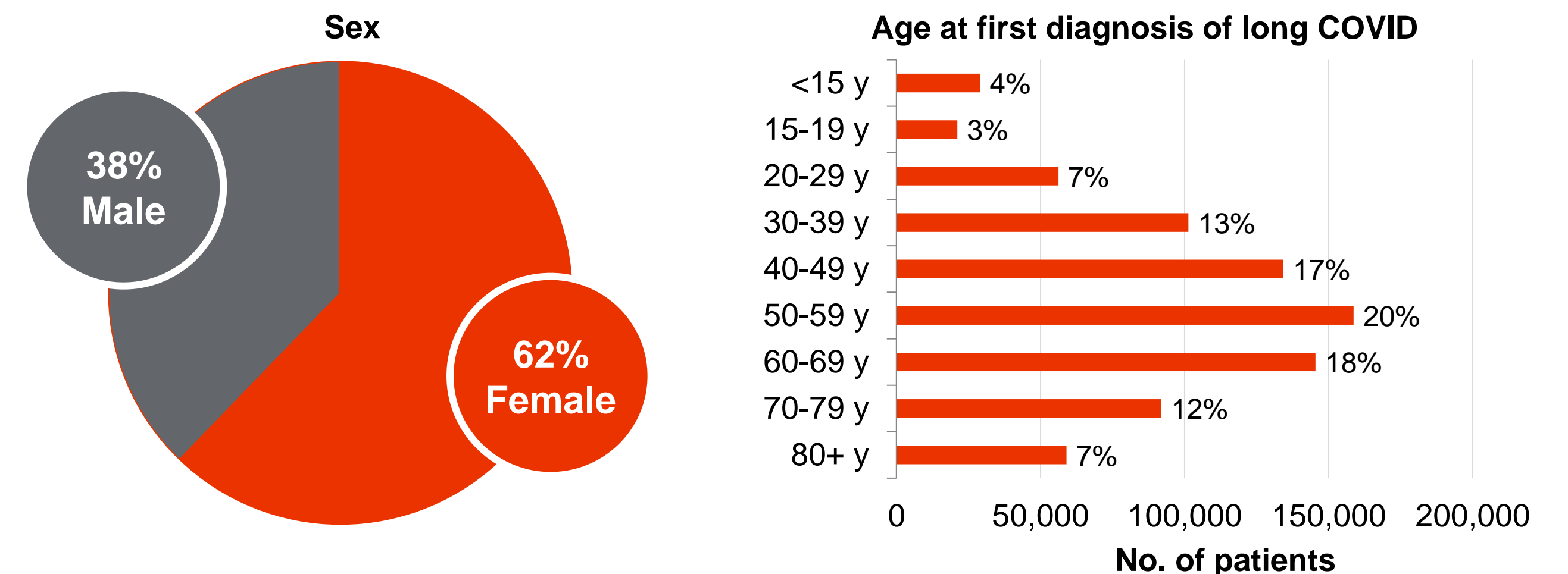
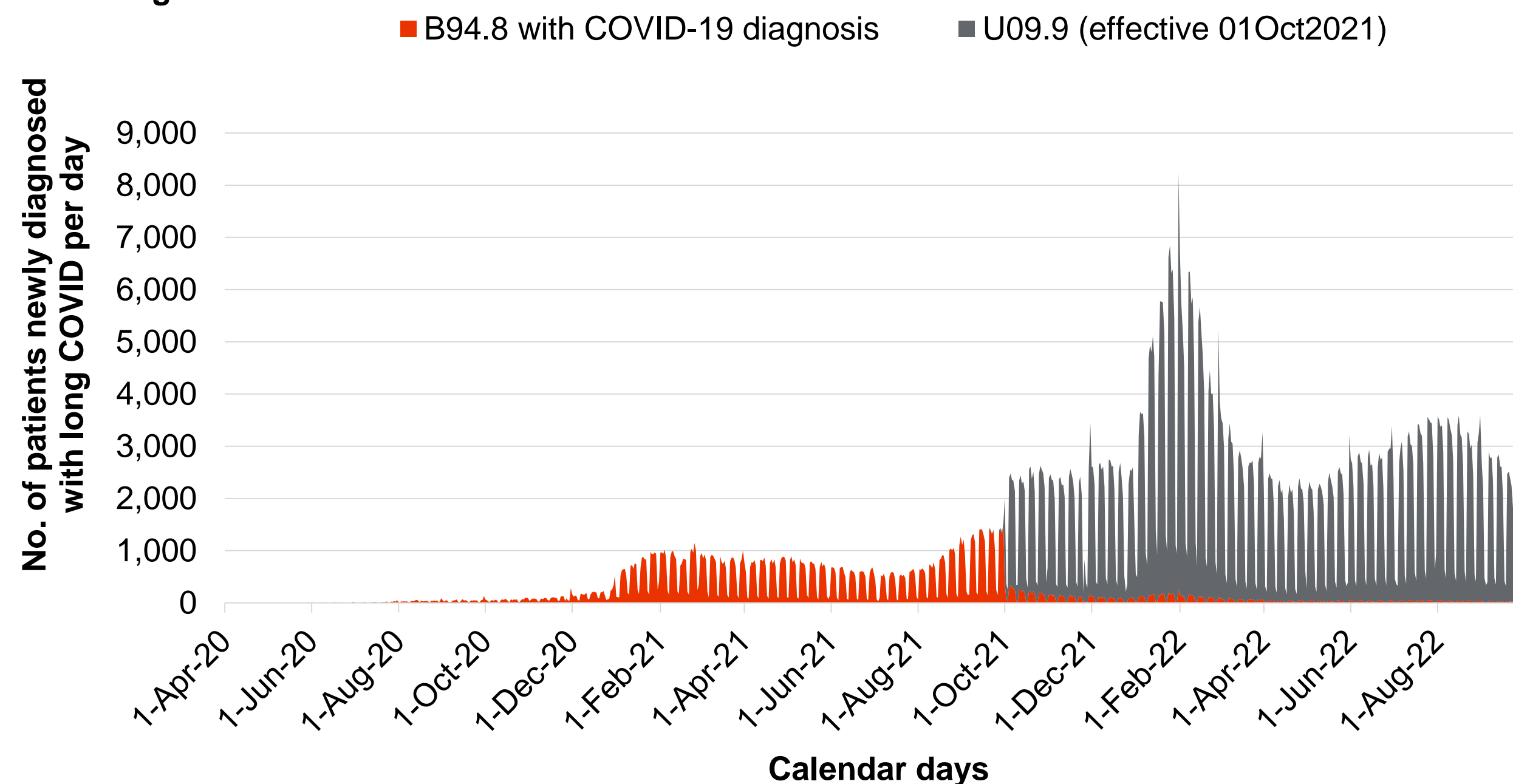


