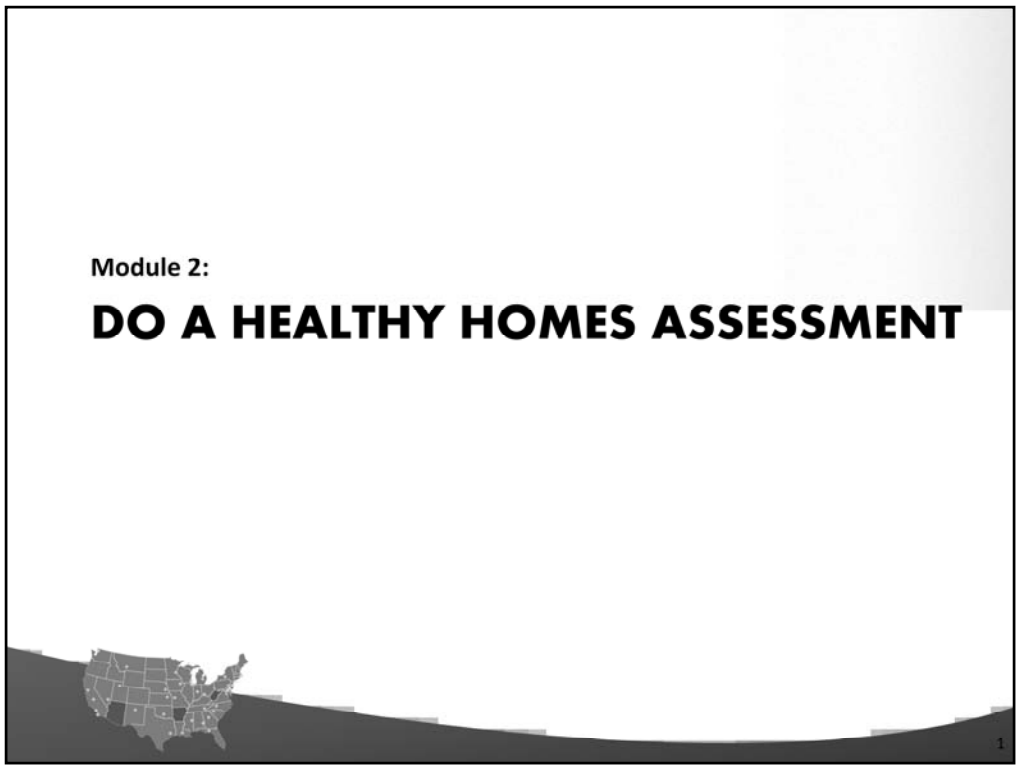
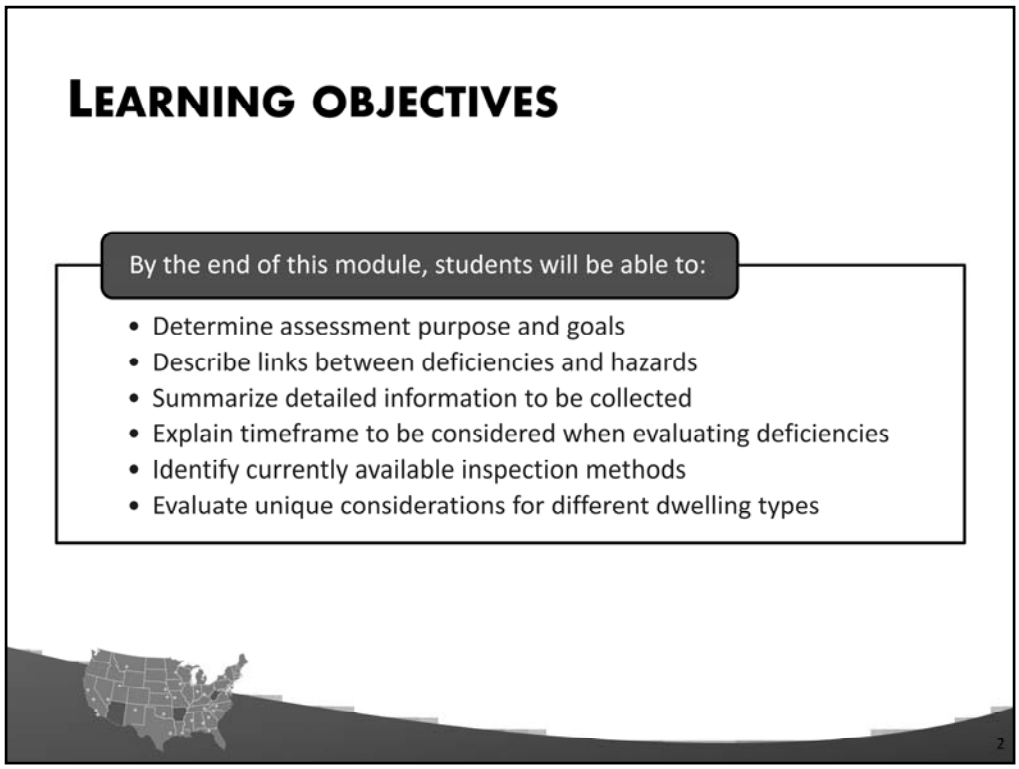


This Module is designed to prepare trainers to teach Assessors/Inspectors the importance of and linkage between a healthy homes assessment and use of the HUD Healthy Home Rating System (HHRS).

The module will run approximately 30 to 45 minutes to include questions and answers.



