

RIMU Insights

A series of speaker events on Auckland issues brought to you by the Research and Evaluation Unit (RIMU).

Co-hosted by
BRANZ

Warm, dry, healthy housing?

Insights from the 2015/16 BRANZ House Condition Survey

5 September 2017





BRANZ House Condition Survey 2015/16

Vicki White, Researcher BRANZ



Background and purpose

- Every 5 years since 1994
- Provides a snapshot of condition of NZ housing stock
- Evolved to meet changing needs (cities to nationwide; owned & rented)
- Benefits and uses:
 - Conditions people are living in/with
 - Extent of/need for repairs and maintenance
 - Show trends in stock condition over time
 - Compare between tenures



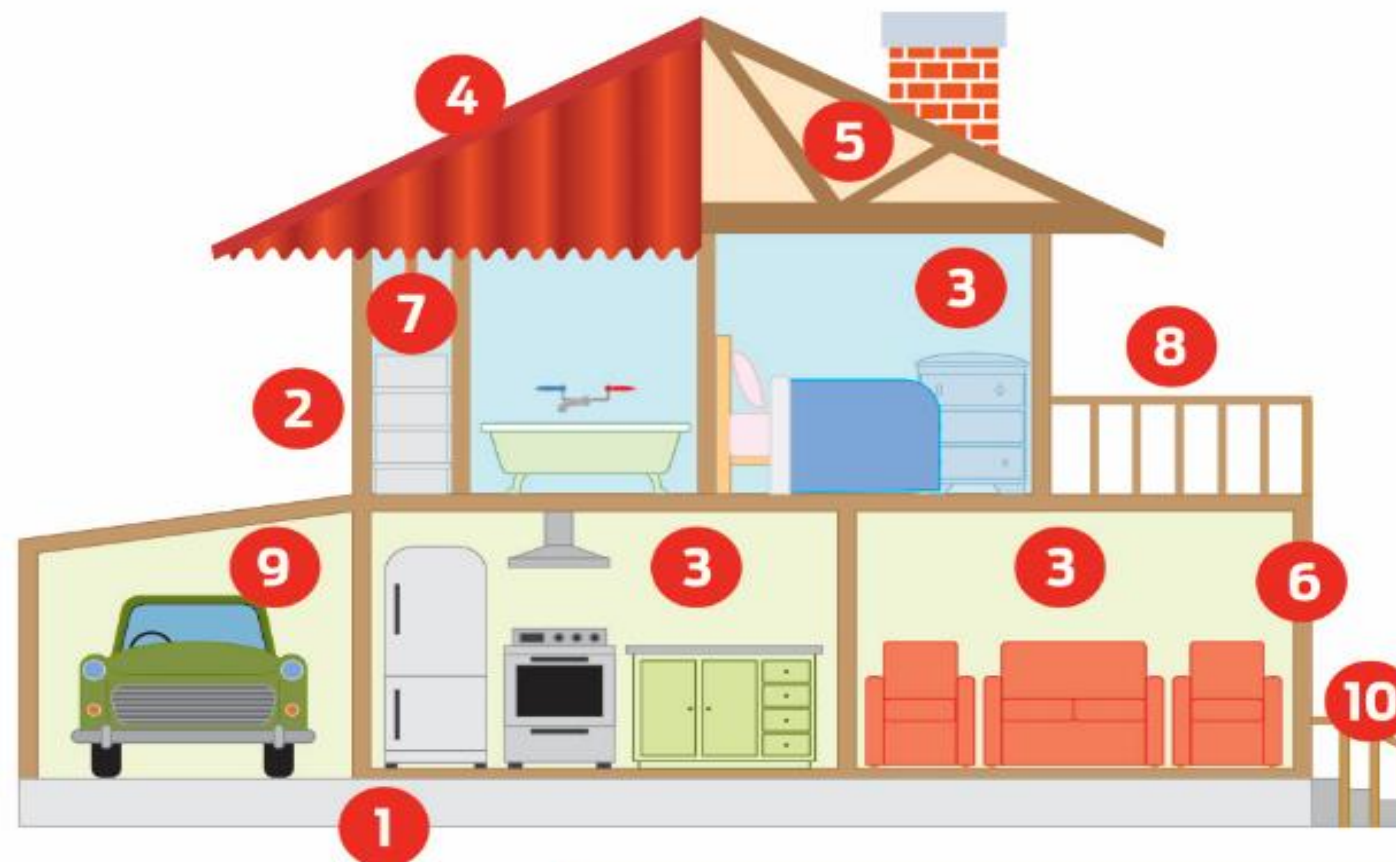
2015/16 House Condition Survey

- 560 houses throughout NZ Sept 2015 - June 2016
- Sampling frame: designed to be broadly representative of national stock of owned and rented houses
- **Survey tools:**
 - Telephone interview with occupant
 - Householder appliance-use questionnaire (*new*)
 - On-site house assessment





Condition and maintenance



House Condition Survey physical house assessment

1. Foundations and subfloor
2. Exterior (walls, windows, doors)
3. Interior (all room linings and fittings)
4. Roof
5. Roof space
6. Insulation
7. Hot water cylinder
8. Decks
9. Carports, garages, sleepouts
10. Paths, steps, ramps

49 features assessed on
condition and defects

CONDITION RATING DESCRIPTION

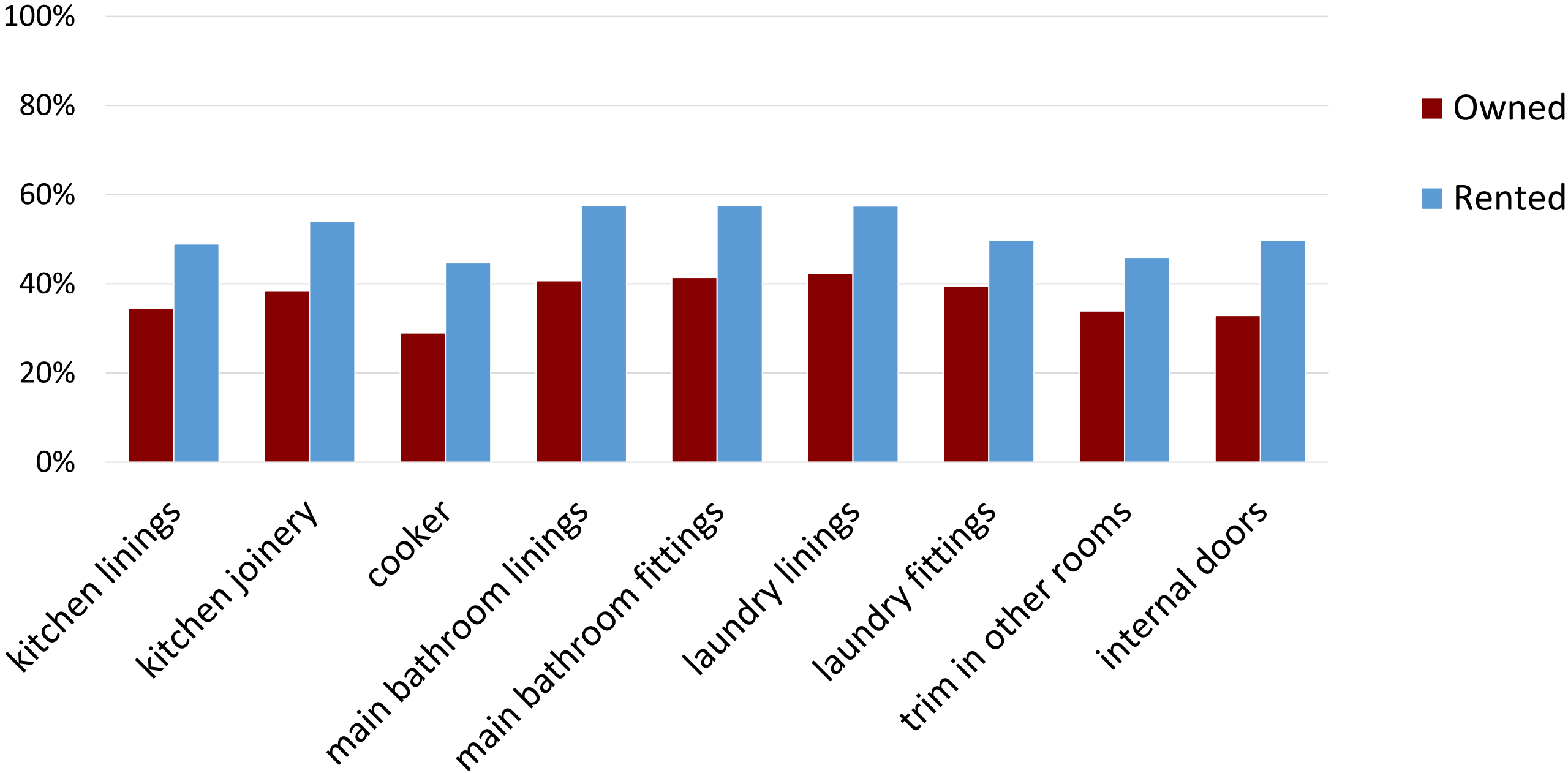
<input type="checkbox"/> Serious	Health and safety implications; needs immediate attention
<input type="checkbox"/> Poor	Needs attention within 3 months
<input type="checkbox"/> Moderate	Will need attention within the next 2 years
<input type="checkbox"/> Good	Very few defects; near-new condition
<input type="checkbox"/> Excellent	No defects; as-new condition

