| **2A Core Housing Need** |
| --- |
|

|

| [Description](#gjdgxs) | [Specific Indicators](#30j0zll) | [Ontario Public Health Standards](#1fob9te) | [Corresponding Health Indicators from Statistics Canada and CIHI](#3znysh7) | [Corresponding Indicators from Other Sources](#tyjcwt) | [Data Sources](#3dy6vkm) | [Survey Questions](#1t3h5sf) | [Alternative Data Sources](#4d34og8) | [Analysis Check List](#2s8eyo1) | [Method of Calculation](#17dp8vu) |[Basic Categories](#3rdcrjn) | [Indicator Comments](#26in1rg) | [Definitions](#lnxbz9) | [Cross-References to Other Indicators](#35nkun2) | [Cited References](#1ksv4uv) | [Changes Made](#44sinio) | [Acknowledgements](#2jxsxqh) |
| --- |
| **Description** |
| A household is considered to be in “**core housing need**” if its housing falls below at least one of the adequacy, affordability or suitability standards and it would have to spend 30% or more of its total before-tax income to meet the expenses of alternative local housing that is acceptable (meets all three housing standards). Housing standards are defined as:* **Adequate** housing does not require any major repairs, according to residents.

Major repairs include defective plumbing or electrical wiring, or structural repairs to walls, floors, or ceilings. * **Affordable** housing has shelter costs that are less than 30% of total before-tax household income

Shelter cost for renters: rent and any payments for electricity, fuel, water and other municipal services.Shelter cost for owners: mortgage payments (principal and interest), property taxes, and any condominium fees, along with payments for electricity, fuel, water and other municipal services.* **Suitable** housing has enough bedrooms for the size and composition (age, sex, and relationships of household members)) of resident households according to the National Occupancy Standard (NOS).

Enough bedrooms based on NOS requirements means one bedroom for:* + Each cohabiting adult couple;
	+ Each lone parent;
	+ Unattached household member 18 years of age and over;
	+ Same-sex pair of children under age 18;
	+ And additional boy or girl in the family, unless there are two opposite sex children under 5 years of age, in which case they are expected to share a bedroom.

A household of one individual can occupy a bachelor unit (i.e. a unit with no bedroom). A household is **NOT** in core housing need if its housing meets all of the adequacy, suitability and affordability standards **OR** if its housing does not meet one or more of these standards, but it has sufficient income to obtain alternative local housing that is acceptable (meets all three standards)Only private, non-farm, non-reserve and owner- or renter-households with incomes greater than zero and shelter-cost-to-income ratios less than 100% are assessed for ‘core housing need.’Regardless of their circumstances, non-family households led by maintainers 15 to 29 years of age attending school full-time are considered to be in a transitional stage of life and therefore not in core housing need. |
| **Specific Indicators** |
| * Core Housing Need
* Housing Adequacy
* Housing Suitability
* Housing Affordability
 |
| **Ontario Public Health Standards (OPHS)** |
| The Ontario Public Health Standards (OPHS) establish requirements for the fundamental public health programs and services carried out by boards of health, which include assessment and surveillance, health promotion and policy development, disease and injury prevention, and health protection. The OPHS consist of one Foundational Standard and 13 Program Standards that articulate broad societal goals that result from the activities undertaken by boards of health and many others, including community partners, non-governmental organizations, and governmental bodies. These results have been expressed in terms of two levels of outcomes: societal outcomes and board of health outcomes. Societal outcomes entail changes in health status, organizations, systems, norms, policies, environments, and practices and result from the work of many sectors of society, including boards of health, for the improvement of the overall health of the population. Board of health outcomes are the results of endeavours by boards of health and often focus on changes in awareness, knowledge, attitudes, skills, practices, environments, and policies. Boards of health are accountable for these outcomes. The standards also outline the requirements that boards of health must implement to achieve the stated results.  |
| Outcomes Related to this Indicator  |
|  Societal Outcome (Chronic Disease Prevention): An increased proportion of the population lives, works, plays, and learns in healthy environments that contribute to chronic disease prevention.  |
| Assessment and/or Surveillance Requirements Related to this Indicator  |
| * The board of health shall collect or access the following types of population health data and information: i) Socio-demographics including population counts by age, sex, education, employment, income, housing, language, immigration, culture, ability/disability, and cost of a nutritious food basket ((Population Health Assessment and Surveillance Protocol, 1b)
* The board of health shall analyze population health data and interpret the information to describe the distribution of health outcomes, preventive health practices, risk factors, determinants of health, and other relevant information to assess the overall health of its population.

