

Proper HOUSING

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Philippine Context CENSUS REVIEW

- Review

<https://psa.gov.ph/content/housing-characteristics-philippines-2020-census-population-and-housing>

- Describe **Housing Characteristics in the Philippines** as per the **2020 Census of Population and Housing**

1. Proper Housing

- Improved housing conditions can save lives, prevent disease, increase quality of life, reduce poverty, and help mitigate climate change. Housing is becoming **increasingly important to health** in light of urban growth, ageing populations, and climate change (WHO, 2018)



3 GOOD HEALTH AND WELL-BEING






11 SUSTAINABLE CITIES AND COMMUNITIES



Table 1 Recommendations of the WHO Housing and health guidelines

Topic	Recommendation	Strength of recommendation
 Crowding	Strategies should be developed and implemented to prevent and reduce household crowding.	Strong
 Indoor cold and insulation	<p>Indoor housing temperatures should be high enough to protect residents from the harmful health effects of cold. For countries with temperate or colder climates, 18 °C has been proposed as a safe and well-balanced indoor temperature to protect the health of general populations during cold seasons.</p> <p>In climate zones with a cold season, efficient and safe thermal insulation should be installed in new housing and retrofitted in existing housing.</p>	<p>Strong</p> <p>Conditional</p>

 Indoor heat	In populations exposed to high ambient temperatures, strategies to protect populations from excess indoor heat should be developed and implemented.	Conditional
 Home safety and injuries	Housing should be equipped with safety devices (such as smoke and carbon monoxide alarms, stair gates and window guards) and measures should be taken to reduce hazards that lead to unintentional injuries.	Strong
 Accessibility	Based on the current and projected national prevalence of populations with functional impairments and taking into account trends of ageing, an adequate proportion of the housing stock should be accessible to people with functional impairments.	Strong

Healthy Housing

- shelter that **supports** a state of **complete** physical, mental, and social well-being
- provides a **feeling of home**, including a **sense of belonging, security and privacy**
- also refers to the **physical structure** of the dwelling, and the **extent** to which it enables physical health
 - being structurally sound
 - providing shelter from the elements and from excess moisture
 - facilitating comfortable temperatures, adequate sanitation and illumination, sufficient space, safe fuel or connection to electricity, and protection from pollutants, injury hazards, moulds and pests

iris.who.int/bitstream/handle/10665/276001/9789241550376-eng.pdf?sequence=1

2. Standards in Building Houses

- **Earthquake-Resistant Design and Construction of Buildings Code:** ensure safety & stability of buildings during earthquakes
 - buildings be located in areas with **low seismic hazards**
 - site be evaluated for **soil and geological** conditions
- **Fire Code of the Philippines:** regulate fire safety & prevention
 - provision of fire **exits, fire-resistant materials, and adequate fire protection systems**
 - equip with **appropriate** fire alarms, sprinkler systems, and fire extinguishers
- **Plumbing Code of the Philippines:** govern design, installation, and maintenance of plumbing systems (water supply and distribution, sewage and drainage, gas piping, plumbing)

- **Electrical Code of the Philippines:** ensure public safety and prevent electrical hazards
 - electrical systems be **regularly inspected and maintained** to ensure proper function and compliance
- **VENTILATION**
 - may be improved with sufficient number of **windows**, particularly in cooking areas with smoke
- **LIGHTING**
 - increasing natural light and having adequate lighting

3. Standard Measurement

- **Standard measurement of adequate housing per family:**
 - 24 square meters of floor area to 33 square meters
 - minimum standard for floor area per person: 50 square feet
- **PD 1096 National Building Code of the Philippines**
 - Dwelling shall occupy not more than 90% of a corner lot and 80% of an inside lot; shall be at least 2 meters from the property line
 - provide **adequate light and ventilation**
 - at least 1 **sanitary toilet** and adequate **washing and drainage** facilities

