CLIMATE CHANGE AND QUALITY OF LIFE IN HOMES

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DEVELOPMENT OF A METHODOLOGY TO ASSESS THE NEEDS OF HEALTH IN NEIGHBOURHOODS

If well-planned and managed, urban development can be sustainable and can generate inclusive prosperity

Goal 11: Make cities inclusive, safe, resilient and sustainable
(The United Nations (UN) in the context of the 17 goals of the 2030 Agenda for Sustainable Development)

*…….inseparable links between development, **human health and well-being**, and the economy as central to the attainment of a wide range of human rights, including: the right of life; the enjoyment of the **hightest attainable standard of physical and mental health; an adequate standard of living;** safe food; drinking-water and sanitation; safety; and clean soil, waters and air; wich are the key to promoting just, peaceful, inclusive and prosperous societies today and in the future*

(Ostrava Declaration of the sixth ministerial conference on environment and health, June 2017)

Strategic orientation that integrates actions to protect and promote health in urban planning, emphasizing the strong dependence between physical, mental and social well-being and the urban environment in which we live.

Documento di indirizzo per la pianificazione urbana in un'ottica di Salute pubblica (Ministero della Salute, 2021)

METHODS

A pilot questionnaire, completed by 190 people, included a section aimed at exploring:

- the characteristics of the home in terms of human health (type of building, number of rooms, presence/absence of physical barriers, presence of any mold and humidity, sound insulation, etc.
- the standard of life inside the home and on health problems accused by both the interviewee and their family members
- the perceived quality of life through an evaluation scale developed by Prof. Stefan Priebe of the Queen Mary University of London (MANSA_Manchester Short Assessment of Quality of Life)

Type of building	☐ one-family house ☐ terraced house ☐ tower block ☐ tower building		
	Number of floors: ☐ 1 floor ☐ more than one	Floor area (mq) _____	Year of construction _____ Year of refurbishment _____
	Number of: - Rooms (services not included) ____ - Toilet ____ - Kitchen ____ - Shower, or bathtub ____ - Fridge ____ - Pantry ____		Do they work adequately? ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No
Water supply	Safe water ☐ Yes ☐ No		☐ 24-hour supply ☐ Irregular supply
Physical barriers	☐ differences in height inside the house ☐ narrow doors ☐ no lifts		
Damp and mould	☐ Yes ☐ No	If yes, in wich rooms? ☐ toilet ☐ kitchen ☐ bedrooms ☐ livingroom-study	
Alarm systems	Burglar alarm ☐ Yes ☐ No Security door ☐ Yes ☐ No		
Sound insulation	Measures adopted: ☐ house insulation (e.g. double glazing) ☐ Change of the intended use of rooms ☐ Personal protecting equipments (e.g. ear protector) ☐ Relocation to less noisy areas		

8.3 - Have you suffered from the following health problems in the last month?

Problem	Yes	No	it's due to the house I live in
tiredness			
nausea			
headache			
lacrimation			
dizziness			
nose disorders			
dry mouth			
heartburn			
cough			
shortness of breath			
Skin irritation			
other			

Manchester Short Assessment of Quality of Life (MANSA)

Section 3

10) How satisfied are you with your life as a whole today?*

11) How satisfied are you with your job (or sheltered employment, or training/education as your main occupation)?* Or if unemployed or retired, how satisfied are you with being unemployed/retired?*

12) How satisfied are you with your financial situation?*

13) Do you have anyone who you would call a ''close friend''? Yes/No

14) In the last week have you seen a friend? (visited a friend, been visited by a friend or met a friend outside both your home and work)? Yes/No

15) How satisfied are you with the number and quality of your friendships?*

16) How satisfied are you with your leisure activities?*

17) How satisfied are you with your accommodation?*

18) In the past year have you been accused of a crime? Yes/No

19) In the past year have you been a victim of physical violence? Yes/No

20) How satisfied are you with your personal safety?*

21) How satisfied are you with the people that you live with?* Or if you live alone, how satisfied are you with living alone?*

22) How satisfied are you with your sex life?*

23) How satisfied are you with your relationship with your family?*

24) How satisfied are you with your health?*

25) How satisfied are you with your mental health?*

*use the Satisfaction Scale below

Satisfaction Scale

1	2	3	4	5	6	7
Couldn't be worse	Displeased	Mostly Dissatisfied	Mixed	Mostly satisfied	Pleased	Couldn't be better

