

Supplemental File S6: SNF and HHA Organizational Characteristics

Domain	Data Source	Description of variables
NH Characteristics		
Region	CMS Provider of Services File	<ul style="list-style-type: none"> Northeast, South, Midwest, West
State	CMS Provider of Services File	<ul style="list-style-type: none"> 2 letter state code, indicating the state in the US where the SNF/HHA is located
Urbanicity indicator based on Core Based Statistical Area codes	CMS Provider of Services File	<ul style="list-style-type: none"> Urban Rural
Profit status	CMS Provider of Services File	<ul style="list-style-type: none"> For profit Non-profit Government owned
Chain affiliation	Long Term Care Focus	<ul style="list-style-type: none"> Dichotomous indicator for SNF being part of a chain
Branch affiliation	CMS Provider of Services File	<ul style="list-style-type: none"> Indicator of HHAs that operates branches (not the same as chain status)
SNF within a Hospital	CMS Care Compare for SNF	<ul style="list-style-type: none"> Dichotomous indicator for a SNF that is located within a hospital
Size	CMS Provider of Services File	<ul style="list-style-type: none"> Number of certified beds for SNFs Number of episodes for HHAs
CMS quality 5-star rating for HHA	CMS Care Compare for HHA	<ul style="list-style-type: none"> 1-5 stars
CMS overall 5-Star rating for SNF	CMS Care Compare for SNF	<ul style="list-style-type: none"> 1-5 stars
CMS staffing 5-star rating for SNF	CMS Care Compare for SNF	<ul style="list-style-type: none"> 1-5 stars
CMS short-stay quality measures 5-star rating for SNF	CMS Care Compare for SNF	<ul style="list-style-type: none"> 1-5 stars
CMS health inspections 5-star rating for SNF	CMS Care Compare for SNF	<ul style="list-style-type: none"> 1-5 stars
Certification of need (CON)	National Conference of State Legislatures	<ul style="list-style-type: none"> Dichotomous indicator for whether SNF/HHA is located in a state with a CON law
Moratorium in place	National Conference of State Legislatures	<ul style="list-style-type: none"> Dichotomous indicator for whether SNF is located in a state with a moratoria in place
CMS certification	CMS Provider of Services File	<ul style="list-style-type: none"> Years certified as a SNF or HHA based on initial date of CMS certification

Staffing levels for SNF	Payroll Based Journal	<ul style="list-style-type: none"> • Nursing hours per resident per day • Rehabilitation staff hours per resident per day
Use of contract (or in-house) therapy for SNF	Payroll Based Journal	<ul style="list-style-type: none"> • All contract therapy staff • All in-house therapy staff • Mix
County-level COVID indicators	USAFacts	<ul style="list-style-type: none"> • County-level rates of COVID cases • County-level rates of COVID deaths
Aggregate patient-level measures		
% of patients dually eligible for Medicare & Medicaid	Medicare Post-Acute Care and Hospice Provider Utilization and Payment Public Use Files	<ul style="list-style-type: none"> • Percent of Medicare beneficiaries (short-stay residents for SNFs, all patients for HHAs) annually who are dually eligible for Medicaid
% of patients that reside in rural underserved regions	Medicare Post-Acute Care and Hospice Provider Utilization and Payment Public Use Files	<ul style="list-style-type: none"> • Percent of Medicare beneficiaries (short-stay residents for SNFs, all patients for HHAs) annually who receive their Medicare correspondence in a ZIP designated as rural
% Asian or Pacific Islander	Medicare Post-Acute Care and Hospice Provider Utilization and Payment Public Use Files	<ul style="list-style-type: none"> • Percent of Medicare beneficiaries (short-stay residents for SNFs, all patients for HHAs) annually who are Asian or Pacific Islanders
% American Indian or Alaska Native	Medicare Post-Acute Care and Hospice Provider Utilization and Payment Public Use Files	<ul style="list-style-type: none"> • Percent of Medicare beneficiaries (short-stay residents for SNFs, all patients for HHAs) annually who are American Indian or Alaska Native
% non-Hispanic Black patients	Medicare Post-Acute Care and Hospice Provider Utilization and Payment Public Use Files	<ul style="list-style-type: none"> • Percent of Medicare beneficiaries (short-stay residents for SNFs, all patients for HHAs) annually who are non-Hispanic Black or African American
% Hispanic patients	Medicare Post-Acute Care and Hospice Provider Utilization and Payment Public Use Files	<ul style="list-style-type: none"> • Percent of Medicare beneficiaries (short-stay residents for SNFs, all patients for HHAs) annually who are Hispanic

% Other race	Medicare Post-Acute Care and Hospice Provider Utilization and Payment Public Use Files	<ul style="list-style-type: none"> percent of Medicare beneficiaries (short-stay residents for SNFs, all patients for HHAs) annually with race not elsewhere classified or unknown
% White patients	Medicare Post-Acute Care and Hospice Provider Utilization and Payment Public Use Files	<ul style="list-style-type: none"> percent of Medicare beneficiaries (short-stay residents for SNFs, all patients for HHAs) annually who are non-Hispanic white