

National Center for **HEALTHY HOUSING**

*Comparison of the City of Alexandria's Codes to the
National Healthy Housing Standard (NHHS)*

National Center for Healthy Housing
September 2021

The National Center for Healthy Housing (NCHH) Code Comparison Tool (CCT) compares current housing/property maintenance codes to the National Healthy Housing Standard (NHHS) and the International Property Maintenance Code (IPMC).

In September 2021, NCHH ran Alexandria's codes through the Code Comparison Tool using the City's building code and the Virginia Uniform Statewide Building Code (USBC). The USBC is comprised of three parts: the Virginia Construction Code, the Virginia Existing Building Code, and the Virginia Maintenance Code (VMC). In running the code comparison, NCHH considered all parts of the USBC, but prioritized the city's building code and the VMC. NCHH considered all applicable codes to generate a single codes analysis for the City of Alexandria.

The Code Comparison Tool is divided into the following section(s):

- Moisture Control
- Pest and Waste Management
- Plumbing and Water Systems
- Injury Prevention
- Chemical Hazards – Building Products
- Chemical Hazards – Other and Noise Hazards
- Ventilation
- Heating/Mechanical
- Lighting Electrical
- Fire Safety
- Structural
- Occupancy

The attached customized reports identify where your codes are already strong as well as where opportunities may exist to strengthen them for each section. The report also includes customized recommendations for how to improve and strengthen your housing codes to protect the health and safety of community members.


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SECTION A : Moisture Control

Questions: 9 | Total Responses: 14 | Answered: 14 | Percentage Complete: 100%

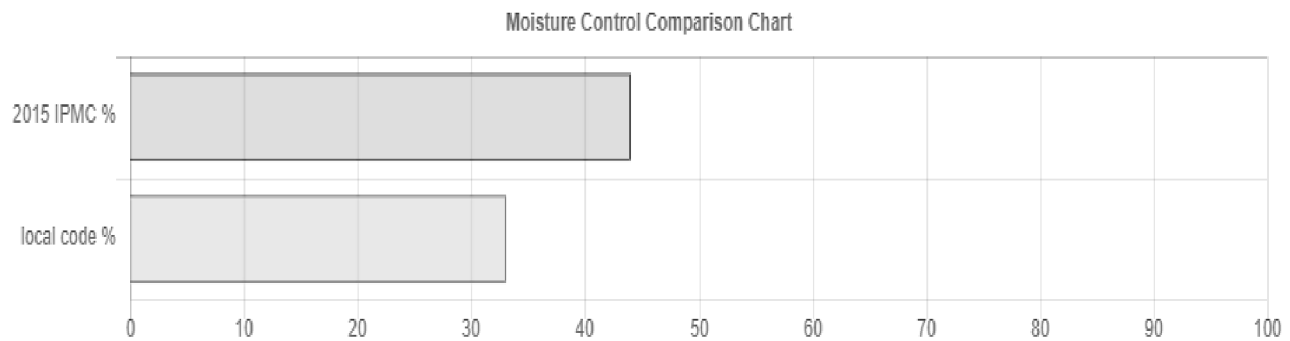
STATUS: Below Average

A1-A9: Moisture Control

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (2.4.5, 6.1.1, 6.1.3, 6.1.4, 6.1.5 (part1), 6.1.5 (part2), 6.1.5.1, 6.1.6, 6.1.7, 6.1.8) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

SECTION	NUMBER OF NHHS MANDATORY PROVISIONS	NUMBER OF 2015 IPMC PROVISIONS THAT MEET OR EXCEED NHHS PROVISIONS	COMMUNITY SCORE (POINTS ALLOCATED FOR EACH PROVISION THAT WAS PARTIALLY OR FULLY MET)*	COMMUNITY % (COMMUNITY SCORE/NUMBER OF NHHS MANDATORY PROVISIONS)
Moisture Control	9 (100%)	44%	3.0	33%

**Meets or exceeds standard = 1 point; partially meets standard = 0.5 point; doesn't meet standard=0 points*



This report was generated by the Code Comparison Tool, available from the National Center for Healthy Housing at http://bit.ly/NCHH_CCT (http://bit.ly/NCHH_CCT). The NCHH Code Comparison Tool (CCT) gives communities the opportunity to compare their current housing/property maintenance code to the National Healthy Housing Standard (NHHS) and the International Property Maintenance Code (IPMC).

NHHS Provisions that You Reported Already Exist in Your Local Code

NHHS Provision 6.1

Every foundation, roof, roofing component, exterior wall, door, skylight, and window shall be watertight, weathertight, free of persistent dampness or moisture, and in good condition.

NHHS Provision 6.1.2

Exterior wood surfaces shall be protected from the elements and decay by paint or other protective treatment. Weep holes in brickwork shall be left open.

NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)

NHHS Provision 6.1.3

Premises shall be graded and maintained to prevent the erosion of soil and to prevent the accumulation of water on the premises, within a crawlspace, or within the structure.

NHHS Provision 6.1.1

The building's drainage system, such as footing or foundation drains, gutters, downspouts, rainwater collection containers, or other elements, shall direct water away from the structure.

NHHS Provision 6.1.8

Unless the crawl space is sealed and insulated from the outdoors, the crawl space shall be free of high-moisture conditions or be separated from the dwelling by an air seal or other method suitable to the climate and conditions.

NHHS Provision 6.1.7

Cold HVAC and plumbing components and systems (e.g., chilled-water pipes and valves, refrigerant piping, and valves) in readily accessible locations shall be sufficiently and continuously insulated to keep the temperature of their surfaces at least 10°F (4° C) above the dew point of the surrounding air.

NHHS Provision 6.1.4

Interior and exterior surfaces and surface coverings, such as but not limited to carpet, wood, cellulose insulation, and paper, paint, and other wall coverings, including paper-faced gypsum board, shall have no signs of visible mold-growth or chronic or persistent excessive dampness or moisture.

NHHS Provision 6.1.6

The underlying cause of excessive dampness or moisture, or moldy or earthy odor shall be investigated and corrected.

NHHS Provision 6.1.5 (part1)

Building material that is discolored or deteriorated by mold or mildew or causes a moldy or earthy odor shall be cleaned, dried, and repaired. Structurally unsound material shall be removed and replaced.

NHHS Provision 6.1.5 (part2)

Building material that is discolored or deteriorated by mold or mildew or causes a moldy or earthy odor shall be cleaned, dried, and repaired. Structurally unsound material shall be removed and replaced.

NHHS Provision 6.1.5.1

Removal and repair of moldy material shall be conducted in accordance with New York City's *Guidelines on Assessment and Remediation of Fungi in Indoor Environments*, the Institute of Inspection, Cleaning, and Restoration Certification's *IICRC S520 Standard and*

Reference Guide for Professional Water Damage Restoration, or the EPA Mold Remediation in Schools and Commercial Buildings Guide.

NHHS Provision 2.4.5

A kitchen floor in good condition with a sealed, water-resistant, nonabsorbent, and cleanable surface.

NHHS Stretch Provisions (Not Assessed in Online Tool)

NHHS Stretch Provision 6.1

Exterior weather-resistant barrier systems shall be used to reduce potential for water leaks and moisture intrusion.

NHHS Stretch Provision 6.1

Water/mold-resistant materials shall be used on bathroom walls and floors, showers, and other areas of the home that are likely to be exposed to moisture.

NHHS Stretch Provision 6.1

In warm-humid and mixed-humid climates:

- Exterior wall insulations shall not include a vapor barrier/retarder material on the interior side (such as plastic sheeting or foil facing), with the exception of closed-cell foam insulation (spray or rigid), kraft-faced insulation, and seasonally adjusting membranes.
- There shall be no vinyl wallpaper or other impermeable interior finish on the interior surface of exterior walls within an air-conditioned dwelling.
- Exterior drainable rigid insulation systems shall be used to reduce wall assembly condensation risk.

NHHS Stretch Provision 6.1

The building and its systems shall meet the following moisture management criteria:

- When the building is being mechanically cooled, ventilation air shall be dried to a dew point value below the building's dew point.
- Condensation inside HVAC components and air distribution ductwork shall be drained to an appropriate sanitary drain or condensate collection system.
- Indoor surfaces of both occupied and unoccupied spaces shall not be cooled to temperatures so low as to create an average surface relative humidity (RH) of over 80 %

that lasts for more than 30 days on visible surfaces in occupied spaces and surfaces inside building cavities and unconditioned space.

- Indoor dew point shall be low enough to ensure no condensation occurs on the exposed surfaces of cool HVAC components or on building materials or furnishings.
 - Humidifiers shall be sized, installed, and controlled so they do not overload the air with humidity, which increases the risk of condensation inside air distribution systems and exterior walls and roofing assemblies.
-

Why Moisture Control Matters

Damp indoor environments can increase the presence of biological agents such as mold, dust mites, and bacteria. These environments may also attract pests and cause building materials to deteriorate. Exposure to allergens can trigger allergic symptoms such as rhinitis, conjunctivitis, eczema, cough, and wheeze. For a sensitized person, repeated exposure can lead to asthma, and it appears that the severity of the asthma intensifies with increasing humidity, house dust mite, and mold levels. There is an association between dampness and upper respiratory tract symptoms, cough, wheeze, and asthma symptoms in sensitized persons. In addition, there is limited or suggestive evidence that damp indoor environments are associated with dyspnea, lower respiratory illness in children, and asthma development. Some fungi, especially when in very high concentrations, can also colonize the airways of susceptible individuals, particularly people with asthma. Toxins from some molds (mycotoxins) can cause nausea and diarrhea, can suppress the immune system, and have been implicated in cases of pulmonary hemorrhage.

Suggested Next Steps:

You have your results. Now what? Here are some suggested next steps:

- Review your results and identify places where your code is already strong and where there may be an opportunity to improve your local codes.
- Use the graphic provided (or export your data and create one yourself) to create a memo or presentation summarizing these results to start a conversation about whether there is an opportunity for action in your community.
- Download the National Healthy Housing Standard for reference as a model code.



SECTION B : Pest and Waste Management

Questions: 10 | Total Responses: 17 | Answered: 17 | Percentage Complete: 100%

STATUS: Below Average

B1-B2: Waste Management

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (6.2, 6.2.1, 6.2.2) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

B3-B6: Pest Harborage

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (6.3.2, 6.3.2.1, 6.3.2.2, 6.3.2.3) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

B7-B8: Pest Exclusion

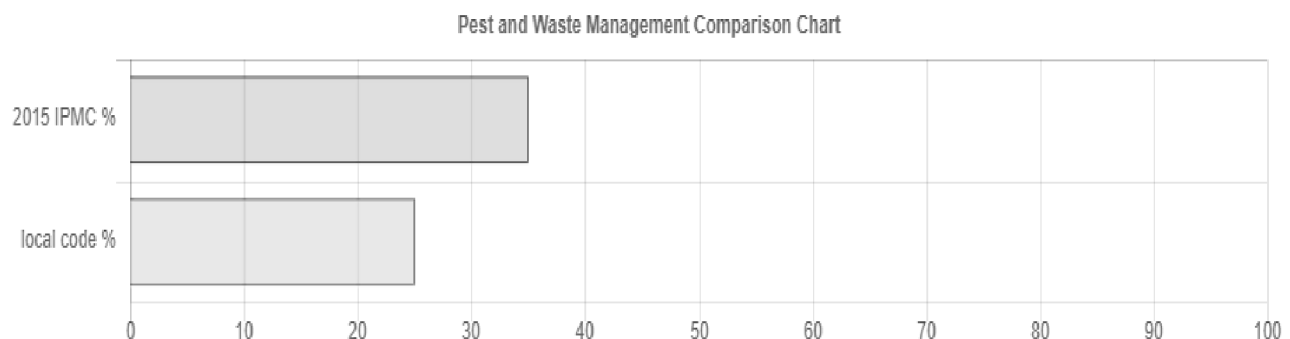
Opportunities for Improvement | Your responses indicate that your community is using a number of the evidence-based provisions from the National Healthy Housing Standard (NHHS) in this area - NHHS Provisions (6.3.3, 6.3.4.1) but may benefit by implementing some or all of the provisions listed below.

B9-B10: IPM Practiced

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (6.3, 6.3.1, 6.3.5, 6.3.5.1) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

SECTION	NUMBER OF NHHS MANDATORY PROVISIONS	NUMBER OF 2015 IPMC PROVISIONS THAT MEET OR EXCEED NHHS PROVISIONS	COMMUNITY SCORE (POINTS ALLOCATED FOR EACH PROVISION THAT WAS PARTIALLY OR FULLY MET)*	COMMUNITY % (COMMUNITY SCORE/NUMBER OF NHHS MANDATORY PROVISIONS)
Pest and Waste Management	10 (100%)	35%	2.5	25%

*Meets or exceeds standard = 1 point; partially meets standard = 0.5 point; doesn't meet standard=0 points



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NHHS Provisions that You Reported Already Exist in Your Local Code

NHHS Provision 6.3.2

Every dwelling, premise, accessory structure, and fence shall be maintained in good repair, free of pest infestation, and inspected for pests and building conditions that attract and support pests.

NHHS Provision 6.3.2.1

There shall be no accumulation of trash, paper, boxes, lumber, scrap metal, food, or other materials that support rodent harborage in or about any dwelling or premises. Stored materials shall be placed in boxes or stacked in stable piles elevated at least six inches (152 mm) above the ground or floor and at least six inches (152 mm) from the walls. Stored materials shall not block any egress routes.

NHHS Provision 6.3.4

There shall be no holes or open joints in exterior walls, foundations, slabs, floors, or roofs that equal or exceed one-eighth inch (3 mm).

NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)

NHHS Provision 6.2

Every dwelling shall have adequate facilities for temporary storage of trash and recyclable materials.

NHHS Provision 6.2.1

There shall be trash containers outside the dwelling for the storage of trash awaiting collection or disposal. The total capacity of these facilities shall be sufficient to store occupants' trash between scheduled collection times, and shall be placed on a cleanable surface to minimize spillage.

NHHS Provision 6.2.2

There shall be containers outside the dwelling for recyclable materials awaiting collection, with capacity sufficient to store occupants' recyclable materials between scheduled collection times.

NHHS Provision 6.3.2

Every dwelling, premise, accessory structure, and fence shall be maintained in good repair, free of pest infestation, and inspected for pests and building conditions that attract and support pests.

NHHS Provision 6.3.2.2

There shall be no trees, shrubs, or other plantings in the soil within six inches (152 mm) of any dwelling.

NHHS Provision 6.3.2.3

There shall be no accumulation of water in or about any dwelling or premises.

NHHS Provision 6.3.2.1

There shall be no accumulation of trash, paper, boxes, lumber, scrap metal, food, or other materials that support rodent harborage in or about any dwelling or premises. Stored materials shall be placed in boxes or stacked in stable piles elevated at least six inches (152 mm) above the ground or floor and at least six inches (152 mm) from the walls. Stored materials shall not block any egress routes.

NHHS Provision 6.3.3

Every openable window and storm door shall be supplied with adequate screens to prevent the entry of pests.

NHHS Provision 6.3.4.1

The areas surrounding windows, doors, pipes, drains, wires, conduits, vents, and other openings that penetrate exterior walls shall be sealed with low-VOC caulk or closed-cell insulation.

NHHS Provision 6.3

Integrated pest management (IPM) methods shall be used to maintain every dwelling free of infestation, openings that allow pest entry, conditions that harbor pests or provide them with food or water, and visible pest residue or debris.

NHHS Provision 6.3.1

A pest management professional who has an IPM certification or a person trained in IPM shall develop the IPM program for a multifamily building.

NHHS Provision 6.3.5

Pest infestation and the underlying cause shall be eliminated using control methods consistent with IPM, such as exclusion, sanitation, and least-risk pesticides scaled to and designed for the targeted infestation.

NHHS Provision 6.3.5.1

Foggers and organic phosphates shall not be used to control or eliminate pests.

NHHS Stretch Provisions (Not Assessed in Online Tool)**NHHS Stretch Provision 6.2**

Exterior trash and recycling containers shall be placed at least 30 feet (nine meters) from the building, unless such space is not available.

Why Pest and Waste Management Matters

Poorly stored food waste will attract pests. These pests may then come into contact with food before it is prepared or eaten or may come into direct contact with people. Rodents have long been linked to property destruction and disease. Proper food storage, rat-proofing construction, and ensuring good sanitation outside the home have served to eliminate or reduce rodent problems in the 21st-century home.

Children who live in dwellings infested with cockroaches show high levels of sensitivity to cockroach allergen. Contact with cockroaches can cause dermatitis, urticaria, rhinitis, bronchitis, and asthma. Some people have an aversion to insects amounting to a phobia and can suffer anxiety when in the presence of the insects. Bed bugs are pests of significant public health importance, as are mosquitoes, fleas, and other insects.

Integrated pest management (IPM) is the best way to prevent and eliminate pests while

preventing unnecessary occupant inhalation and ingestion of poisonous pesticide chemicals. Total release foggers are ineffective as methods in controlling most pests, often counteract less toxic strategies, can result in resident exposure to toxic chemical agents, and if misused can cause fires, other destruction of property, and loss of life. Certified pest management professionals (PMPs) with knowledge and experience of IPM, and other individuals trained in IPM, can be critical resources for buildings owners and managers.

Suggested Next Steps:

You have your results. Now what? Here are some suggested next steps:

- Review your results and identify places where your code is already strong and where there may be an opportunity to improve your local codes.
- Use the graphic provided (or export your data and create one yourself) to create a memo or presentation summarizing these results to start a conversation about whether there is an opportunity for action in your community.
- Download the National Healthy Housing Standard for reference as a model code.
- Read about how other communities have used the NHHS to strengthen their local codes and are using codes to improve health.
 - Healthy Housing Codes [<https://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/healthy-housing-codes/> (<http://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/healthy-housing-codes/>)]
 - <http://nchh.org/resources/policy/proactive-rental-inspections/> (<http://nchh.org/resources/policy/proactive-rental-inspections/>)
 - <http://nchh.org/resources/policy/incentivizing-healthy-housing/> (<http://nchh.org/resources/policy/incentivizing-healthy-housing/>)
 - <https://www.apha.org/healthy-homes> (<https://www.apha.org/healthy-homes>)
- Ask for technical assistance or help getting connected to a peer mentor. Contact [Jonathan Wilson \(mailto:jwilson@nchh.org\)](mailto:jwilson@nchh.org).

◀ BACK TO LIST ([HTTPS://NCHH.ORG/TOOLS-AND-DATA/HOUSING-CODE-TOOLS/CCT/TOOL/](https://nchh.org/tools-and-data/housing-code-tools/cct/tool/results/cct_section_b/))



SECTION C : Plumbing and Water Systems

Questions: 10 | Total Responses: 21 | Answered: 21 | Percentage Complete: 100%

Status : Below Average

C1-C5: Plumbing

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (2.3.1, 2.3.2, 2.3.3, 2.3.4) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

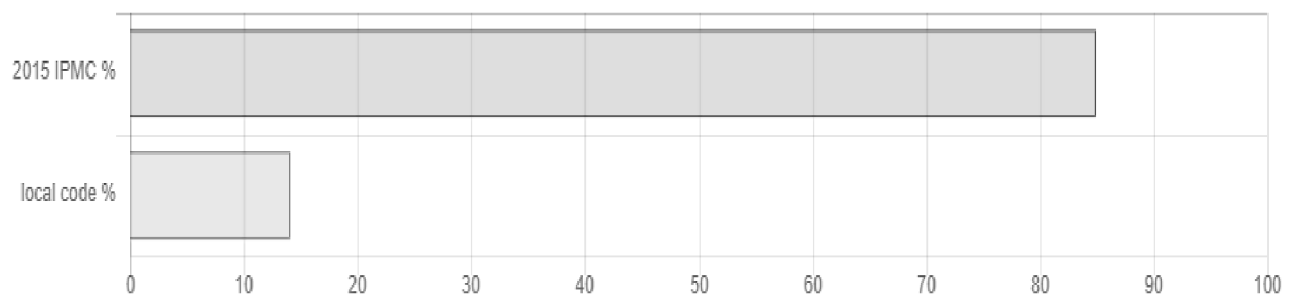
C6-C10: Bathroom

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (2.5, 2.5.1, 2.5.2, 2.5.3, 2.5.4, 2.6.2) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

SECTION	NUMBER OF NHHS MANDATORY PROVISIONS	NUMBER OF 2015 IPMC PROVISIONS THAT MEET OR EXCEED NHHS PROVISIONS	COMMUNITY SCORE (POINTS ALLOCATED FOR EACH PROVISION THAT WAS PARTIALLY OR FULLY MET)*	COMMUNITY % (COMMUNITY SCORE/NUMBER OF NHHS MANDATORY PROVISIONS)
Plumbing and Water Systems	11 (100%)	85%	1.5	14%

*Meets or exceeds standard = 1 point; partially meets standard = 0.5 point; doesn't meet standard=0 points

Plumbing and Water Systems Comparison Chart



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NHHS Provisions that You Reported Already Exist in Your Local Code

NHHS Provision 2.3

Every plumbing fixture, stack, vent, water, waste, and sewer pipe shall be properly installed, maintained in a safe and functional order, and kept free from obstructions, leaks, and defects.

NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)

NHHS Provision 2.3.1

An approved potable water supply system shall provide an adequate amount of running water under pressure to all fixtures simultaneously.

NHHS Provision 2.3.2

An adequate supply of heated running water under pressure shall be supplied to sinks, bathtubs, showers, and laundry facilities. Water heaters shall be set at a minimum temperature of 110° F (43° C). At bathtub faucets and shower heads, the maximum temperature shall be 120° F (49° C). Heated water shall be provided by either a tank-type or tankless water heater. A tank-type water heater shall have a temperature/pressure relief valve that discharges to a drip pan, storage tank, or the outside. The temperature of water discharged from a tankless water heater shall not exceed 140° F (60° C).

NHHS Provision 2.3.4

Faucet discharge points shall be located above the overflow rim of sinks, tubs, or other fixtures that collect water.

NHHS Provision 2.3.3

Every waste pipe shall be connected to a public sewer system, an approved private sewage disposal system, or the dwelling's graywater system. No toilet waste pipe shall be connected to a graywater system. The drainage system shall have a cleanout.

NHHS Provision 2.5

Every dwelling unit shall have a private bathroom equipped with the following:

NHHS Provision 2.6.2

A bathroom or toilet room shall not be the only passageway to any habitable room, hall, basement, or the exterior of the dwelling.

NHHS Provision 2.5.1

A toilet in good working condition that is sealed to the waste pipe and affixed to the floor and properly connected to both the dwelling's water supply and a waste pipe leading to an approved sewage system or private waste disposal system.

NHHS Provision 2.5.2

A sink in good working condition, with a stable connection to the wall or secure attachment to the floor that is properly connected to the heated and unheated potable water supply and a sealed trap leading to a waste pipe.

NHHS Provision 2.5.3

A bathtub or shower in good working condition that is properly connected to the heated and unheated potable water supply and a waste pipe. The bottoms of bathtubs and shower floor shall have permanent or removable nonslip surfaces.

NHHS Provision 2.5.4

Cleanable nonabsorbent water-resistant material on floor surfaces and extending on bathroom walls at least 48 inches (122 cm) above a bathtub and 72 inches (183 cm) above the floor of a shower stall. Such materials on walls and floors shall form a watertight joint with each other and with the bathtub or shower.

NHHS Stretch Provisions (Not Assessed in Online Tool)**NHHS Stretch Provision 2.3**

Bathtub and shower faucets shall have anti-scald devices, such as an automatic temperature control mixing valve, water temperature limiting device, or temperature-actuated flow reduction valve.

NHHS Stretch Provision 2.3

Each dwelling unit in multifamily housing shall have a separate meter for water supplied to the unit.

NHHS Stretch Provision 2.3

Multifamily housing with one or more central water heaters shall comply with *ASHRAE Standard 188P* to assess and manage the risks associated with *Legionella* in building water systems.

NHHS Stretch Provision 2.3

A private water supply shall be tested annually to ensure that water does not have biological or chemical contaminants.

NHHS Stretch Provision 2.3

If there is suspected risk of excessive lead in drinking water supplied by a public water utility, the water shall be tested. The risk factors shall include, but are not limited to, presence of an occupant with a blood lead level of five micrograms per deciliter or more, pipes made of lead or leaded brass, test results indicating that the lead level in the public

water supply exceeds federal limits, and plumbing repair work that has disturbed water supply components (such as faucets, valves, pipes, meters, pressure regulators, backflow preventers, lead-soldered joints, or service lines). If the lead level in the water exceeds 15 parts per billion, there shall be an investigation of the possible source(s) to determine the appropriate course of action. If warranted, lead and brass-containing components shall be replaced.

NHHS Stretch Provision 2.5

Grab bars shall be firmly anchored to the wall adjacent to each bathtub, shower, and toilet in accordance with the *Americans with Disabilities Act Design Guidelines*.

NHHS Stretch Provision 2.5

Tub and shower enclosures composed of tile or panel assemblies with caulked joints shall be installed over moisture-resistant backing material, such as cement board. Paper-faced wallboard shall not be used behind such tub and shower enclosures. Monolithic tub and shower enclosures (e.g., fiberglass with no seams) are exempt from these limitations unless required by the manufacturer.

Why Plumbing and Water Systems Matters

Plumbing leaks may cause mold growth on building materials. People who are exposed to molds may experience nasal and eye irritation, respiratory and allergic diseases, and exacerbation of asthma. Damp conditions may magnify levels of biological agents, such as dust mites, bacteria, and cockroaches.

The containment of household sewage is instrumental in protecting the public from waterborne and vector-borne diseases.

Water at 140° F (60° C) can result in a second-degree burn after three seconds and a third-degree burn after five seconds. The long-term effects of scalds can include disability, disfigurement, or psychological harm and repeated skin grafts.

Exposure to hazards in drinking water must be averted to prevent lead poisoning, Legionella, and other diseases caused by waterborne biological and chemical agents.

Suggested Next Steps:

You have your results. Now what? Here are some suggested next steps:

- Review your results and identify places where your code is already strong and where there may be an opportunity to improve your local codes.
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 - <http://nchh.org/resources/policy/proactive-rental-inspections/> (<http://nchh.org/resources/policy/proactive-rental-inspections/>)
 - <http://nchh.org/resources/policy/incentivizing-healthy-housing/> (<http://nchh.org/resources/policy/incentivizing-healthy-housing/>)
 - <https://www.apha.org/healthy-homes> (<https://www.apha.org/healthy-homes>)
- Ask for technical assistance or help getting connected to a peer mentor. Contact [Jonathan Wilson \(mailto:jwilson@nchh.org\)](mailto:jwilson@nchh.org).

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Tool Navigation



SECTION D : Injury Prevention

Questions: 9 | Total Responses: 18 | Answered: 18 | Percentage Complete: 100%

Status : Below Average

D1-D4: Walking Surface

Opportunities for Improvement | Your responses indicate that your community is using a number of the evidence-based provisions from the National Healthy Housing Standard (NHHS) in this area - NHHS Provisions (2.7, 3.6.1, 3.6.2, 3.7.1) but may benefit by implementing some or all of the provisions listed below.

