How many residents of U.S. nursing homes died in 2020? We still don't know (but HHS needs to find out)

Jessica Hockett, PhD

Wood House 76 · Originally published 4 January 2026 · Corrected 23 November 2026

Web version: https://woodhouse76.com/2026/01/04/how-many-residents-of-u-s-nursing-homes-died-in-2020-we-still-dont-know-but-hhs-needs-to-find-out/

For all of the attention paid to how U.S. nursing home residents were "handled" during the first months and year of the COVID-19 event, Americans still lack an answer to a basic and critical question:

> How many residents of skilled nursing and long-term care facilities died in 2020, regardless of cause and regardless of where the death occurred (e.g., in the facility, in a hospital, or during transfer)?

No single source reports this figure for any year, as far as I've been able to tell.

CDC WONDER, the federal mortality database, allows deaths to be queried by place of death, i.e., the type of setting in which the death happened. While "nursing home/long-term care facility" is one of the available categories, it captures only those residents who die in the facility itself. It doesn't capture residents who are transferred to hospitals or hospice facilities and die there or en route, or those who are discharged from care homes and die at private residences soon afterward.

Pre-COVID literature indicates that most U.S. nursing home residents die in the facility itself, with only about 20–25% dying in hospitals [1, 2]. In spring 2020, this relationship appears to have inverted. If, as comparisons of available data suggest, large numbers of residents died in hospitals after being sent shortly before death, this inversion is more consistent with policy changes than with a novel pathogen selectively targeting congregate settings in certain locations.

The OIG Report

One source that points to a marked departure from normal place-of-death patterns for U.S. nursing home residents following the pandemic declaration is a June 2021 report from the Department of Health and Human Services Office of the Inspector General (HHS-OIG): *COVID-19 Had a Devastating Impact on Medicare Beneficiaries in Nursing Homes During 2020* [3].

When the report's resident-based death counts are compared with CDC WONDER's place-of-death counts, the inversion is evident.

HHS-OIG Exhibit A-2 (p. 8) and the report summary (p. 2) indicate that 686,712 Medicare nursing home beneficiaries died in 2020, compared with 523,047 in 2019—an increase of 163,665.

By contrast, CDC WONDER mortality data, which count deaths by place of occurrence, show 535,672 deaths in nursing home/long-term care facilities in 2019 and 587,986 in 2020—an increase of 52,314.

The difference between these figures—**at least 111,350 deaths[1] (depicted in Figure 1 below)**—implies that a large number of nursing home residents (approximately 70% of the increase) died outside their care facilities.

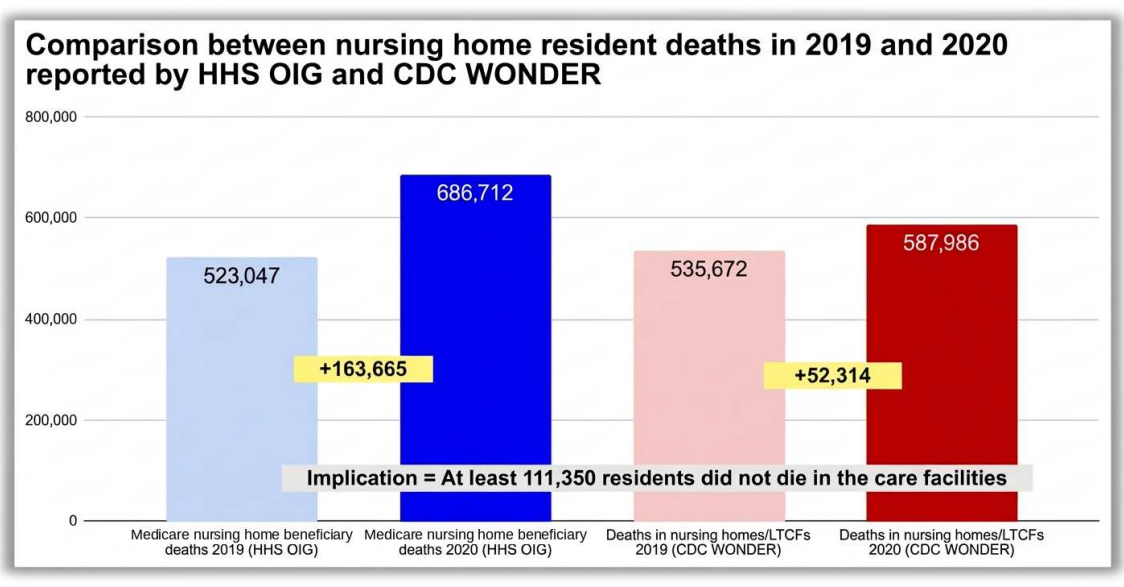


Figure 1. Nursing home resident deaths reported in *COVID-19 Had a Devastating Impact on Medicare Beneficiaries in Nursing Homes During 2020* versus deaths in nursing homes/long-term care facilities reported in CDC WONDER, 2019 and 2020.