Figure 2. Age and sex distributions of patients newly diagnosed with long COVID (ICD-10 code U09.9 only) in the Komodo Healthcare Map

Results

- Figure 1** displays the evolution of newly diagnosed long COVID as recorded in the database.
- Between 01Apr2020 and 31Aug2022, 998,532 patients were diagnosed with long COVID. The majority (818,898 patients, 82%) were diagnosed from 01Oct2021 onwards, of whom 796,269 (97%) with the then newly introduced ICD-10 code U09.9.
- The number of new U09.9 diagnoses peaked between January and March 2022, with 7,988 new diagnoses on 31Jan2022 alone, the highest on any single day.
- Still 196,602 patients received a new U09.9 diagnosis in the last three months until data cutoff of 30Sep2022, representing a quarter of all patients receiving this diagnosis code.
- The overwhelming majority of patients (94%) received their first long COVID diagnosis on weekdays.
- Patients with a U09.9 diagnosis had a mean age of 51.9 years (SD 19.3), 63% were aged <60 years,

4% were aged <15 years, and 62% were female (Figure 2).

Conclusion

- These results reflect long COVID diagnoses in the normal care setting in a population of individuals with health insurance coverage in the US. More women than men received a long COVID diagnosis, which confirms previous research (eg, <https://www.cdc.gov/nchs/covid19/pulse/long-covid.htm>). More than half of diagnosed patients belong to the working-age population.
- The wave of new long COVID diagnoses seen in this analysis between January and March 2022 directly followed a wave of new COVID-19 cases in the United States (CDC data, <https://covid.cdc.gov/covid-data-tracker>).
- That most patients were diagnosed on weekdays may be because these diagnoses are made mostly in the non-acute care setting.