Because this train-the-trainer course will prepare trainers to instruct Assessors/Inspectors on how to use the HUD Healthy Home Rating System (HHRS), it is important that trainers be able to:

1. Explain how Assessors/Inspectors should determine the assessment purpose and goals

2. Describe links between observed deficiencies, as identified during a housing assessment, and the 29 HHRS hazards.

3. Identify what types of assessment information are required before an Assessor/Inspector can use the HHRS to rate deficiencies according to hazard type, likelihood of harm, and potential outcome of the harm. Explain that sufficient details and an adequate description of each housing deficiency must be collected before an Assessor/Inspector can rate the deficiencies using the HHRS and substantiate the results

4. Recognize the need to consider a 12-month timeframe when evaluating deficiencies

5. Explain the importance of creating and using established conventions when inspecting the dwelling and discuss the need to assess other spaces in multifamily buildings and the unique aspects of SROs

The HHRS Process

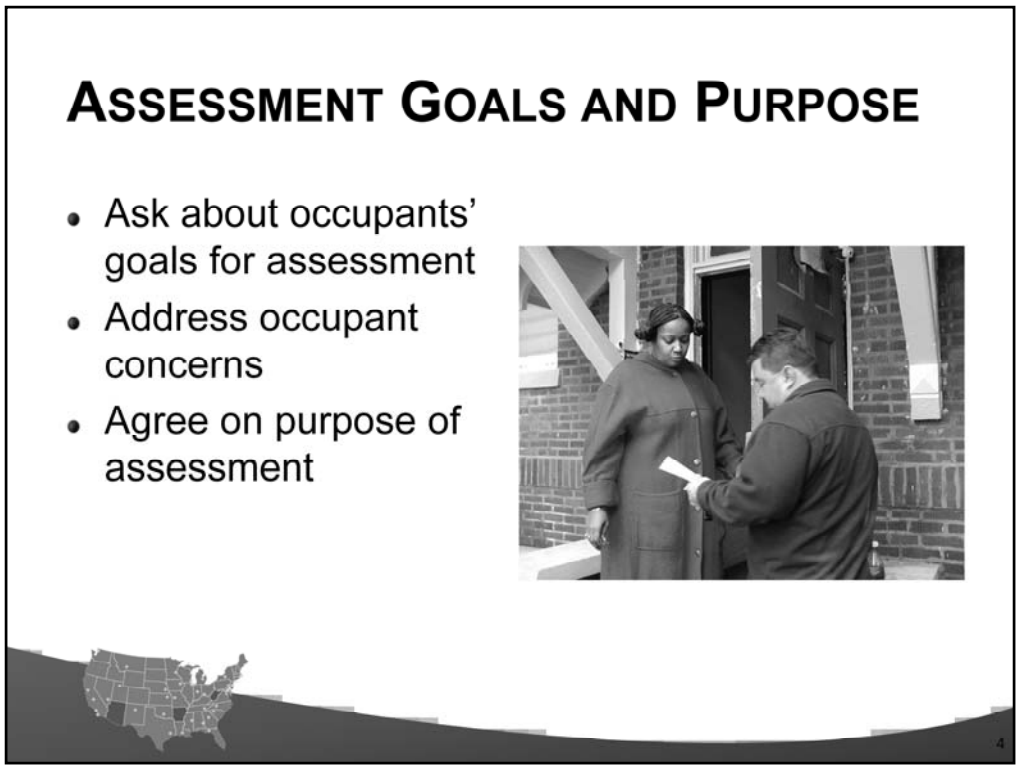
Step 1
- Inspecting the Dwelling

Step 2
- Linking Deficiencies to Hazards

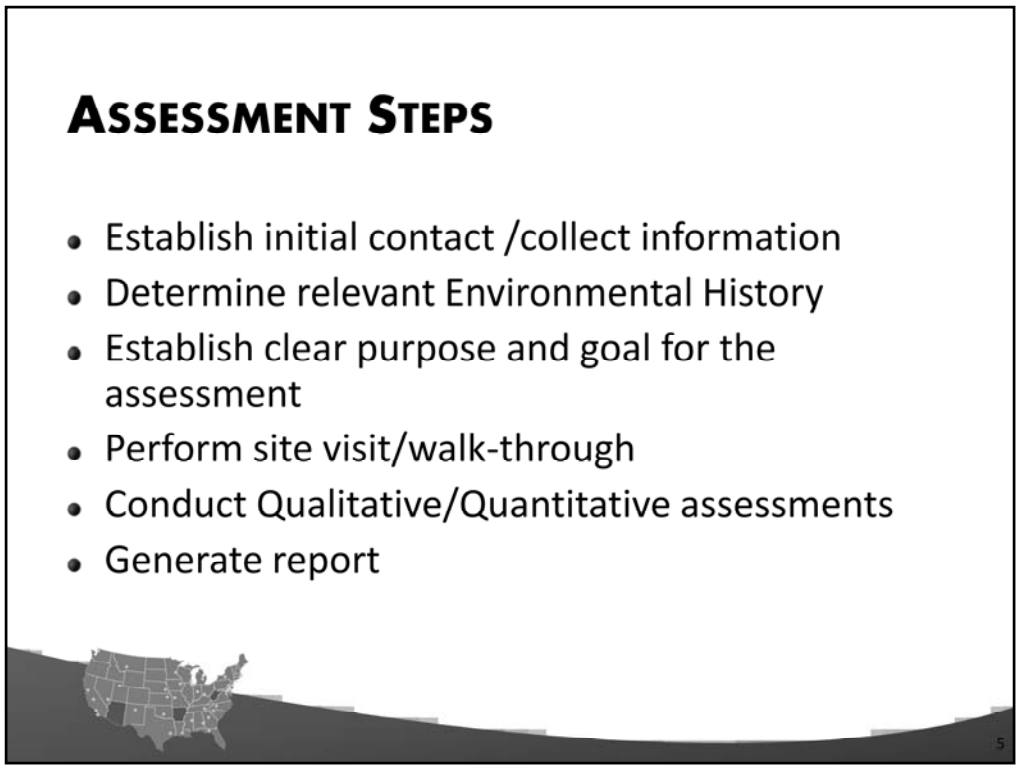
Step 3
- Scoring the Hazard

Step 4
- Determining the Appropriate Action

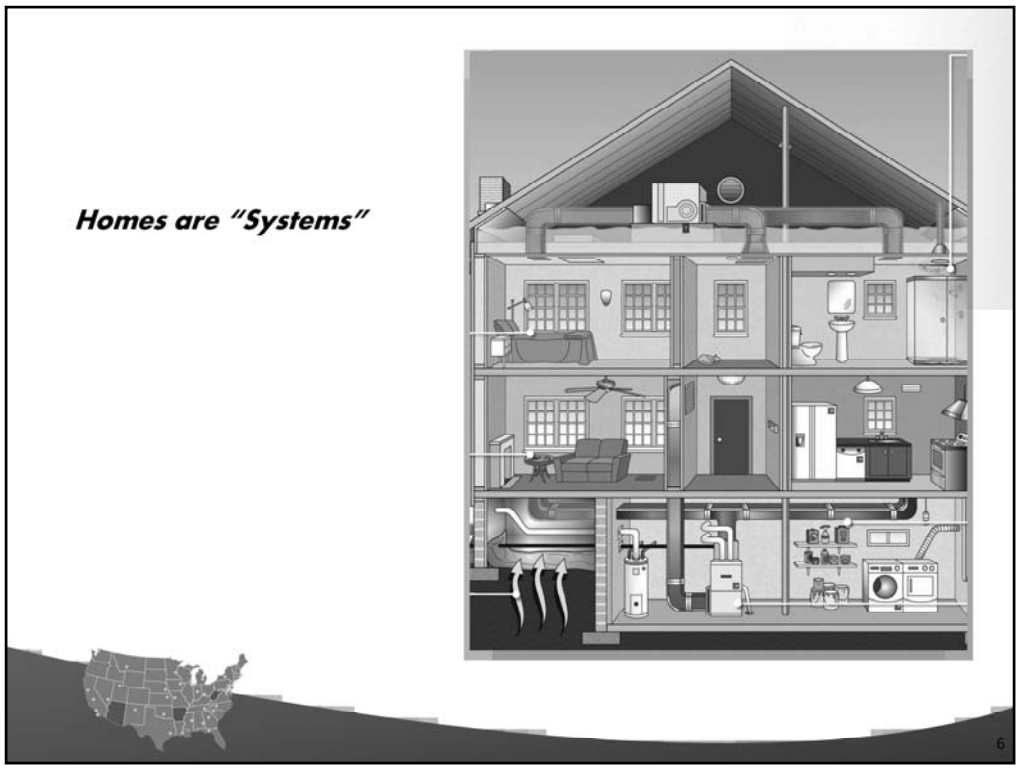
3



