



# Office of Health Equity

## Healthy Communities Data and Indicators Project

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**Short Title:** Percent of household overcrowding.

**Full Title:** Percent of household overcrowding (> 1.0 persons per room) and severe overcrowding (> 1.5 persons per room).

### 1. Healthy Community Framework:

Meets basic needs of all.

### 2. What is Our Aspirational Goal?

Affordable, high quality, socially integrated and location-efficient housing.

### 3. Key factors as they relate to health and mental health disparities and inequities ([California Health and Safety Code Section 131019.5](#)):

(D) Housing, including access to affordable, safe, and healthy housing, housing near parks and with access to healthy foods, and housing that incorporates universal design and visitability features.

### 4. Why is this Important to Health?

#### a. Description of significance and health connection.

Residential crowding has been linked to an increased risk of infection from communicable diseases, a higher prevalence of respiratory ailments, and greater vulnerability to homelessness among the poor. Residential crowding reflects demographic and socioeconomic conditions. Older-adult immigrant and recent immigrant communities, families with low income and renter-occupied households are more likely to experience household crowding. A form of residential overcrowding known as "doubling up"—co-residence with family members or friends for economic reasons—is the most commonly reported prior living situation for families and individuals before the onset of homelessness.

#### b. Summary of evidence.

Population-based and cohort studies have found adverse associations between residential crowding and health outcomes and family and social relationships. Children in crowded households experienced more conflicts/problems within the family and at school, excessive school absences and lower scores in reading and math exercises. Household crowding is associated with a higher incidence of tuberculosis and prevalence of respiratory conditions. Several studies have identified household crowding to be a major risk factor in measles outbreaks and related-deaths, mumps infection, and meningitis and meningococcal disease.

#### c. References.

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7. [National Alliance to End Homelessness Homelessness Research Institute. The State of Homelessness in America; 2014.](#)
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9. [Office of the Deputy Prime Minister. The Impact of Overcrowding on Health & Education: A Review of Evidence and Literature. Wetherby, UK; 2004.](#)
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## 5. What is this Indicator?

### a. Detailed Definition.

The indicator is defined as the percent of household overcrowding (> 1.0 person per room, PPR) and severe overcrowding (> 1.5 PPR). The denominator of the indicator is the total number of households.

### b. Stratification.

Housing tenure (owner-occupied, renter-occupied, and total households); income level of renter/householder (represented as a percentage of HUD-adjusted median family income, or HAMFI); race/ethnicity stratification only available for some of the data.

### c. Data Description.

- i. Data source: U.S. Census Bureau, American Community Survey (ACS) 5-year estimates 2006-2010 (Table DP04) and 2011-2015 (Table DP04 and B25014). U.S. Department of Housing and Urban Development (HUD), Consolidated Planning Comprehensive Housing Affordability Strategy (CHAS) data 2009-2013, Table 10.
- ii. Years available: 2006-2010 (by race/ethnicity), 2009-2013 (by income and housing tenure), 2011-2015 (by race/ethnicity).
- iii. Updated: 5 year intervals.
- iv. Geographies available: census tracts, places, counties, regions (derived), and state.



In CHAS data, household overcrowding and severe household overcrowding estimates were pre-calculated for renter- and owner-occupied households. To derive the percent of household overcrowding (> 1.0 PPR), household estimates from two crowding strata (1.0 – 1.5 PPR and > 1.5 PPR) were summed (the numerator), divided by the denominator and multiplied by 100. For the percent of severe household overcrowding, household estimates for severe overcrowding (the numerator) were divided by the denominator and multiplied by 100. Both derived percents (the indicator) were calculated for renter-occupied, owner-occupied and total households (includes renter- and owner-occupied households). Race/ethnicity stratification was not available for CHAS data.

Household overcrowding data by race/ethnicity was obtained from ACS 2006-2010 and 2011-2015. To calculate percent of household overcrowding (>1.0 PPR), estimates from two crowding strata (1.0 – 1.5 PPR and > 1.5 PPR) were summed (the numerator), divided by the denominator and multiplied by 100. For the percent of severe household overcrowding, household estimates for severe overcrowding (the numerator) were divided by the denominator and multiplied by 100. Estimates for overcrowding and severe overcrowding were calculated by race/ethnicity.

The indicators and standard errors were calculated using the approximate method for the geographies of census tract, place, county, region (derived), and state. Relative standard errors (RSE), 95% confidence intervals, and decile ranking of places were also calculated. Regions were based on counties of metropolitan transportation organizations (MPO) as reported in the [2010 California Regional Progress Report](#).

Estimates for the survey period 2006-2010 are bisected by the Great Recession (2008), marked by a large increase in home foreclosures, and house/rental price instability. Due to changes in definitions and sampling, HUD does not recommend making comparisons to prior years' estimates.

## 6. Limitations.

Race/ethnicity data by income (HUD-adjusted median family income, or HAMFI) or housing tenure was not available.

## 7. Projects using this indicator.

[WHO's Children's Environmental Health Indicators](#); [Sustainable Communities Index](#).