Defects

- ☐ Decay
- ☐ Rot
- ☐ Chipped paint
- ☐ Surface cracks
- ☐ Borer



House interior condition ratings: Proportion in moderate or worse condition



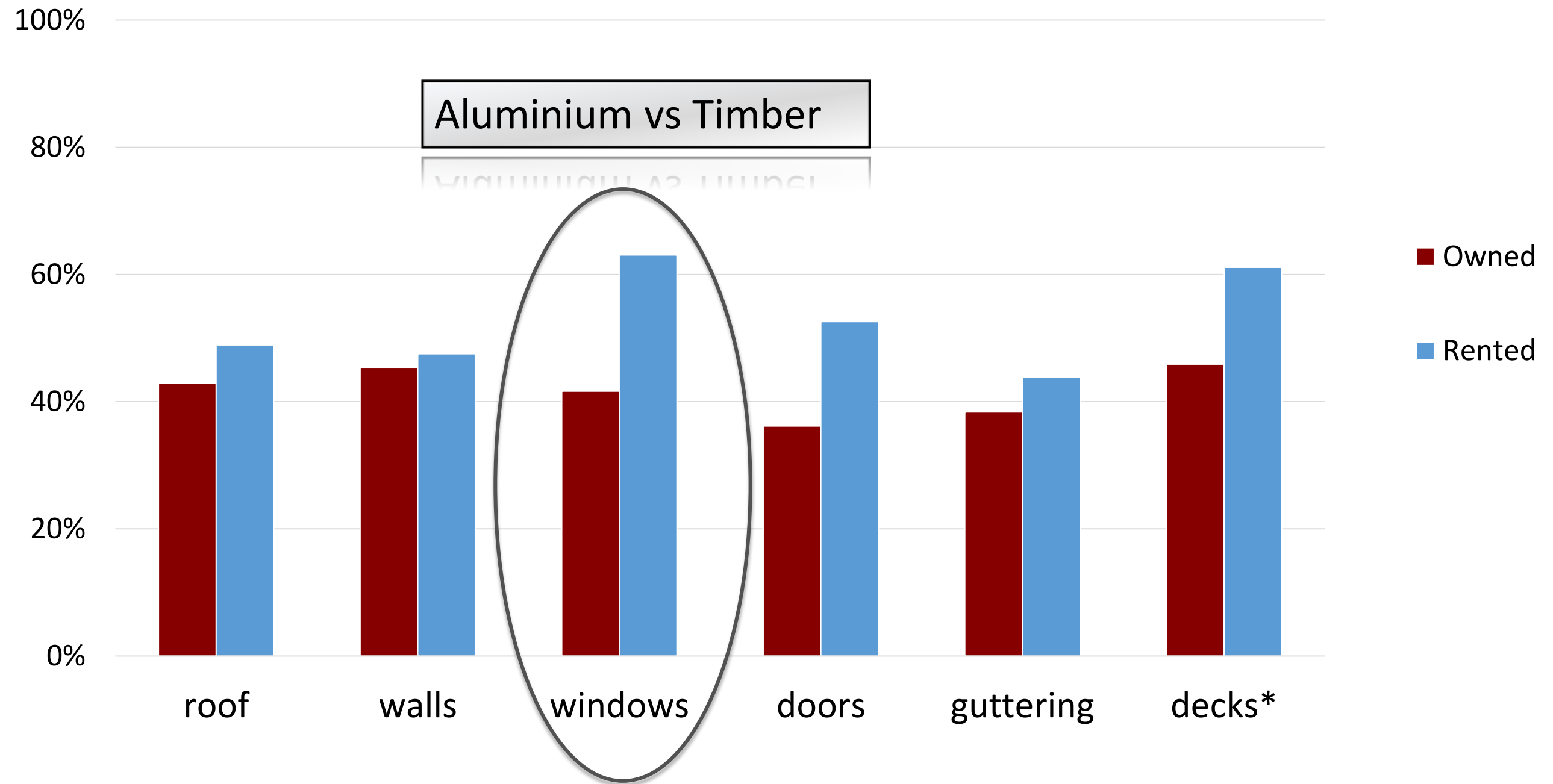


House interior: Defects - examples





House exterior condition ratings: Proportion in moderate or worse condition





Exterior defects - examples





Indoor living environment: Damp and Mould

Odour

Does the house smell musty?

Feel of dampness

- ☐ Feels dry throughout
- ☐ Feels a little damp
- ☐ Feels damp in places
- ☐ Feels quite damp
- ☐ Feels damp throughout

Visible signs of mould

- ☐ No visible mould
- ☐ Specks of mould
- ☐ Moderate patches of mould
- ☐ Large patches of mould
- ☐ Extensive blackened areas

Health implications of living in a damp and mouldy home



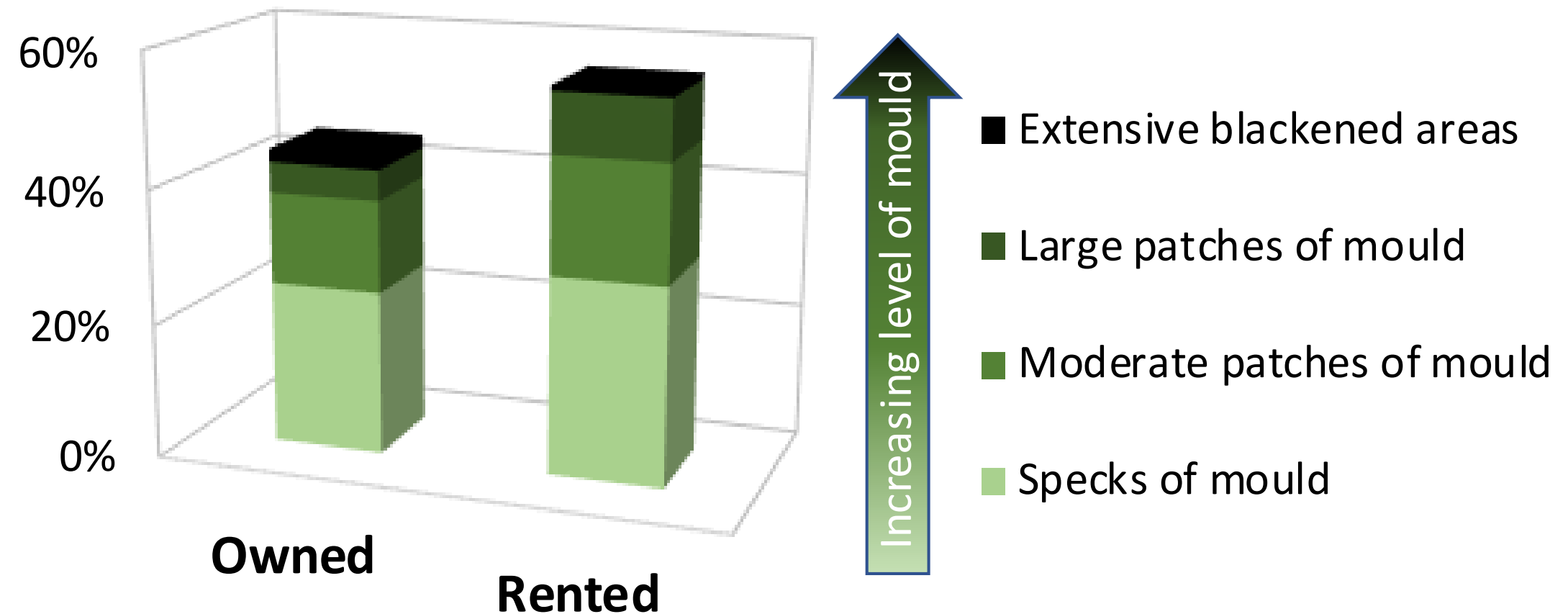


Results...

- Most houses did not smell damp or feel damp
- Rentals twice as likely to smell damp, three times as likely to feel damp