The OIG report also states that 81,484 Medicare nursing home beneficiaries died in April 2020, nearly 30,000 more than in April 2019, despite a smaller nursing home population in April 2020.[2]

Comparing the April 2020 OIG number to CDC WONDER data showing 68,063 deaths occurring in nursing homes that month (Figure 2, below) yields a difference of approximately 13,500 deaths, again implying that a substantial number of nursing home residents died elsewhere.

We can also see there was no real increase in nursing home deaths from late 2019 through the first two months of 2020, prior to the WHO pandemic declaration on 11 March 2020. By contrast, January 2018 exhibits substantially higher mortality: approximately 20% higher than at any point during the 2019–2020 flu season immediately preceding the decree. We then see the April 2020 mortality inside of nursing homes was 20% higher than it was in January 2018, the

peak of what is considered a "bad flu season."

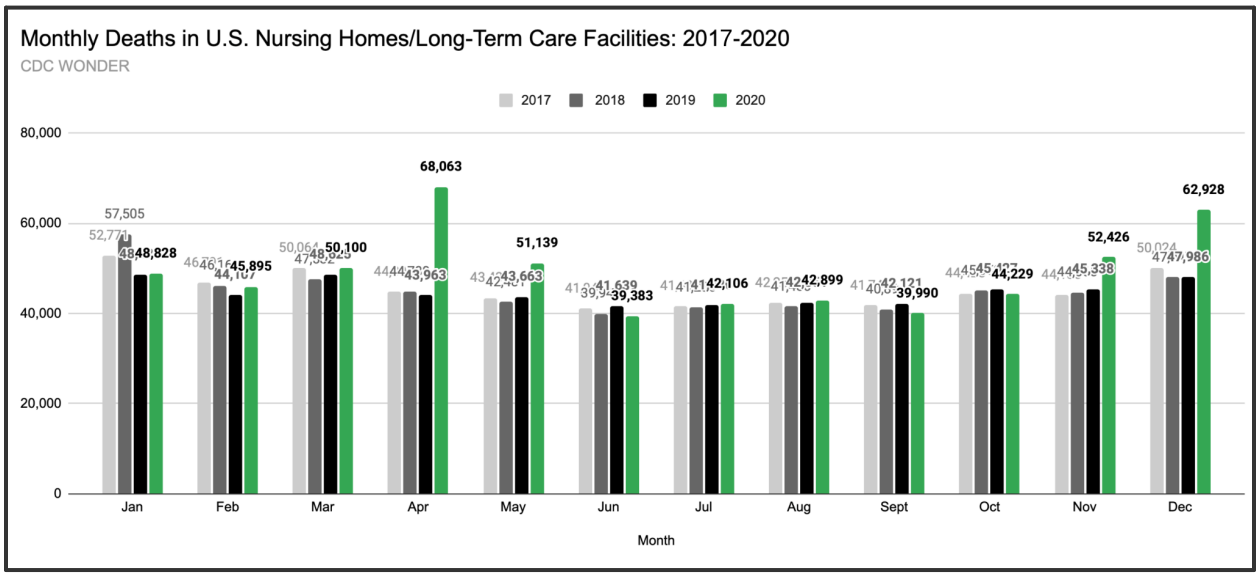


Figure 2. Monthly deaths in U.S. nursing homes and long-term care facilities, 2017–2020. NH/LTCF resident deaths that occurred outside of the care facilities are not included.

In the event of a spreading, disease-causing virus posing added mortality risk to elderly frail people, we might expect to find deaths in nursing homes beginning to rise to a level approaching the peak of a bad flu season before March 2020. Yet we don't.

Response from OIG Team

I contacted the OIG team responsible for the report and asked a) whether OIG's reported death counts reflect nursing home residents regardless of where death occurred (e.g., after hospital transfer), b) how their figures relate to CDC WONDER's place-of-occurrence mortality data, and c) whether the large discrepancy between OIG and CDC WONDER death totals suggests a shift toward hospital deaths among nursing home residents in 2020.