Explain that home assessments should start and end with people, including understanding occupants' physical surroundings, the type of home they live in, where they spend their time within the home, and what their routine activities are. This will enable the Assessor/Inspector to identify potential types of risks and exposures to harm. A clear purpose for the assessment should be established with the occupants and result in information that they can use to make informed decisions. Occupants should also be able to express their goals for the assessment, including any concerns they may have.



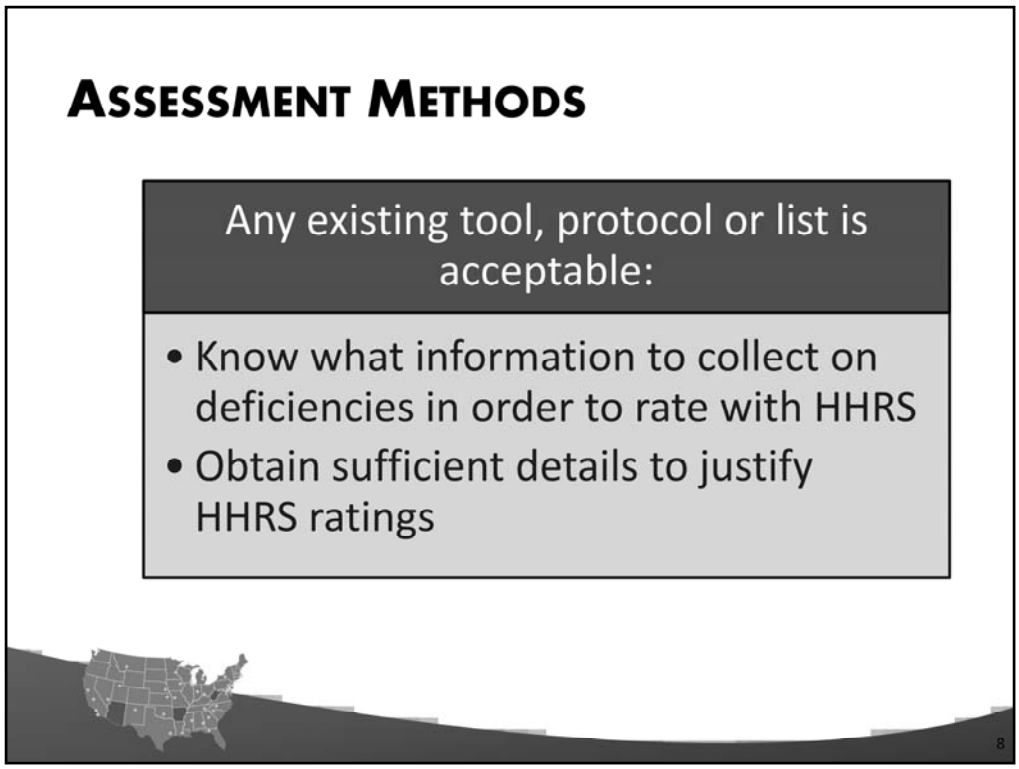
Generally, an assessment starts with contacting the occupants and/or the property owner, if different, and obtaining general information about the dwelling unit (and the multifamily building, if applicable). The Assessor/Inspector will also take an Environmental History to determine the level of need. During this initial contact, a clear purpose and goal for the assessment will be established. The site visit and walk-through of the dwelling unit (and, if applicable, common areas and spaces of the multifamily building) is then conducted, and any qualitative or quantitative assessments are made, including environmental testing if warranted. Lastly, an assessment report is generated, which will then be used to rate the identified deficiencies using the HHRS.