- Visible mould in nearly half of all houses

- Not contained to high moisture areas of the home





Maintenance and Repairs

Well
maintained



Reasonably
maintained



Poorly
maintained

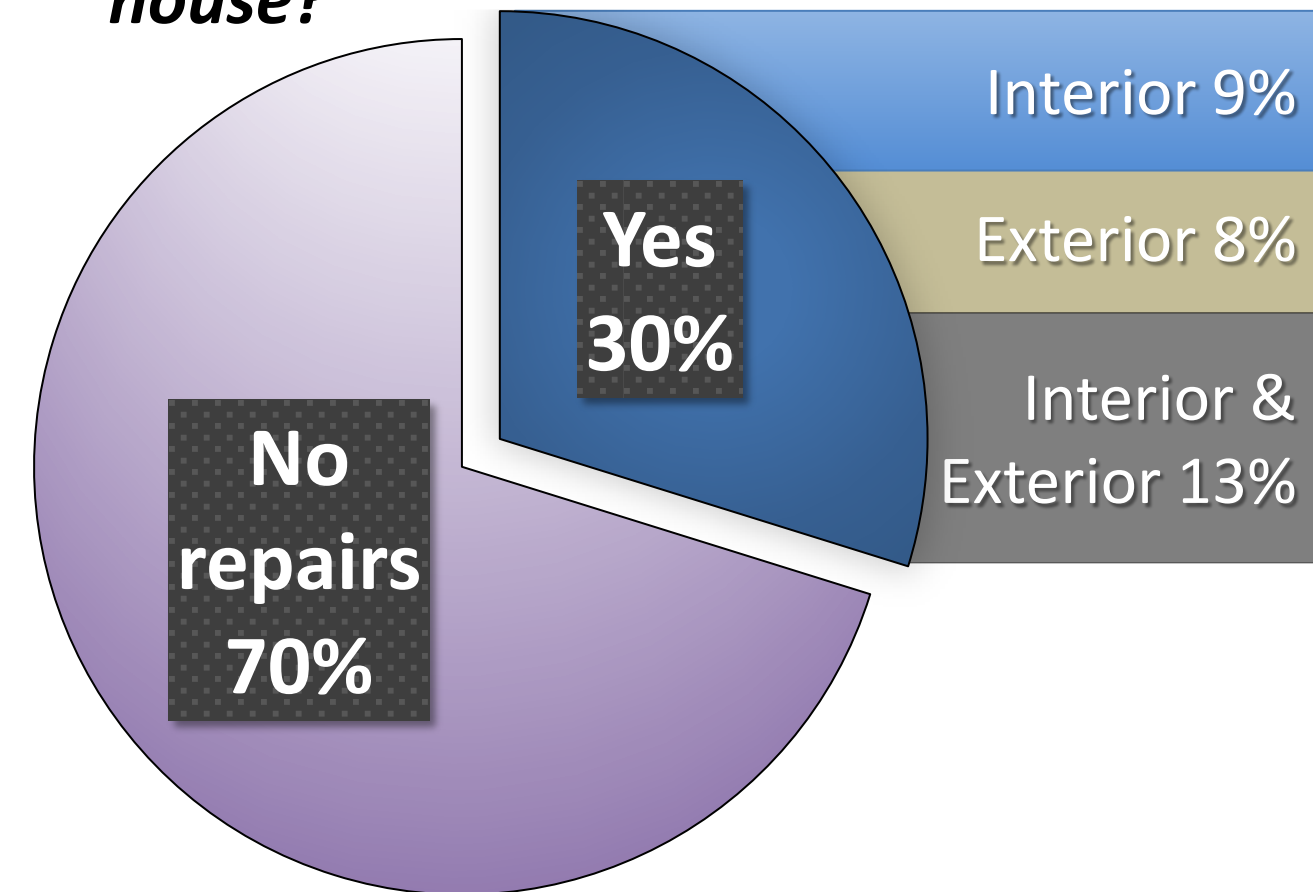


Owned



Rented

During the last 12 months, has there been any painting, repairs or replacements to any parts of your house?

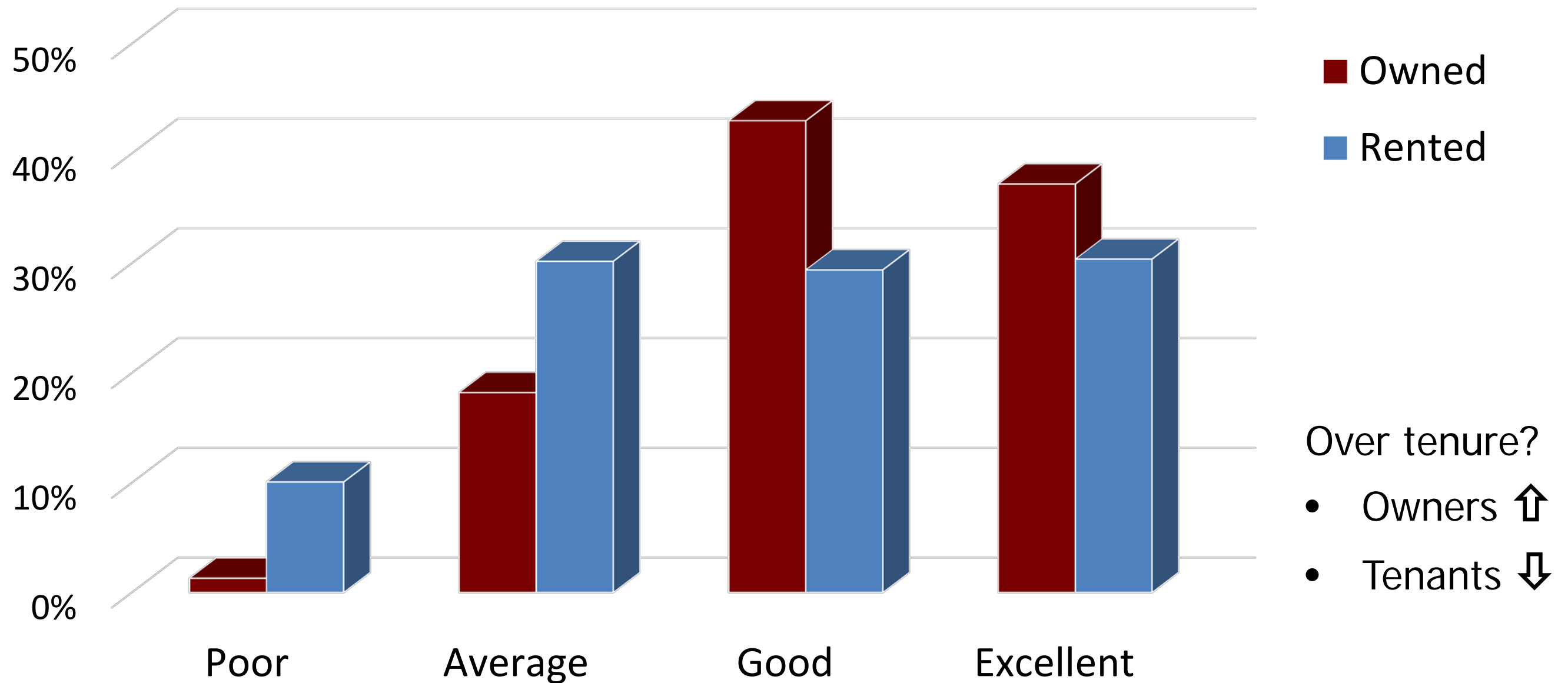


Deferred maintenance?

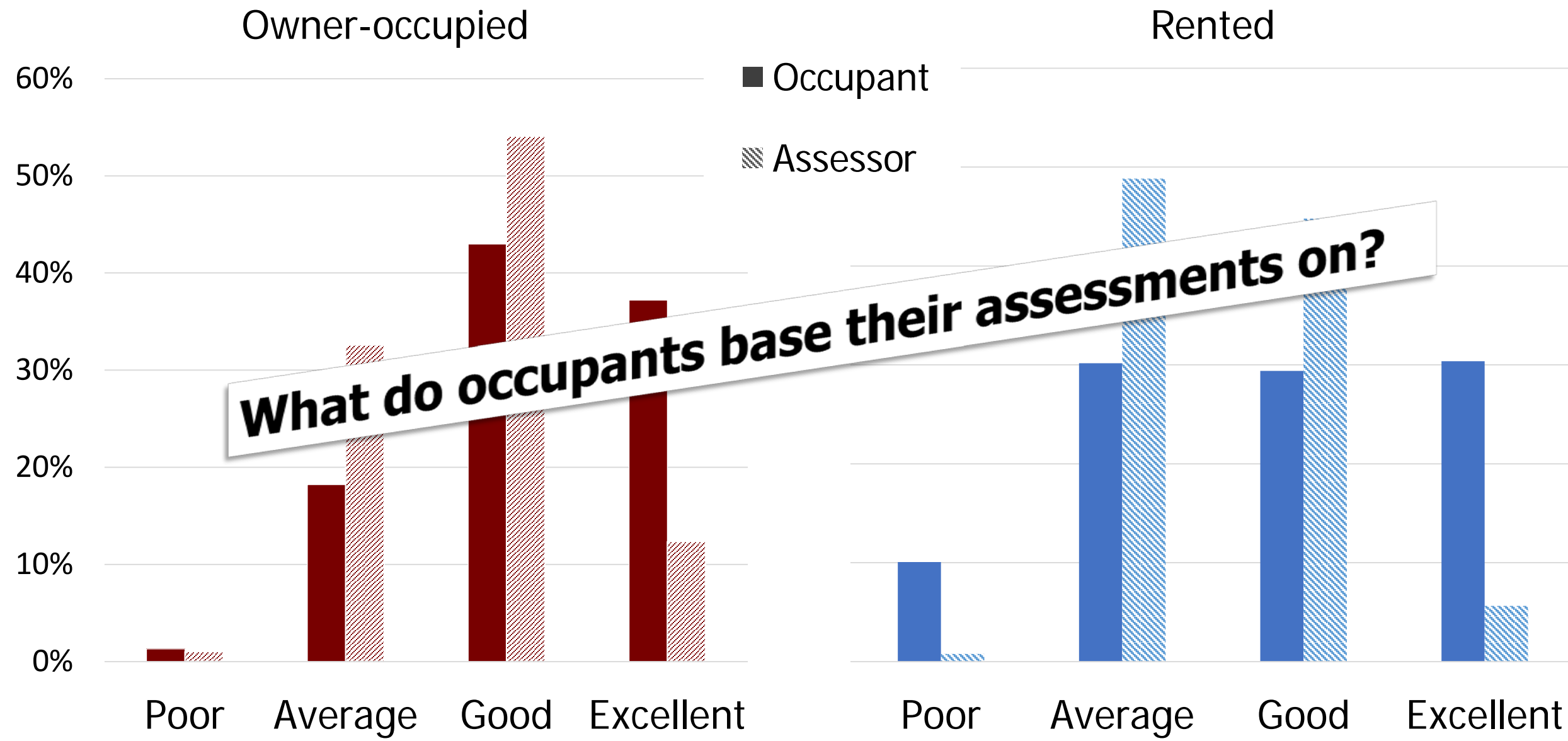


What do occupants think of their homes?