In response, the Team said it calculated the number of Medicare beneficiaries residing in nursing homes who died and used the date of death from the Social Security Administration, contained in the Medicare Enrollment Database, to identify those beneficiaries who died. If the beneficiary entered a hospital for treatment and died there, or was transferred to a hospice facility, they were still considered a nursing home resident. No place-of-death distinction is made.

Moreover, because the OIG report includes only Medicare beneficiaries, information about all-cause mortality for Medicaid-only beneficiaries and privately insured individuals is "missing," as is the monthly and total number of nursing home residents who died in 2020.[3] (My letter to the Team and their response are appended.)

What about the CMS "COVID Nursing Home" dataset?

Analysts might remember when, in May 2020, amid mounting public, media, and congressional pressure, the Trump administration ordered the Centers for Medicare & Medicaid Services (CMS) to compel all Medicare- and Medicaid-certified nursing homes to report COVID-19 cases and deaths as a condition of participation. The result, "COVID-19 Nursing Home Data", was created after weeks in which no authority (state health departments, the CDC, or CMS) could say definitively how many nursing home residents were getting sick and dying, whether attributed to "COVID-19" or other underlying and contributing causes.[4]

The file was severely limited, however. Reporting requirements began in mid-May (data for earlier in the "emergency" is unreported). Only deaths of residents with confirmed or suspected COVID were included, no distinction as to place of death was made, and long-term care facilities were excluded.[5]

Unless reported elsewhere, the federal government never collected or disclosed basic counts of where nursing home residents died, nor examined how much of the 2020 hospital excess was composed of nursing home residents.

All Places of Death: Departures from Normal

Raw numbers for all places of death in 2020 show dramatic shifts from the 2017–2019 average (Figure 3).

If nursing homes and LTCFs were a primary driver of excess mortality in 2020, deaths should have risen most sharply in those settings. The largest increases occurred instead at private residences and in hospital inpatient settings, each rising by 25%+, while nursing-home deaths increased by only 9% and deaths in hospice facilities fell nearly 8%. Notably, the increase in deaths occurring outside of institutions and congregate settings was higher than the increase in deaths inside those settings.[6]

The portrait painted is simply not one consistent with uncontrolled infectious outbreaks "ripping through" nursing homes. It is, however, consistent with the suspension of normal care pathways: disrupted hospice access or use, altered transfer and admission practices, aggressive hospitalization under emergency protocols, and (possibly) policy-driven displacement of frail residents from palliative care.

To have any chance of sustaining the narrative about nursing homes being devastated by a novel pathogen, the federal government would need at least to show what percentage (or how many) of the hospital deaths were nursing home residents and how it compares to previous years. Time-series data on transfers into hospitals from nursing homes, preferably in daily or weekly increments, also need to be released.

U.S. Deaths by Place of Death (2017–2019 Average vs. 2020)

Source: CDC WONDER

Place of Death	2017–2019 Avg.	2020	Absolute Change	Percent Change
Medical Facility – Total (incl. Dead on Arrival)	**1,005,192**	**1,235,978**	**+230,786**	**+23.0%**
Inpatient	817,106	1,023,837	+206,731	+25.3%
Outpatient or ER	178,044	202,468	+24,424	+13.7%
Dead on Arrival	10,042	9,673	−369	−3.7%
Decedent's Home	887,411	1,127,967	+240,556	+27.1%
Hospice Facility	221,716	204,671	−17,045	−7.7%
Nursing Home / Long-Term Care	539,514	587,986	+48,472	+9.0%
Other places	181,457	226,479	+45,022	+24.8%
Institutional places of death	**1,766,422**	**2,028,635**	**+262,213**	**+14.8%**
Non-institutional places of death	**1,068,868**	**1,354,446**	**+285,578**	**+26.7%**

Figure 3. U.S. deaths by place of death, 2017–2019 average versus 2020, absolute change and percent change.

Why does it matter—and what needs to be done?