 [**http://www.ontario.ca/publichealthstandards**](http://www.ontario.ca/publichealthstandards)  |
| **Corresponding Health Indicators from Statistics Canada and CIHI** |
| The Internet publication Health Indicators, produced jointly by Statistics Canada and the Canadian Institute for Health Information, provides over 80 indicators measuring the health of the Canadian population and the effectiveness of the health care system. Designed to provide comparable information at the health region and provincial/territorial levels, these data are produced from a wide range of the most recently available sources.Households (renters, owners, and total) spending 30% or more of total household income on shelter expenses. Shelter expenses include payments for electricity, oil, gas, coal, wood or other fuels, water and other municipal services, monthly mortgage payments, property taxes, condominium fees and rent.For housing adequacy, affordability, and suitability:*2016 Census Profile*Go to: http://www.statcan.gc.ca/start-debut-eng.html Click on "”Browse by key resource” Click on "Census Profile” under “Data tables” Search or browse to the appropriate geographyOR*2016 Census Data Tables*Go to: http://www.statcan.gc.ca/start-debut-eng.html Click on "”Browse by key resource” Click on "Census Program” under “Data tables” Click on “Housing” under “Topics”Click on “Data tables, 2016 Census - Housing” under “Data products”Click on the table with catalogue number: 98-400-X2016231OR*Housing Market Information Portal*Go to: <https://www03.cmhc-schl.gc.ca/hmiportal/en/#Profile/1/1/Canada>Click on "Housing Stock" under At-a-GlanceClick on " Housing Stock " under TablesOR*Housing in Canada Online*<https://www.cmhc-schl.gc.ca/en/hoficlincl/homain/stda/stda_050.cfm>Click on "Housing in Canada Online"Click on "Data Table" on the right-side menuOR*CMHC's Census Core Tables*ftp://ftp.cmhc-schl.gc.ca/chic-ccdh/DataTables/Census\_Core\_Tables\_2011/ftp://ftp.cmhc-schl.gc.ca/chic-ccdh/DataTables/Census\_Core\_Tables\_2006/For core housing need:*Core housing need, 2016 Census*Go to: http://www.statcan.gc.ca/start-debut-eng.html Click on "”Browse by key resource” Click on "Census Program” under “Data tables” Click on “Housing” under “Topics”Click on “Core housing need 2016 Census” under “Data products”Download data at the appropriate geography (e.g., province, CSD, CD, CMA, CA, etc.)OR*Housing Market Information Portal*Go to: <https://www03.cmhc-schl.gc.ca/hmiportal/en/#Profile/1/1/Canada>Click on "Core Housing Need" under At-a-GlanceClick on " Core Housing Need" under TablesOR*Housing in Canada Online*<https://www.cmhc-schl.gc.ca/en/hoficlincl/homain/stda/stda_050.cfm>Click on "Housing in Canada Online"Click on "Data Table" on the right-side menuOR*CMHC's Census Core Tables*ftp://ftp.cmhc-schl.gc.ca/chic-ccdh/DataTables/Census\_Core\_Tables\_2011/ftp://ftp.cmhc-schl.gc.ca/chic-ccdh/DataTables/Census\_Core\_Tables\_2006/ |
| **Corresponding Indicators from Other Sources** |
| * None
 |
| **Data Sources (see Resources:** [Data Sources](http://core.apheo.ca/index.php?pid=261)**)** |
| **Numerator & Denominator:** [Census of Canada, National Household Survey](http://core.apheo.ca/index.php?pid=200), and the Rental Market Survey**Original source:** Statistics Canada& the Canadian Mortgage & Housing Corporation**Distributed by:** Statistics Canada**Suggested citation (see Data Citation Notes):**Housing adequacy estimates: Statistics Canada, [year] Census (2016: 25% sample; 1981 - 2006: 20% sample). Statistics Canada, [2011] National Household Survey (30% sample)Housing affordability estimates: Statistics Canada, [year] Census (2016: 25% sample; 1981 - 2006: 20% sample). Statistics Canada, [2011] National Household Survey (30% sample)Housing suitability estimates: Statistics Canada, [2016] Census (25% sample). Statistics Canada, [2011] National Household Survey (30% sample) Core housing need: Statistics Canada, [year] Census (2016: 25% sample; 2006: 20% sample). Statistics Canada, [2011] National Household Survey (30% sample) |
| **Survey Questions** |
| Housing adequacy: Direct variable from Question F6Housing affordability: Derived variable from Questions F8a), b), c), F10a), c) and e)Housing suitability: Derived variable from Questions 2, 3, 4, 5, 6, and F4b)Core housing need: Housing adequacy, housing affordability, housing suitability, and 1) for communities where market rents can be estimated: the median rent (including utilities) of rental units with the number of bedrooms the household requires OR 2) for remote communities: the cost of acceptable local housing is based on the estimated monthly carrying cost of a newly constructed home with the number of bedrooms the household requires.  |
| **Alternative Data Sources** |
| * Canadian Income Survey
 |
| **Analysis Checklist**  |
| * None
 |
| **Method of Calculation** |
| **Percent of Households in Unsuitable Housing:** |
|