D5-D6: Window Guards

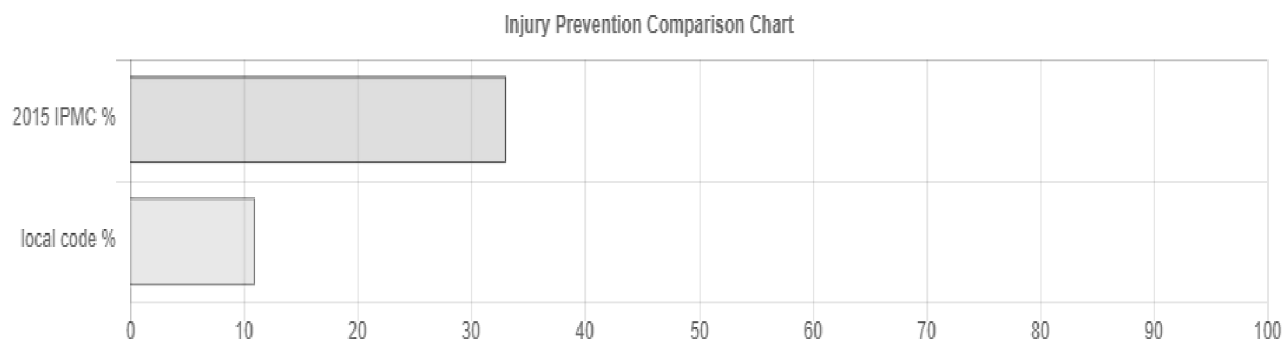
Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area - NHHS Provisions (3.7.2, 3.7.2.1) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

D7-D9: Pools

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (3.9.1, 3.9.2, 3.9.3) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

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Injury Prevention	9 (100%)	33%	1.0	11%

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NHHS Provisions that You Reported Already Exist in Your Local Code

NHHS Provision 2.7

Floors and floor coverings shall be attached at each threshold, maintained in safe and healthy condition, capable of being cleaned, and free of bulges and buckling. Carpets shall have no tears, folds, or bumps.

NHHS Provision 3.7.1

Every stairway, porch, patio, landing, and/or balcony located more than 30 inches (76.2 cm) above and adjacent area shall have a structurally sound guard between 30 inches (76.2 cm) and 42 inches (107 cm) high, measured vertically from the floor. The guard shall be firmly fastened, capable of supporting normally imposed loads, capable of being opened in case of emergency, and in good condition. Balusters with a minimum thickness or one-half inch (13 mm) shall be placed at intervals that do not allow passage of a sphere greater than four (10.2 cm) inches in diameter. There shall be no climbable cross pieces. If the balusters do not reach the floor, the narrowest opening between the bottom of the stair guard and the floor shall be a maximum of four inches (10.2 cm).

NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)**NHHS Provision 2.7**

Floors and floor coverings shall be attached at each threshold, maintained in safe and healthy condition, capable of being cleaned, and free of bulges and buckling. Carpets shall have no tears, folds, or bumps.

NHHS Provision 3.6.1

Treads on exterior stairways shall have nonskid surfaces.

NHHS Provision 3.6.2

Every interior and exterior stairway with four or more risers shall have at least one structurally sound continuous handrail installed not less than 34 inches (86.7 cm) and not more than 38 inches (96.5 cm), measured vertically from above the nose of the tread. The handrail shall be firmly fastened, capable of supporting a load of 300 pounds, and in good condition. If a side of a stairway is open to the floor or grade below, and the handrail provides the guard required by Subsection 3.7, the rail shall be supported by balusters 34 to 38 inches (86.7 to 96.5 cm) in height, measured vertically from the nose of the tread.

NHHS Provision 3.7.1

Every stairway, porch, patio, landing, and/or balcony located more than 30 inches (76.2 cm) above and adjacent area shall have a structurally sound guard between 30 inches (76.2 cm) and 42 inches (107 cm) high, measured vertically from the floor. The guard shall be firmly fastened, capable of supporting normally imposed loads, capable of being

opened in case of emergency, and in good condition. Balusters with a minimum thickness or one-half inch (13 mm) shall be placed at intervals that do not allow passage of a sphere greater than four (10.2 cm) inches in diameter. There shall be no climbable cross pieces. If the balusters do not reach the floor, the narrowest opening between the bottom of the stair guard and the floor shall be a maximum of four inches (10.2 cm).

NHHS Provision 3.7.2

If the vertical distance from the top of the sill of an exterior window opening to the finished grade or other surface below is greater than 72 inches (183 cm), and the vertical distance from the top of the sill to the floor of the room is less than 36 inches (91.5 cm), the window shall have a fall prevention device compliant with *ASTM F2006* or *ASTM F2090*.

NHHS Provision 3.7.2.1

The fall prevention device for a window that provides access to a fire escape or is otherwise designated for emergency egress shall be compliant with *ASTM F2090*.

NHHS Provision 3.9.1

Swimming pools, hot tubs, spas (except a residential spa or hot tub with a safety cover complying with *ASTM F 1346-91*), ornamental ponds, and other water features that hold water more than 24 inches (61 cm) in depth shall be completely surrounded by a fence or barrier at least 48 inches (122 cm) in height above the finished ground level that is accessible only through a self-closing and self-latching gate. The gate's latch shall be located 54 inches (137 cm) above the bottom of the gate on the interior side of the gate facing the water feature. The fence and gate shall not have climbable crosspieces.

NHHS Provision 3.9.2

All pools and spas shall have anti-entrapment drain covers compliant *ANSI/ASME A112.19.8*, *ANSI/APSP 16-2011*, or any successor standard, on every suction outlet.

NHHS Provision 3.9.3

Pool drains and drain covers shall be clearly visible and in good repair. Where there is a single main drain (other than an unblockable drain), a second anti-entrapment system shall be installed.

NHHS Stretch Provisions (Not Assessed in Online Tool)

NHHS Stretch Provision 2.7

Floor coverings shall consists of low-pile carpet or nonabsorbent material such as hardwood, tile, or resilient flooring. Carpet and other floor coverings shall be certified as having low volatile organic compound (VOC) emissions, and any adhesives, padding or other materials used in installing the floor covering shall be certified as having no VOCs or low VOC emissions, and having no perfluorocarbons or halogenated flame retardants.

NHHS Stretch Provision 2.7

Walk-off entry mat shall be provided inside or outside each entryway that leads to the outdoors.

NHHS Stretch Provision 3.6

Every interior and exterior stairway shall have uniform risers and treads. Risers shall be no higher than 7 $\frac{3}{4}$ inches (19.6 cm) and treads shall be at least 10 inches (25.4 cm) deep, unless the existing space and construction do not allow a reduction in pitch or slope.

NHHS Stretch Provision 3.6

Interior and exterior stairways shall have handrails on both sides. Railings shall have a graspable perimeter measuring four to six inches (10-16 cm), and if noncircular in shape, shall have no sharp corners and a width no smaller than five-eighths inch (1.5 cm).

Why Injury Prevention Matters

Falls can result in physical injury, such as bruising; fractures; and head, brain, and spinal injuries, as well as death. The nature of injury is partly dependent on the distance of a fall, and partly on the nature of the surface onto which the victim falls. Each year in the United States, 5,100 children younger than 18 years of age are treated in hospital emergency departments for injuries related to falls from windows. Such falls account for approximately eight deaths among children ages five and under annually. Falls from windows cause more severe injuries and deaths than any other type of fall. A commercially available window guard designed to swing open to allow escape in the event of a fire costs as little as \$20. After window guard requirements took effect in Boston and New York City, the incidence of falls by children from windows decreased 96% over 10 years.

Inadequate handrails and railings on stairways, ramps, decks, porches, and balconies can result in slips, trips, and falls that cause physical injury and death. The likelihood of a fall is doubled if there is no wall or guard to one side of the stair. Similarly, the lack of any handrail doubles the likelihood of a fall, even if there is a wall to both sides of the stairs. Stair-tread depth affects stability during stair descent. Falls on level ground tend to result in relatively minor injuries as compared to other falls; however, they occur more frequently.

It takes only inches of water for a small child to drown, so taking extra safety steps at home and around pools, spas, and all bodies of water can prevent drowning incidents. The majority of deaths and injuries in pools and spas involve children ages one to two and occur in residential settings. Drowning is the leading cause of unintentional death to children ages one to four and the second-leading cause of injury-related death in children aged one to 14 years in the U.S.

Children can become trapped and held under water by suction openings in broken, uncovered, or poorly covered drains. Hair, jewelry, and bathing suit entanglement, as well as the lodging of arms, legs, fingers, or other body parts can pose entrapment hazards. Sitting on a broken or uncovered drain may cause serious injuries, such as evisceration or disembowelment.

Suggested Next Steps:

You have your results. Now what? Here are some suggested next steps:

- Review your results and identify places where your code is already strong and where there may be an opportunity to improve your local codes.
- Use the graphic provided (or export your data and create one yourself) to create a memo or presentation summarizing these results to start a conversation about whether there is an opportunity for action in your community.
- Download the National Healthy Housing Standard for reference as a model code.
- Read about how other communities have used the NHHS to strengthen their local codes and are using codes to improve health.
 - Healthy Housing Codes [<https://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/healthy-housing-codes/> (<http://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/healthy-housing-codes/>)]
 - <http://nchh.org/resources/policy/proactive-rental-inspections/>



SECTION E : Chemical Hazards – Building Products

Questions: 10 | Total Responses: 25 | Answered: 25 | Percentage Complete: 100%

Status : Below Average

E1-E6: Lead

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (7.1, 7.2.1, 7.2.2, 7.2.3, 7.2.4, 7.2.5) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

E7-E8: Asbestos

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (7.3, 7.3.1, 7.3.2, 7.3.3) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

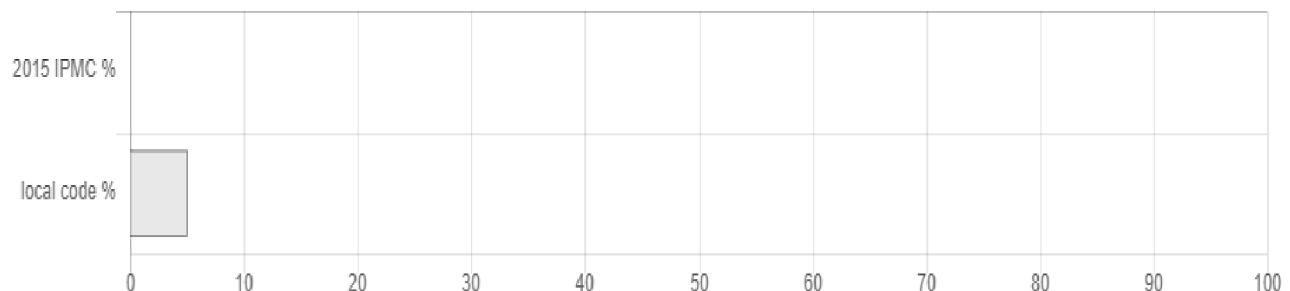
E9-E10: Toxic Building Materials

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (7.4.1, 7.4.2) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

SECTION	NUMBER OF NHHS MANDATORY PROVISIONS	NUMBER OF 2015 IPMC PROVISIONS THAT MEET OR EXCEED NHHS PROVISIONS	COMMUNITY SCORE (POINTS ALLOCATED FOR EACH PROVISION THAT WAS PARTIALLY OR FULLY MET)*	COMMUNITY % (COMMUNITY SCORE/NUMBER OF NHHS MANDATORY PROVISIONS)
Chemical Hazards – Building Products	10 (100%)	0%	0.5	5%

**Meets or exceeds standard = 1 point; partially meets standard = 0.5 point; doesn't meet standard=0 points*

Chemical Hazards – Building Products Comparison Chart



This report was generated by the Code Comparison Tool, available from the National Center for Healthy Housing at http://bit.ly/NCHH_CCT (http://bit.ly/NCHH_CCT). The NCHH Code Comparison Tool (CCT) gives communities the opportunity to compare their current housing/property maintenance code to the National Healthy Housing Standard (NHHS) and the International Property Maintenance Code (IPMC).

NHHS Provisions that You Reported Already Exist in Your Local Code

NHHS Provision 7.2.2

Painted surfaces shall be maintained intact. With the exception of paint that is tested and found not to contain lead-based paint in accordance with *40 C.F.R. § 745.82(a)*, deteriorated paint at a property built before 1978 shall be repaired in accordance with the renovation requirements of *40 C.F.R. § 745 Subpart E*, and the underlying cause of the deterioration shall be corrected.

NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)

NHHS Provision 7.1

All chemical and radiological agents in dwellings, premises, and accessory structures, including but not limited to deteriorated lead-based paint, friable asbestos-containing material, formaldehyde, volatile organic compounds, radon, pesticides, and methamphetamine, shall be contained, stored, removed, or mitigated in a safe and healthy manner consistent with federal, state, and local laws and regulations. When an applicable regulatory limit is more protective than the level included in this section, the more restrictive limit shall apply.

NHHS Provision 7.2.5

Lead-based paint shall not be applied to the interior or exterior of any dwelling or dwelling unit.

NHHS Provision 7.2.1

Lead levels at or above federal regulatory limits pursuant to 40 C.F.R. § 745.65 are deemed hazardous: (1) lead-based paint on an existing painted surface--0.5 percent by weight or 1.0 milligrams per square centimeter; (2) dust on floors--40 micrograms of lead per square foot of settled dust ($\mu\text{g}/\text{ft}^2$); (3) dust on interior window sills--250 $\mu\text{g}/\text{ft}^2$; (4) dust on window troughs (wells)--400 $\mu\text{g}/\text{ft}^2$; (5) bare soil in children's play areas--400 parts per million (ppm) of lead; and (6) bare soil in areas of the yard that are not children's play areas--1,200 ppm.