Explain that homes must be thought of and assessed as complete "systems." This means that all exterior and interior surfaces, floors, rooms, mechanical equipment (i.e., plumbing, heating, electrical), and occupant belongings can be interconnected and thus influence the health and safety of a dwelling unit.

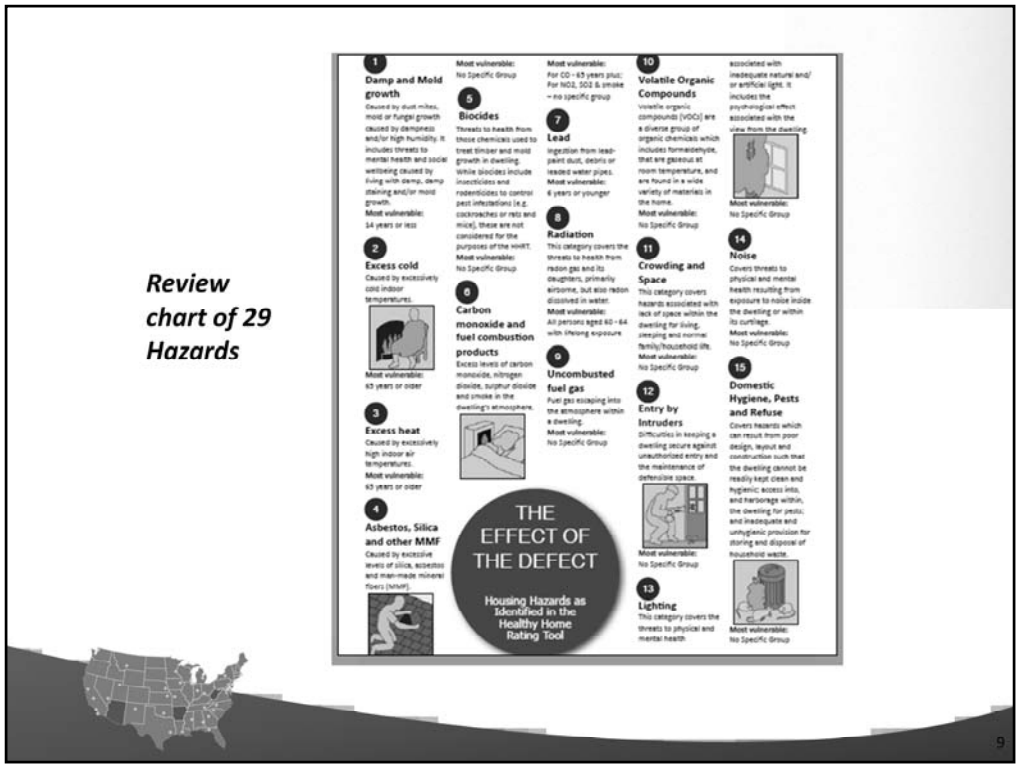
Explain that any assessment should ultimately be intended promote the Seven Principles of Healthy Homes, which includes keeping it:

1. Dry – e.g., prevent water from entering the home.
2. Clean – e.g., control the sources of dust and contaminants.
3. Safe – e.g., prevent physical safety hazards, and poisoning, fire and carbon monoxide sources.
4. Well-ventilated – e.g., supply fresh air to reduce contaminants.
5. Pest-free – e.g., eliminate pests and the ways in which they enter and remain in the home.
6. Contaminant-free – e.g., control or eliminate contaminants such as lead-based paint, radon, and mold.
7. Well-maintained – e.g., inspect, clean and regularly maintain the home.



Explain that any assessment/inspection tool, protocol or list that has already been developed is acceptable for use with the HHRS, provided that it covers the whole dwelling (and surrounding spaces and common areas, if in multifamily buildings).

It is important that the Assessor/Inspector fully understands how the HHRS is designed to rate housing deficiencies as hazards. This will influence what information is obtained about the deficiencies, and that sufficient details are collected to enable any deficiencies to be rated, including substantiating any decisions and judgments that went into those ratings.



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SAMPLE ASSESSMENT TOOL

- Download at http://www.cdc.gov/nceh/publications/books/inspectionmanual/

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As an example, the CDC/HUD *Healthy Housing Inspection Manual* is a model reference tool that local jurisdictions and grantees can use as-is or modify as needed. It takes environmental health professionals and housing managers, specialists, and inspectors through the elements of a holistic home inspection. Its purpose is to:

1. Improve communication and collaboration among public health professionals, housing professionals, property owners, and property managers.
2. Increase the understanding of the relations among exposure to hazardous agents, conditions in the home, and adverse health outcomes.
3. Improve the ability of programs to address an array of housing deficiencies in an efficient, effective, and timely manner.

The *Manual* contains two primary sections:

Section 1 is the Healthy Homes Model Resident Questionnaire.
Section 2 is the Visual Assessment Data Collection Form.