Occupant perception of house condition in its current state

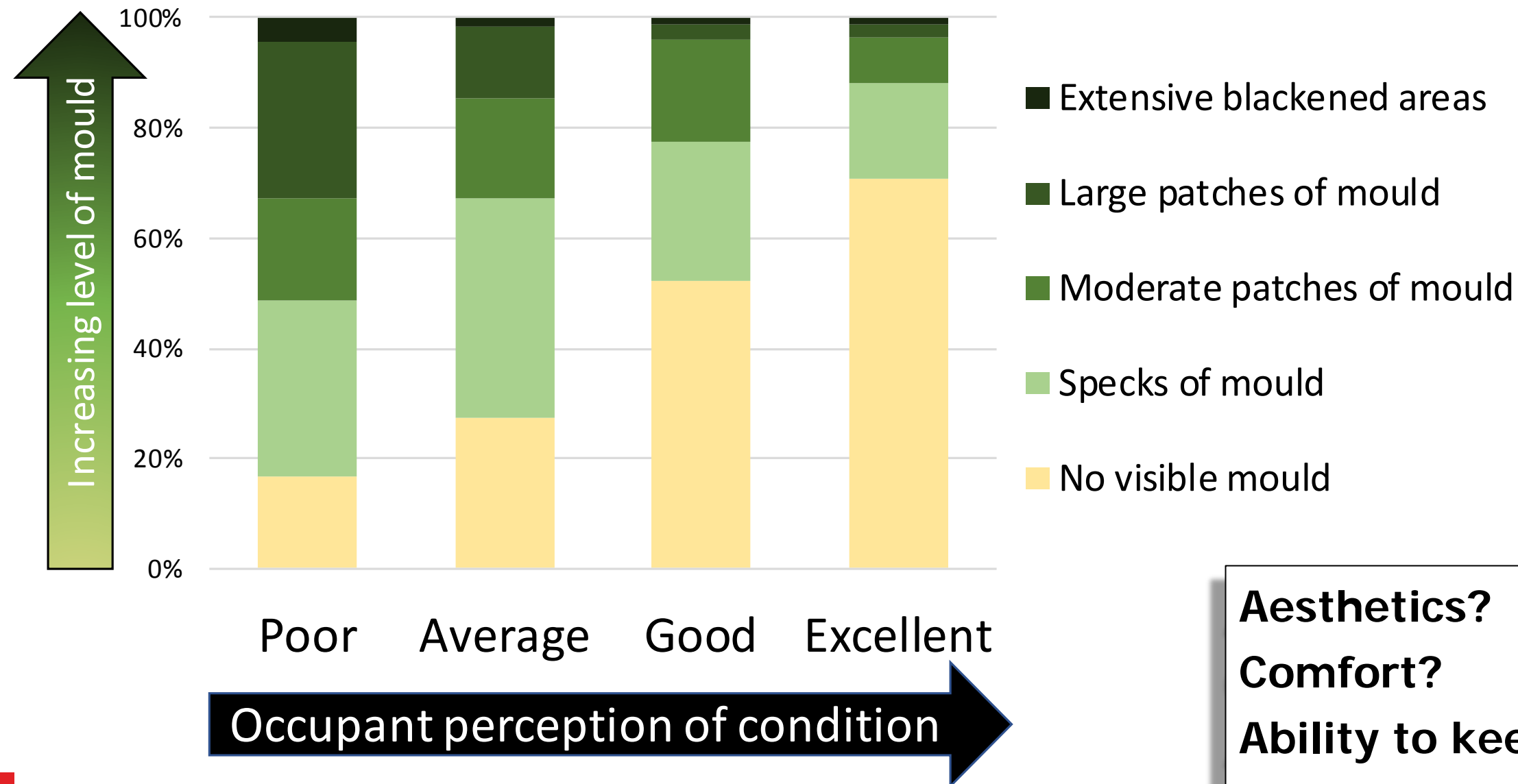


How do occupants compare to assessor ratings?



What factors affect occupant perception of house condition?

Mould and occupant perception of house condition



Aesthetics?
Comfort?
Ability to keep warm, maintain healthy indoor environment?

**What is needed for warm,
dry, healthy homes?**

Minimising heat loss



Heating



**Moisture control
& Ventilation**



What is needed for warm,
dry, healthy homes?



Appliances
present

Heating

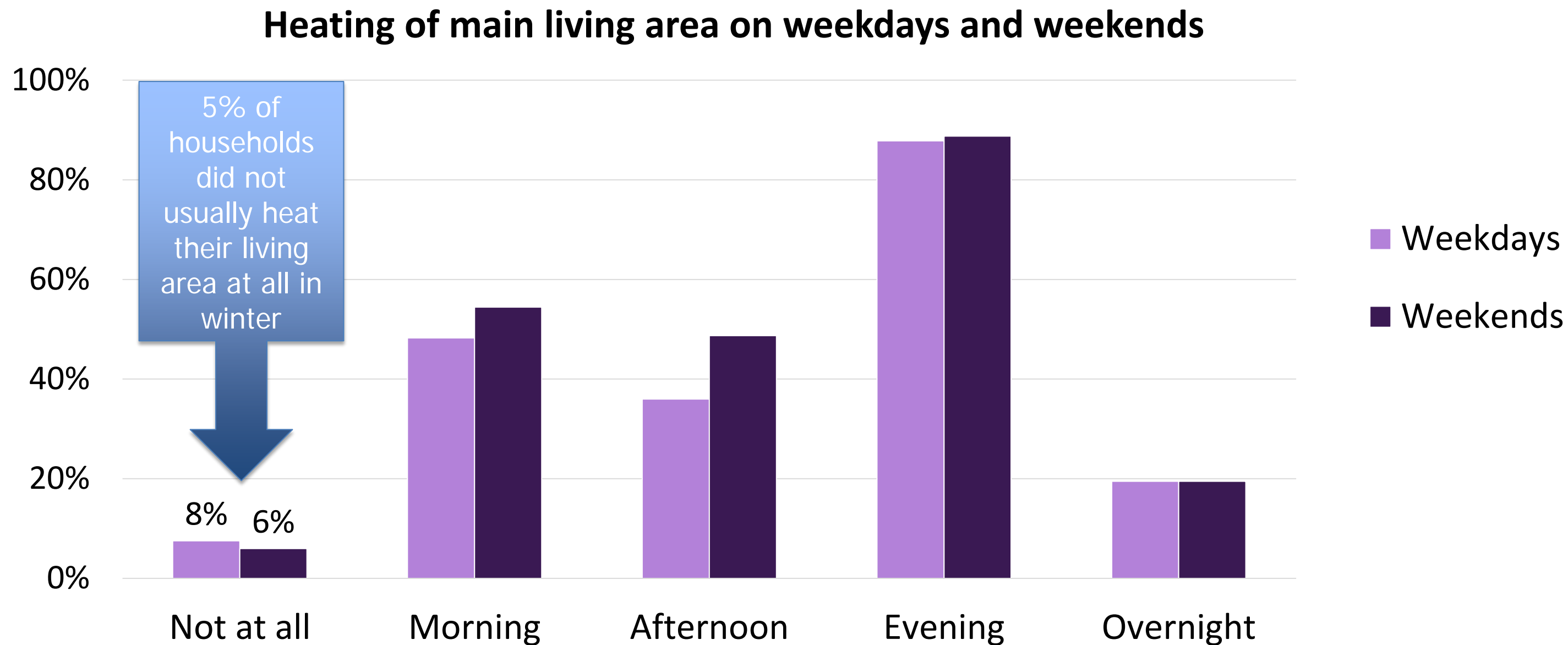


Appliances
used



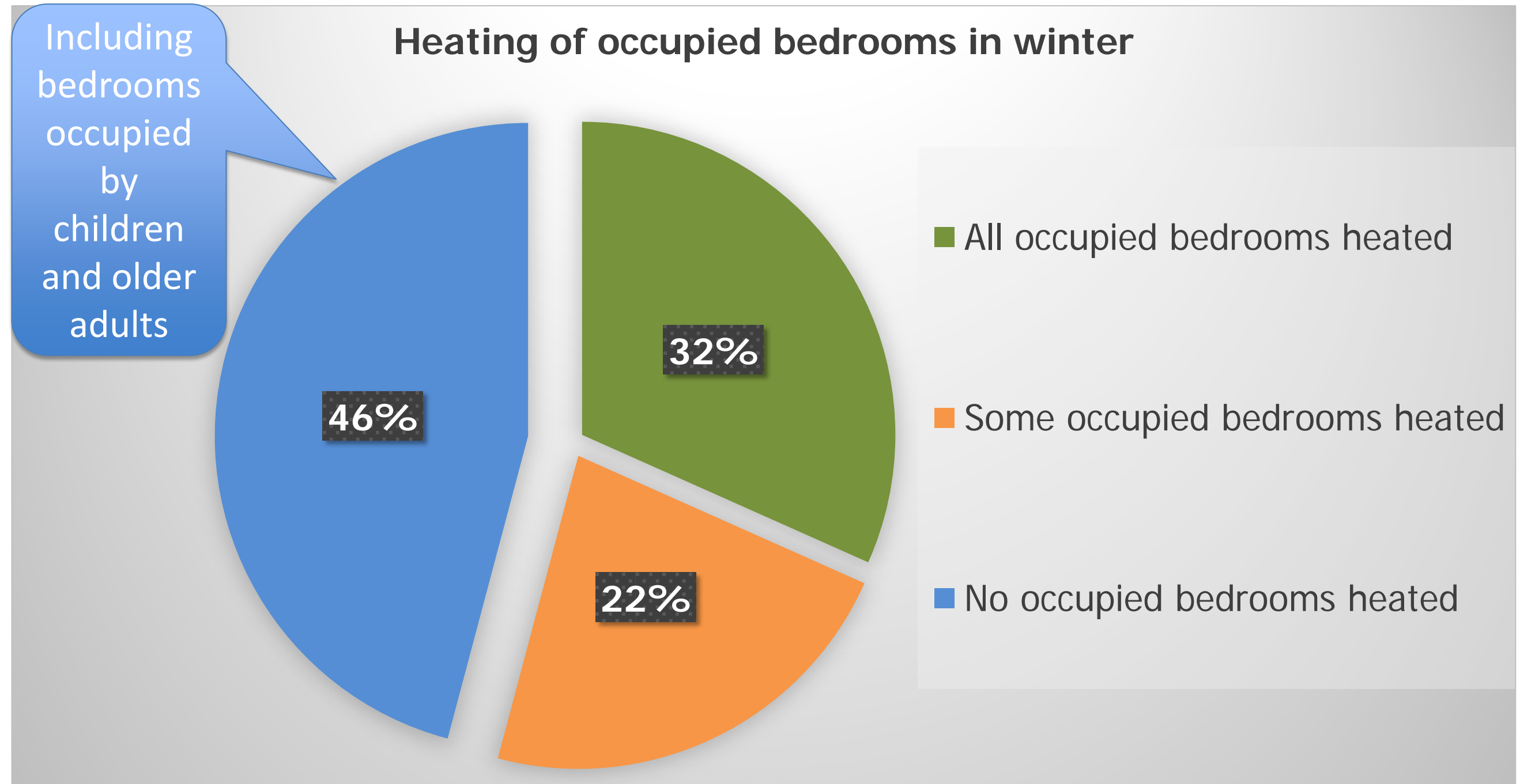


When do households heat their living area?