- **Footings** shall be of sufficient size and strength to support the load of the dwelling and shall be at least 250 millimeters thick and 600 millimeters below the surface of the ground.
- **Live load** of the first floor shall be at least 200 kilograms per square meter and for the second floor, at least 150 kilograms per square meter.
- **Wind load for roofs** shall be at least 120 kilograms per square meter for vertical projection.
- **Stairs** shall be at least 750 millimeters in clear width, with a rise of 200 millimeters and a minimum run of 200 millimeters.
- at least **one entrance and another one for exit**

PD 1096 National Building Code of the Philippines

- **Minimum sizes of rooms** and their least horizontal dimensions:
 - **Rooms for Human Habitations** – 6.00 square meters with a least dimension of 2.00 meters
 - **Kitchens** – 3.0 square meters with a least dimension of 1.50 meters
 - **Bath and toilet** – 1.20 square meters with a least dimension of 0.90 meter
- **Minimum air space:**
 - **School Rooms** – 3.00 cubic meters with 1.00 square meter of floor area per person
 - **Workshops, Factories, and Offices** – 12.00 cubic meters of air space per person
 - **Habitable rooms** – 14.00 cubic meters of air space per person.

PD 1096 National Building Code of the Philippines

4. Household Crowding

- condition where the **number of occupants exceeds the capacity of the dwelling space available**, whether measured as **rooms, bedrooms or floor area**, resulting in **adverse physical and mental health outcomes**
- result of **mismatch** between **dwelling and household**
 - relates to size and design of **dwelling**, including size of rooms, and to the type, size, and needs of the **household**, including any long-term visitors
- 1 : 1 ratio (1 person is to 1 habitable room)

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- Whether a household is “crowded” depends not only on the number of people sharing the dwelling, but on **their age, their relationship, and their sex**.
- For example, a dwelling might be considered crowded if two adults share a bedroom, but not crowded if those adults are in a relationship.
- Crowding relates to the conditions of the dwelling, as well as the space it provides: people may crowd into particular rooms in their home to avoid cold or uninhabitable parts of the dwelling or to save on heating and other costs.

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Crowding Index

- **described by dividing the number of persons in a household with the number of rooms used by the family for sleeping**
- **A high crowding index gives implication to the ease by which a communicable disease will be transmitted from one host to another susceptible host in a household.**

Maglaya p.184

5. Diseases

- living in **unsafe or unsuitable** housing conditions may contribute to **health inequities** and be a factor in **health problems**, such as chronic diseases
- poor housing may **cause or contribute** to many **preventable** injuries and conditions, such as respiratory, nervous system, and cardiovascular diseases, as well as cancer
- Lower **quality and safety** of housing increases people’s risk of health problems. Potential health hazards in the home typically fall into:

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- **Biological:** allergens from mold, rodents, and dust mites and may increase risk of **allergies, asthma**, and other respiratory illnesses
- **Chemical:** lead, asbestos, radon, and carbon monoxide may lead to increased likelihood of **neurological** complications, developmental disorders, cancer, asthma, and other respiratory illnesses
- **Physical:** improper ventilation, temperature control, and hazards that may cause injury. These may contribute toward **physical injury**, respiratory illness, asthma, and exposure to excessive heat or cold
- **Social:** overcrowding, living in poverty, and fear of crime. Social health hazards may increase risk of **infectious diseases** and poorer **mental health** outcomes.

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6. Laws

- **Revised Rules and Standards for Economic and Socialized Housing Projects to implement Batas Pambansa Blg. 220**
 - Parameters for design standards:
 - **Protection and safety** of life, limb, property, and general public welfare
 - **Basic needs of human settlements**, enumerated in descending order as follows:
 - Water
 - Movement and circulation
 - Storm drainage
 - Solid and liquid waste disposal
 - Park/playground
 - Power

- **Revised Rules and Regulations Implementing the Subdivision and Condominium Buyer’s Protective Decree (PD 957) and other Related Laws**

- specifies areas such as:
 - water supply system
 - electrical power supply
 - sewage disposal system
 - drainage system
 - garbage disposal system

• PD 1096: National Building Code of the Philippines

- policy of the State to **safeguard life, health, property, and public welfare**, consistent with the principles of sound environmental management and control
- provide for all buildings and structures, a framework of **minimum standards and requirements** to regulate and control their location, site, design, quality of materials, construction, use, occupancy, and maintenance

Philippine Development Plan



Building safe, resilient, and sustainable communities

- Three areas:
 - regulation
 - production
 - financing

pdp.neda.gov.ph/wp-content/uploads/2019/11/Updated-PDP-2017-2022-Chapter-12-20201207-v1.pdf

1. **Public health goals** in the design of human settlements will be **integrated**.

