

MODULE 3:

Classify/ Categorize Deficiencies into Hazards



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 (HHRIS).

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

LEARNING OBJECTIVES

By the end of this module, students will be able to:

- Explain the importance of the following four terms to the HHRS: element, ideal, hazard, deficiency
- Use the 29 hazards chart and the Operating Guidance, identify vulnerable populations and explain their significance
- Describe the relationship between deficiencies and hazards using specific examples



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. Use terminology correctly: element, ideal, hazard, deficiency
2. Identify the importance of vulnerable populations and explain their significance when rating 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



POP QUIZ! REVIEW OF KEY TERMS

- Element
- Ideal
- Hazard
- Deficiency



Remind students that a deficiency is any problem with the house that they identified in the inspection (step 1)

THESE TERMS WERE COVERED IN MODULE 1 – this is a review.

Element-For example, a wall, a window, a staircase, a bath, means of lighting, and means of space heating are all 'elements'.

Hazard: Any risk of harm to the health or safety of an actual or potential occupant that arises from a deficiency. In some cases, as well as being a hazard in its own right, a hazard may increase the likelihood of an occurrence of, or the severity of harm likely to result from another hazard.

REVIEW OF OCCUPANTS AND DEFICIENCIES

DON'T consider just the current occupants;
consider the vulnerable populations.

HHS goal: make the dwelling as safe and
healthy as possible for all potential occupants.

Consider current occupants when determining
actions to take.



- You do NOT just consider the current occupants when linking deficiencies with hazards; you must consider the vulnerable populations.
- The goal of the HHS is to make the dwelling as safe and healthy as possible for all potential occupants.
- Current occupants can be considered when determining what actions to take to address hazards identified.

The most vulnerable occupant should be considered whether present or not at the time of the inspection.

The only HHS hazard that DOES take into account current occupants is Crowding and Space. There are 2 steps to this assessment: 1) is the dwelling suitable for occupation as constructed, 2) is the current occupation consistent with the design of the dwelling or is it overcrowded?

In practice, the most vulnerable occupant will be the ones currently living in the dwelling, since the reason you are doing the assessment in the first place stems from some issue identified with the dwelling already. In rental tenancy, there is often significant turnover and making the home safe and healthy for the current occupants does nothing to make it safe and healthy for the next residents who may be of a completely different age or vulnerability.

A CLOSER LOOK AT HAZARDS COVERED BY THE HHRS

- Compare summary list of hazards to the Operating Guidance.
- Discuss the difference.
- Note vulnerable age groups.

THE EFFECT OF THE DEFECT
Housing Hazards as Identified in the Healthy Home Rating Tool

- Damp and Mold growth**
Caused by dust/moisture, mold or fungal growth caused by dampness and/or high humidity. Includes threats to mental health and social well-being caused by living with damp, mold, staining and/or mold growth.
Most vulnerable: 21 years or older
No specific group
- Biocides**
Threats to health from those chemicals used to treat timber and mold growth in dwelling. Includes biocides such as insecticides and repellents to control pest infestations (e.g., cockroaches or rats) and wood, these are not considered for the purposes of the report.
Most vulnerable: No specific group
- Excess cold**
Caused by excessively cold indoor temperatures.
Most vulnerable: 21 years or older
No specific group
- Carbon monoxide and fuel combustion products**
Excess levels of carbon monoxide, nitrogen dioxide, sulfur dioxide and other gases.
Most vulnerable: 65 years or older
No specific group
- Excess heat**
Caused by excessively high indoor air temperatures.
Most vulnerable: 65 years or older
No specific group
- Asbestos, Silica and other MMF**
Caused by asbestos levels of silica, asbestos and other mineral fibers (MMF).
Most vulnerable: No specific group
- Lead**
Ingested from lead paint dust, dirt or leaded water pipes.
Most vulnerable: 6 years or younger
No specific group
- Radiation**
This category covers the threats to health from radon gas and its daughters, naturally occurring radionuclides, but also includes radon gas.
Most vulnerable: All ages (aged 65+) with existing exposure
No specific group
- Uncombusted fuel gas**
Fuel gas entering into the atmosphere within a dwelling.
Most vulnerable: No specific group
- Volatile Organic Compounds**
Volatile organic compounds (VOCs) are a diverse group of organic chemicals which includes formaldehydes, that are gaseous at room temperature, and are found in a wide variety of materials in the home.
Most vulnerable: No specific group
- Crowding and Space**
This category covers hazards associated with lack of space within the dwelling for living, sleeping and normal bright sunlight.
Most vulnerable: No specific group
- Entry by Intruders**
Offences involving a dwelling secure against unauthorised entry and the maintenance of the dwelling, control of the dwelling, control of the dwelling, control of the dwelling, control of the dwelling.
Most vulnerable: No specific group
- Lighting**
This category covers the threats to physical and mental health associated with inadequate natural and/or artificial light. It includes the psychological effect associated with the effects from the dwelling.
Most vulnerable: No specific group
- Noise**
Causes threats to physical and mental health resulting from exposure to noise inside the dwelling or within its vicinity.
Most vulnerable: No specific group
- Domestic Hygiene, Pests and Refuse**
Causes hazards which are related to poor design, layout and construction such that the dwelling cannot be readily kept clean and hygienic; access to, and the layout within, the dwelling for waste and refuse collection and adequate provision for storing and disposal of household refuse.
Most vulnerable: No specific group

Locate the Hazard Summary Chart in Participant Binder.