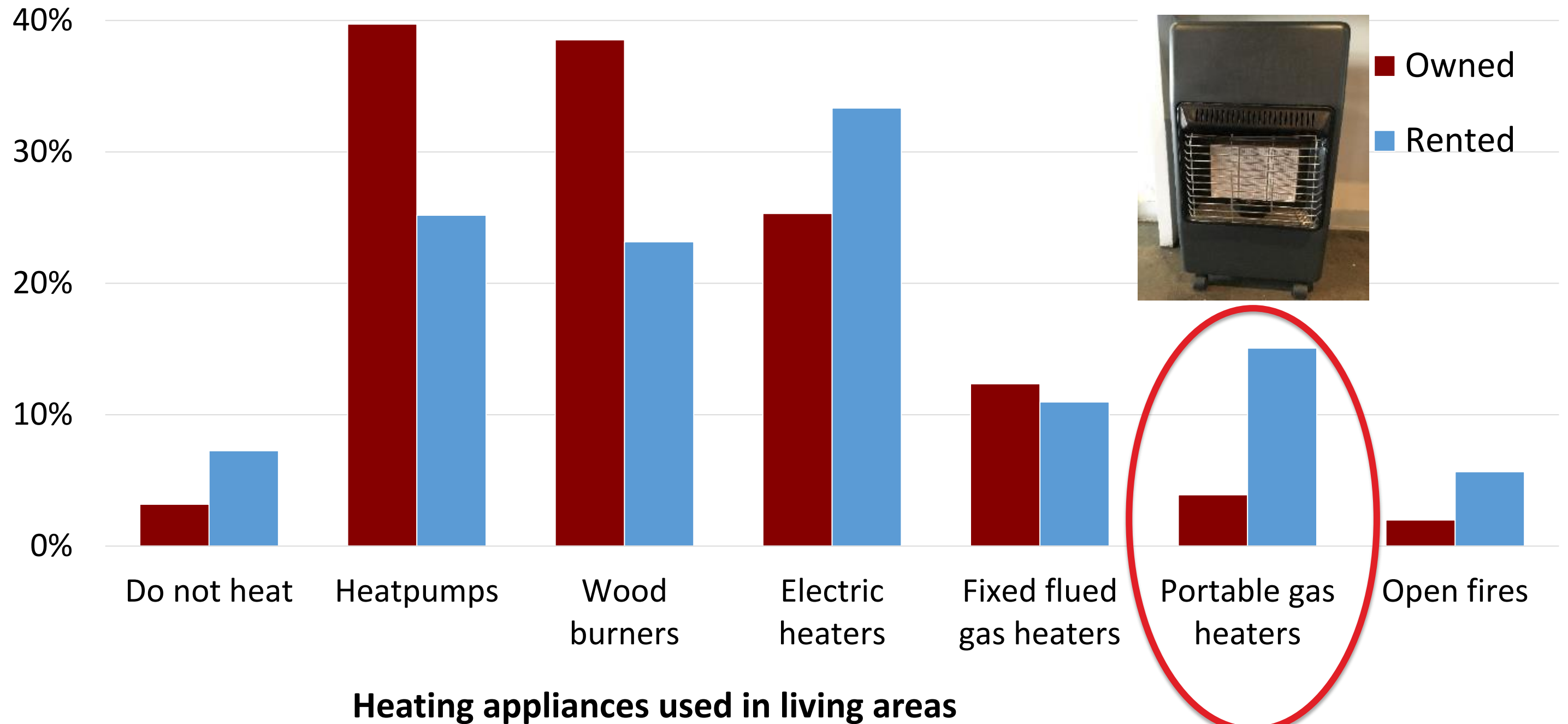


Do households heat their occupied bedrooms?