The *Manual* also contains three supporting appendices: a data dictionary; a cross reference to code provisions in the 2003 International Property Maintenance Code; and additional resources, such as links to environmental sampling methods.

SAMPLE ASSESSMENT TOOL

- Contact the Environmental Health Department at Children's Mercy Hospital at http://www.childrensmercy.org/CEH/ for this tool.

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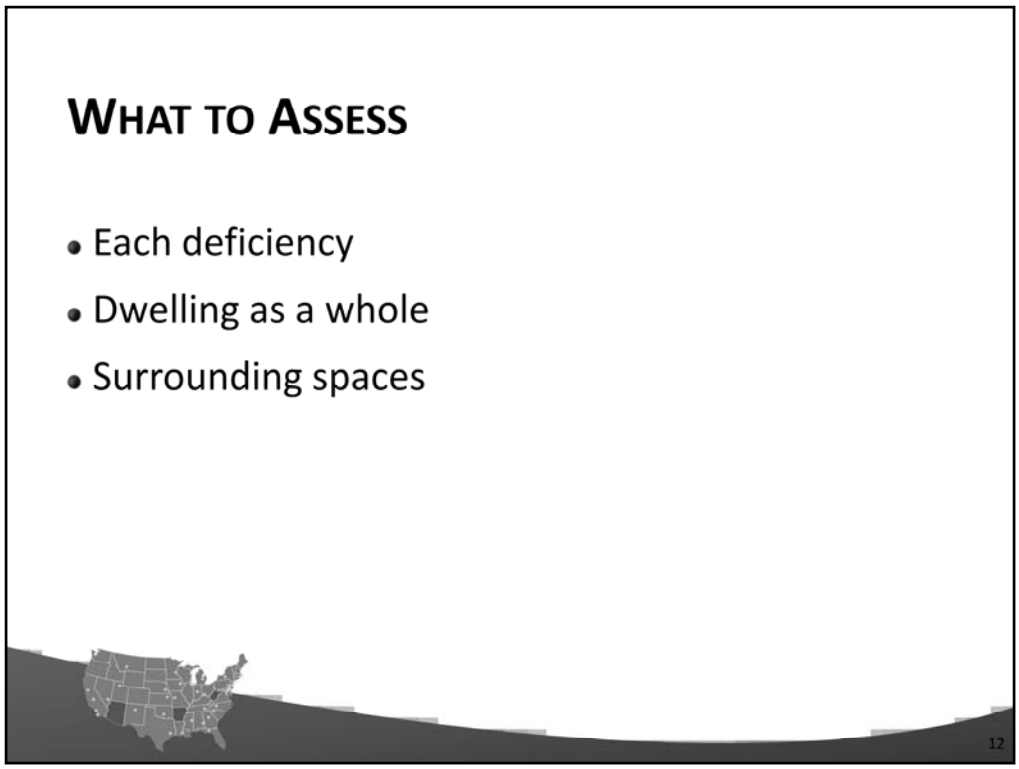
Here is an example of one of several assessment forms created and used by Children's Mercy Hospitals in Kansas City, Missouri.



In order to use the HHRS, assessments must include a full inspection of the dwelling unit. This means collecting sufficient information on each deficiency, the dwelling as a whole, and any surrounding spaces. This helps inform the HHRS hazard determinations and ratings.

The assessment should ensure that all deficiencies are identified and recorded.

WHAT TO OBTAIN

- Background, historical information, plans, records
- Authority for destructive testing

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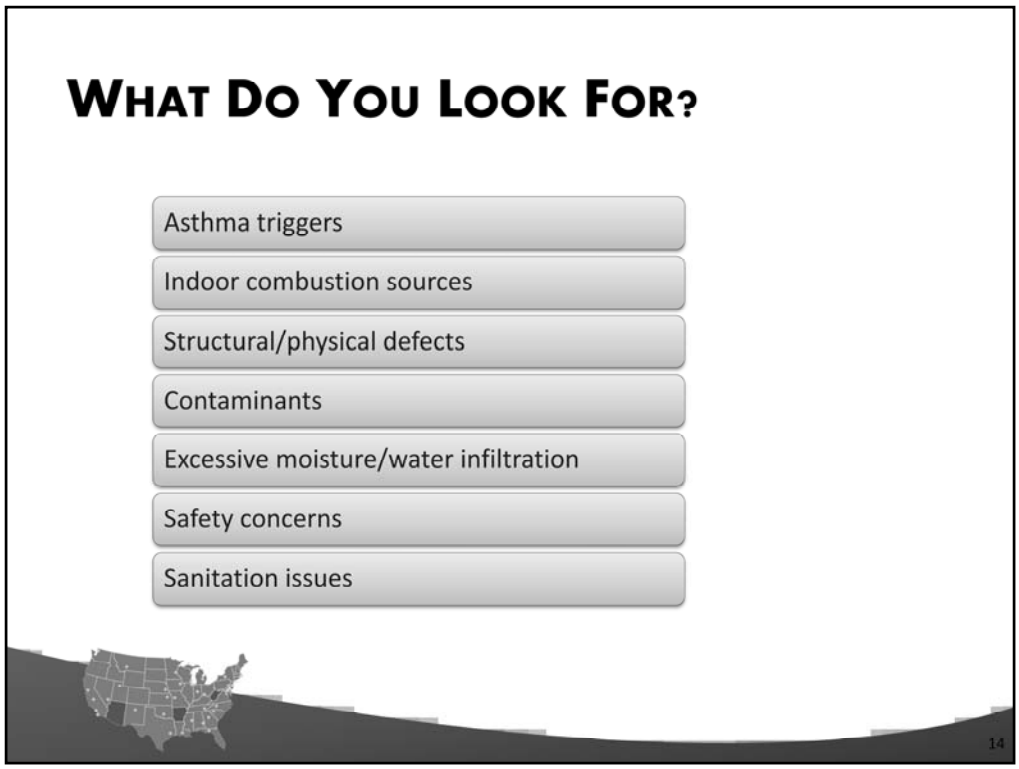
When an assessment is carried out in cooperation with the owner or occupant of a dwelling unit, Assessors/Inspectors should obtain background and historical information, including any plans and records.