NHHS Provision 7.2.2

Painted surfaces shall be maintained intact. With the exception of paint that is tested and found not to contain lead-based paint in accordance with *40 C.F.R. § 745.82(a)*, deteriorated paint at a property built before 1978 shall be repaired in accordance with the renovation

requirements of *40 C.F.R. § 745 Subpart E*, and the underlying cause of the deterioration shall be corrected.

NHHS Provision 7.2.3

All renovation, repair, and painting work that disturbs a painted surface in a pre-1978 dwelling shall be performed in accordance with the renovation requirements of *40 C.F.R. § 745, Subpart E*, unless the paint has been tested and found not to contain lead-based paint in accordance with *40 C.F.R. § 745.82(a)*. Dust clearance testing shall be performed at the conclusion of the renovation work.

NHHS Provision 7.2.4

With the exception of paint that is tested and found not to contain lead-based paint in accordance with *40 C.F.R. § 745.82(a)*, a painted surface shall not be disturbed using methods that involve (1) open-flame burning or torching or operating a heat gun at temperatures above a maximum of 1,100° F (593° C); or (2) power sanding, grinding, power planing, needle gun, abrasive blasting, or sandblasting unless such machines have shrouds or containment systems and a High-Efficiency Particulate Air (HEPA) vacuum attachment that collects dust and debris at the point of generation. The shroud or containment system shall release no visible dust or air outside the shroud or containment system.

NHHS Provision 7.3

Every owner shall maintain in good repair all asbestos-containing material on the premises. All asbestos-containing material shall be maintained non-friable and free from any defects such as holes, cracks, tears, and/or looseness that may allow the release of fibers into the environment.

NHHS Provision 7.3.1

Friable asbestos-containing material shall be abated by licensed asbestos professionals in accordance with federal, state, or local requirements.

NHHS Provision 7.3.2

Any renovation, demolition, or other activity that will disturb asbestos-containing materials shall be preceded by asbestos abatement performed by certified asbestos professionals in accordance with federal, state, or local requirements.

NHHS Provision 7.3.3

Abatement, removal, and disposal of all asbestos-containing material shall comply with all appropriate federal, state, and local requirements.

NHHS Provision 7.4.1

Building materials consisting of hardwood plywood, medium-density fiberboard, and particleboard as defined by *15 U.S.C. 2697(b)(2)* shall not be used in maintenance and renovations within dwellings, unless the materials have been certified to meet the formaldehyde emission standards of *15 U.S.C. 2697(b)(2)*:

- (1) Hardwood plywood with a veneer core, 0.05 parts per million (ppm);
- (2) Hardwood plywood with a composite core, 0.05 ppm;
- (3) Medium-density fiberboard, 0.11 ppm;
- (4) Thin medium-density fiberboard, 0.13 ppm; and
- (5) Particleboard, 0.09 ppm.

NHHS Provision 7.4.2

Building materials used in maintenance and renovations, including but not limited to paints, coatings, primers, glues, resins, adhesives, and floor coverings, shall be certified as having no volatile organic chemicals (VOCs) or low VOC emissions, and having no halogenated flame retardants (HFRs).

NHHS Stretch Provisions (Not Assessed in Online Tool)**NHHS Stretch Provision 7.2**

Lead present at or above the following limits is deemed hazardous:

- (1) lead-based paint on a friction, impact, or chewable surface, damaged or otherwise deteriorated, or non-intact--0.06 percent by weight;
 - (2) dust on floors--10 micrograms of lead per square foot of settled dust ($\mu\text{g}/\text{ft}^2$);
 - (3) dust on interior window sills--100 $\mu\text{g}/\text{ft}^2$;
- and (4) 40 $\mu\text{g}/\text{ft}^2$ on porches.

Why Chemical Hazards – Building Products Matters

Lead is a heavy metal that accumulates in the body when ingested and has toxic effects on the nervous system, cognitive development, and blood-forming and other systems. Sources of lead include lead-based paint and the dust it generates, soil, drinking water, and consumer and other products. Lead-contaminated soil may be found particularly around older buildings contaminated by flaking external paintwork, adjacent to industrial premises using (or previously having used) lead, and near busy roads from the exhaust fumes from leaded gasoline. Lead is readily absorbed from the intestinal tract, especially in children, and its absorption is enhanced by dietary deficiency of iron and calcium.

Exposure to asbestos increases the risk of developing lung disease. Asbestos products were historically used extensively in building materials. Vermiculite insulation in homes may be contaminated with asbestos. Vermiculite insulation should be assumed to be contaminated with asbestos and should not be disturbed. Trained professionals must be hired to remove vermiculite insulation.

Formaldehyde is a prominent VOC found in household and construction products. It is a colorless, strong-smelling gas that can cause watery eyes, nausea, coughing, chest tightness, wheezing, skin rashes, and allergic reactions, and a burning sensation in the eyes, nose, and throat. Formaldehyde is classified by the World Health Organization as a known human carcinogen. The most significant source of formaldehyde in the homes has been pressed wood products made using adhesives that contain urea formaldehyde (UF) resins.

Suggested Next Steps:

You have your results. Now what? Here are some suggested next steps:

- Review your results and identify places where your code is already strong and where there may be an opportunity to improve your local codes.
- Use the graphic provided (or export your data and create one yourself) to create a memo or presentation summarizing these results to start a conversation about whether there is an opportunity for action in your community.
- Download the National Healthy Housing Standard for reference as a model code.
- Read about how other communities have used the NHHS to strengthen their local codes and are using codes to improve health.
 - Healthy Housing Codes [<https://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/healthy-housing-codes/>] (<http://nchh.org/information->



SECTION F : Chemical Hazards – Other and Noise Hazards

Questions: 10 | Total Responses: 16 | Answered: 16 | Percentage Complete: 100%

Status : Below Average

F1: Radon

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (7.5) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

F2-F4: Pesticides

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (7.6, 7.6.1, 7.6.2) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

F5: Methamphetamine

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (7.7) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

F6-F9: Smoke

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (7.8.1, 7.8.2, 7.8.3, 7.8.4) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

F10: Noise

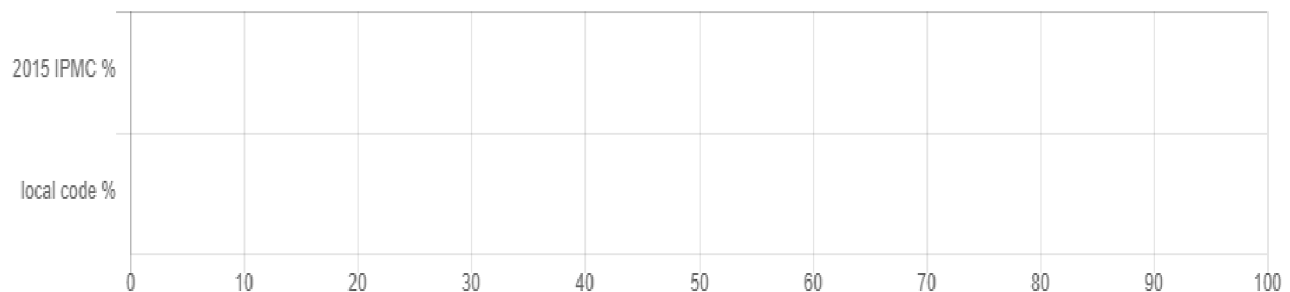
Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (2.8) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

SECTION	NUMBER OF NHHS MANDATORY PROVISIONS	NUMBER OF 2015 IPMC PROVISIONS THAT MEET OR EXCEED NHHS PROVISIONS	COMMUNITY SCORE (POINTS ALLOCATED FOR EACH PROVISION THAT WAS PARTIALLY OR FULLY MET)*	COMMUNITY % (COMMUNITY SCORE/NUMBER OF NHHS MANDATORY PROVISIONS)
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SECTION	NUMBER OF NHHS MANDATORY PROVISIONS	NUMBER OF 2015 IPMC PROVISIONS THAT MEET OR EXCEED NHHS PROVISIONS	COMMUNITY SCORE (POINTS ALLOCATED FOR EACH PROVISION THAT WAS PARTIALLY OR FULLY MET)*	COMMUNITY % (COMMUNITY SCORE/NUMBER OF NHHS MANDATORY PROVISIONS)
Chemical Hazards – Other and Noise Hazards	10 (100%)	0%	0	0%

*Meets or exceeds standard = 1 point; partially meets standard = 0.5 point; doesn't meet standard=0 points

Chemical Hazards – Other and Noise Hazards Comparison Chart



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NHHS Provisions that You Reported Already Exist in Your Local Code

No provisions exist.

NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)

NHHS Provision 7.5

Radon present at levels at or above the EPA action level of four picocuries radon per liter of air (pCi/L) in the lowest habitable level of the dwelling shall be deemed hazardous. Radon levels shall be determined by an approved testing method in accordance with state and local requirements. Radon levels exceeding four pCi/L shall be mitigated by a qualified

radon mitigation professional who meets state and local requirements. If there are no state or local requirements qualifying radon testing and mitigation professionals, radon testing and mitigation shall be performed by a professional certified by a national private-sector radon proficiency program.

NHHS Provision 7.6

Pesticides shall only be used in accordance with IPM methods discussed in Section 6.3, using the least toxic pesticide with demonstrated efficacy for the identified pest.

NHHS Provision 7.6.1

Pesticides shall be applied only in areas and at concentrations which comply with manufacturer specifications. When it is determined by an approved method that a hazardous amount of a pesticide has been applied in a location or at a concentration contrary to manufacturer specifications, the hazard shall be immediately mitigated.

NHHS Provision 7.6.2

Pesticides shall be stored and disposed in accordance with manufacturer specifications.

NHHS Provision 7.7

A dwelling that has been used for methamphetamine manufacture shall be vacated until certified by an approved testing method as safe from hazardous materials related to the methamphetamine manufacturing process.

NHHS Provision 7.8.3

Tenants and prospective tenants shall be informed in writing of any applicable smoke-free policy and the location of designated smoke-free and smoking areas. Signs shall be posted in all designated areas.

NHHS Provision 7.8.1

Smoking shall be prohibited in all indoor common areas of multifamily buildings.

NHHS Provision 7.8.2

Smoking shall be prohibited in exterior areas less than 25 feet (762 cm) from building entrances, outdoor air intakes, and operable windows.

NHHS Provision 7.8.4

Tenants who terminate a lease early due to incursion of tobacco smoke or the inception of

a smoke-free policy shall be exempt from early termination penalties or security deposit forfeiture.

NHHS Provision 2.8

The structure and facilities shall be maintained so that the noise level in the interior of the dwelling unit caused by exterior sources is below 45 dB Ldn (day-night equivalent sound level).

NHHS Stretch Provisions (Not Assessed in Online Tool)**NHHS Stretch Provision 7.5**

Radon present at levels at or above two pCi/L in the lowest habitable level of the dwelling shall be deemed hazardous. Radon determined by an approved testing method to exceed two pCi/L shall be mitigated by qualified radon mitigation professionals in accordance with state and local requirements. If there are no state or local requirements qualifying radon testing and mitigation professionals, radon testing and mitigation shall be performed by a professional certified by a national private-sector radon proficiency program.

NHHS Stretch Provision 7.8

A property-wide policy shall be established in consultation with current tenants to designate exterior common areas where smoking shall be prohibited and areas where smoking shall be permitted.

NHHS Stretch Provision 7.8

A property-wide policy shall be established in consultation with current tenants to designate dwelling units where tobacco smoking shall be prohibited.

NHHS Stretch Provision 2.8

Nighttime noise levels within bedrooms shall not exceed 30 dB Laeq measure over eight hours.

NHHS Stretch Provision 2.8

HVAC equipment, including intermittent ventilation fans, shall operate at a noise level that creates no more than 45 dB Ldn in habitable rooms.

NHHS Stretch Provision 2.8

Wall and ceiling assemblies shall meet performance standards to attenuate exterior sound reaching occupants or be constructed using materials with sound-dampening acoustical properties.

NHHS Stretch Provision 2.8

Roof material, chimney baffles, exterior doors, mail slots, attic ventilation ports, wall-mounted air conditioners, and other building components that have the potential to admit excessive noise shall be configured to minimize sound intrusion.

NHHS Stretch Provision 2.8

Windows shall be sealed, made weathertight, and caulked to minimize sound intrusion when closed.

Why Chemical Hazards – Other and Noise Hazards Matters

Exposure to radon is the second-leading cause of lung cancer after smoking. Radon is an odorless, tasteless, and invisible gas produced by the decay of naturally occurring uranium in soil and water. The risk related to radon increases with dose and duration of exposure.

The health effects of pesticides vary with the product, but most products affect the eyes, nose, and throat. More severe consequences, such as central nervous system and kidney damage and increased cancer risk, are possible.

Tobacco smoke contains more than 7,000 chemicals, including hundreds that are toxic, and approximately 70 carcinogens, such as arsenic, formaldehyde, benzene, and vinyl chloride. After smoking and radon, secondhand smoke exposure is the third-leading cause of lung cancer death. Secondhand smoke (SHS) also causes numerous health problems in infants and children, including asthma attacks, respiratory infections, ear infections, and sudden infant death syndrome (SIDS). In addition, tobacco smoking is the leading cause of fatal residential fires in the U.S. Experts have concluded that the only way to effectively prevent the migration of SHS from the units of smokers to common areas and the units of nonsmokers is to prohibit all smoking within the building.