One reason Americans deserve to know exactly how many care home residents died, and where, relates to challenging the pandemic narrative. Officials repeatedly claimed that a novel virus named SARS-CoV-2 "spread like wildfire" through nursing homes, ravaging vulnerable residents. Yet if most of the 2020 "excess" deaths were concentrated among nursing-home residents and (as I've argued elsewhere) among patients already hospitalized when emergency orders were issued, then their story requires us to accept an implausibly polite pathogen: one that waited for lockdowns before appearing in all-cause and care-home setting mortality data, and then surfaced only in institutional contexts in certain locations.[7]

Another reason to care about where and how many nursing home residents died, and how many hospital and home deaths were nursing home residents, pertains to how easy it is to use that population to create the appearance of an attack from a silent-spreading disease. The prevailing assumption (in spring of 2020 and now) is that nursing home residents died because of maltreatment in nursing homes, while hospitals did everything possible and merely received patients when it was already "too late." The data suggest the opposite narrative warrants interrogation. Records capable of revealing what actually happened do exist and are being ignored or hidden.

Deaths among people at the edge of life or in precarious, dependent circumstances are fully explainable by abrupt changes in healthcare protocols, including inappropriate transfers to hospitals, which are known to carry high risk for the resident [4]. A non-specific test, directions

for what to do in "response" to the positive test result, and the will to follow "treatment" directions are sufficient to explain observed mortality patterns.

HHS alone has the authority and the records required to answer these questions. It should therefore reconcile and publicly disclose how many nursing-home residents died in 2020, where those deaths occurred, and how those patterns compare with prior years. Until it does, claims about what "devastated" nursing homes in 2020 are not evidence-based conclusions, but unexamined assumptions resting on an incomplete federal record.

Update (21 January 2026)

A further response was received from HHS-OIG-OEI. See "Response received from HHS-OIG-OEI regarding my analysis of June 2021 report on nursing home deaths and request for additional contacts" (Wood House 76, updated 9 March 2026).

This article and correspondence with OIG-OEI was sent directly to Emma Greaven, Chief of Staff for New York State Senator James Skoufis, in advance of a meeting on 30 January 2026. During the meeting, Ms. Greaven verbally acknowledged having reviewed the material.

Correction (23 November 2026)

Two subtraction errors were corrected: the OIG increase from 2019 to 2020 is 163,665 (not 163,339), and the CDC WONDER increase is 52,314 (not 52,134). The difference between them (at least 111,350) is unchanged. The title and caption of Figure 2 were also corrected to show the years the chart covers: 2017–2020, not 2018–2020.

References

[1] Allers, K., Bausewein, C., Mehnert, A., & van den Block, L. (2019). Hospitalizations of nursing home residents at the end of life. *BMC Palliative Care, 18*, Article 90. https://doi.org/10.1186/s12904-019-0468-1

[2] Temkin-Greener, H., Zheng, N. T., Xing, J., & Mukamel, D. B. (2013). Site of death among nursing home residents in the United States: Changing patterns, 2003–2007. *Journal of the American Medical Directors Association, 14*(10), 741–748. https://doi.org/10.1016/j.jamda.2013.06.006

[3] U.S. Department of Health and Human Services, Office of Inspector General. (2021, June 22). *COVID-19 had a devastating impact on Medicare beneficiaries in nursing homes during 2020* (Report No. OEI-02-20-00490). https://oig.hhs.gov/reports/all/2021/covid-19-had-a-devastating-impact-on-medicare-beneficiaries-in-nursing-homes-during-2020/

[4] Resnick, B. (2020). Transitions of care from our inception to COVID-19: What have we learned? *Geriatric Nursing, 41*(4), 355–356. https://doi.org/10.1016/j.gerinurse.2020.06.009

Notes

1. "At least" because nursing home residents who were not Medicare beneficiaries are not included in the OIG totals.

2. The OIG report doesn't quantify how much smaller the population was, explain how monthly population counts were determined, or identify factors contributing to the decline (e.g., higher-than-normal mortality in preceding months, reduced admissions, or increased discharges). Population estimates published by KFF in 2025 do show a lower annual figure for 2020 than 2019 (1.32 million versus 1.33 million). However, authors of that report remarked on the relative stability in the number of residents between 2015 and 2020, so the smaller April 2020 figure may not be noteworthy. https://www.kff.org/medicaid/a-look-at-nursing-facility-characteristics/

3. Per KFF, approximately 23% of 1.2 million residents are privately insured: https://www.kff.org/medicaid/a-look-at-nursing-facility-characteristics/

4. In some ways, officials not knowing these numbers makes sense, because death processing and reporting takes time. Case numbers were simply residents testing positive for SARS-CoV-2, irrespective of symptoms. The sense of urgency around reporting these numbers was tied to convincing the public that emergency declarations and measures were justified and that a new spreading illness was killing people. The hubbub surrounding some states "hiding" the true number of nursing home resident deaths was always something of a ruse because a) the numbers are still hidden, at least at the federal level and in states like New York and Illinois, and b) for every state, CDC WONDER has always shown the number of decedents who died at the nursing home facilities (but not where residents who died elsewhere died).