Pick one of the hazards and compare the summary chart to the one in the operations manual and talk about the difference. Point out that many times you may want to refer to the operations manual, especially as you learn the various hazards, as it will provide more details. Can also be helpful if you are having a hard time deciding between particular hazards.

OPERATING GUIDANCE - HAZARD PROFILES

Appendix C: Hazard Profiles

Each Profile contains:

- A description of the hazard
- Potential for harm
- Causes
- Preventive measures and ideal conditions
- Relevant matters affecting likelihood and outcomes
- Hazard assessment



The description of the operating guidance and the hazard profiles should be introduced during the introduction of the course and revisited here. It would be quite helpful if the students put colored or regular tabs in the operating guidance for the sections you will be referring to during the class. This would include the following:

Page 14-the scoring formula

Page 17-the outcome %

Page 19-the hazard bands

Page 33-the explanation of classes of harm

Page 51-index to hazards profiles

As well as any other area of the guidance you would like for them to tab. The operating guidance can be quite intimidating when first introduced to it, but the instructor can minimize the intimidation by highlighting key areas that will be used during the class.

When you get to the index to the hazard profiles, page 51, refer to hazard #1 (damp and mold growth) and walk students through the components of the profile. Make sure they understand the profiles for each of the 29 hazards are set up the same way with the same components.

During each module, it is important to highlight the sections of the hazard profile relevant to that section.

SINGLE DEFICIENCY AND MANY HAZARDS

A single deficiency may contribute to:

- hazards of differing degrees and,
- more than one hazard

Example: A single deficiency of disrepair to a ceiling could lead to other hazards.



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A single deficiency may contribute, to differing degrees and, to more than one hazard.

Example: A single deficiency of disrepair to a ceiling could, depending on the nature and extent of that disrepair, lead to other hazards.

Discuss with the class have them give you what other Hazards this could lead to.

Walk through these examples:

- excessive cold (through increased heat loss);
- fire (by allowing fire and smoke to spread to other parts of the dwelling);
- lead (from lead paint);
- infections from other sources (by providing means of access and harborage for pests); and
- noise (because of an increase in noise penetration between rooms or floors).

Guidance on the matters to be taken into account in assessing the potential contribution to a hazard by a deficiency is given in the Causes and the *Preventive Measures and the Ideal sections of the Hazard Profiles* in Appendix C. However, over time research may be published that will overtake the evidence used in the profiles.

Note – It is imperative that users of the Rating System keep up to date with published research and other relevant information which can be used to supplement that given in the Hazard Profiles (Appendix C) and which may influence their judgment as to likelihood and/or spread of harms.

MANY DEFICIENCIES AND SINGLE HAZARD

Several deficiencies may contribute to the same hazard.

Example: Disrepair to a ceiling, an improperly-fitting door, and the lack of a smoke detector may all contribute to the hazard of fire



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Each could lead to smoke and flames spreading to other parts of the dwelling without means of detection and warning.

SIMILAR DEFICIENCY THROUGHOUT

May be similar deficiencies in various locations in dwelling - all contribute to the same hazard.

Example 1: Dampness may affect walls in several rooms and areas in a dwelling.

Example 2: May be deficiencies to: steps to entrance path to dwelling, to the main stairs and to the rear doorsteps.



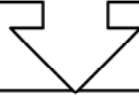
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For example 1, It is the cumulative contribution of those deficiencies to the hazard of damp and mould growth that should be assessed.

For example 2, It's the cumulative contribution of these deficiencies to the hazard of falls associated with stairs/steps that is assessed.

LINKING DEFICIENCIES WITH HAZARDS

First, think about the basic function of a particular element in a dwelling.



For example, what are the functions of an internal wall?



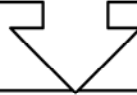
11

List these on a flip chart/dry-erase board for the students to see.

- Fire Protection
- Structural support
- Protection from weather
- Electrical protection
- Pest Protection

LINKING DEFICIENCIES WITH HAZARDS

What are the potential hazards from deficiencies to an internal wall?



Refer to your Hazard Chart in the Participant Binder



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List these on the same flip chart sheet with a line between the previous list and this one.

LINKING DEFICIENCIES WITH HAZARDS

Deficiencies to an internal wall can lead to hazards from:

Excessive
cold

Fire

Structural
failure

Pests

Noise



The hazards that result depend on how the wall was constructed and the nature, location and extent of the deficiency(ies).