SECTION G : Ventilation

Questions: 8 | Total Responses: 11 | Answered: 11 | Percentage Complete: 100%

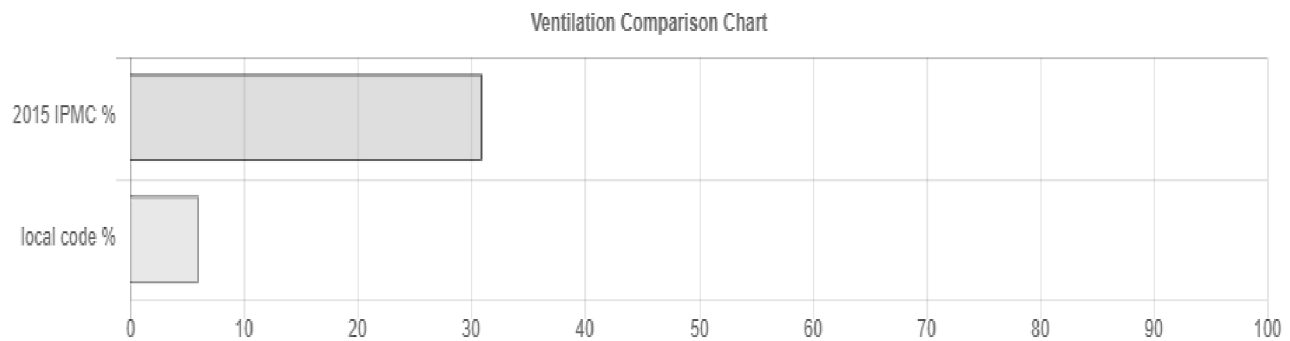
Status : Below Average

G1-G8: Ventilation

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (2.4.3.2, 2.5.5, 5.3, 5.3.1, 5.3.2, 5.3.2.1, 5.3.3, 5.4.4) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

SECTION	NUMBER OF NHHS MANDATORY PROVISIONS	NUMBER OF 2015 IPMC PROVISIONS THAT MEET OR EXCEED NHHS PROVISIONS	COMMUNITY SCORE (POINTS ALLOCATED FOR EACH PROVISION THAT WAS PARTIALLY OR FULLY MET)*	COMMUNITY % (COMMUNITY SCORE/NUMBER OF NHHS MANDATORY PROVISIONS)
Ventilation	8 (100%)	31%	0.5	6%

**Meets or exceeds standard = 1 point; partially meets standard = 0.5 point; doesn't meet standard=0 points*



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NHHS Provisions that You Reported Already Exist in Your Local Code

NHHS Provision 5.3

Natural or mechanical ventilation, or a combination of the two, shall deliver fresh air to every habitable room and bathroom and be capable of removing moisture-laden air and other contaminants generated during cooking, bathing, and showering.

NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)

NHHS Provision 2.4.3.2

Ventilation for the range shall be provided in accordance with Subsection 5.3.

NHHS Provision 2.5.5

Ventilation for the bathroom provided in accordance with Subsection 5.3.

NHHS Provision 5.3

Natural or mechanical ventilation, or a combination of the two, shall deliver fresh air to every habitable room and bathroom and be capable of removing moisture-laden air and other contaminants generated during cooking, bathing, and showering.

NHHS Provision 5.3.1

Every dwelling shall have a ventilation system compliant with ASHRAE Standard 62.2 (Ventilation for Acceptable Indoor Air Quality) as applicable to the dwelling.

NHHS Provision 5.3.2

The air exhausted from a bathroom, toilet room, kitchen, clothes dryer, or basement shall not be vented into any other parts of the building's habitable space or an attic; such air shall discharge directly to the outdoors but not near any intake on the building exterior.

NHHS Provision 5.3.3

Pipes, ducts, conductors, fans, and blowers shall not discharge gases, steam, vapor, hot air, grease, smoke, odors, or other gaseous or particulate wastes directly upon abutting or adjacent public or private property or that of another occupant. Vent pipe openings and any pest-proofing screens that cover them shall be maintained free of debris.

NHHS Provision 5.3.2.1

The exhaust vent from a clothes dryer shall consist of a rigid or corrugated semi-rigid metal duct.

NHHS Provision 5.4.4

In a multifamily building, walls, ceilings, and floors that separate a dwelling unit from neighboring units, corridors, chases, stairwells, and other openings shall be sealed.

NHHS Stretch Provisions (Not Assessed in Online Tool)**NHHS Stretch Provision 5.3**

HVAC equipment shall have the capacity to maintain indoor relative humidity (RH) at or below 60 percent.

NHHS Stretch Provision 5.4

Air handling equipment and associated ductwork shall be relocated from a garage to an area within the conditioned space.

Why Ventilation Matters

Proper circulation of outdoor ventilation air throughout a habitable space, naturally through openings in the building envelope and/or mechanically using fans and HVAC systems, is important to dilute and remove airborne indoor chemical agents, and reduce airborne transmission of biological agents, humidity, and mold. Inadequate ventilation also increases carbon dioxide in habitable spaces, which may yield drowsiness and headaches and can result in elevated levels of volatile organic chemicals that off-gas from interior dwelling components. Inadequate ventilation also increases interior humidity; studies reveal an association between dampness and poor health.

Damp environments are associated with growth of dust mites, cockroaches, and mold. Some of the health effects include worsened asthma, wheezing, nausea and vomiting, headaches, fever, and diarrhea. Inadequate HVAC system maintenance or operation can lead to microbial growth.

Suggested Next Steps:

You have your results. Now what? Here are some suggested next steps:

- Review your results and identify places where your code is already strong and where there may be an opportunity to improve your local codes.
- Use the graphic provided (or export your data and create one yourself) to create a memo or presentation summarizing these results to start a conversation about whether there is an opportunity for action in your community.
- Download the National Healthy Housing Standard for reference as a model code.
- Read about how other communities have used the NHHS to strengthen their local codes and are using codes to improve health.
 - Healthy Housing Codes [<https://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/healthy-housing-codes/> (<http://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/healthy-housing-codes/>)]
 - <http://nchh.org/resources/policy/proactive-rental-inspections/> (<http://nchh.org/resources/policy/proactive-rental-inspections/>)
 - <http://nchh.org/resources/policy/incentivizing-healthy-housing/> (<http://nchh.org/resources/policy/incentivizing-healthy-housing/>)
 - <https://www.apha.org/healthy-homes> (<https://www.apha.org/healthy-homes>)
- Ask for technical assistance or help getting connected to a peer mentor. Contact [Jonathan Wilson \(mailto:jwilson@nchh.org\)](mailto:jwilson@nchh.org).



SECTION H : Heating/Mechanical

Questions: 12 | Total Responses: 22 | Answered: 22 | Percentage Complete: 100%

Status : Below Average

H1-H6: Heating System

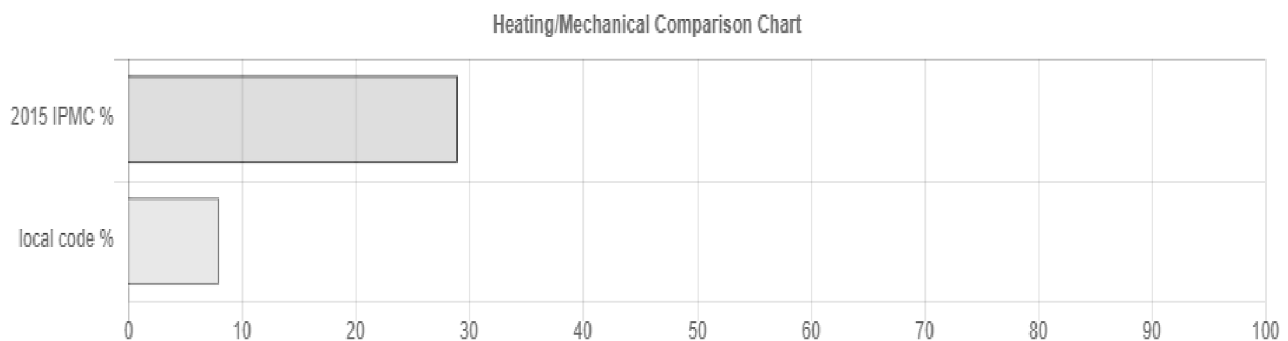
Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (5.2, 5.2.2, 5.2.3, 5.2.4, 5.2.5, 5.2.6) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

H7-H12: Mechanical Facilities

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (2.2.1, 5.1, 5.2.1, 5.3.4, 5.4.3, 5.4.3.1) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

SECTION	NUMBER OF NHHS MANDATORY PROVISIONS	NUMBER OF 2015 IPMC PROVISIONS THAT MEET OR EXCEED NHHS PROVISIONS	COMMUNITY SCORE (POINTS ALLOCATED FOR EACH PROVISION THAT WAS PARTIALLY OR FULLY MET)*	COMMUNITY % (COMMUNITY SCORE/NUMBER OF NHHS MANDATORY PROVISIONS)
Heating/Mechanical	12 (100%)	29%	1.0	8%

*Meets or exceeds standard = 1 point; partially meets standard = 0.5 point; doesn't meet standard=0 points



This report was generated by the Code Comparison Tool, available from the National Center for Healthy Housing at http://bit.ly/NCHH_CCT (http://bit.ly/NCHH_CCT). The NCHH Code Comparison Tool (CCT) gives communities the opportunity to compare their current housing/property maintenance code to the National Healthy Housing Standard (NHHS) and the International Property Maintenance Code (IPMC).

NHHS Provisions that You Reported Already Exist in Your Local Code

NHHS Provision 5.2

Except in Climate Zone 1, every dwelling shall have a properly installed heating system in good and safe working condition that is capable of safely and adequately heating all habitable rooms, bathrooms, and toilet rooms. The heating system, filtration components, distribution components, heating elements, and cooling elements (if provided), shall be sealed, cleaned, maintained, and operated in accordance with manufacturer specifications and shall be inspected and serviced annually by a licensed heating, ventilation, and air conditioning systems contractor.

NHHS Provision 5.1

Facilities for heating, cooling, ventilation, and humidity control shall be maintained in good working condition and operated when necessary for the health and comfort of the occupants and in accordance with the design capacity of the installed equipment. Within 48 hours after equipment has become inoperative due to a mechanical problem or power failure other than a utility outage, and alternative safe source of necessary heating, ventilating, or cooling shall be provided.

NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)**NHHS Provision 5.2**

Except in Climate Zone 1, every dwelling shall have a properly installed heating system in good and safe working condition that is capable of safely and adequately heating all habitable rooms, bathrooms, and toilet rooms. The heating system, filtration components, distribution components, heating elements, and cooling elements (if provided), shall be sealed, cleaned, maintained, and operated in accordance with manufacturer specifications and shall be inspected and serviced annually by a licensed heating, ventilation, and air conditioning systems contractor.

NHHS Provision 5.2.2

The heating system shall be capable of maintaining a minimum room temperature of 68° F (20° C) in every habitable room, bathroom, and toilet room.

NHHS Provision 5.2.3

If the dwelling unit is rented, leased, or let on terms either expressed or implied that heat will be supplied, heat shall be provided to maintain a minimum temperature of 68° F (20° C) in habitable rooms, bathrooms, and toilet rooms; and at no time during the heating season shall the system allow the temperature to exceed 78° F (25° C) in any room.

NHHS Provision 5.2.4

Any dwelling with a forced-air system shall have at least one thermostat within each dwelling unit capable of controlling the heating system, and cooling system if provided, to maintain temperature set point between 55° F (13° C) and 85° F (29° C) at different times of the day. The system shall have a clean air filter installed in accordance with manufacturer specifications at each change in tenancy and at least annually. This filter shall have a

minimum efficiency reporting value of eight (MERV-8) unless the system is not equipped to use a MERV-8 filter.

NHHS Provision 5.2.5

In dwellings with heating equipment utilizing steam or hot water with a temperature of 110° F (43° C) or greater, protective covers/barriers shall be installed on and maintained for exposed surfaces of baseboard units, radiators, and piping between radiators.

NHHS Provision 5.2.6

A wood stove manufactured after June, 1988 shall have a manufacturer's label certifying compliance with the emission standard at 40 C.F.R. § 60 part AAA. Clearance of 30 inches (76 cm) shall be maintained between combustible materials and a stove with no heat shield. Where a heat shield is present, the clearance between combustible materials and the stove shall be compliant with manufacturer specification for the heat shield.

NHHS Provision 5.1

Facilities for heating, cooling, ventilation, and humidity control shall be maintained in good working condition and operated when necessary for the health and comfort of the occupants and in accordance with the design capacity of the installed equipment. Within 48 hours after equipment has become inoperative due to a mechanical problem or power failure other than a utility outage, and alternative safe source of necessary heating, ventilating, or cooling shall be provided.

NHHS Provision 5.2.1

Furnaces, water heaters, wood stoves, and other devices that employ combustion-burning fuel shall be vented to the outside of the structure in an approved manner that meets manufacturer specifications and is in compliance with applicable codes and standards (e.g., ANSI 223.1/NFPA 54 National Fuel Gas Code, NFPA 31 Standard for the Installation of Oil-Burning Equipment, NFPA 211 Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances) and shall be supplied with sufficient air to support the continuous complete combustion of fuel and prevent backdrafting.

NHHS Provision 5.4.3

Heating and air conditioning system ductwork and air handling units located in an attached garage shall be correctly insulated and sealed.

NHHS Provision 5.4.3.1

There shall be no supply or return vent openings in a garage that connect to air handlers serving habitable spaces.

NHHS Provision 5.3.4

Basement air shall not be used as supply air for an air handling system.