5. Those and other limitations described in Curiskis, A., Oehler, K., Sahejpal, A., & Luo, D. (2021, March 4). Federal COVID Data 101: Working with CMS Nursing Home Data. *The COVID Tracking Project*. https://covidtracking.com/analysis-updates/federal-covid-data-101-working-with-cms-nursing-home-data

6. A full analysis and discussion of place of death shifts is beyond the scope of this article, but the changes were apparent—and observed and debated by American analysts (myself included) on platforms like Twitter in 2020—when the CDC published its provisional COVID-19 dashboards.

7. We also have to wonder why it didn't kill—or even sicken—the majority of nursing-home residents, as discussed with one study of Los Angeles nursing homes: https://woodhouse76.com/2025/03/11/if-its-so-deadly-then-why-wasnt-it-deadly/

Subject: Questions Regarding OIG Report on Medicare Beneficiaries in Nursing Homes (2020 Mortality Data)

To the HHS Office of the Inspector General team responsible for publication OEI-02-20-00490:

I have reviewed your June 2021 report "COVID-19 Had a Devastating Impact on Medicare Beneficiaries in Nursing Homes During 2020" https://oig.hhs.gov/oei/reports/OEI-02-20-00490.pdf and seek clarification on several points regarding mortality data, as they relate to discrepancies with other federal sources.

1. Annual Totals

- Your Exhibit A-2 (p. 8) and summary (p. 2) indicate that **686,712 Medicare nursing home beneficiaries died in 2020**, compared with **523,047 in 2019**—an increase of 163,339.
- By contrast, CDC WONDER mortality data, which counts deaths by *place of occurrence*, shows **535,672 deaths in nursing homes/long-term care facilities in 2019** and **587,986 in 2020**—an increase of only 52,134.

This discrepancy implies that nearly **70% of the additional deaths among nursing home residents in 2020 occurred outside the facilities** (e.g., hospitals). Pre-COVID literature, however, shows that only about **20–23% of nursing home residents normally die in hospitals**, with the majority dying in the nursing home itself.[1] Hence, if my inference from the comparison between the data in your report and CDC WONDER is correct, this would represent an unusual inversion of longstanding patterns.

Could you confirm whether OIG's data indeed reflects place-of-death distribution and whether it suggests a shift toward hospital deaths in 2020?

The data snapshot, *COVID-19 Had a Devastating Impact on Medicare Beneficiaries in Nursing Homes During 2020*, provides new information and is not equivalent to other previously reported data on nursing home COVID-19 cases and deaths. Our analysis is based on Medicare claims data and does not include nursing home residents who are not Medicare beneficiaries. Further, our findings include Medicare residents diagnosed with "likely COVID" and describe trends in overall mortality of Medicare nursing home residents, not just those with COVID-19.

We used the Minimum Data Set (MDS) to identify individuals who resided in nursing homes. The MDS includes assessments completed by the nursing home for each individual residing in these facilities. Using each resident's unique identifier, we matched the data from the MDS to the Medicare Enrollment Database to identify the residents who were enrolled in Medicare. We identified the Parts A, B, and C claims for these Medicare beneficiaries.

---

[1] e.g., Allers, K., Bausewein, C., Mehnert, A., & van den Block, L. (2019). Hospitalizations of nursing home residents at the end of life. *BMC Palliative Care*, *18*, Article 90. https://doi.org/10.1186/s12904-019-0468-1 Temkin-Greener, H., Zheng, N. T., Xing, J., & Mukamel, D. B. (2013). Site of death among nursing home residents in the United States: Changing patterns, 2003–2007. *Journal of the American Medical Directors Association*, *14*(10), 741–748. https://doi.org/10.1016/j.jamda.2013.06.006

We considered a beneficiary a nursing home resident starting from the date of the first MDS assessment at the facility until the date that the beneficiary leaves the facility to go home or dies. Therefore, a beneficiary who resided in a nursing home and entered a hospital for treatment is still considered a nursing home resident during the time spent in the hospital.

We calculated the total number of Medicare beneficiaries in nursing homes who had or likely had COVID-19 in 2020. These counts include the beneficiaries who were diagnosed with COVID-19 or likely COVID-19 in a nursing home as well as those diagnosed in other care settings after being transferred from the nursing home.