RESULTS

How many hours a day are the windows kept open on average?	Autumn/winter	Spring/Summer
	2.66±2.61	10.53±6.25

How many hours a day is the heating on (on average)?	6.09±5.61

How many hours per day is the air conditioning system in the room (on average) in use, if any?	2.80±1.83

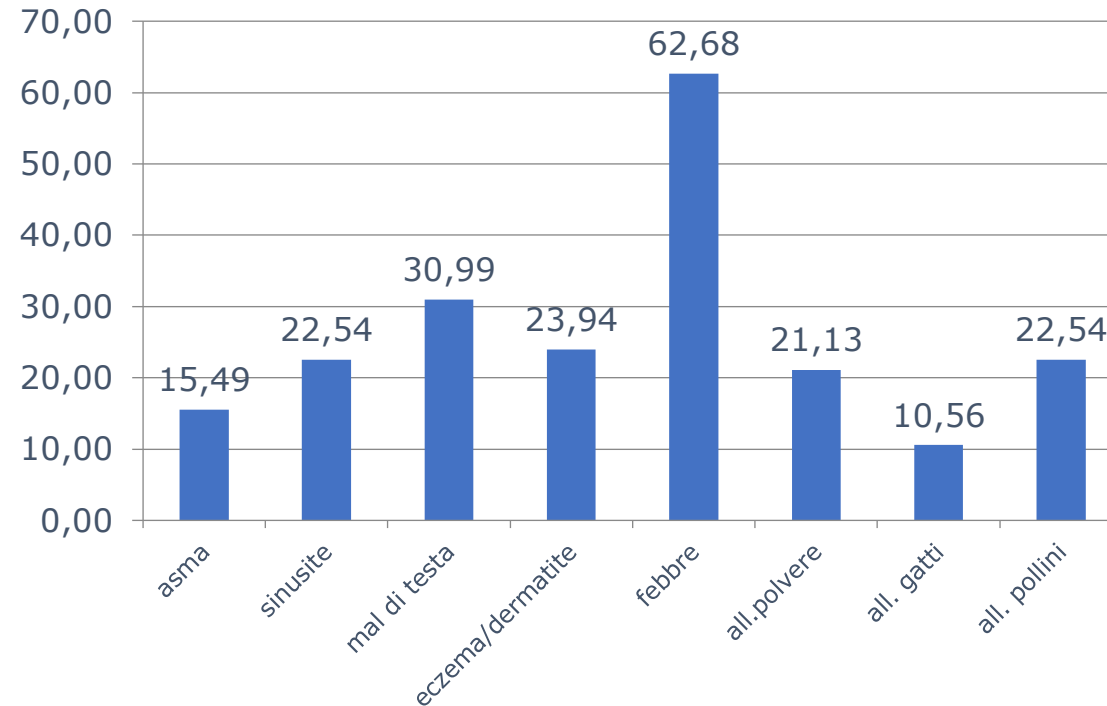**Is there a dehumidifier?**
Yes: 19.72%
No: 67.61%
n.a.: 12.67%

Has a family member seen a doctor in the last year about any of these problems?

Asthma
Sinusitis
Headache
Eczema/Dermatitis
Fever
Dust allergy
Allergy due to pets
Allergy to pollen
Other