Also, if any destructive testing is anticipated, such as taking a lead-based paint chip sample from exterior siding, Assessors/Inspectors must obtain authority from the property owner to do so, either as part of the original instructions or if subsequently found to be necessary.



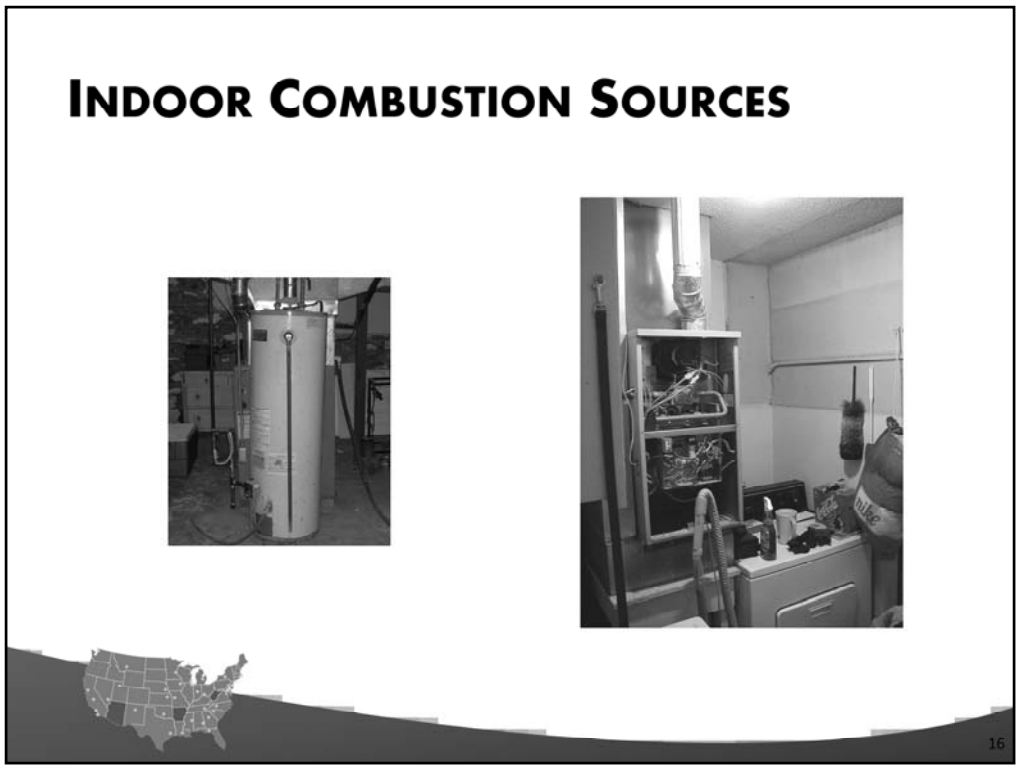
ASK THE CLASS to identify things they look for during a home assessment.

Explain that some of the obvious hazards to look for during an assessment include but are not limited to:

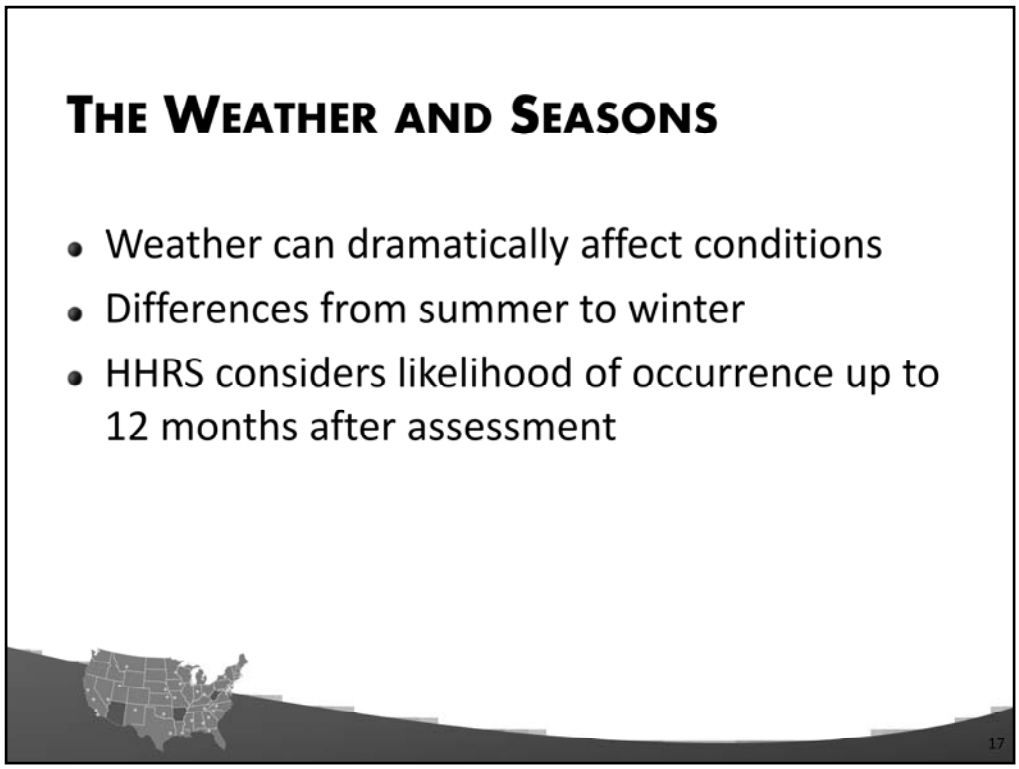
• Asthma triggers – actual evidence or signs of pests (e.g., cockroaches and rodents) and mold.
• Indoor combustion sources that can emit carbon monoxide, nitrous oxide, and moisture (e.g., gas appliances and water heaters, gas furnaces, gas/fuel space heaters).
• Structural/physical defects – obvious or potential future safety hazards (e.g., missing or loose handrails, broken steps).
• Contaminants – asbestos, vermiculite, lead-based paint, mold and mildew, radon, building product emissions.
• Leaks from roofs, plumbing fixtures, or cracked foundations.