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Compare to the list that the students gave.

LINKING DEFICIENCIES WITH HAZARDS

What are the functions of a floor?



List on a flip chart sheet as before.

LINKING DEFICIENCIES WITH HAZARDS

What are the potential hazards from deficiencies to a floor?



List on flip chart sheet as before.

LINKING DEFICIENCIES WITH HAZARDS

Deficiencies to a floor can lead to hazards from:

Falling

Excessive
cold

Fire

Structural
collapse

Radon

Pests

Noise

The hazard that results depends on how the floor was constructed and the nature, location and extent of the deficiency



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Compare to student responses.

LINKING DEFICIENCIES WITH HAZARDS

What are the functions of a window?



List on flip chart sheet as before.

LINKING DEFICIENCIES WITH HAZARDS

What are the potential hazards from deficiencies to a window?



List on flip chart/dry-erase board as before.

LINKING DEFICIENCIES WITH HAZARDS

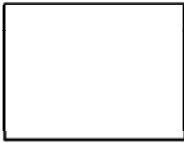
Deficiencies
to a
window can
lead to
hazards
from:

- Falling between stories
- Excessive cold
- Fire
- Carbon monoxide
- Lead poisoning
- Structural collapse
- Entrapment or collision
- Dampness and mold growth
- Pests
- Entry by intruders
- Lack of lighting



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Compare to student responses.



PRACTICE: DEFICIENCIES & HAZARDS





What deficiency(ies) do you see? What hazards might occur?



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Have the students refer to their printed out list of the 29 hazards covered by the HHRS – to get them used to the hazard names and the most vulnerable group information. We’re only concerned with connecting the deficiency(ies) with the appropriate hazard(s) at this point.

This deficiency leads to “Falls on Level Surfaces”.



What deficiency(ies) do you see? What hazards might occur?

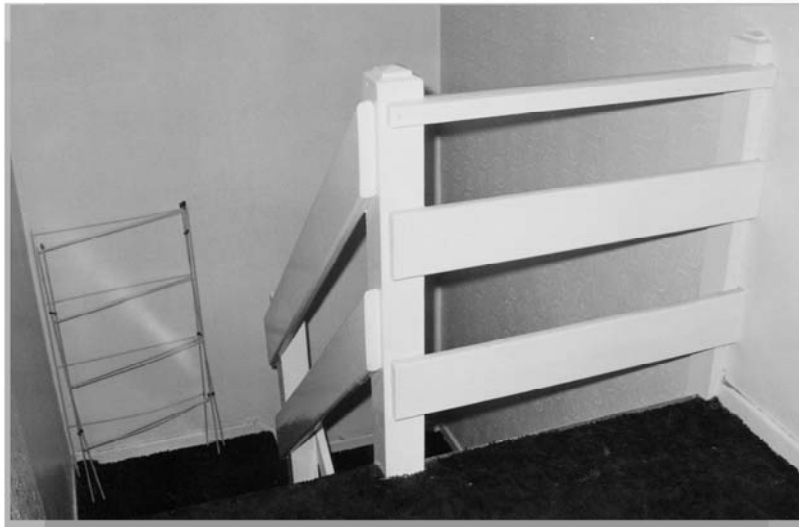


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Have the students refer to their printed out list of the 29 hazards covered by the HHRS – to get them used to the hazard names and the most vulnerable group information.

This deficiency leads to “Mold and Moisture” and POSSIBLY “Lead”.

What conditions affect the LIKELIHOOD that a person in the vulnerable population (under 16 years) may be hurt as a result of this deficiency?



What deficiency(ies) do you see? What hazards might occur?



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Staircase and landing in single family house. One deficiency leads to multiple hazards. What are they?

Have the students refer to their printed out list of the 29 hazards covered by the HHRS – to get them used to the hazard names and the most vulnerable group information.

This deficiency leads to “Falling between levels” **AND** “Falling on Stairs”.

What conditions affect the **LIKELIHOOD** that a person in the vulnerable population (over 60 years for Falling on Stairs BUT under 5 years for Falling between levels) may be hurt as a result of this deficiency?



WOW!!!!!! What hazards do we see, electricity was live and the shower was being used. Open electrical source was actually 220

REVIEW

- _____: Any component or constituent part, facility or amenity of a dwelling.
- A _____ is a failure of an element to meet the Ideal.
- _____: Any risk of harm to the health or safety of an actual or potential occupant (over the next 12 months) that arises from a deficiency.



- Element
- Deficiency
- Hazard

REVIEW

- How many hazards are covered by the HHRS?
- Explain the importance of considering vulnerable populations.
- Give specific examples of at least two deficiencies and explain how they are related to hazards.



- 29
- The dwelling should be safe for the most vulnerable population
- Windows, walls, floors, etc (as discussed on previous slides)