RESULTS

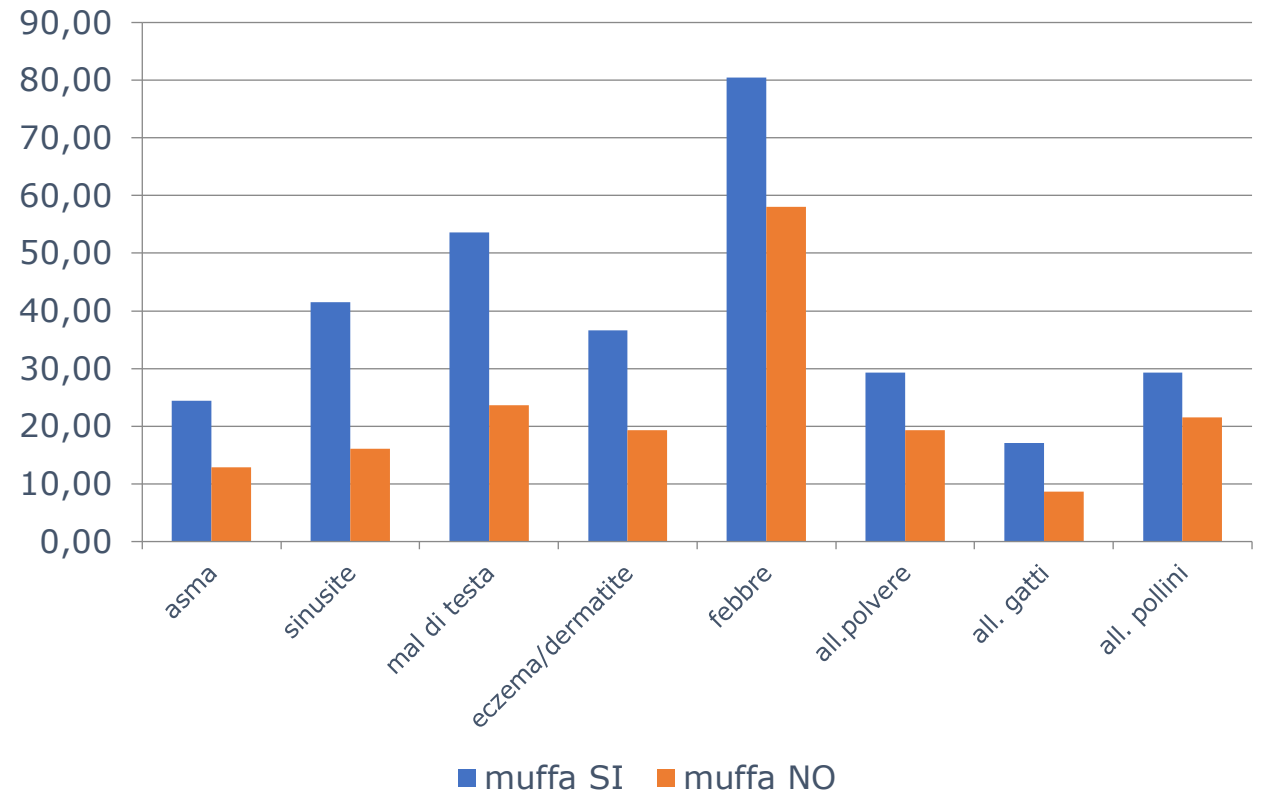| Mold and dampness	Evidence of mold and/or humidity ☐ Yes ☐ No	If yes, which environments are affected? ☐ Bathroom ☐ Kitchen ☐ Bedrooms ☐ Living room

Yes: 28.87%

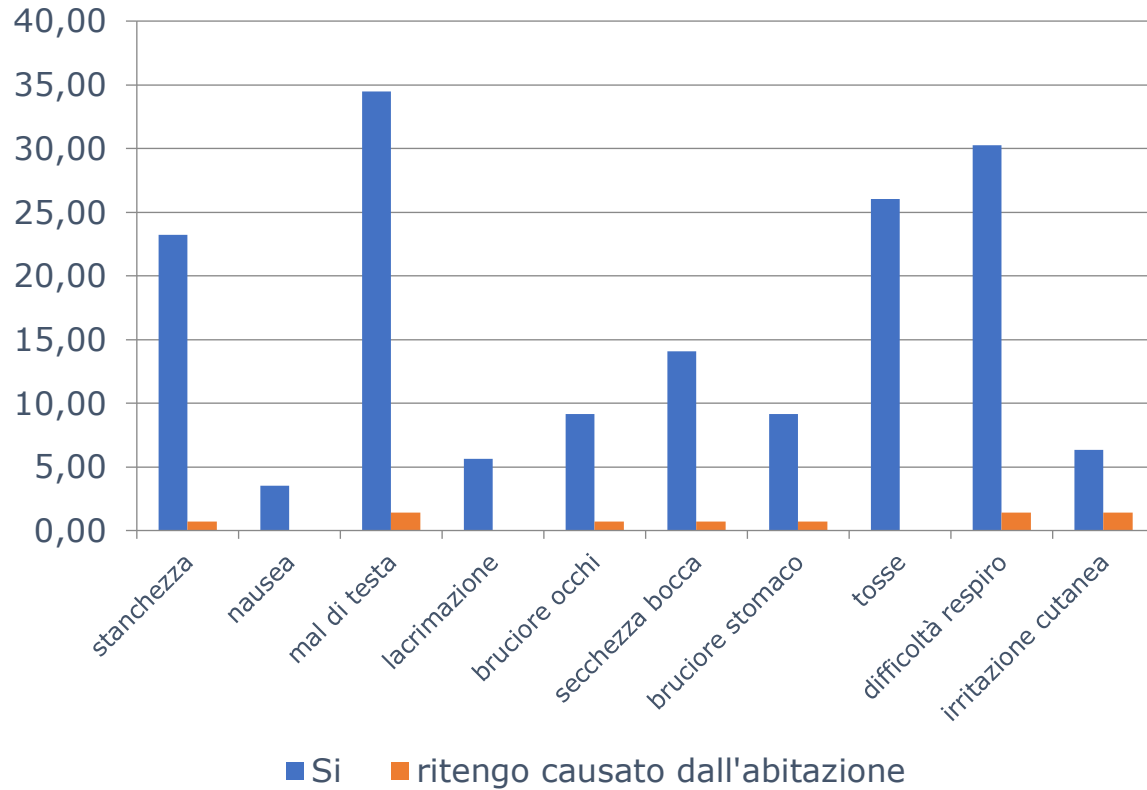Bathroom 13.38%
Kitchen: 4.93%
Bedrooms: 14.79%
Living room: 4.93%