Note that if students are interested in learning more about how to do an assessment, the Training Center offers the Healthy Home
Environmental Assessment: Principles & Practice course.

Here are two images. The first is of obvious mold growth on wall and baseboard surfaces. The second is of mouse droppings on an interior window stool molding (i.e., sill).



Many household appliances use natural gas as their energy source. However, when gas is burned, this “combustion reaction” produces some harmful gases like carbon monoxide, which must be vented to the outside. It also include gases like nitrogen dioxide that are considered a significant respiratory irritant and very low concentrations. If the exhaust ventilation on these appliances is not designed properly or working correctly, this can lead to indoor exposure and health problems.

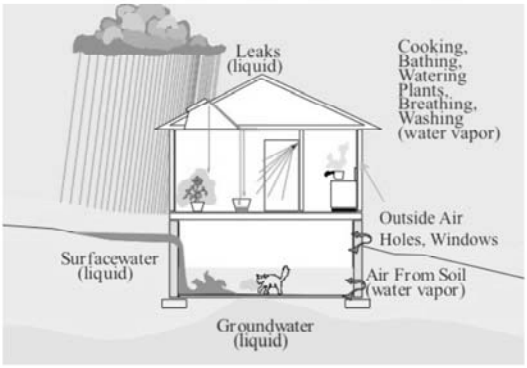


An assessment is a snap-shot of the dwelling and its condition at that particular time. Current weather patterns and the season of the year can dramatically affect the conditions that are observed. A dwelling unit may seem satisfactory on a warm summer day, but conditions could be totally different on a cold and wet day in winter. These conditions should be noted in the assessment report.

For purposes of using the HHRS, determining the likelihood of harm requires judging whether there could be an occurrence during the twelve months following the assessment.

How Weather (and Water) Can Affect Homes

Figure 4.11 Ways in Which Water Can Enter a Building (Envelope leaks can occur from anywhere in the building roof, windows, walls, doors and penetrations)



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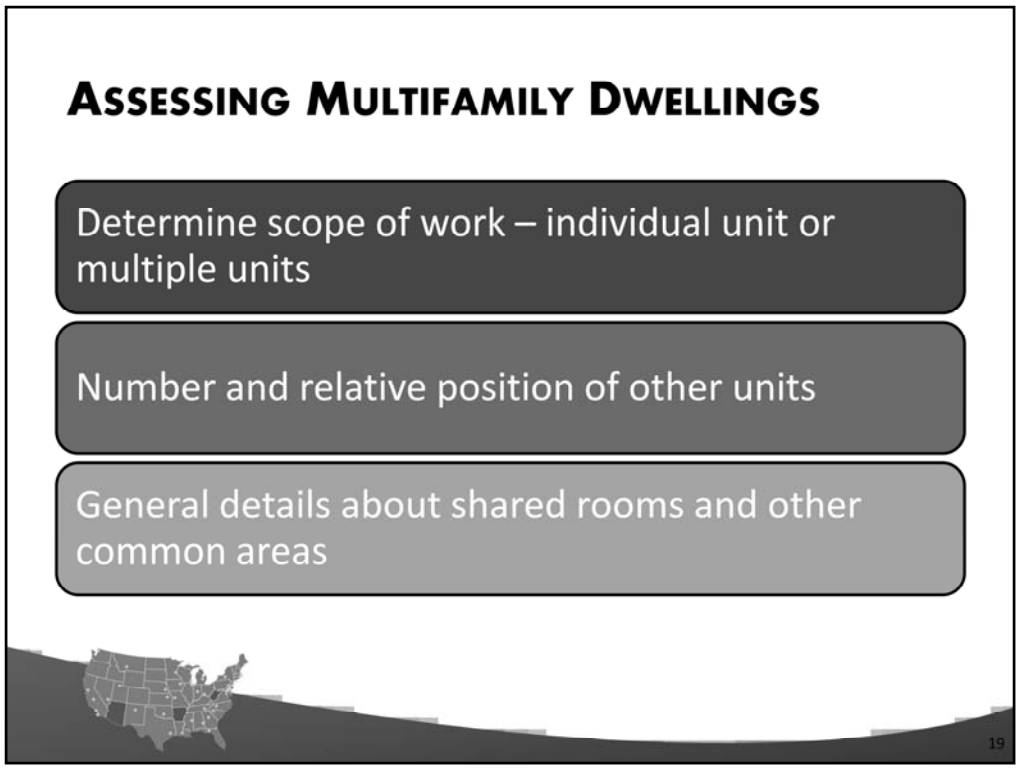
Although this graphic illustrates the various ways in which water can enter a home, it also shows how heavy rain during a weather event could lead to water infiltration and/or flooding.