Heater types used in living area

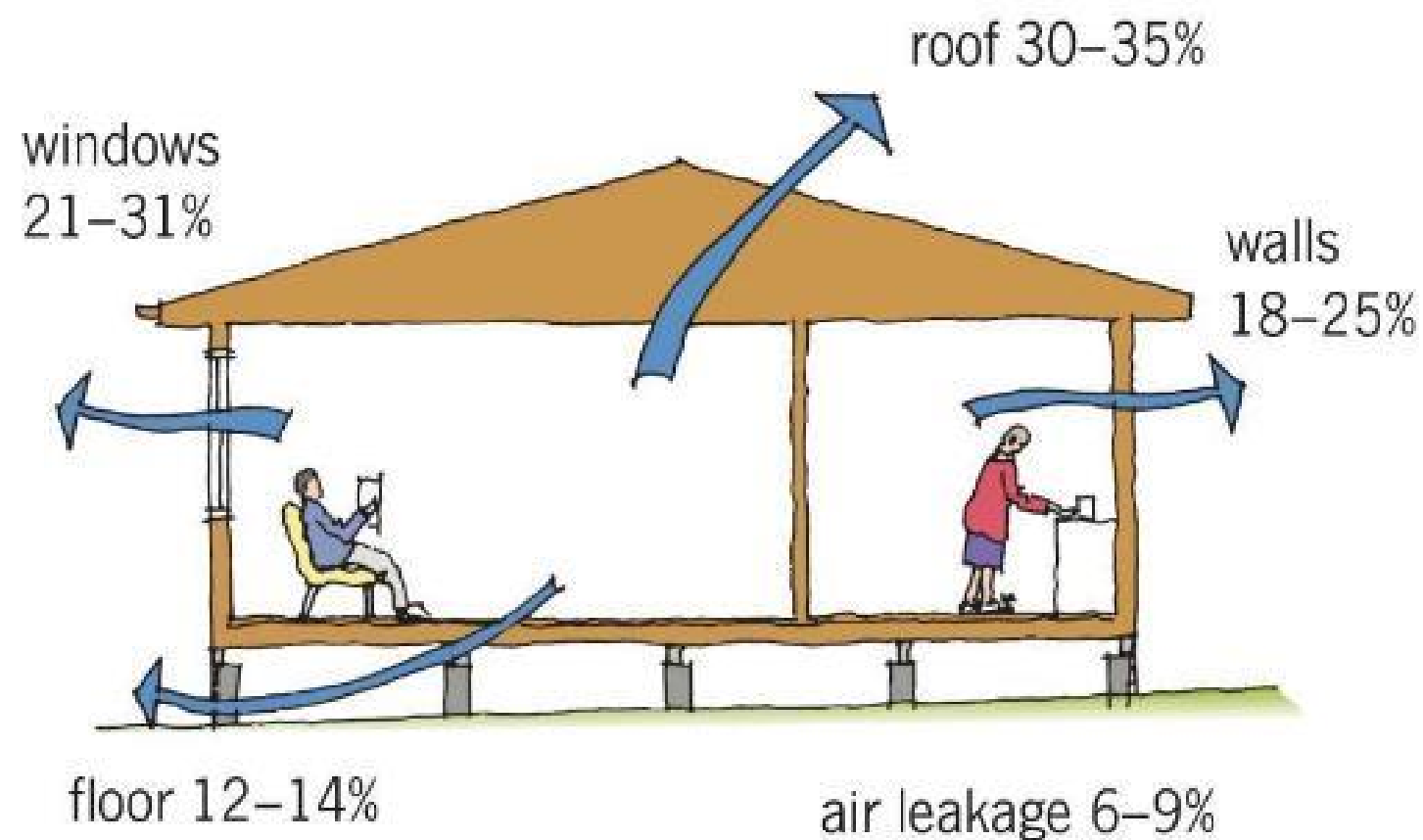


Owned
Rented



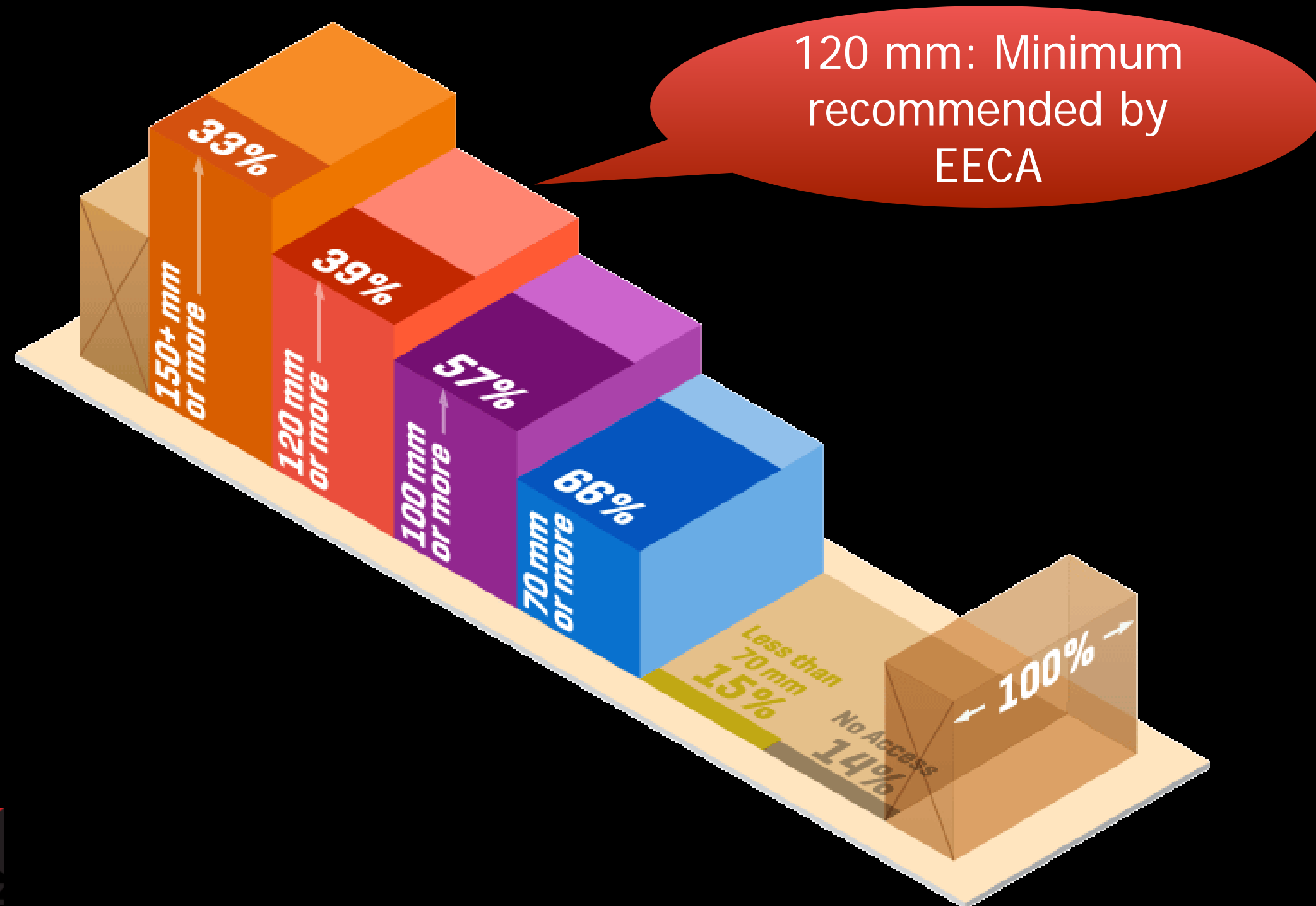
Findings

Keeping the heat in: Insulation



Insulation in the roof space

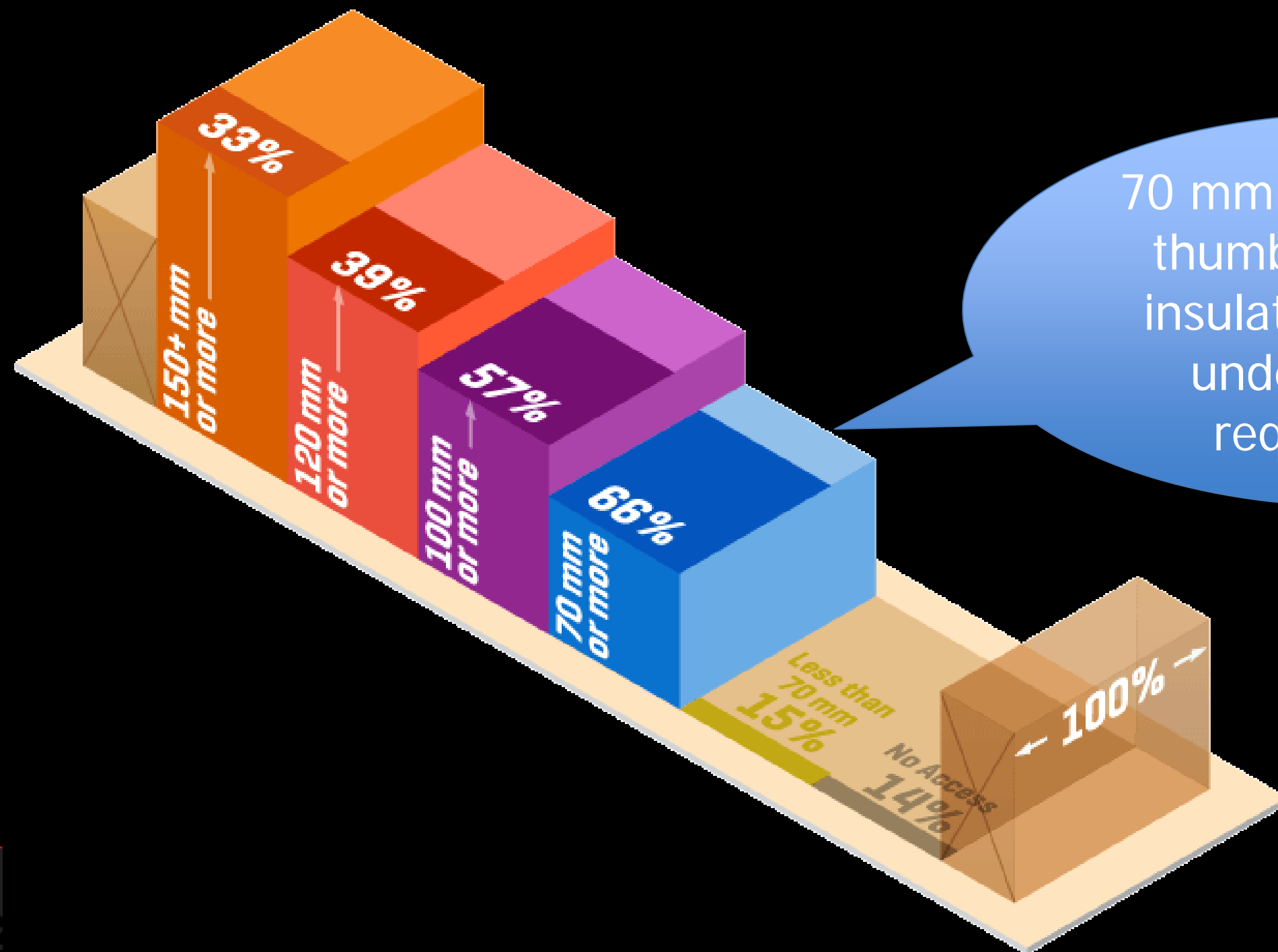
- 47% with less than 120 mm (or lack coverage)



Retrofit opportunity

Insulation in the roof space

- 23% of Rentals with less than 70 mm (or lack coverage)

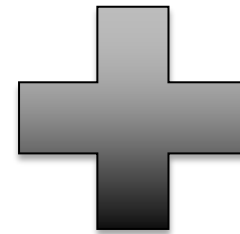


70 mm: Proxy 'rule of thumb' for existing insulation in rentals under new RTA requirements

Retrofit requirement

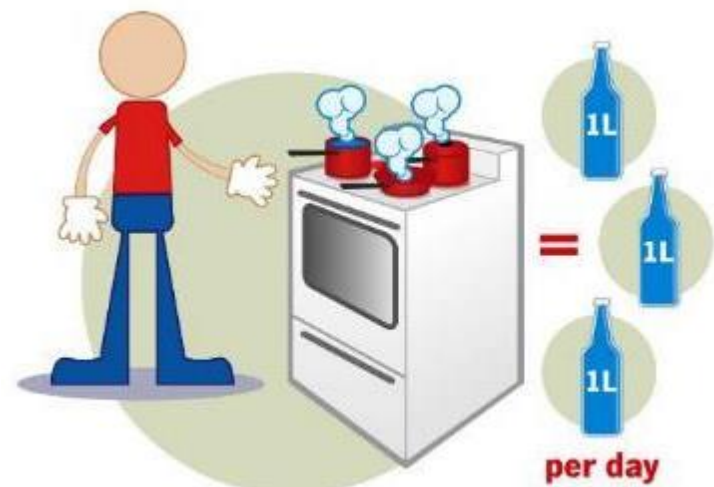
Subfloors

- Bulk insulation more common in owned, foil more common in rentals
- Similar retrofit opportunity in owned and rentals ~20%