RESULTS

Have you suffered from the following ailments in the last month?

Ailment	Yes	No	I think it is caused by the house
unusual tiredness			
nausea			
eadache			
tearing			
burning eyes			
nose ailment			
dry mouth			
stomach ache			
cough			
difficulty breathing			
skin irritation			
other			

RESULTS

In the last month, in your home, have you experienced sensations of:
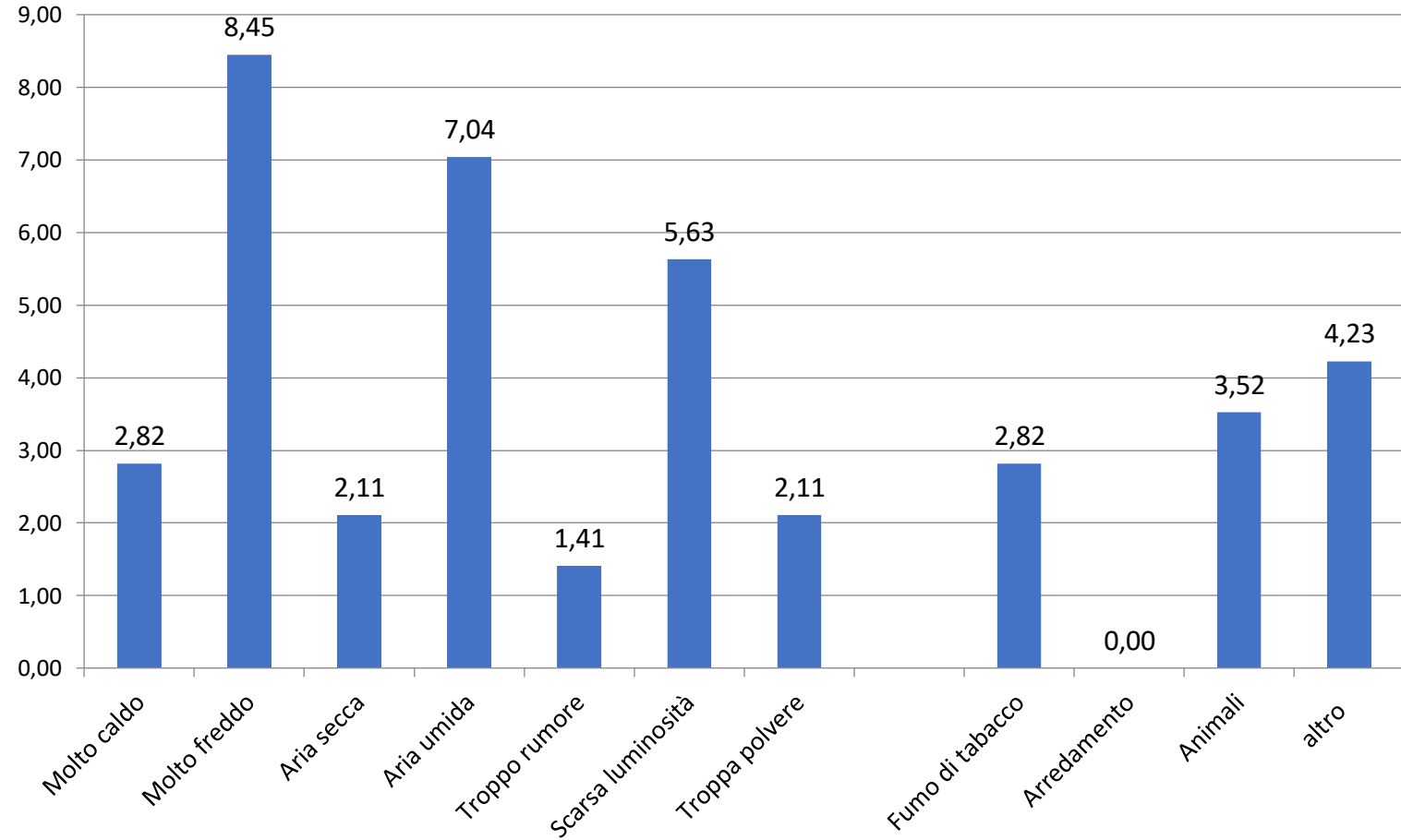
Category	Value
Molto caldo	2,82
Molto freddo	8,45
Aria secca	2,11
Aria umida	7,04
Troppo rumore	1,41
Scarsa luminosità	5,63
Troppa polvere	2,11
Fumo di tabacco	2,82
Arredamento	0,00
Animali	3,52
altro	4,23