In multifamily dwellings, such as apartment buildings, Assessors/Inspectors will assess the subject dwelling unit (i.e., the occupied rooms and areas) as well as record the number and relative position of other units within the building. This includes whether each unit is residential or non-residential.

General details should be collected and recorded on rooms and areas that have not been or will not be assessed and that are shared in common with other occupants and users of the building. These include passages, corridors, stairs, means of access, means of escape in case of fire, kitchens, bathrooms, shower rooms, living rooms, and dining rooms.

Assessing Other Multifamily Areas

- Concentrate on walls, windows, roof
- Note external means of access, refuse storage, amenity spaces

20

Assessments of the exterior of the building containing the subject dwelling unit should concentrate first on those parts of the exterior directly associated with the dwelling, including the walls, windows and, where appropriate, the roof.

This assessment stage should also include the external means of access, refuse storage, and amenity spaces associated with the building. Also, any remaining portion of the building's exterior should be assessed.

SINGLE ROOM OCCUPANCIES (SRO)

- Accommodation is non-exclusive
- Assess whole premises similar to single occupied house

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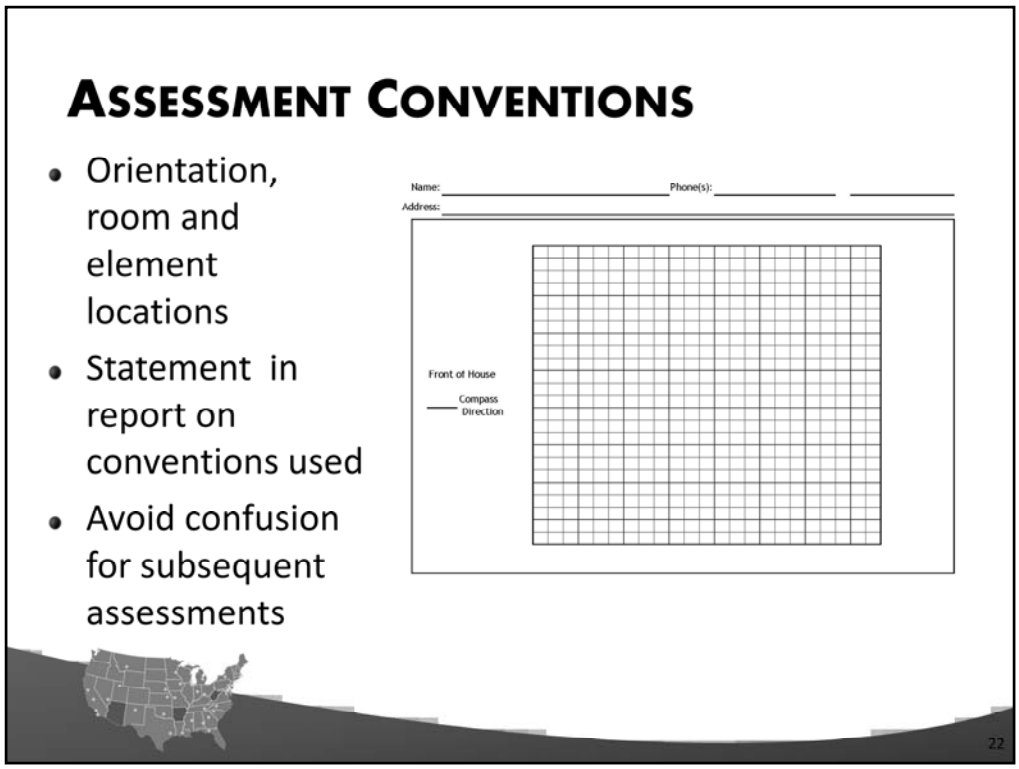
Single room occupancies (SRO) are similar to dormitory housing where the kitchen and/or bathroom, or some other major room in the dwelling unit is shared by more than one occupant/family.

For residential premises where accommodation is on a non-exclusive basis (i.e., occupants are not granted exclusive occupation of a room or rooms, and sleeping accommodation is provided in dormitories), the whole premises should be assessed as if it was a single occupied house.

In such cases, the Assessor/Inspector should consider the facilities and whole building deficiencies when taking into account the number of persons the premises is capable of accommodating. This is meant to assess potential crowding and space issues.



To promote consistency in the carrying out of assessments and in record keeping, Assessors/Inspectors should adopt conventions to ensure there are no misunderstandings on orientation (e.g., north, south, east, west), and room and element locations.

To avoid confusion, particularly when carrying out subsequent assessments, it is good practice to include a statement in the assessment report on the conventions used to describe rooms and other aspects of the dwelling unit.

In this module of the HHRS train-the-trainer course, Assessors/Inspectors should have learned to:

1: Explain how to determine assessment purpose/goals: discuss with occupant/owner, develop consensus for purpose and goals of assessment

2. Describe links between deficiencies and the 29 HHRS hazards: damp/mold growth – asthma; carbon monoxide and fuel combustion products – carbon monoxide poisoning; deteriorated paint – potential lead hazard; etc.

3. Identify information to be collected and explain why details are needed: established purpose and goals, environmental history, problems identified during walk-through, quantitative and qualitative assessment data; sufficient detail to justify ratings

4. Recognize the appropriate timeframe to be considered when evaluating deficiencies: Consider what could happen during the next 12 months, particularly emerge due to weather and seasonal patterns, that would lead to new deficiencies.

5. Explain the use of inspection conventions and unique considerations for different dwelling types: Assess the subject dwelling unit and any shared or common spaces when working in multifamily buildings; Determine the unique living circumstances and potential crowding and space issues associated with Single Room Occupancies; Create and utilize standard assessment conventions to promote consistency in reporting and when a dwelling unit must be re-assessed in the future.