| number of households living below suitability standard |  |
| --- | --- |
|  |
| total private households |

  |
| **Percent of Households in Inadequate Housing (Housing needing major repairs):**  |
|

| number of households living below adequacy standard |  |
| --- | --- |
|  |
| total private households occupied by usual residents |

  |
| **Percent of Households in Unaffordable Housing (Households paying 30% or more of income on shelter):**  |
|

| number of households living below affordability standard |  |
| --- | --- |
|  |
| total non-farm private households with household total income greater than zero |

  |
| **Percent of Households Living in Core Housing Need (falling below at least one of the adequacy, affordability, or suitability standards and it would have to spend 30% or more of its total before-tax income to meet the expenses of acceptable alternative local housing (i.e., meets all three housing standards))** |
|

| Number of households living in core housing need |  |
| --- | --- |
|  |
| total non-farm, non-band, non-reserve, private households with household total incomes greater than zero and shelter-cost-to-income ratios less than 100% |

  |
| **Indicator Comments** Housing adequacy* 'Dwelling condition' refers to whether the dwelling is in need of repairs. This does not include desirable remodelling or additions. [1]The 'major repairs needed' category includes dwellings needing major repairs such as dwellings with defective plumbing or electrical wiring, and dwellings needing structural repairs to walls, floors or ceilings. [1]
* Prior to 2016, 'dwelling condition' was referred to as 'condition of dwelling.' [1]
* In 1961, the dwelling condition was determined by the census enumerator. [1]
* Dwellings that are too small for its residents are often tied to inadequate household income [2].
* Aboriginal people are more likely to live in dwellings that are in need of major repairs. [3]
* Similarly, individuals with low income will spend a greater proportion of their income on housing, while living in substandard residences. As a result, injuries may occur due to these substandard conditions and a lack of resources to repair them. [4]

Housing suitability* 'Housing suitability' refers to whether a private household is living in suitable accommodations according to the National Occupancy Standard (NOS); that is, whether the dwelling has enough [bedrooms](http://www12.statcan.gc.ca/census-recensement/2016/ref/dict/dwelling-logements001-eng.cfm) for the size and composition of the household. A household is deemed to be living in suitable accommodations if its dwelling has enough bedrooms, as calculated using the NOS. [5]
* 'Housing suitability' assesses the required number of bedrooms for a household based on the age, sex, and relationships among household members. An alternative variable, 'persons per room,' considers all rooms in a private dwelling and the number of household members. [5]
* Housing suitability and the National Occupancy Standard (NOS) on which it is based were developed by Canada Mortgage and Housing Corporation (CMHC) through consultations with provincial housing agencies in the 1980's.
* Enough bedrooms based on NOS requirements means one bedroom for each cohabiting adult couple; lone parent; unattached household member age 18 or older; same-sex pair of children under age 18; and additional boy or girl in the family, unless there are two opposite sex children under 5 years of age, in which case they are expected to share a bedroom. A household of one individual can occupy a bachelor unit (i.e., a unit with no bedroom). [6]
* Questions asking about the number of rooms and bedrooms experienced a change in wording between the English versions of the 2011 NHS and the 2016 Census. [7]
* The number of people per dwelling has been known to greatly impact the physical and mental health of inhabitants, including raising the risk of acquiring tuberculosis. This is especially true for many Canadian Aboriginal populations and for immigrants from some countries where older generations infected with tuberculosis in childhood may experience disease reactivation later in life that can infect others in the home. [8]
* Inadequate household income is often tied to dwellings that are in poor conditions. [2]
* A higher proportion of First Nations people live in crowding housing, with this proportion increasing among on reserve versus off reserve populations. [3]
* Crowded housing is associated with a wider and faster spread of communicable diseases, such as lower respiratory tract infections and gastroenteritis. [9] [10] Children and youth living in crowded housing conditions were also found to experience more psychological distress and helplessness, and to not perform as well in school. [11]
* Overcrowding can lead to the spread of infectious disease, and may adversely affect mental wellness. [4]