NHHS Provision 2.2.1

Mechanical, utility, and heating equipment shall be separated from habitable rooms. In multifamily buildings, equipment rooms shall be locked.

NHHS Stretch Provisions (Not Assessed in Online Tool)**NHHS Stretch Provision 5.2**

Any new combustion heating equipment installed in occupied or conditioned spaces shall be power-vented or sealed (direct-vented) combustion equipment.

NHHS Stretch Provision 5.2

The heating system shall be controlled by a programmable thermostat to avoid temperature extremes.

NHHS Stretch Provision 5.2

The dwelling shall have provisions to maintain the indoor temperature below a maximum of 85° F (29° C) through the use of mechanical air conditioning, ventilation systems, or passive design features.

NHHS Stretch Provision 5.2

Air filters shall be replaced at least every three months.

NHHS Stretch Provision 5.3

HVAC equipment shall have the capacity to maintain indoor relative humidity (RH) at or below 60 percent.

NHHS Stretch Provision 5.4

Air handling equipment and associated ductwork shall be relocated from a garage to an area within the conditioned space.

Why Heating/Mechanical Matters

Exposure to cold temperatures can lead to hypothermia, frostbite, and death. There is a continuous relationship between indoor temperature and vulnerability to cold-related death. High temperatures can increase dehydration, cardiovascular strain, and trauma, and when temperatures exceed 77° F (25° C), they can cause a stroke and possibly death.

Poorly maintained HVAC systems may pose safety risks, including fire and explosion hazards and exposure to combustion-related chemical and physical agents. Controlling air leakage into homes can save the occupant money by making the home energy efficient and can prevent health problems associated with moisture. Sealing each unit can help prevent or reduce migration of smoke, cooking odors, noise, radon, pests, and other elements into the dwelling unit.

Housing facilities in disrepair are likely to cause health burdens as a result of plumbing leaks and chimney, flue, and smoke-pipe malfunctions.

Suggested Next Steps:

You have your results. Now what? Here are some suggested next steps:

- Review your results and identify places where your code is already strong and where there may be an opportunity to improve your local codes.
- Use the graphic provided (or export your data and create one yourself) to create a memo or presentation summarizing these results to start a conversation about whether there is an opportunity for action in your community.
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 - <http://nchh.org/resources/policy/proactive-rental-inspections/> (<http://nchh.org/resources/policy/proactive-rental-inspections/>)
 - <http://nchh.org/resources/policy/incentivizing-healthy-housing/>



SECTION I : Lighting Electrical

Questions: 13 | Total Responses: 15 | Answered: 15 | Percentage Complete: 100%

Status : Below Average

11-16: Lighting

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (4.3, 4.3.1, 4.3.2, 4.4, 4.4.1, 4.4.2, 4.4.3) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

17-19: Electrical Systems

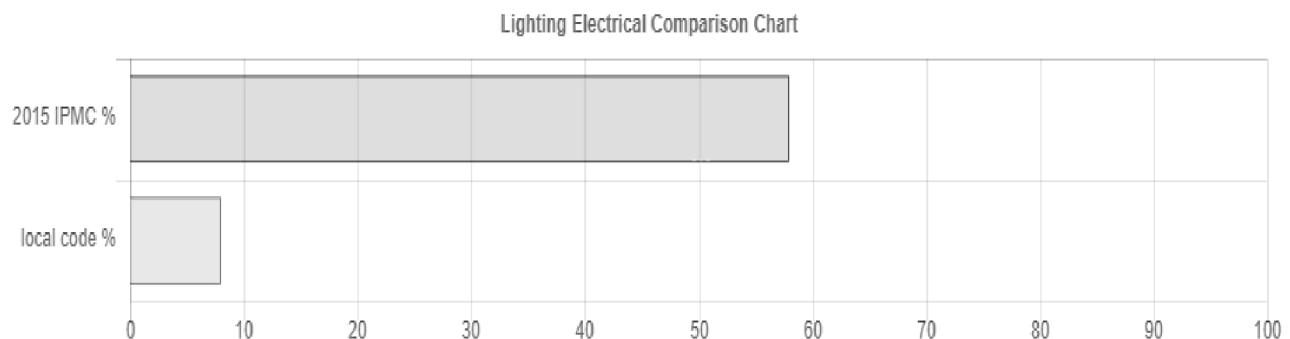
Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (4.1, 4.1.1, 4.1.2) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

I10-I13: Outlets

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (3.9.4, 4.2, 4.2.1, 4.2.2) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

SECTION	NUMBER OF NHHS MANDATORY PROVISIONS	NUMBER OF 2015 IPMC PROVISIONS THAT MEET OR EXCEED NHHS PROVISIONS	COMMUNITY SCORE (POINTS ALLOCATED FOR EACH PROVISION THAT WAS PARTIALLY OR FULLY MET)*	COMMUNITY % (COMMUNITY SCORE/NUMBER OF NHHS MANDATORY PROVISIONS)
Lighting Electrical	13 (100%)	58%	1.0	8%

**Meets or exceeds standard = 1 point; partially meets standard = 0.5 point; doesn't meet standard=0 points*



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NHHS Provisions that You Reported Already Exist in Your Local Code

No provisions exist.

NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)

NHHS Provision 4.3

Every habitable room shall receive daylight from at least one exterior window or skylight.

NHHS Provision 4.3.1

If a habitable room receives daylight from an adjacent room or area used seasonally, such as a porch, the daylight through this interconnection shall be available year-round.

NHHS Provision 4.3.2

Every bathroom and kitchen shall comply with the daylight requirement for habitable rooms contained in this section, unless the room is equipped with a ventilation system consistent with Subsection 5.3.

NHHS Provision 4.4.2

Every public hall, exterior entry door, and stairway in multifamily housing shall be illuminated at all times by ceiling- or wall-type electric lighting fixtures providing 800 lumens for every 200 ft² (18.6 m²) of floor area. The distance between light fixtures shall not be greater than 30 feet (762 cm).

NHHS Provision 4.4.3

In a building containing one or two dwelling units, every public hall, exterior entry door, and stairway shall be illuminated by ceiling- or wall-type electric lighting fixtures providing 800 lumens for every 200 ft² (18.6 m²) of floor area that is controlled by a three-way switch or a motion-activated device.

NHHS Provision 4.4

Each room containing a toilet, sink, bathtub, or shower stall shall contain at least one ceiling- or wall-type electric lighting fixture. Each non-habitable room, including laundry rooms, furnace rooms, and public halls, shall contain at least one ceiling- or wall-type electric lighting fixture.

NHHS Provision 4.4.1

Light switches that control ceiling- or wall-type electric light fixtures shall be located conveniently for safe use.

NHHS Provision 4.1

Every dwelling unit shall have electric service, outlets, and fixtures that are grounded and installed properly, maintained in good and safe working condition, and connected to a source of electric power.

NHHS Provision 4.1.1

Every dwelling unit shall be supplied with a three-wire, 120/240-volt, single-phase electrical service that is not shared with another dwelling unit.

NHHS Provision 4.1.2

Temporary wiring or extension cords shall not be used as permanent wiring.

NHHS Provision 4.2

Every habitable room shall have at least two separate and remote grounded duplex electric receptacle outlets.

NHHS Provision 4.2.1

Each kitchen and each room containing a toilet, sink, bathtub, or shower stall shall have at least one grounded duplex electric receptacle outlet protected by a ground-fault circuit interrupter (GFCI).

NHHS Provision 4.2.2

Receptacle outlets in garages, crawl spaces, unfinished basements, and outdoors shall be protected by GFCIs.

NHHS Provision 3.9.4

Luminaries, receptacles, and other outlets shall have ground fault circuit interrupter (GFCI) protection.

NHHS Stretch Provisions (Not Assessed in Online Tool)**NHHS Stretch Provision 4.1**

The electrical service shall have a rating of not less than 100 amperes.

NHHS Stretch Provision 4.2

Habitable rooms shall have sufficient electric receptacle outlets so that no location on a wall is more than six feet from an outlet.

NHHS Stretch Provision 4.2

Every countertop space 12 inches (305 mm) or wider shall have a grounded duplex electric convenience receptacle outlet protected by a GFCI. No section of counter shall be more than 24 inches (610 mm) measured horizontally from an outlet.

NHHS Stretch Provision 4.2

Receptacle outlets in habitable rooms that are not protected by GFCIs shall be protected by arc-fault circuit interruptors (AFCIs).

NHHS Stretch Provision 4.4

Polychlorinated-biphenyl (PCB)-containing lighting ballasts (e.g., older pre-1978 T-12 lighting ballasts) shall be removed, replaced with lighting fixtures that do not contain PCBs, and disposed of in accordance with applicable state and federal regulations.

NHHS Stretch Provision 4.4

The lighting fixtures in public halls, stairways, and entries shall provide 1600 lumens for every 200 ft² (18.6 m²) of floor area.

NHHS Stretch Provision 4.4

The parking areas and walkways of multifamily housing shall be illuminated by outdoor lighting devices suitable for the premises.

Why Lighting Electrical Matters

Research has revealed a strong relationship between light and human physiology. Light allows us to see and affects body rhythms and psychological health. Lack of natural light has been linked to depression.

Adequate lighting is important in allowing people to see unsanitary conditions and to prevent injury, thus contributing to a healthier and safer environment. Improper indoor lighting can also contribute to eyestrain from inadequate illumination, glare, and flicker.

Faulty electrical systems result in fires, damage property, burns, injuries, and death. In residential settings, children are more likely to be injured than adults, primarily from

inserting household objects into electrical outlets.

Unlike circuit breakers and fuses, ground-fault circuit interrupters (GFCIs) are installed to protect the user from electrocution. These devices provide protection against electrical shock and electrocution from ground faults or contact with live parts by a grounded individual. They constantly monitor electrical currents flowing into a product. If the electricity flowing through the product differs even slightly from that returning, the GFCI will quickly shut off the current. AFCIs prevent electrical fires by protecting branch circuits.

Suggested Next Steps:

You have your results. Now what? Here are some suggested next steps:

- Review your results and identify places where your code is already strong and where there may be an opportunity to improve your local codes.
 - Use the graphic provided (or export your data and create one yourself) to create a memo or presentation summarizing these results to start a conversation about whether there is an opportunity for action in your community.
 - Download the National Healthy Housing Standard for reference as a model code.
 - Read about how other communities have used the NHHS to strengthen their local codes and are using codes to improve health.
 - <https://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/healthy-housing-codes/> (<http://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/healthy-housing-codes/>)
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 - <http://nchh.org/resources/policy/incentivizing-healthy-housing/> (<http://nchh.org/resources/policy/incentivizing-healthy-housing/>)
 - <https://www.apha.org/healthy-homes> (<https://www.apha.org/healthy-homes>)
 - Ask for technical assistance or help getting connected to a peer mentor. Contact [Jonathan Wilson \(mailto:jwilson@nchh.org\)](mailto:jwilson@nchh.org).
-



SECTION J : Fire Safety

Questions: 17 | Total Responses: 26 | Answered: 26 | Percentage Complete: 100%

Status : Below Average

J1-J6: Egress

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (3.1, 3.1.2, 3.1.3, 3.1.3.1, 3.1.3.2, 3.1.3.3) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

J7-J10: Smoke Alarm

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (3.3, 3.3.1, 3.3.2, 3.3.3) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

J11-J13: Fire Extinguisher

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (3.4, 3.4.1, 3.4.2) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

J14-J16: CO Alarm

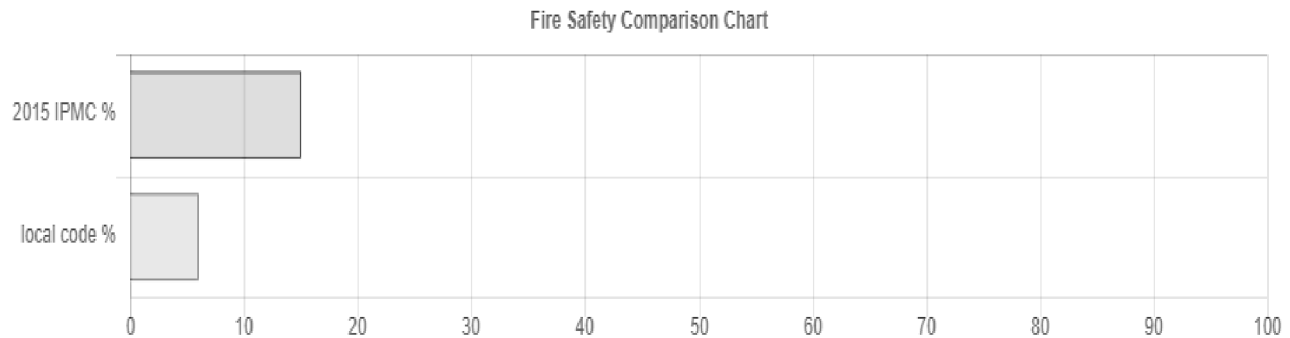
Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (3.5, 3.5.1, 3.5.2) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

J17: Chemical Storage

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (3.8.2) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

SECTION	NUMBER OF NHHS MANDATORY PROVISIONS	NUMBER OF 2015 IPMC PROVISIONS THAT MEET OR EXCEED NHHS PROVISIONS	COMMUNITY SCORE (POINTS ALLOCATED FOR EACH PROVISION THAT WAS PARTIALLY OR FULLY MET)*	COMMUNITY % (COMMUNITY SCORE/NUMBER OF NHHS MANDATORY PROVISIONS)
Fire Safety	17 (100%)	15%	1.0	6%

**Meets or exceeds standard = 1 point; partially meets standard = 0.5 point; doesn't meet standard=0 points*



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NHHS Provisions that You Reported Already Exist in Your Local Code

NHHS Provision 3.1.1

Egress routes shall be unobstructed. Doors along egress routes shall be openable from the inside without the use of a key or tool.

NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)

NHHS Provision 3.1

In accordance with local fire codes, every dwelling unit shall have at least two means of egress that serve as emergency escapes and rescue openings. Each egress shall lead outside without passing through another dwelling unit.

NHHS Provision 3.1.2

Any bedroom located below the fourth floor shall be provided with an exterior window openable from the inside that can be used as a means of emergency egress.

NHHS Provision 3.1.3.3

A door leading directly from the room to the outside that provides an exit at grade level shall fulfill this requirement.

NHHS Provision 3.1.3

If a habitable room partly or totally below grade is intended for sleeping purposes, at least one exterior window shall be openable from the inside and accessible for easy and ready use as an emergency exit. The window shall have the following minimum dimensions: a net clear opening of 5.7 ft² (0.52 m²); 24 inches (61 cm) from the top of the sill to the bottom head of the window frame; a width of 20 inches (51 cm); and a sill height of not more than 44 inches (112 cm) from the floor.

NHHS Provision 3.1.3.1

If the window opening sill height is below ground elevation, the horizontal dimension (width times projection) of the window well shall be at least nine ft² (0.84 m²) and the horizontal projection shall extend at least 36 inches (91 cm) from the exterior side of the window.

NHHS Provision 3.1.3.2

If the egress window well is deeper than 44 inches (112 cm) below ground elevation, there shall be steps or a ladder permanently attached to serve as an emergency exit to ground elevation. The distance between steps or rungs shall be 18 inches (46 cm), their width shall be at least 12 inches (31 cm), and their projection from the wall shall be between three and six inches (7.6 and 15 cm).

NHHS Provision 3.3

Every dwelling unit shall have a functioning smoke alarm located on the ceiling outside each sleeping area in the immediate vicinity of the bedrooms, in each additional room used for sleeping purposes, and on every level except crawlspaces and uninhabitable attics. In dwellings or dwelling units with split levels that have no door between adjacent levels, the smoke alarm installed on the upper level shall suffice for the adjacent lower level. In the event a smoke alarm sounds, the cause of the alarm condition shall be identified and corrected.

NHHS Provision 3.3.1

In multifamily housing, a tamper-proof smoke detection system (interconnected with a central fire alarm system) or stand-alone smoke alarms in good working condition shall be installed on each level including basements, in heating system and storage rooms, in garages, and in other common areas.

NHHS Provision 3.3.2

Battery-operated smoke alarms and the battery backup for hardwired smoke alarms shall be powered with long-lasting batteries.

NHHS Provision 3.3.3

Alternative visual notification shall be provided for hearing-impaired occupants.

NHHS Provision 3.4

Fire extinguishers shall be rated Class ABC and shall be readily accessible.

NHHS Provision 3.4.1

Each dwelling unit shall have at least one 10-pound fire extinguisher in good working condition in or near the kitchen.

NHHS Provision 3.4.2

In multifamily housing, there shall be fire extinguishers in common areas on each floor and in areas where flammable or combustible liquids are stored, used, or dispensed. The fire extinguishers shall be located in conspicuous, unobstructed locations that are not obscured from view.

NHHS Provision 3.5

Every dwelling unit shall have at least one functioning carbon monoxide (CO) alarm on every habitable floor and outside each separate sleeping area, in the immediate vicinity or every bedroom. In the event a CO alarm sounds, the cause of the alarm condition shall be identified and corrected.

NHHS Provision 3.5.1

Battery-operated CO alarms shall be powered with long-lasting batteries. Hardwired CO alarms shall have long-lasting battery backup.

NHHS Provision 3.5.2

Alternative visual notification shall be provided for hearing-impaired occupants.

NHHS Provision 3.8.2

Storage space for flammable and combustible liquids shall be available either in a building separate from the dwelling's habitable space or in an adjacent space that is not connected to the dwelling's ventilation system.

NHHS Stretch Provisions (Not Assessed in Online Tool)

NHHS Stretch Provision 3.3

Smoke alarms shall be hardwired with battery backup.

NHHS Stretch Provision 3.3

Smoke alarm batteries shall be sealed-in and tamper-proof.

NHHS Stretch Provision 3.3

Multiple smoke detection stations shall be interconnected.

NHHS Stretch Provision 3.3

Every dwelling unit shall have both a photoelectric smoke alarm and an ionization smoke alarm.

NHHS Stretch Provision 3.4

The dwelling shall have an automatic fire sprinkler system that complies with the applicable locally adopted fire code. If the local fire code has no sprinkler requirement or if no local fire code exists, the installed automatic fire sprinkler system shall comply with either the *International Fire Code*® or the *National Fire Protection Association Standard 1*.

NHHS Stretch Provision 3.5

CO alarms and combination smoke/CO alarms shall include voice notification.

NHHS Stretch Provision 3.5

If a combination ionizations sensor smoke/CO alarm is used, a second smoke alarm utilizing photoelectric smoke sensors shall be installed.

NHHS Stretch Provision 3.5

CO alarm batteries shall be sealed-in and tamper-proof.

NHHS Stretch Provision 3.5

CO present at or above 30 ppm (35 mg/m³) when measured over one hour, or above nine ppm (10.5 mg/m³) measured over eight hours, shall be deemed hazardous. The cause of a hazardous indoor CO level shall be investigated to identify and eliminate its source.

Why Fire Safety Matters

Escape from fire is an important public safety protection. Proper configuration of egress will prevent falls that can result in physical injury, such as bruising, fractures, and head, brain, and spinal injuries; allow the timely evacuation of residents in an emergency; and permit entry by rescue workers wearing emergency equipment on their backs.

Smoke alarms that are properly installed and maintained play a vital role in reducing fire-related deaths and injuries. Having an operational smoke alarm reduces the chances of dying in a reported fire by half. When smoke alarms fail to operate, it is usually because batteries are missing, disconnected, or dead. Research has demonstrated that almost one quarter of smoke alarm failures were due to dead batteries. Interconnection of smoke alarms allows the warning to reach all occupants at the same time.

Ionization smoke alarm sensors are best suited to detect smoke from highly combustible materials that can create flaming fires, such as flammable liquids, newspapers, and paint cleaning solutions. Photoelectric models are best suited for living rooms, bedrooms, and kitchens, which often contain large pieces of furniture that will burn slowly, creating more smoldering smoke than flames.

Cooking equipment is the second-leading cause of apartment or multifamily housing fire deaths, ranking only behind smoking. Kitchens are the leading area of origin for home structure fires. Approximately two out of every five (42%) home structure fires started in the kitchen or cooking area. Two thirds (66%) of the reported apartment or multifamily housing fires and one third (33%) of the fires in one- or two-family homes originated in the kitchen. When an extinguisher is used, it put out the fire completely in half of the cases and minimized the fire but did not completely put it out in almost one quarter of the incidents.

Carbon monoxide (CO) is a colorless, odorless, and extremely toxic gas. Blood hemoglobin has a greater affinity for CO than it does for oxygen, which means that inhalation of this gas will reduce the ability of the blood to absorb oxygen. At high concentrations, carbon monoxide can cause unconsciousness and death. The highest rate of deaths from carbon monoxide poisoning occurs among older adults, especially in people aged 75 years and older.

At lower concentrations, carbon monoxide may cause a range of symptoms from headaches, dizziness, weakness, nausea, confusion, and disorientation to fatigue. These symptoms are sometimes confused with influenza and sometimes with depression. In people with ischemic heart disease, it can result in episodes of increased chest pain. Carbon monoxide may also impair fetal development. Those most vulnerable to ill health effects caused by low-level carbon monoxide exposure include unborn children, infants, children, the elderly, and people with anemia or heart or lung disease.

Suggested Next Steps:

You have your results. Now what? Here are some suggested next steps:

- Review your results and identify places where your code is already strong and where there may be an opportunity to improve your local codes.
 - Use the graphic provided (or export your data and create one yourself) to create a memo or presentation summarizing these results to start a conversation about whether there is an opportunity for action in your community.
 - Download the National Healthy Housing Standard for reference as a model code.
 - Read about how other communities have used the NHHS to strengthen their local codes and are using codes to improve health.
 - <https://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/healthy-housing-codes/> (<http://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/healthy-housing-codes/>)
 - <http://nchh.org/resources/policy/proactive-rental-inspections/> (<http://nchh.org/resources/policy/proactive-rental-inspections/>)
 - <http://nchh.org/resources/policy/incentivizing-healthy-housing/> (<http://nchh.org/resources/policy/incentivizing-healthy-housing/>)
 - <https://www.apha.org/healthy-homes> (<https://www.apha.org/healthy-homes>)
 - Ask for technical assistance or help getting connected to a peer mentor. Contact [Jonathan Wilson \(mailto:jwilson@nchh.org\)](mailto:jwilson@nchh.org).
-



SECTION K : Structural

Questions: 14 | Total Responses: 17 | Answered: 17 | Percentage Complete: 100%

Status : Average

K1-K3: Structure and Facilities

Strong | Congratulations! Your responses indicate that your community is using most of the evidence-based provisions in the National Healthy Housing Standard (NHHS) in this area - NHHS Provisions (3.6). To take the next step in using housing codes to protect resident health, consider implementing some or all of the provisions listed below.

K4-K7: Locks/Security

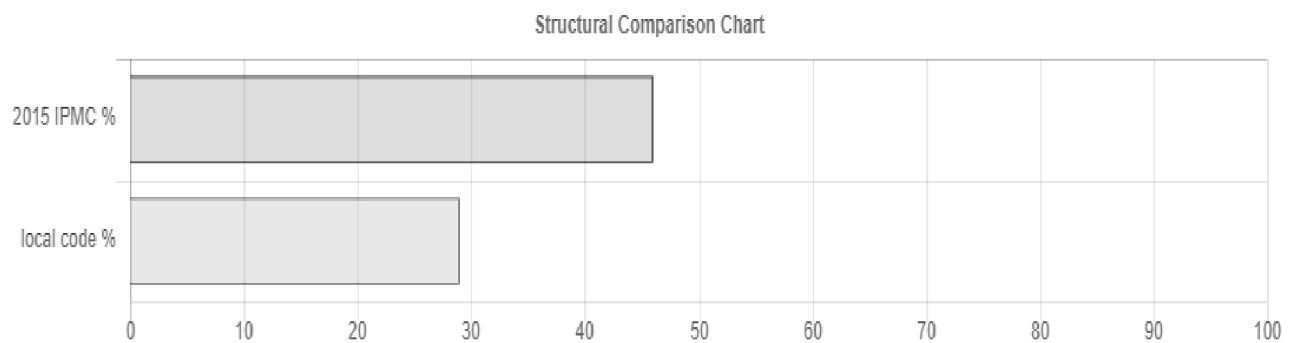
Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (3.2.1, 3.2.2, 3.2.3) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

K8-K14: Air Sealing

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (3.2.4, 5.4, 5.4.1.1, 5.4.2, 5.4.2.1, 5.4.2.2) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

SECTION	NUMBER OF NHHS MANDATORY PROVISIONS	NUMBER OF 2015 IPMC PROVISIONS THAT MEET OR EXCEED NHHS PROVISIONS	COMMUNITY SCORE (POINTS ALLOCATED FOR EACH PROVISION THAT WAS PARTIALLY OR FULLY MET)*	COMMUNITY % (COMMUNITY SCORE/NUMBER OF NHHS MANDATORY PROVISIONS)
Structural	14 (100%)	46%	4.0	29%

**Meets or exceeds standard = 1 point; partially meets standard = 0.5 point; doesn't meet standard=0 points*



This report was generated by the Code Comparison Tool, available from the National Center for Healthy Housing at http://bit.ly/NCHH_CCT (http://bit.ly/NCHH_CCT). The NCHH Code Comparison Tool (CCT) gives communities the opportunity to compare their current housing/property maintenance code to the National Healthy Housing Standard (NHHS) and the International Property Maintenance Code (IPMC).

NHHS Provisions that You Reported Already Exist in Your Local Code

NHHS Provision 2.1

Every foundation, roof, floor, exterior and interior wall, ceiling, inside and outside stair,

porch, trim, accessory structure, fence, door, window, and window glass shall be safe to use and capable of supporting the intended design loads and load effects and shall be in good condition.

NHHS Provision 2.2

Every plumbing fixture and pipe, chimney, flue, smoke pipe, and every other facility, piece of equipment, or utility shall be installed in conformance with applicable statutes, ordinances, and regulations.

NHHS Provision 3.2

Means of egress (i.e., windows and/or doors) from dwellings shall have locks.

NHHS Provision 5.4.1

Exterior doors, windows and skylights, openings where siding and chimneys meet, utility penetrations, electrical outlets, and other openings shall be weathertight.

NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)

NHHS Provision 3.6

Every interior and exterior stairway, ramp, deck, porch, and balcony shall be maintained structurally sound, in good repair, properly anchored, and capable of supporting the imposed loads.

NHHS Provision 3.2.1

Following each change in tenancy, the locking devices on the dwelling unit entry doors shall be changed.

NHHS Provision 3.2.2

Dwelling unit entry doors shall be equipped with a dead bolt lock with a minimum throw of one inch (2.54 cm) and that is capable of being opened from the interior side without a key and a device that permits the occupant to see a person at the entry door without fulling opening the door.

NHHS Provision 3.2.3

Exterior doors on multifamily buildings with a common entry that leads into a foyer or

hallway shall have a self-closing mechanism and shall be equipped with a locking device capable of being opened from the interior side without a key.

NHHS Provision 3.2.4

Exterior windows that are capable of being opened and are potential means of entry shall be equipped with a lock on the interior side.

