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As shown in Figure 1, mortality rates did not significantly differ between the 2 groups at 1 month (36% of death in both groups; $P > .99$). After adjustment on WHO severity classes,⁸ Charlson Comorbidity Index, age, sex, and mortality did not significantly differ in the 2 groups [adjusted hazard ratio (95% confidence interval) = 0.88 (0.40-1.92), $P = .7$]. Median duration of hospital stay did not significantly differ between the 2 groups [11 (7-16) vs 10 (7-19) days, $P = .8$]. Bacteremia during hospitalization was rare in both groups (5% vs 4%, $P = .9$). One case of *Clostridioides difficile* colitis was diagnosed in the antibiotics group.

In this observational study in older comorbid inpatients presenting severe forms of COVID-19, 1-month mortality was very high (nearly a third of patients) and did not appear to widely differ under antibiotic treatment. If confirmed, these preliminary results from a relatively small cohort of older inpatients with severe SARS-CoV-2 pneumonia suggest that the use of antimicrobial drugs should be restricted.

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Supplementary Data

Supplementary data related to this article can be found online at <https://doi.org/10.1016/j.jamda.2020.11.034>.

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Geoffrey Odille, MS
Noémie Girard, MS
Service de Médecine Interne Gériatrie
Centre Hospitalier Universitaire Dijon Bourgogne,
Dijon, France

Stéphane Sanchez, MD
Service de médecine interne et de gériatrie aigue
Centre Hospitalier de Troyes
Troyes, France

Sarah Lelarge, MD
Service de médecine gériatrique aigue
Centre Hospitalier de Auxerre
Auxerre, France

Alexandre Mignot, MD
Service de médecine gériatrique aigue
CH Hospitalier William Morey
Chalon sur Saone, France

Sophie Putot, MD
Fabrice Larosa, MD
Jérémy Vovelle, MD
Valentine Nuss, MD
Sofia Da Silva, MD
Jérémy Barben, MD, MSc
Patrick Manckoundia, MD, PhD
Alain Putot, MD, PhD
Service de médecine gériatrique aigue
Centre Hospitalier Universitaire Dijon Bourgogne, Dijon, France

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Community-Based Long-Term Care Has Lower COVID-19 Rates and Improved Outcomes Compared to Residential Settings



To the Editor:

The prevalence of COVID-19 in nursing homes (NHs) and assisted living (AL) has generated considerable attention because of residents' vulnerability. For example, a recent study by Parikh et al¹ reported higher-than-expected asymptomatic cases in a point prevalence study in a subset of Connecticut NHs in May 2020. Yet little is known about COVID-19's impact on people receiving long-term services and supports in home and community-based settings (HCBS) as an alternative to NH or AL care. Using Connecticut statewide data, this study compares positive cases and deaths due to COVID-19 in 3 Medicaid HCBS programs from March through July 2020 to results for NH and AL residents over the same period. It also reports on COVID-related hospital and NH admissions for the HCBS programs.

Methods

This analysis used (1) Medicaid HCBS data collected by Connecticut's Department of Social Services and (2) NH and AL data collected by its Department of Public Health. The Department of Social Services collected data on COVID-19 cases, deaths, and hospital and NH admissions for all persons in the CT Home Care Program (CHCP) (age ≥ 65 years), Personal Care

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Fig. 1. COVID-19 cases and deaths in long-term services and supports (LTSS) settings. ABI, Acquired Brain Injury Waiver; AL, assisted living; CHCP, CT Home Care Program; NH, nursing home; PCA, Personal Care Assistance Waiver.

Assistance Waiver (PCA) (<age 65), and Acquired Brain Injury Waiver (ABI) through its Critical Incident Reporting System. The Department of Social Services created new classification codes at the pandemic's onset to track COVID-related incidents, which are required to be entered into the system within 48 hours of an incident. Reports come from participants, family members, providers, and hospital and NH social workers. The Department of Public Health requires NHs and ALs to report data on COVID-19 cases and deaths daily, which the Department of Public Health reports weekly on the State's COVID-19 data portal.²

Results

Both positive cases and deaths from COVID-19 were substantially higher in NH and AL than in any Medicaid HCBS program (Figure 1). During the 5-month study period, more than one-third (37%) of NH residents and 14% of AL residents were COVID-positive, compared with the reported 2% to 3% in each HCBS program. Likewise, the percentage of NH (11%) and AL (5%) residents who died from COVID-19 was considerably higher than the HCBS population (CHCP and Personal Care Assistance Waiver < 1%; Acquired Brain Injury Waiver = 0%). Death rates among the subgroup of COVID-positive cases were more comparable across settings, ranging from 25% to 39% in CHCP, NH, AL, and PCA, with no deaths among ABI participants (Figure 1).

In addition to the low incidence of positive cases and deaths for people receiving long-term services in home and community settings, COVID-related hospital and NH admission rates were also quite low in all 3 HCBS programs. Fewer than 3% in any program were hospitalized and fewer than 1% transferred to NHs. However, the small subset of COVID-positive HCBS participants did experience a substantial number of hospital and NH admissions. Between 60% and 68% of positive cases in the 3 HCBS programs were admitted to a hospital, and 17% to 30% were admitted to an NH during the study period. Comparable data were not available for persons living in congregate (NH and AL) settings. Data on deaths and hospital and NH admissions are not mutually exclusive.

Discussion

All persons in Medicaid HCBS programs are at risk of institutionalization or meet NH level of care and thus have comparable medical vulnerability to NH residents and perhaps more than some AL residents. Nevertheless, their COVID-19 positivity rate during the first 5 months of the pandemic in Connecticut was considerably

lower than residents of either congregate setting. Among COVID-positive cases, death rates were more comparable across settings, and the small percentage of COVID-positive HCBS program participants also had relatively high rates of COVID-related hospital and NH admissions. The main distinction between groups was their living situation. It is likely that living in the community, vs a congregate setting, accounts for the significantly lower infection rates. These figures bear close monitoring for the HCBS population because if trends move upward, any policy response will be challenged by the decentralized location of these community-dwelling vulnerable adults.

One study limitation is that testing protocols differed among the settings. Mandatory 100% testing began in May for all NH and AL residents. HCBS participants did not have mandatory testing. Thus, COVID-19 infection rates may be somewhat underreported because of asymptomatic cases or cases not otherwise diagnosed as COVID-19, but they are still markedly lower than the NH or AL rates.

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Julie Robison, PhD
Noreen Shugrue, JD, MBA, MA
Deborah Migneault, MSW
Doreek Charles, MSW
Kristin Baker, BS
Richard Fortinsky, PhD
Lisa Barry, PhD
*UConn Health Center on Aging
Farmington, CT, USA*

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Temporal Associations between Community Incidence of COVID-19 and Nursing Home Outbreaks in Ontario, Canada



Background

Nursing homes have borne the brunt of the COVID-19 pandemic, with residents of these homes incurring extreme morbidity and

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