Housing affordability |
| * 'Shelter cost' refers to the average monthly total of all shelter expenses paid by households that own or rent their dwelling. [12]
* Shelter costs for owner households include, where applicable, mortgage payments, property taxes and condominium fees, along with the costs of electricity, heat, water and other municipal services. For renter households, shelter costs include, where applicable, the rent and the costs of electricity, heat, water and other municipal services. [12]
* The shelter-cost-to-income ratio is calculated by dividing the average monthly shelter costs by the average monthly total household income and multiplying the result by 100. [13]
* Prior to 2011, the term 'shelter-cost-to-income ratio' was referred to as 'owner's major payments or gross rent as a percentage of household income'. [13]
* Because it is based on census data, this indicator may not adequately reflect housing affordability in areas with large changes in housing costs.
* Owners may have difficulty estimating the many components of shelter costs (e.g., mortgage payments, property taxes, utilities and maintenance costs).
* Gross incomes are for the year preceding the census year.
* Data since the 1996 Census data should not be compared with earlier censuses. In 1996, the "gross rent spending 30% or more" referred to all rental households (615,980 for Ontario) and "owner's major payments spending 30% or more" referred to all owned households (467,410 for Ontario). The appropriate denominator was "rented" (1,396,145) and "owned" (2,523,390) which corresponded to all rented and owned households. In 1991 and earlier years, the gross rent spending 30% or more referred to "tenant one-family households without additional persons", and the owner's major payments spending 30% or more referred to "owner one-family households without additional persons". As a result, earlier censuses applied to one-family households, not all households as the 1996 Census did. This change has been maintained in all the questionnaires since 1996
* These data are not available for Band housing on Indian reserves, since this variable does not apply to this type of dwelling. [14]
* Households spending over 30% on housing may have inadequate funds for other necessities including food, clothing, transportation, and health care. [14]

The 30% threshold is arbitrary. [15] [16]However, this ratio can be a valid and reliable quantitative indicator in housing research and analysis but may not be useful for all research questions. [15]* Determining housing affordability is complex. For example, some households may choose to spend more on housing because they feel they can afford to, while others may not have a choice. [16]
* Household income is key, with low-income households tend to have more difficulty meeting shelter costs.[16]
* Evaluation of household spending is more likely to give a complete picture of the cost burden of housing.[16]
* Factors associated with spending above the affordability benchmark include living alone, being a female lone parent, renting, or being an immigrant.[16]
* High housing cost is one of the most frequently cited causes of hunger. [17] Unaffordable housing is linked to food insecurity and inadequate childhood nutrition. [18]

