

Read this before using KHN's "ICU Beds by County" data analysis

Data Sources:

Healthcare Cost Report Information System (HCRIS) data for hospitals: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/Cost-Reports>

Hospital Compare general information file: <https://data.medicare.gov/Hospital-Compare/Hospital-General-Information/xubh-q36u>

2017 American Community Survey five-year population estimates (by age group)

Data Dictionary (also see Data Notes below):

Cnty_fips: five-digit code for each county (or incorporated city); first two digits are the state FIPS (Federal Information Processing Standards) and the last three are for the county.

Cnty_name: name of the county (or incorporated city).

St, State: abbreviated and full names of states.

Hospitals_in_cost_reports: the number of hospitals that filed a cost report since the beginning of 2018, for each county.

Hospitals_in_HC: the number of hospitals in the Hospital Compare general information file, for each county.

All_ICU: the number of ICU beds reported in the most recent cost report for each hospital, including the categories "intensive care unit," "coronary care unit," "burn intensive care unit" and "surgical intensive care unit." Aggregated by county.

Total_pop: the total population for each county according to the 2017 five-year ACS.

60plus: the total population for each county that is 60 or older.

60plus_pct: the percent of the total population that is 60 or older.

60plus_per_each_icu_bed: The population 60 and older divided by the total number of ICU_beds, where ICU_beds > 0.

Data Notes:

UPDATE: *errors that hospitals have made in their most recent reports have been brought to our attention, and we have made two manual adjustments to the data, in Otero County, CO and Hood River County, OR.*

Not all hospitals are in the Hospital Compare file cost reports, so you may see a difference in the "hospitals_in_cost_reports" field and the "hospitals_in_HC" field. Notably, hospitals for veterans run by the Department of Defense are included in the Hospital Compare dataset but do not file cost reports, and are not currently options for the general public.

Some hospitals have closed recently but remain in the Hospital Compare general information file and, therefore, are in our data.

Some hospitals misreport their ICU bed numbers. One obvious example is Arkansas Valley Regional Medical Center in La Junta, Colorado, which reported 506 ICU beds in its most recent report after reporting only four in previous reports. This throws off the numbers for Otero County, Colorado. *(We have adjusted the numbers for Otero County, Colorado and Hood River County, Oregon.)*

Virginia has several dozen incorporated cities that are independent of the counties that geographically surround them, but the hospitals in those cities likely serve the surrounding county, which makes Virginia data hard to analyze at the county level. In Maryland, Baltimore is separated into Baltimore, the county, and Baltimore City. The same goes for St. Louis in Missouri.

KHN's published methodology:

Kaiser Health News evaluated the capacity of intensive care unit (ICU) beds around the nation by first identifying the number of ICU beds each hospital reported in its most recent financial cost report, filed annually to the Centers for Medicare & Medicaid Services. KHN included beds reported in the categories of intensive care unit, surgical intensive care unit, coronary care unit and burn intensive care unit.

KHN then totaled the ICU beds per county and matched the data with county population figures from the Census Bureau's American Community Survey. KHN focused on the number of people 60 and older in each county because older people are considered the most likely group to require hospitalization, given their increased frailty and existing health conditions compared with younger people.

For each county, KHN calculated the number of people 60 and older for each ICU bed. KHN also calculated the percentage of county residents who were 60 or older.

KHN's ICU bed tally does not include Veterans Affairs hospitals, which are sure to play a role in treating coronavirus victims, because VA hospitals do not file cost. The total number of the nation's ICU beds in the cost reports is less than the number identified by the American Hospital Association's annual survey of hospital beds, which is the other authoritative resource on hospital characteristics. Experts attributed the discrepancies to different definitions of what qualifies as an ICU bed and other factors, and told KHN both sources were equally credible.