2. Housing production that incorporates **hazard and health standards** will be **accelerated**.

3. **Alternative housing solutions** for low-income market will be **adopted**.

As a crosscutting strategy, **empowerment of stakeholders** (e.g., families and communities and LGUs) will be **intensified** towards the attainment of these three subsector outcomes.

pdp.neda.gov.ph/wp-content/uploads/2019/11/Updated-PDP-2017-2022-Chapter-12-20201207-v1.pdf

National Urban Development and Housing Framework

- development framework for **urban and urbanizing areas** aimed at achieving the objectives of the **Urban Development and Housing Act**
 - Housing development should be **culturally sensitive** and must adhere to **appropriate standards and design**.
 - It should pay special attention to the needs of those in **vulnerable situations**, including indigenous peoples (IPs), persons with disabilities (PWDs), the elderly, informal settler families (ISFs), internally displaced populations from disaster-stricken or internal-conflict areas, women, and children.

www.unhabitat.org.ph/wp-content/uploads/2017/10/NU DHF-ABRIDGED-20171030-DIGITAL-EDITION.pdf

7. Principles of Healthy Housing

- **Protection against communicable diseases**
 - safe water supply, proper excreta and solid waste disposal, efficient drainage, personal and domestic hygiene facilities, facilities for safe food preparation
- **Protection against injuries, poisonings, and chronic diseases**
 - structural features and furnishing, indoor air pollution, chemical safety
- **Reducing psychological and social stresses to a minimum**
- **Improving housing environment**
 - suitable dwelling environment that provides access to places of work, essential services, and amenities that promote health

- **Making informed use of housing**
 - only if residents make proper use of their housing as health potential
- **Protecting populations at special risk**
 - women, children, those who live in substandard housing, displaced and mobile populations, aged and chronically ill and disabled

8. Physiologic and Psychologic Needs

- protection from elements
- thermal environment: avoid undue heat loss
- atmosphere: reasonable chemical purity
- adequate daylight illumination, avoidance of undue daylight glare
- direct sunlight
- **protection from excessive noise**
- **adequate space for exercise and for children to play**
- **adequate privacy for individual**
- **opportunities for normal family and community life**

- make possible the performance of household tasks **without undue physical and mental fatigue**
- maintenance of cleanliness **of the dwelling and of the person**
- aesthetic satisfaction in home and its surroundings
- concordance with prevailing social standards of local community
- **protection against disease**
 - safe and sanitary **water** supply; protect from **pollution**
 - **toilet** facilities that minimize danger of transmitting disease
 - protect against **sewage** contamination
 - avoid unsanitary conditions near dwelling
 - exclude **vermin** from dwelling
 - keeping milk and **food** fresh
 - sufficient **space** in sleeping rooms to minimize danger of contact infection

9. Injury, Safety, and Hazards

- injuries include falls, burns, poisonings, ingestion of foreign objects, smoke inhalation, drowning, cuts and collisions with objects, crushing and fractured bones as result of structural collapse
- falls may be caused by uneven floor surfaces, inadequate or inappropriate lighting, steep stairs, stairs of varied height, stairs without handrails, lack of guarding, landings, and balconies, lack of grab-rails or handles to baths and showers, lack of windows and doors without child safety locks

10. Implications to Nurses' Care of Families

- Store **chemicals** away from reach of children in a locked cabinet. Practice reading of **labels**, especially precautions and restrictions. Avoid transfer of chemicals to other **containers** associated with food or drink.
- **Second hand tobacco smoke** is a serious health challenge in indoor settings, especially when exposure can quickly accumulate. Involuntary smoking involves inhaling carcinogens and other toxic components.

