Journal Pre-proof

Better COVID-19 outcomes in community-based long-term care than in nursing homes

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PII: S1525-8610(20)31050-1

DOI: https://doi.org/10.1016/j.jamda.2020.12.002

Reference: JMDA 3757

To appear in: *Journal of the American Medical Directors Association*

Received Date: 23 November 2020

Revised Date: 1 December 2020

Accepted Date: 3 December 2020

Please cite this article as: Robison J, Shugrue N, Migneault D, Charles D, Baker K, Fortinsky R, Barry L, Better COVID-19 outcomes in community-based long-term care than in nursing homes, *Journal of the American Medical Directors Association* (2021), doi: https://doi.org/10.1016/j.jamda.2020.12.002.

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Funding source: This work was supported by the Connecticut Department of Social Services, Grant 13DSS7102IK.

Word count: 696

References: 2

Figures: 1

Brief summary: Despite similar vulnerability, prevalence and deaths of institutional residents from COVID-19 greatly exceeded those of persons receiving long term services and supports in the community during the first 5 months of the pandemic.

Acknowledgments

Sponsor's Role: Personnel at the Connecticut Department of Social Services assisted with data acquisition by gathering COVID-19 data for the Medicaid HCBS programs. The Sponsor played no role in design, methods, analysis or preparation of the paper.

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Introduction:

The prevalence of COVID-19 in nursing homes (NH) and assisted living (AL) has generated considerable attention due to residents' vulnerability. For example, a recent study by Parikh et al.[1] 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 three 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 (DSS), and (2) NH and AL data collected by its Department of Public Health (DPH). DSS collected data on COVID-19 cases, deaths, and hospital and NH admissions for all persons in the CT Home Care Program (CHCP) (age 65+), Personal Care Assistance Waiver (PCA) (<age 65), and Acquired Brain Injury Waiver (ABI) through its Critical Incident Reporting System. DSS 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. DPH requires NHs and ALs to report data on COVID-19 cases and deaths daily, which DPH 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, over one-third (37%) of NH residents and 14% of AL residents were COVID-positive, compared to the reported 2-3% in each HCBS program. Likewise, the percent of NH (11%) and AL (5%) residents who died from COVID-19 was considerably higher than the HCBS population (CHCP and PCA=<1%; ABI=0%). Death rates among the subgroup of COVID-positive cases were more comparable across settings, ranging from 25-39% 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 three 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 three HCBS programs were admitted to a hospital, and 17-30% were admitted to a 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 percent 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, versus 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.

Conflict of Interest: None

References:

[1]Parikh S, O'Loughlin K, Ehrlich HY, et al. Point prevalence testing of residents for SARS-CoV-2 in a subset of Connecticut nursing homes. JAMA. 2020;324(11):1101-1103. doi: 10.1001/jama.2020.14984

[2]Connecticut COVID-19 Data Tracker. https://portal.ct.gov/Coronavirus/COVID-19-Data-Tracker. Accessed on September 23, 2020.

66 Figure legend

Figure 1. COVID-19 Cases and Deaths in Long-Term Services and Supports (LTSS) Settings. CHCP=CT Home Care Program; PCA=Personal Care Assistance Waiver; ABI=Acquired Brain Injury Waiver; NH=Nursing Home; AL=Assisted Living.

COVID-19 Cases and Deaths in Long-Term Services and Supports (LTSS) Settings