Core housing need* Core housing need is derived in two stages. The first identifies whether the household was living in a dwelling considered unsuitable, inadequate or unaffordable. The second stage establishes whether the household could be expected to have affordable access to suitable and adequate alternative housing by comparing the household’s total income to an income threshold based on local housing costs. Only those households who could not afford alternative housing would be considered in core housing need. [19]
* In communities where market rents can be estimated, the cost of acceptable local housing is calculated using the median rent of rental units with the number of bedrooms the household requires. Elsewhere, the cost of acceptable local housing is based on the estimated monthly carrying cost of a newly constructed home with the number of bedrooms the household requires. [6]
* Farms are excluded because shelter costs for farm households are not separable from costs related to other farm structures. Band households are excluded because shelter costs are not collected for households whose housing costs are paid through band housing arrangements. Reserve households are excluded because, given communal land tenure in most reserve communities, the distinction among different tenures as reported on-reserve may be less clear than off-reserve. For the purpose of measuring affordability, we regard STIRs of 100% or more, STIRs for households with incomes of zero or less, and STIRs of households living in non-band housing on reserves as uninterpretable. [20]
* Non-family households with at least one maintainer aged 15 to 29 attending school are considered not to be in 'Core housing need' regardless of their housing circumstances. Attending school is considered a transitional phase, and low incomes earned by student households are viewed as being a temporary condition. [19]
* A larger percentage of renter households, households in the lowest income quintile, female lone-parent households experienced core housing need in 2011. [6]
* Specific populations experiencing well-above average incidence of core housing need in 2011 included off-reserve Aboriginal renter households, recent immigrant households, and senior renter households. [6]
* Affordability is the least frequently met of the three criteria (adequacy, affordability, and suitability). [6]
* Compared with peers living in adequate housing conditions, children and youth living in inadequate and crowded housing exhibit a number of negative outcomes, including aggressive behaviours, property offences, diminished school performance, asthma symptoms and diminished overall health status. [21] Other studies link inadequate housing with poor air quality and lead exposure, [22] an increased risk for asthma [23], and exposure to health hazards and injury risks [24].
 |
| **Definitions** |
| * None
 |
| **Cross-References to Other Indicators** |
| * None
 |
| **Cited References**  |
|