53%

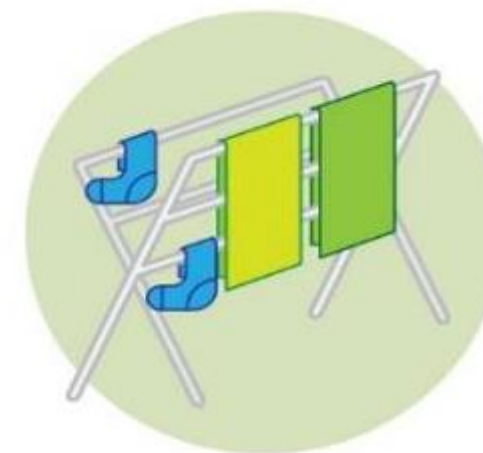




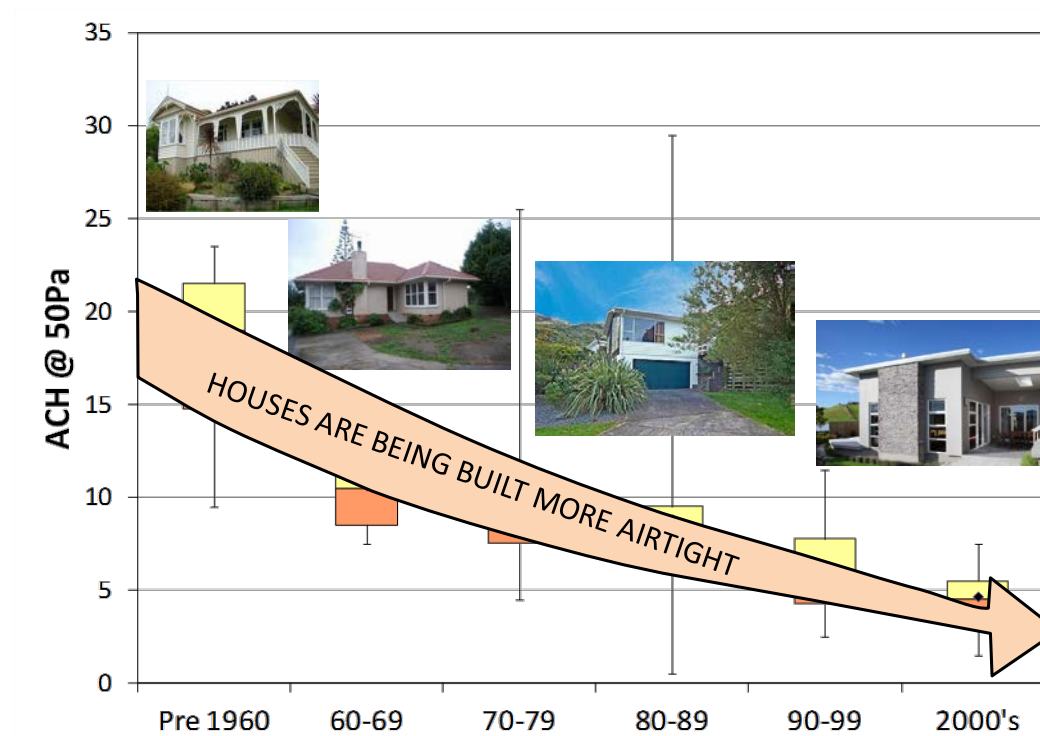
Moisture Control & Ventilation



Unvented clothes drying

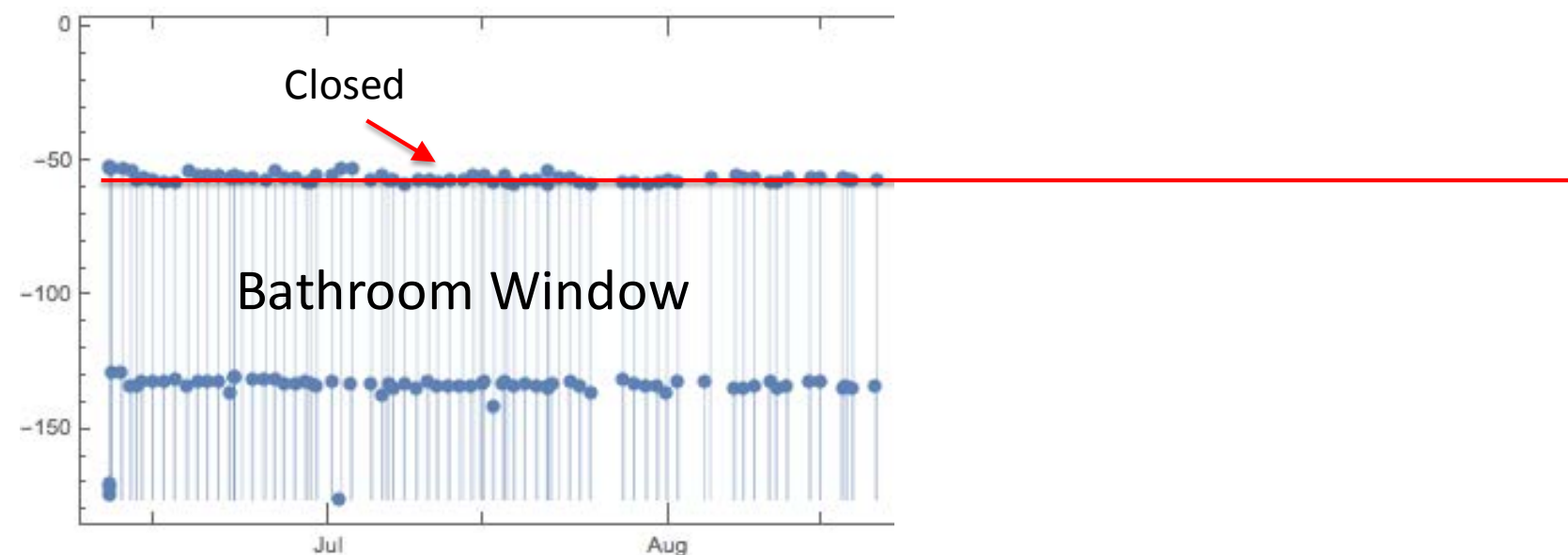


Showers/baths



Ventilation in high moisture areas of the home

- Half of bathrooms and kitchens did not have mechanical extract ventilation venting to the outside
- Extractor size, duct material, length and installation important
- Heating important: over two-fifths of rentals without mechanical ventilation and heating in main bathroom
- Occupant behaviour factor



Implications: Condition of houses New Zealanders live in

- **Overall State of Repair and Condition:** Movement in positive direction but gap between owned and rented remains
- **Maintaining a warm, dry, healthy home:**
 - **Keep the heat in:** Retrofit opportunity ~50% of houses
 - **Warm it up:** Heating behaviour and appliance choice
 - **Control moisture:** Occupant behaviour
 - Extract ventilation, opening windows
- **Links to mould and health implications of living in a cold, damp home**



References: www.branz.co.nz

Comparison of house condition by tenure [SR270]

Warm, dry, healthy? Insights from the 2015 House Condition Survey on insulation, ventilation, heating and mould in New Zealand houses [SR372]

Co-design project to support the Auckland Healthy Homes Initiatives

Presentation by Anne-Marie Mujica
Social Intreprenneur, Auckland Council



Presentation



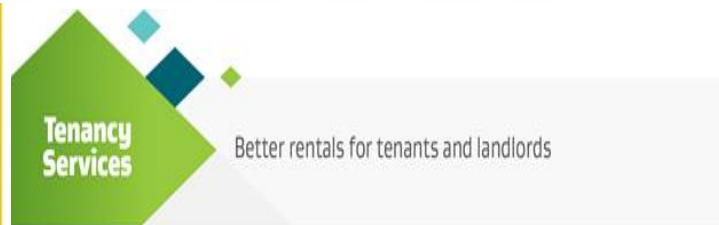
Waitemata
District Health Board

Best Care for Everyone

The
Southern Initiative



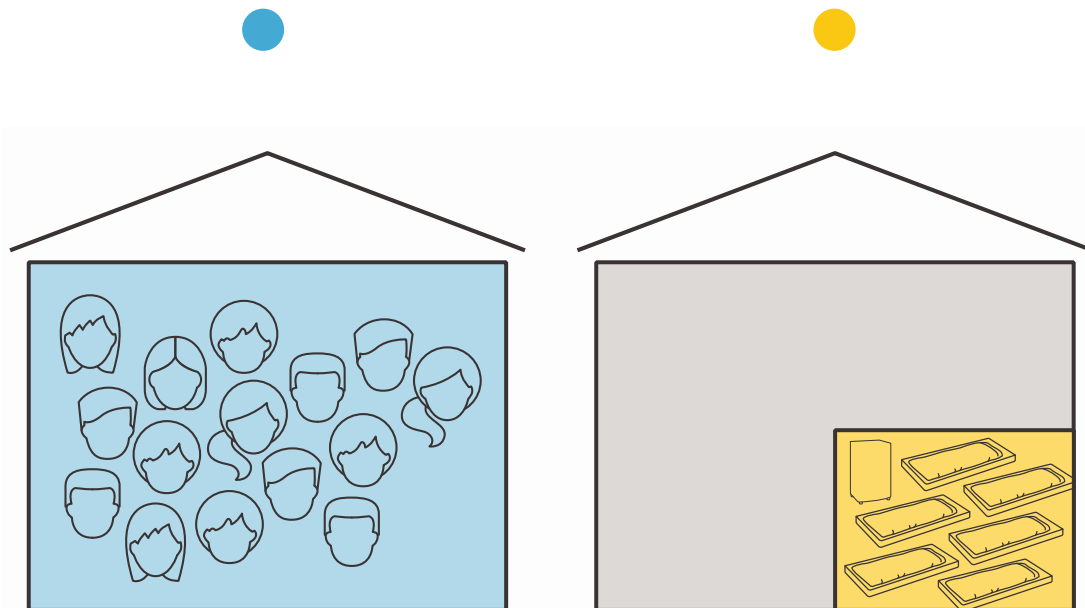
Auckland Council
Te Kaunihera o Tāmaki Makaurau



New Zealand Government

Healthy Homes Initiatives

- One of the responses to the link between rheumatic fever and overcrowding
- Purpose - to reduce household crowding for eligible children and their families.





TRISH'S HOUSE

TRISH IS A SINGLE MOTHER OF 2 SMALL CHILDREN. TRISH IS A BENEFICIARY AND HAS RECENTLY MOVED TO AUCKLAND DUE TO A VIOLENT HISTORY WITH HER EX-PARTNER AND HAS NO FAMILY HERE. TRISH VALUES HER INDEPENDENCE AND IS HAPPY TO BE IN HER OWN HOUSE, HOWEVER THERE ARE SOME SERIOUS PROBLEMS WITH THE HOUSE ITSELF. SHE HAS APPLIED FOR SOCIAL HOUSING AND IS ON A WAITING LIST. TRISH AND HER CHILDREN LIVE IN THE ONE BEDROOM THAT FACES THE SUN AS THE HOUSE IS COLD AND DAMP.