NHHS Provision 5.4

Openings to dwellings and dwelling units shall be sealed to limit uncontrolled air movement.

NHHS Provision 5.4.1.1

Pads, door sweeps, weather stripping, and seals shall be used and maintained to minimize air leaks.

NHHS Provision 5.4.2

Openings separating an attached garage from a habitable room, including doors, ceilings, floors, and utility and ductwork penetrations, shall be sealed.

NHHS Provision 5.4.2.1

Any doorway between a habitable room and a garage shall be equipped with a wood door not less than 1 $\frac{3}{8}$ inches (35 mm) thick, or a 20-minute fire-rated door. The door shall have an automatic closing mechanism and be sealed with weather stripping.

NHHS Provision 5.4.2.2

There shall be no door, window, or other opening from a garage into a room used for sleeping purposes.

NHHS Stretch Provisions (Not Assessed in Online Tool)**NHHS Stretch Provision 3.6**

Every interior and exterior stairway shall have uniform risers and treads. Risers shall be no higher than 7 $\frac{3}{4}$ inches (19.6 cm) and treads shall be at least 10 inches (25.4 cm) deep, unless the existing space and construction do not allow a reduction in pitch or slope.

NHHS Stretch Provision 3.6

Interior and exterior stairways shall have handrails on both sides. Railings shall have a

graspable perimeter measuring four to six inches (10-16 cm), and if noncircular in shape, shall have no sharp corners and a width no smaller than five-eighths inch (1.5 cm).

NHHS Stretch Provision 5.4

Air handling equipment and associated ductwork shall be relocated from a garage to an area within the conditioned space.

Why Structural Matters

The structure of a dwelling is complex; its different parts must all be adequately designed and properly maintained to ensure that the habitable space is safe and healthy. Poor construction of the structure can result in several negative consequences. Structural deficiencies in a dwelling can cause falls, fires, burns and scalds, carbon monoxide and other types of poisoning, drowning, and other injuries.

Housing facilities in disrepair are likely to cause health burdens as a result of plumbing leaks and chimney, flue, and smoke-pipe malfunctions.

Inadequate home security may result in a fear of possible burglary occurrence or reoccurrence, stress caused by burglary, and injuries caused to occupants by an intruder (aggravated burglary). The emotional impact is greater for burglaries where there is successful entry to the dwelling. The risk of entry increases with declining level of security.

Controlling air leakage into homes can save the occupant money by making the home energy efficient and can prevent health problems associated with moisture. Airborne moisture can lead to mold growth, which causes respiratory distress in children and adults, including those with asthma, allergies, or other respiratory diseases. Air sealing and isolation of attached garages is important to prevent migration of carbon monoxide and other airborne chemical agents into habitable rooms. Sealing of each unit can help to reduce or prevent migration of smoke, cooking odors, noise, radon, pests, and other elements into the dwelling unit.

Suggested Next Steps:

You have your results. Now what? Here are some suggested next steps:



SECTION L : Occupancy

Questions: 14 | Total Responses: 26 | Answered: 26 | Percentage Complete: 100%

Status : Strong

L1-L6: Minimum Space

Opportunities for Improvement | Your responses indicate that your community is using a number of the evidence-based provisions from the National Healthy Housing Standard (NHHS) in this area - NHHS Provisions (2.6.4, 2.6.5 (*part 1*), 2.6.6) but may benefit by implementing some or all of the provisions listed below.

L7-L13: Kitchen

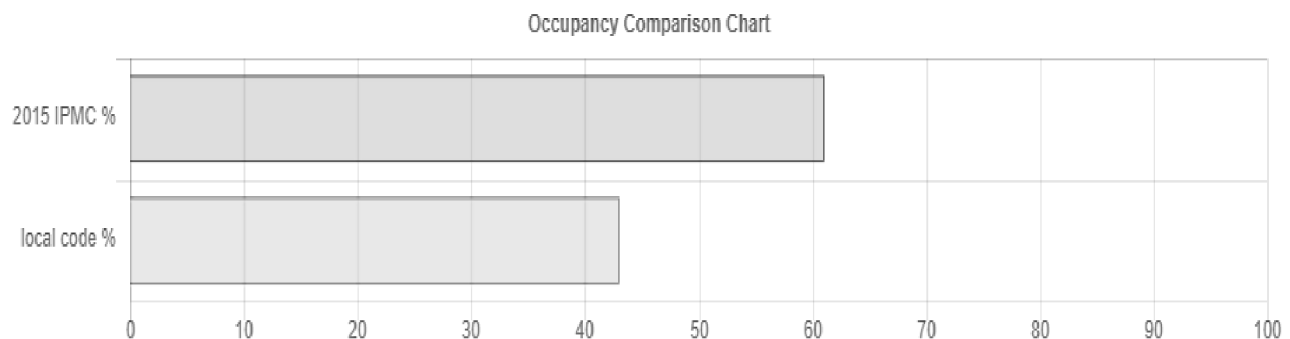
Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (2.4.1, 2.4.2, 2.4.3, 2.4.3.1, 2.4.4, 2.4.4.1) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

L14: Chemical Storage

Significant Opportunities for Improvement | Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (3.8.1) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

SECTION	NUMBER OF NHHS MANDATORY PROVISIONS	NUMBER OF 2015 IPMC PROVISIONS THAT MEET OR EXCEED NHHS PROVISIONS	COMMUNITY SCORE (POINTS ALLOCATED FOR EACH PROVISION THAT WAS PARTIALLY OR FULLY MET)*	COMMUNITY % (COMMUNITY SCORE/NUMBER OF NHHS MANDATORY PROVISIONS)
Occupancy	14 (100%)	61%	6.0	43%

**Meets or exceeds standard = 1 point; partially meets standard = 0.5 point; doesn't meet standard=0 points*



This report was generated by the Code Comparison Tool, available from the National Center for Healthy Housing at http://bit.ly/NCHH_CCT (http://bit.ly/NCHH_CCT). The NCHH Code Comparison Tool (CCT) gives communities the opportunity to compare their current housing/property maintenance code to the National Healthy Housing Standard (NHHS) and the International Property Maintenance Code (IPMC).

NHHS Provisions that You Reported Already Exist in Your Local Code

NHHS Provision 2.6

The dwelling shall provide privacy and adequate space for sleeping and living.

NHHS Provision 2.6.5 (part 1)

The ceiling height of any habitable room shall be at least 84 inches (213 cm). In a habitable room with a sloping ceiling, at least one-half of the floor area shall have a ceiling height of at least 84 inches (213 cm).

NHHS Provision 2.6.3

Every habitable room shall have a minimum floor area of 70 ft² (6.5 m²).

NHHS Provision 2.6.5 (part 2)

If any part of a room has a ceiling height lower than 60 inches (152 cm), its floor area shall not be considered in computing the floor area of the room.

NHHS Provision 2.6.1

A bedroom shall not be the only passageway to the only bathroom in a dwelling unit with more than one bedroom.

NHHS Provision 2.6.6

A habitable room located partly or totally below grade shall be provided with natural light by windows in accordance with Subsection 4.3, and ventilation in accordance with Subsection 5.3. In such a room, the ceiling and any ducts, pipes, and other obstructions shall be at least 84 inches (213 cm) above the floor throughout the room, and walls and floors shall be waterproof and free of dampness.

NHHS Provision 2.4

Every dwelling unit shall have a kitchen equipped with the following:

NHHS Provision 2.4.3.1

The range shall include an oven unless both a separate oven, other than a microwave oven, and a cooktop are provided. A hot plate is not an acceptable substitute for burners on a range or cooktop. The range or cooktop shall have a vertical clearance of not less than 30 inches (762 mm) from above its surface to unprotected combustible material. Reduced clearances are permitted in accordance with the listing and labeling of the range hood.

NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)

NHHS Provision 2.6.5 (part 1)

The ceiling height of any habitable room shall be at least 84 inches (213 cm). In a habitable room with a sloping ceiling, at least one-half of the floor area shall have a ceiling height of at least 84 inches (213 cm).

NHHS Provision 2.6.4

Every dwelling shall have closet space or other storage space to store occupants' clothing and personal belongings.

NHHS Provision 2.6.6

A habitable room located partly or totally below grade shall be provided with natural light by windows in accordance with Subsection 4.3, and ventilation in accordance with Subsection 5.3. In such a room, the ceiling and any ducts, pipes, and other obstructions shall be at least 84 inches (213 cm) above the floor throughout the room, and walls and floors shall be waterproof and free of dampness.

NHHS Provision 2.4.1

A kitchen sink in good working condition that is properly connected to heated and unheated water supplies and waste pipes. Any provided dishwasher and components of the sink, including disposal and water filtration devices, shall be in good working condition and properly connected.

NHHS Provision 2.4.2

A counter for food preparation and cabinets and/or shelves sufficient to store occupants' food that does not require refrigeration and eating, drinking, and food preparation equipment. Cabinets shall have tight-fitting doors and no gaps between any surfaces. The counter, countertop edges, cabinets, and shelves shall be of sound construction and furnished with surfaces that are impervious to water, smooth, and cleanable.

NHHS Provision 2.4.3

A range for cooking food. The range shall be properly installed with all necessary connections for safe and efficient operation and shall be maintained in good working condition.

NHHS Provision 2.4.3.1

The range shall include an oven unless both a separate oven, other than a microwave

oven, and a cooktop are provided. A hot plate is not an acceptable substitute for burners on a range or cooktop. The range or cooktop shall have a vertical clearance of not less than 30 inches (762 mm) from above its surface to unprotected combustible material. Reduced clearances are permitted in accordance with the listing and labeling of the range hood.

NHHS Provision 2.4.4

A refrigerator with a freezer. The refrigerator shall be in good working condition, of sufficient size to store occupants' food that requires refrigeration, and capable of maintaining a temperature less than 41°F (6°C) but more than 32°F (0°C). The freezer section shall be capable of maintaining a temperature below 0°F (-18°C).

NHHS Provision 2.4.4.1

If the lease does not provide for a refrigerator, adequate connections for the occupant's installation and operation of a refrigerator shall be provided.

NHHS Provision 3.8.1

Each dwelling unit shall have a cabinet or other storage space that is lockable or not readily accessible to children for the storage of medicine and household chemical agents.

NHHS Stretch Provisions (Not Assessed in Online Tool)

NHHS Stretch Provision 2.4

Cabinets and countertops shall be constructed of materials that are rated No-Added Formaldehyde (NAF) or Ultra-Low-Emitting Formaldehyde Resins (ULEF).

NHHS Stretch Provision 2.4

Wall surfaces immediately adjacent to the range, sink, and counter shall be covered with an impervious finish.

NHHS Stretch Provision 2.4

The joints where a wall meets a cabinet or counter, and where a counter meets a stove or sink, shall be sealed or covered to permit thorough cleaning and deter pests.

NHHS Stretch Provision 2.4

Enclosed cabinets (as opposed to a combination of shelves and cabinets) sufficient to store

occupants' food that does not require refrigeration shall be provided.

NHHS Stretch Provision 2.4

Freestanding stoves shall have brackets to prevent tip-over.

Why Occupancy Matters

Privacy is a necessity to people, to some degree and during some periods. There should be sufficient space to provide for social interaction between members of the household while allowing for private time away from other household members. Providing adequate enclosed floor space for living, sleeping, cooking, or eating and storage helps prevent clutter and provides privacy to promote healthy living. Pest harborage, psychological distress, and injury hazards may result from clutter. Where units with rooms meeting the minimum floor area requirement are unavailable or unaffordable, it may be necessary to deviate from minimum room size.

Properly designed kitchens enable the safe and hygienic preparation and cooking of food and reduce the risk of food poisoning. Damp, unmaintained surfaces may deteriorate, causing increased chance of growth of biological agents, presenting a risk of food contamination and food poisoning. Kitchen floors that are impervious to water and capable of being cleaned and maintained prevent the accumulation of dirt, moisture, and biological agents.

Poison control centers answer more than 3.6 million calls each year, or one call every eight seconds. According to the American Association of Poison Control Centers, children younger than six years old account for about half of the calls placed to poison centers.

Suggested Next Steps:

You have your results. Now what? Here are some suggested next steps:

- Review your results and identify places where your code is already strong and where there may be an opportunity to improve your local codes.
- Use the graphic provided (or export your data and create one yourself) to create a memo or presentation summarizing these results to start a conversation about whether there is an opportunity for action in your community.

- Download the National Healthy Housing Standard for reference as a model code.
- Read about how other communities have used the NHHS to strengthen their local codes and are using codes to improve health.
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 - <http://nchh.org/resources/policy/proactive-rental-inspections/> (<http://nchh.org/resources/policy/proactive-rental-inspections/>)
 - <http://nchh.org/resources/policy/incentivizing-healthy-housing/> (<http://nchh.org/resources/policy/incentivizing-healthy-housing/>)
 - <https://www.apha.org/healthy-homes> (<https://www.apha.org/healthy-homes>)
- Ask for technical assistance or help getting connected to a peer mentor. Contact [Jonathan Wilson](mailto:jwilson@nchh.org) (<mailto:jwilson@nchh.org>).

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Tool Navigation

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Moisture, Kitchen (/tools-and-data/housing-code-tools/cct/tool/section/cct_section_a/)

- B. PEST & WASTE MANAGEMENT (/tools-and-data/housing-code-tools/cct/tool/section/cct_section_b/)

- C. PLUMBING & WATER SYSTEMS (/tools-and-data/housing-code-tools/cct/tool/section/cct_section_c/)

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Minimum Space, Kitchen, Chemical Storage (/tools-and-data/housing-code-tools/cct/tool/section/cct_section_l/)

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National Safe and Healthy
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