| [1]  | Statistics Canada, "Dictionary, Census of Population, 2016. Dwelling condition," 26 April 2017. [Online]. Available: http://www12.statcan.gc.ca/census-recensement/2016/ref/dict/dwelling-logements003-eng.cfm. [Accessed 22 December 2017]. |
| --- | --- |
| [2]  | Statistics Canada, "Housing: An income issue.," 2003. [Online]. Available: http://www.statcan.gc.ca/pub/11-008-x/2002004/article/6497-eng.pdf. [Accessed 22 December 2017]. |
| [3]  | Statistics Canada, "Census in Brief. The housing conditions of Aboriginal people in Canada.," 25 October 2017. [Online]. Available: http://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016021/98-200-x2016021-eng.cfm. [Accessed 22 December 2017]. |
| [4]  | Canadian Coalition for Public Health in the 21st Century, "Core Housing Need," June 2017. [Online]. Available: http://ccph21.ca/wp-content/uploads/2017/11/ccph21\_housing\_e.pdf. [Accessed 22 December 2017]. |
| [5]  | Statistics Canada, "Dictionary, Census of Population, 2016. Housing suitability," 5 May 2017. [Online]. Available: http://www12.statcan.gc.ca/census-recensement/2016/ref/dict/households-menage029-eng.cfm. [Accessed 22 December 2017]. |
| [6]  | Canada Mortgage and Housing Corporation, "Canadian Housing Observer. Housing Affordability and Need," 2014. [Online]. Available: https://www.cmhc-schl.gc.ca/en/hoficlincl/observer/upload/68193\_w\_ACC.pdf. [Accessed 22 December 2017]. |
| [7]  | Statistics Canada, "Housing Reference Guide, Census of Population, 2016," 25 October 2017. [Online]. Available: http://www12.statcan.gc.ca/census-recensement/2016/ref/guides/005/98-500-x2016005-eng.cfm. [Accessed 22 December 2017]. |
| [8]  | Canadian Tuberculosis Committee, "An Advisory Committee Statement (ACS). Housing conditions that serve as risk factors for tuberculosis infection and disease," *Canada Communicable Disease Report,* vol. 33, no. ACS-9, pp. 1-13, 2007.  |
| [9]  | N. R. S. M. Goldstein G, "Housing, health and well-being: An international perspective," *Journal of sociology and social welfare,* vol. 17, pp. 161-81, 1990.  |
| [10]  | H. P. E. J. H. L. Emond AM, "The effects of housing on the health of preterm infants," *Paediatric and Perinatal Epidemiology,* vol. 11, no. 2, pp. 228-39, 1997.  |
| [11]  | S. H. C. J. Evans G, "Housing quality and children’s socioemotional health," *Environment and Behaviour,* vol. 33, pp. 389-99, 2001.  |
| [12]  | Statistics Canada, "Dictionary, Census of Population, 2016. Shelter cost," 5 May 2017. [Online]. Available: http://www12.statcan.gc.ca/census-recensement/2016/ref/dict/households-menage033-eng.cfm. [Accessed 22 December 2017]. |
| [13]  | Statistics Canada, "Dictionary, Census of Population, 2016. Shelter-cost-to-income ratio," 3 May 2017. [Online]. Available: http://www12.statcan.gc.ca/census-recensement/2016/ref/dict/households-menage028-eng.cfm. [Accessed 22 December 2017]. |
| [14]  | Statistics Canada, "Housing affordability," 28 September 2016. [Online]. Available: https://www.statcan.gc.ca/pub/82-229-x/2009001/envir/hax-eng.htm. [Accessed 22 December 2017]. |
| [15]  | D. Hulchanski, "The concept of housing affordability: six contemporary uses of the housing expenditure-to-income ratio," *Housing Studies,* vol. 10, no. 4, p. 471, 1995.  |
| [16]  | J. Luffman, "Measuring housing affordability," *Perspectives on Labour and Income,* vol. 7, no. 11, pp. 16-25, 2006.  |
| [17]  | Daily Bread Food Bank, "A housing benefit for Ontario: One housing solution for a poverty reduction strategy," November 2008. [Online]. [Accessed 22 December 2017]. |
| [18]  | H. D. Krieger J, "Housing and health: Time again for public health action," *American Journal of Public Health,* vol. 92, no. 5, pp. 758-68, 2002.  |
| [19]  | Statistics Canada, "Core housing need, 2016 Census," 15 November 2017. [Online]. Available: http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/chn-biml/index-eng.cfm. [Accessed 22 December 2017]. |
| [20]  | Canada Mortgage and Housing Corporation, "Core Housing Need (Census-based and NHS-based housing indicators and data)," 2014. [Online]. Available: https://www03.cmhc-schl.gc.ca/hmip-pimh/en/TableMapChart/CoreHousingNeedMethodology. [Accessed 22 December 2017]. |
| [21]  | Canada Mortgage and Housing Corporation, "Special studies on 1996 census data: Housing Canada's children," September 2004. [Online]. Available: https://www.cmhc-schl.gc.ca/textVersion/?tv=/odpub/pdf/62440.pdf?lang=en+socioeconomic55-4. [Accessed 22 December 2017]. |
| [22]  | K. E. Evans GW, "Socioeconomic status and health: The potential role of environmental risk exposure," *Annual Review of Public Health,* vol. 23, pp. 303-31, 2002.  |
| [23]  | S. L. T. T. S. J. Krieger JW, "Asthma and the home environment of low-income urban children: Preliminary findings from the Seattle-King County healthy homes project," *Journal of Urban Health,* vol. 70, no. 1, pp. 50-67, 2000.  |
| [24]  | S. M. K. R. B. H. Sharfstein J, "Is child health at risk while families wait for housing vouchers?," *American Journal of Public Health,* vol. 91, no. 8, pp. 1191-2, 2001.  |

 |
| **Changes Made** |
|

| **Date** | **Type of Review - Formal Review or Ad Hoc?** | **Changes made by** | **Changes** |
| --- | --- | --- | --- |
|   | Formal | Social Determinants of Health Subgroup | * Updated all content to include components of core housing need indicator
* Corresponding Health Indicators from Statistics Canada and CIHI updated
* Data source information updated
* Updated survey questions
* Updated alternative data sources
* Updated method of calculation
* Updated indicator comments
* Updated references
* Added information about housing burden from references.
 |
| January 12, 2018 | Formal Review | CMHC | * Updated definitions for housing standards and core housing need
* Added titles for Statistics Canada data sources
* Provided additional CMHC data sources
* Harmonized terminology/updated formulas in method of calculation
* Minor word changes to indicator comments
 |

  |
| **Acknowledgements** |
|

| Lead Author(s) | Dinna Lozano & Stanley Ing |
| --- | --- |
| Contributing Author(s) | Virginia McFarland, Luanne Jamieson, Bill Kou, Cameron McDermaid |
| Core Indicator Reviewers | Jessica Deming |
| External Reviewers |  Jeremiah Prentice, CMHC |

  |

 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

 |