RESULTS

1	2	3	4	5	6	7
Couldn't be worse	Displeased	Mostly dissatisfied	Mixed	Mostly satisfied	Pleased	Couldn't be better

5,17±0,75   ***"mostly satisfied"***

M: 5.23±0.75; F: 5.14±0.75

MANSA <4   (18%)

MANSA 3.29±0.54 (min 2.25; max 3.83)
M: 3.08±0.24; F: 3.36±0.61

MANSA >4   (82%)

M: 5.34±0.58; F: 5.26±0.60
11.27% obtained values between 6 and 7

Does your family feel safe walking down the street after dark and alone in the area where you live?

Yes: 36.97%
No: 63.03%

If NO, what causes the sense of insecurity?

No public lighting (72.41%)
Traffic intensity and speed (40.23%)
Lack of pedestrian crossings (12.64%)
Crime (20.69%)
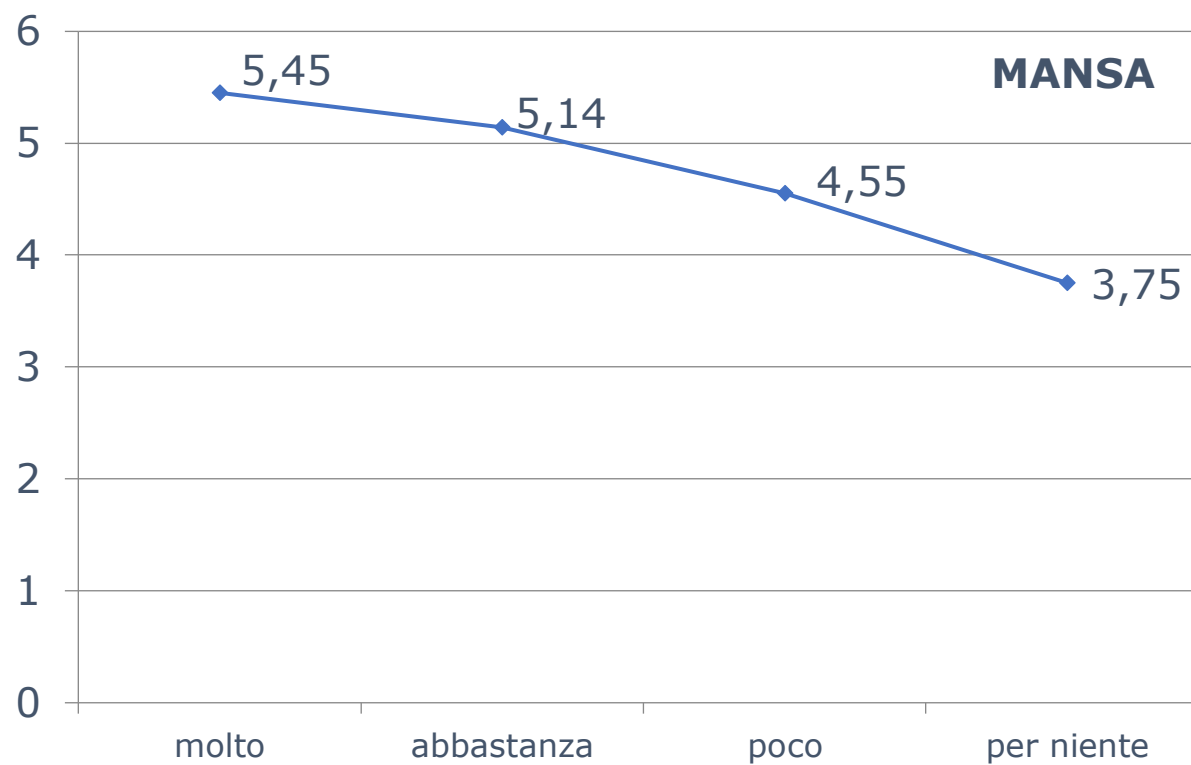Lack of public surveillance (68.97%)
Concurrence of some items (34.48%)
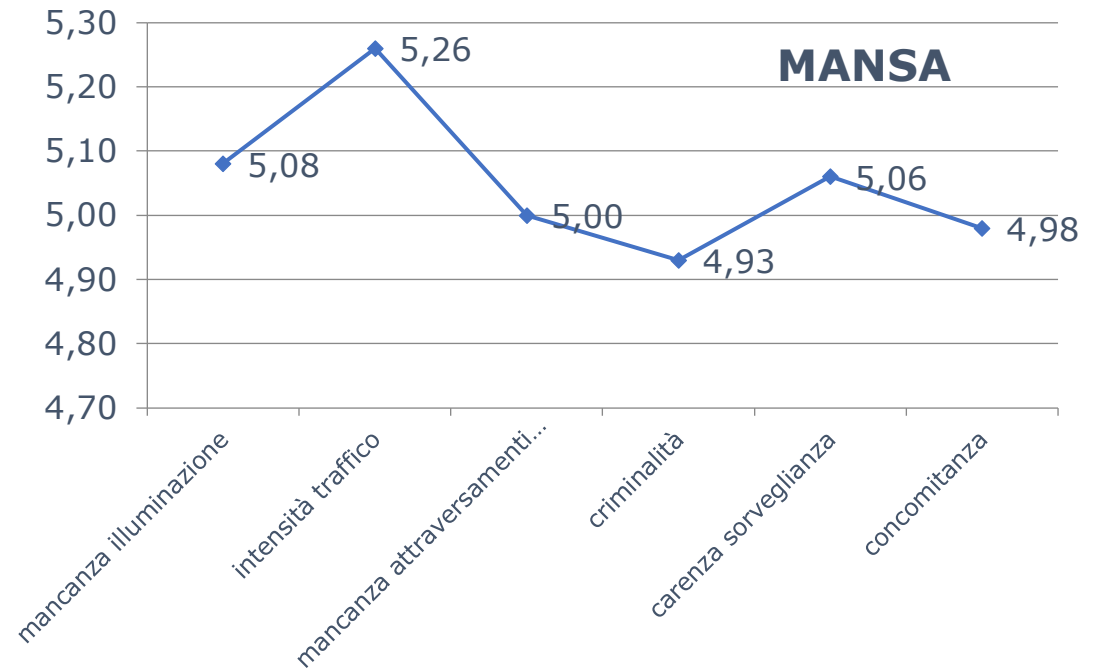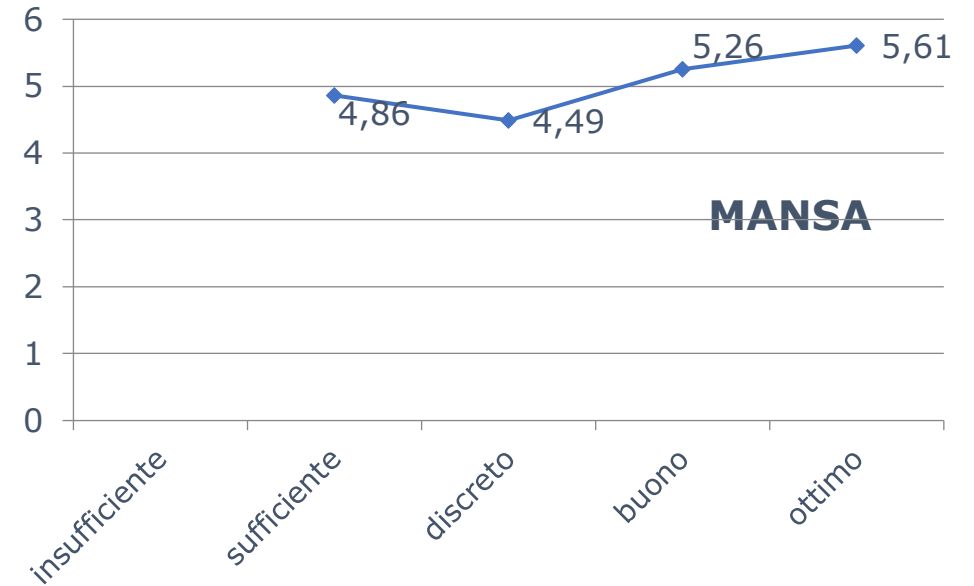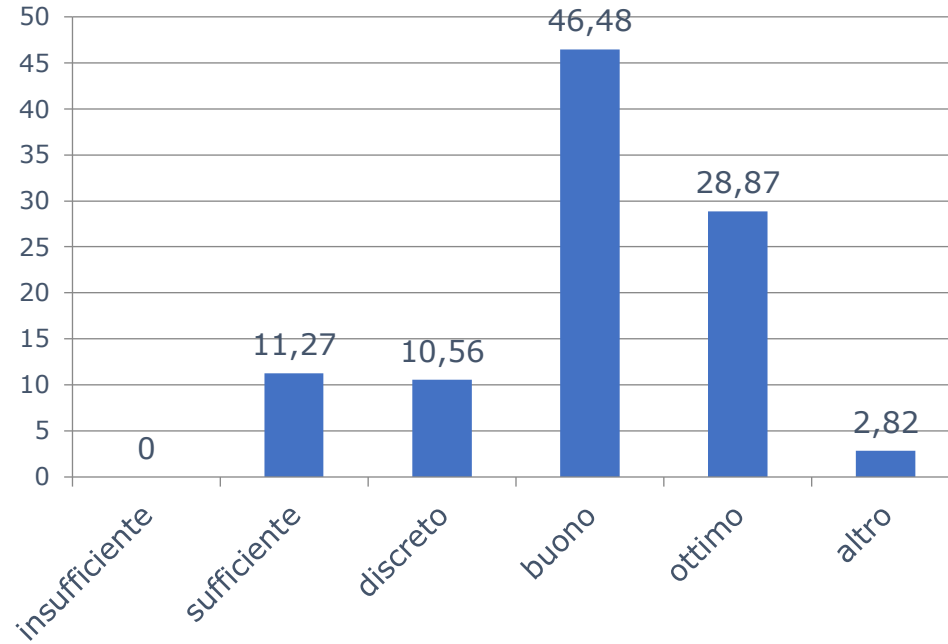
CONCLUSIONS

