CMS Nursing Home COVID-19 Data Quality Assurance Process

Data quality checks are performed by the Centers for Medicare and Medicaid Services (CMS) to identify instances where facilities may have entered incorrect data, such as entering cumulative counts over time instead of new cases, and other data entry errors.

Summary of CMS Quality Check Criteria

Facilities are excluded when either Residents Total Confirmed COVID-19, Residents Total COVID-19 Deaths, Staff Total Confirmed COVID-19, or Staff Total COVID-19 Deaths appear implausible relevant to each other or the Number of All Beds. Four criteria based on data reported on residents to determine if a facility is excluded or included. Specifically, all facility's data for all weeks are excluded based on data reported on residents if:

- 1) The ratio of Residents Total Confirmed COVID-19 to Number of All Beds is greater than or equal to 1.75; that is, resident cases is at least 75% larger than total facility beds.
- 2) The ratio of Residents Total COVID-19 Deaths to Residents Total Confirmed COVID-19 and Residents Total Admissions COVID-19 is greater than or equal to 1.5; that is, resident deaths is at least 50% larger than resident cases and admissions combined.
- 3) The ratio of Residents Total COVID-19 Deaths to Number of All Beds is greater than or equal to 1.15; that is, resident deaths is at least 15% larger than total facility beds.

Exception: If any of these three conditions are met, a facility is still included if:

4) The facility reports fewer than 25 Residents Total COVID-19 Deaths or fewer than 25 Residents Total Confirmed COVID-19.

Three criteria based on data reported on staff also determine if a facility is excluded or included. Specifically, a facility is excluded based on data reported on staff if:

- 5) The Staff Total COVID-19 Deaths to Staff Total Confirmed COVID-19 is greater than or equal to 1.5; that is, staff deaths is at least 50% larger than staff cases. If there are fewer than 10 Staff Total COVID-19 Deaths, the facility is included.
- 6) The ratio of Staff Total COVID-19 Deaths to Number of All Beds is greater than or equal to 1.5; that is, staff deaths is at least 50% larger than total facility beds.
- 7) The ratio of Staff Total Confirmed COVID-19 to Number of All Beds (a) is greater than 3.0 if the Number of All Beds is 50 or fewer and (b) is greater than 1.75 if the Number of All Beds is greater than 50.

This procedure aims to reduce misrepresentation and inaccuracies in the public reporting of these data. Nursing homes that fall under these conditions will be flagged as "N" in the "Passed Quality Assurance Check" column and their data will not be included in the public dataset.