We also calculated the total number of Medicare beneficiaries residing in nursing homes who died during this period. These counts include the beneficiaries who died in the nursing home as well as those who died in the hospital or other health care settings, such as hospice, after being transferred from the nursing home. We calculated for each month the number of Medicare beneficiaries diagnosed as having or likely having COVID-19. We also calculated the number of Medicare beneficiaries residing in nursing homes who died. We used the date of death from the Social Security Administration, which is contained in the Medicare Enrollment Database, to identify those beneficiaries who died.

2. April 2020 Spike

Your report notes that **81,484 Medicare nursing home beneficiaries died in April 2020**, almost 30,000 more than April 2019, and that the *nursing home population was smaller* in April 2020.

Could you clarify:

- By how much smaller was the April 2020 population compared with April 2019?
- What were the contributing factors (e.g., higher-than-normal mortality in preceding months, reduced admissions, discharges)?
- Does the claims-based methodology fully capture these population shifts, or is there potential distortion due to enrollment/claims lags?

We calculated the total number of Medicare beneficiaries in nursing homes who had or likely had COVID-19 in 2020. These counts include the beneficiaries who were diagnosed with COVID-19 or likely COVID-19 in a nursing home as well as those diagnosed in other care settings after being transferred from the nursing home. For each Medicare beneficiary in a nursing home, we determined if the beneficiary was diagnosed with COVID-19, likely COVID-19, or neither. If a beneficiary is diagnosed at one point with likely COVID-19 and later diagnosed with COVID-19, we considered that beneficiary to be diagnosed with COVID-19 as opposed to likely COVID-19.

We also calculated the total number of Medicare beneficiaries residing in nursing homes who died during this period. These counts include the beneficiaries who died in the nursing home as well as those who died in the hospital or other health care settings, such as hospice, after being transferred from the nursing home. We calculated for each month the number of Medicare beneficiaries diagnosed as having or likely having COVID-19. We also calculated the number of Medicare beneficiaries residing in nursing homes who died. We used the date of death from the Social Security Administration, which is contained in the Medicare Enrollment Database, to

identify those beneficiaries who died.

This study determines the number of Medicare beneficiaries residing in nursing homes who had or likely had COVID-19 based on Medicare claims data; it does not include a review of medical records. It also determines the number of Medicare beneficiaries who died; it does not include a review of death certificates nor determinations about whether COVID-19 was the cause of death for these beneficiaries.

3. Scope of Coverage

Since the report's data are drawn from Medicare claims, do the totals exclude nursing home residents who were not Medicare beneficiaries (e.g., some younger residents or Medicaid-only populations)? If so, do you have an estimate of the magnitude of this exclusion and whether it could account for part of the discrepancy with CDC WONDER?

Also, were other kinds of long-term care facilities accounted for? If so, how so? If not, why not?

Our analysis is based on Medicare claims data and does not include nursing home residents who are not Medicare beneficiaries.

This analysis includes all beneficiaries who were enrolled in Medicare and resided in a nursing facility or skilled nursing facility— collectively referred to here as nursing homes—during 2020. It determines the number of beneficiaries who were diagnosed with COVID-19 or likely COVID-19 in a nursing home as well as those diagnosed in the hospital or other care settings after being transferred from the nursing home. It also provides the overall number of deaths; it does not attribute cause of death.

4. Comparative Analysis and Reconcilitation

Given that other federal mortality data systems (e.g., CDC WONDER, NCHS Vital Statistics) use *place of death* reporting, I would like to know if OIG has made, or plans to make, comparative analyses to reconcile resident-based counts with location-based counts. Such reconciliation would be valuable in understanding whether the 2020 spike reflects a true shift in care practices (more hospital transfers at end of life) or is largely an artifact of differing data systems.

Please see the following links for OIG's past and future work:

> HHS-OIG's Oversight of COVID-19 Response and Recovery | Office of Inspector General | Government Oversight | U.S. Department of Health and Human Services
>
> Work Plan | Office of Inspector General | U.S. Department of Health and Human Services

I would be very grateful for any clarification, methodological detail, or references you can provide. I'm sure you would agree that understanding how these datasets align (or not) is

essential for interpreting mortality patterns in nursing homes during 2020.

Regards

Jessica Hockett, PhD
Independent Researcher
Wheaton, Illinois | [redacted]