The results highlight some critical issues relating to the conditions of the house (mold and humidity in different rooms of the house, in over 20% of the houses, in most of which the inhabitants considered appropriate to use a dehumidifier). The pathologies reported by the interviewees (asthma, dermatitis, headache, allergies, etc.) partly reflect these environmental problems and are more evident where there has been a report of humidity and mold.

CONCLUSIONS

As regards the quality of life, most of the interviewees (82%) declare satisfaction, confirmed by the MANSA rating scale, with which an average score of 5.17 was achieved (mostly satisfied/pleased); 18% instead obtained an average score of 3.29 (mostly dissatisfied). The dissatisfaction is attributed to unpleasant odors in the home coming from tobacco smoke and from animals.

Analyzing the MANSA score obtained by the interviewees in relation to the sense of security perceived by the interviewees when walking on the street at night, the lowest values are found with regard to the signaling of a lack of pedestrian crossings, fear of crime and a lack of public surveillance.

The results obtained so far highlight the informative usefulness of the questions asked to the interviewees.

The evaluation of the perceived quality of life with the MANSA questionnaire provides added value to the results as it allows to quantify the data and put it in comparison with the results obtained with the other questions.

The examination of the results obtained so far, it is considered appropriate to broaden the number and "georeference" the questionnaires so that we can better understand everything.