TRISH, JOSEPH - 2 YEARS
LUCAS - 8 MONTHS



PRIVATE
RENTAL HOUSE



TWO
BEDROOMS



RENT
PER WEEK



ON WAITING LIST
FOR SOCIAL HOUSING

1 ROOF DAMAGE
HOUSE IS NOT WATERPROOF LEADING TO ONGOING LEAKS. LEAKS ARE NOTICEABLE ON CEILING AND WALLS.

2 NO INSULATION
DRAFT AND RISING DAMP THROUGH FLOORS EVEN WITH CARPET INSTALLED.

3 POOR VENTILATION
WINDOWS ARE PAINTED SHUT AND CANNOT BE OPENED.

4 NO EXTRACTOR FAN
IN THE BATHROOM SO MOISTURE CANNOT ESCAPE.

5 NO CURTAINS
LOSS OF HEAT THROUGH EXPOSED WINDOWS.

6 NO HEATING
TRISH CANNOT AFFORD TO RUN HEATERS.

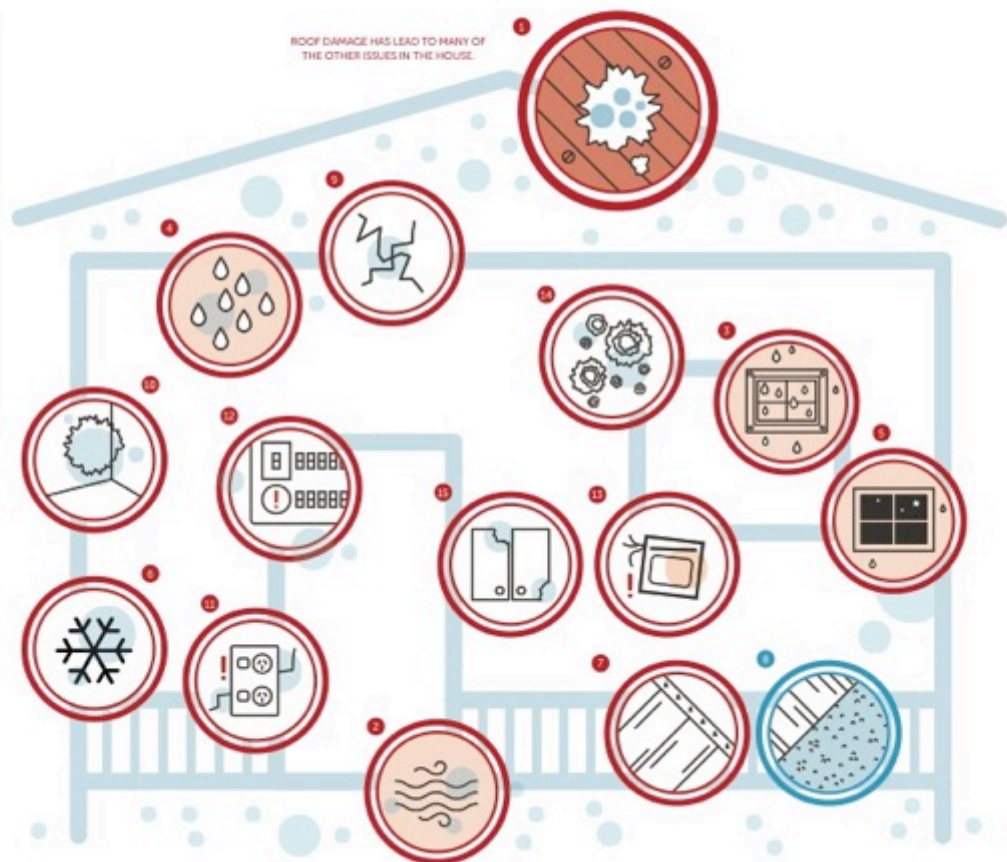
7 NO CARPET
BARE, UNVARNISHED FLOORS, OLD CARPET TRACKS EXPOSED THROUGH THE HOUSE.

8 TRISH PAYS FOR CARPET
BUT THE LANDLORD HAS NOT PAID HER BACK. TRISH ALSO HAMMERS DOWN THE EXPOSED CARPET TRACKS.

9 CEILING CRACKS
CONTINUOUS WATER DAMAGE, DISCOLOURED PAINT.

10 WATER STAINS
ON THE WALLS FROM EXCESSIVE LEAKAGE.

ROOF DAMAGE HAS LEAD TO MANY OF THE OTHER ISSUES IN THE HOUSE.



AWHI'S PRIMARY FOCUS

OTHER HEALTH & SAFETY THREATS

TRISH'S EFFORTS TO IMPROVE HER LIVING CONDITIONS

11 WATER DAMAGE TO WIRING
CONTRIBUTES TO ELECTRICAL PROBLEMS. POWER SOCKETS CONTINUE TO BLOW.

12 FUSE BOX IS HARD WIRING
THE LANDLORD HAS HARD WIRING THE FUSE BOX SO THAT IT DOESN'T KEEP SHORT CIRCUITING BECAUSE OF THE WATER DAMAGE.

13 BROKEN OVEN, EXPOSED WIRES
DOOR HANGS OFF, NOT FITTED PROPERLY. WIRES ARE EXPOSED.

14 MOULD & MILDEW
IN THE LOUNGE, BATHROOM & KITCHEN.

15 ROTTING KITCHEN CUPBOARDS

Minor Repair Service



Minor Repair Service				
REPORT				
Inspections and Recommended Actions				
Total Records: 12				
CATEGORY	IMPORTANCE	ACTION	SPECIFIC NOTES	OPTIONS TO UNDERTAKE THIS WORK
Exterior (2 records)	High Priority	No home, gaps in the roof. There are a source of leaks into the ceiling a significant electrical hazard.	Widge that need pointing close to wood summer vent. Two missing tiles can see roof paper from roof gaps.	Landlord to undertake/arrange
	Insufficient	See Commentary from Assessment (Specific notes)	Front door top hinge has dropped and door catching on floor	Habitat for Humanity can undertake for the cost of materials only
Building Sub-Floor (2 records)	High Priority	Install a ground sheet moisture barrier. The exposed soil under the house has been identified as a source of moisture contributing to rising damp coming up through your flooring. This will also help to protect the wooden structure of your house.	No moisture barrier would recommend installation to improve warmth of home and reduce moisture and condensation.	If underfloor insulation is being installed, then we recommend this be quoted at the same time (generally cheaper when coupled with insulation)
	High Priority	Install under floor insulation to adequate standard. This is required by law to comply with the K14 of 2016 the flooring has been identified as a source of heat loss in the house	No insulation	You may be eligible for a 50% subsidy. We can refer you to a supplier who can quote and is authorized for the subsidy
Kitchen (1 record)	Insufficient	Recommend installing a rangehood extractor fan above the stove, that is vented to the outside. This will help reduce excess moisture damage in the kitchen due to cooking activities.	No mechanical ventilation	Landlord to undertake/arrange
Bathroom (3 records)	Insufficient	Install mechanical ventilation in the bathroom, vented to the outside of the house. This will reduce moisture damage to the bathroom	No mechanical ventilation	Landlord to undertake/arrange
	Insufficient	Repair damage to walls, ceiling or floor. These create drafts and make it difficult to heat the house	Wear around bath and widening gap needs fixing	Homeowner can undertake at the cost of materials only
	Low Priority	Install security latches on windows to allow for them to be able to remain open at times and provide ventilation for the room. This will reduce moisture damage to the house.	-	Habitat for Humanity can undertake for the cost of materials only
Laundry (1 record)	Low Priority	Install security latches on windows to allow for them to be able to remain open at times and provide ventilation for the room. This will reduce moisture damage to the house.	-	Habitat for Humanity can undertake for the cost of materials only
Living Area (2 records)	High Priority	See commentary (specific notes)	No seal around log burner flue/roving to ceiling. Draughts coming in and water damage on ceiling around this area. I suspect related to the missing baffle and lack of pointing to ridge	Habitat for Humanity can undertake for the cost of materials only
	Low Priority	Install security latches on windows to allow for them to be able to remain open at times and provide ventilation for the room. This will reduce moisture damage to the house.	-	Habitat for Humanity can undertake for the cost of materials only
General Household Assessment (1 record)	Insufficient	Install ceiling insulation to adequate standard. This is required by law to comply with the K14 of 2016 - the ceiling has been identified as the primary source of heat loss in the house	Roof insulation, not up to level of rafters and paddy needs upgrading to standard	You may be eligible for a 50% subsidy. We can refer you to a supplier who can quote and is authorized for the subsidy



Landlord Liaison



Testing

- Work with landlords
- Council and Building Legislation
- MBIE and RTA
- Work with MSD

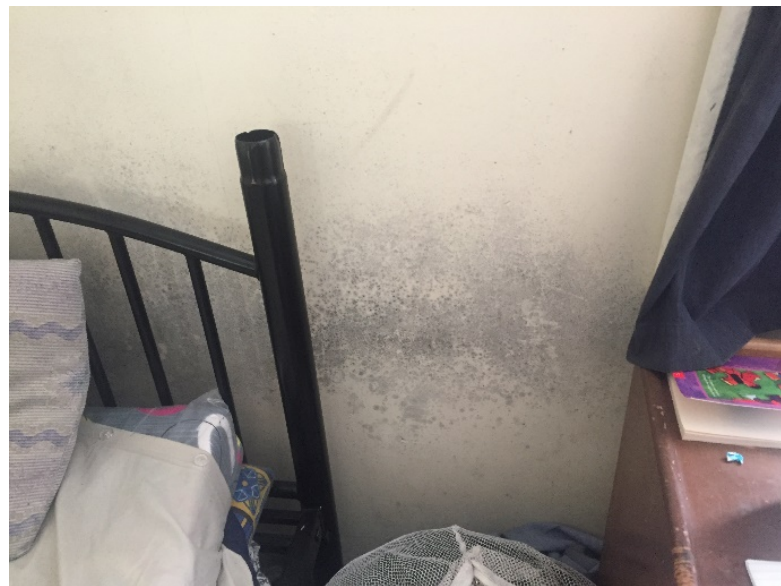
Mixed Picture





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Thank you for your interest.

2015/16 House Condition Survey: Comparison of house condition by tenure

www.branz.co.nz

Auckland-wide Healthy Homes Initiative



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