Tartu Ülikooli sotsiaalteaduslike rakendusuuringute keskus RAKE

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This study is commissioned as part of the EVAPREM project. The main goal of this project is to develop a universal and comprehensive model for evaluating the results of prevention measures implemented by the fire rescue boards of European countries.

This country-specific study of Denmark has been done at Centre for Applied Social Sciences (RAKE) of University of Tartu, Estonia.

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The Centre for Applied Social Sciences (RAKE) was established in the University of Tartu in 2007. The fundamental goal of RAKE is to offer society high-quality applied research and analyses in social sciences.

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INTRODUCTION

This report is a detailed descriptive analysis of Latvia which is one of the five countries studied under the EVAPREM project.

The aim of the project is to deepen our understanding of the effectiveness and efficiency of the prevention services considering the corresponding socio-economic environment. The project will provide robust evidence and analysis to support policy-makers in understanding the impact of prevention and supports policy-makers at different administrative levels in elaborating and reshaping the selection of prevention services with providing cost-effective evaluation tools.

The main beneficiaries of the project would be the organizations responsible for planning and implementing the prevention measures in their respective countries on the national and local level as well as safety actors in European level. The direct beneficiaries will be populations of the participating countries and indirectly countries who will be adapting and using the evaluation tool afterward.

The survey is conducted in six statistical regions of Latvia. **State Fire and Rescue Service of Latvia (SFRS)** is the Latvian partner of the EVAPREM project. State Fire and Rescue Service of Latvia (SFRS) is informing population on topics of fire safety, personal safety and correct actions during emergency situations. The goal of prevention activities is to promote society's interest and better understanding of fire safety and civil protection. The target groups of prevention activities differentiate highly. Most of the Service is involved in prevention activities of some kind: e.g. the firefighters and dispatchers also receive questions. There is a Prevention and Public Relations division, which coordinates prevention activities and the Board of Fire Safety and Supervision, which organizes fire inspections and collects quantitative data on prevention.

State Fire and Rescue Service of Latvia uses three types of fire prevention activities: informing, teaching, and counselling.

- **Informing**. Informing activities in Latvia mainly target the whole population and take place all over the country.
- **Teaching.** Teaching activities are focused mainly on schoolchildren. All of the teaching activities are held throughout the country.
- **Counselling**. Counselling for target group representatives and partner's focuses on provision of advice on fire, water and bomb safety issues. During the counselling, target group representatives are offered with possible solutions to the problems identified and a coordinated effort from both sides is proposed.

The sample size of the study is 1104, which is efficiently collected from the six statistical regions of Latvia with 131 sampling points to reflect a wholesome characteristic of Latvia. The survey was conducted between 5th January and 17th January 2018. The survey is conducted by **Research Centre SKDS** using stratified random sampling method. Survey is done by personal (face-to-face) interviews at the places of residence of respondents. Throughout the study, a **weighing factor** is maintained to produce the most accurate result. The project is financed by the European Union and serves also as a Flagship project of the European Union Strategy for the Baltic Sea Region (EUSBSR).

# 1. TECHNICAL INFORMATION REGARDING THE QUANTITATIVE SURVEY

The sample size of Latvian study is 1104. All 1104 respondents were asked the same set of questions (see Questionnaire attached). The survey was conducted in all six statistical regions of Latvia. The six regions are Kurzeme, Zemgale, Latgale, Vidzeme, Pieriga and Riga (see Figure 1).

Figure 1.Six statistical regions of Latvia

Figure 2 shows the distribution of 1104 respondents among different statistical regions of Latvia. Riga has the highest number with 367 respondents while Vidzeme has the lowest respondent size with 109. The respondent size from six regions is in exact proportion to the population size of each region (see Table 1).

Regions
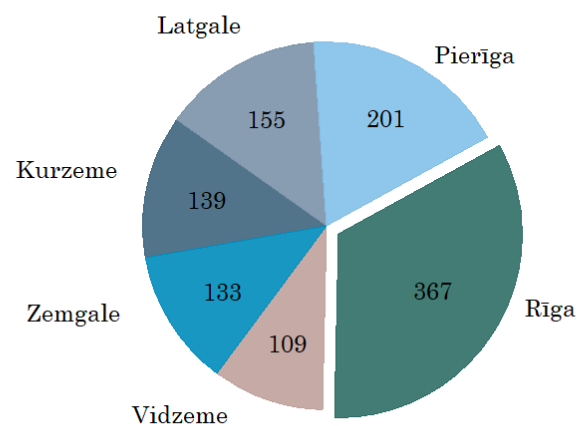
Total Number of Respondents = 1104

Figure 2. Samples from regions of Latvia

Table 1. Number of respondents from six municipalities (population as of 1st April 2014).

REGIONS	Respondents	Respondents (%)	Data from the Ministry of Interior, Population Register as of 13.02.2017. (in percentages)
Riga	367	33%	33%
Pieriga	201	18%	18%
Latgale	155	14%	14%
Kurzeme	139	13%	13%
Zemgale	133	12%	12%
Vidzeme	109	10%	10%
TOTAL	1104	100%	100%

From Table 1, it can be easily observed that the number of respondents from each region is in exact proportion to the population of these region, this is done to ensure the representativeness from Latvia.

In the survey, the **municipality** is also specified. The municipality of Riga has the highest number of the respondents which is 367 (approximately 33% of the total sample size), followed by the municipality of Ventspils with 38 respondents (see Table 2 in Appendix).

In addition to the region and Municipality, the **city** is also specified. The City of Riga has the highest number of the respondents which is 367 (approximately 33% of the total sample size), followed by the city of Daugavpils with 37 respondents (see Table 3 in Appendix).

The survey also focused on the **type of settlement** in which the respondent resides. Type of settlement is divided into three different groups. The groups are city areas, small towns and rural areas. More than half of the respondents have responded that they live in cities, the other half is divided between small towns, and rural areas (see Figure 3).

Type of Settlement
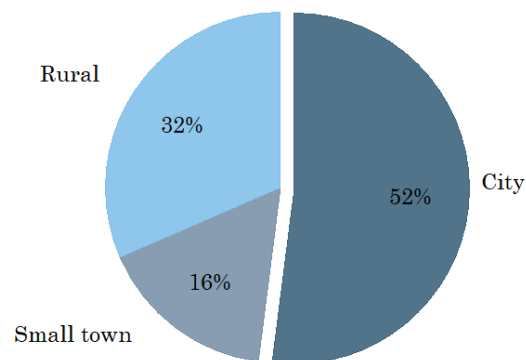
Total Number of Respondents = 1104

Figure 3. Type of Settlement

Figure 4 represents the information regarding **gender, the main language of communication, nationality and age group** of the 1104 respondents.
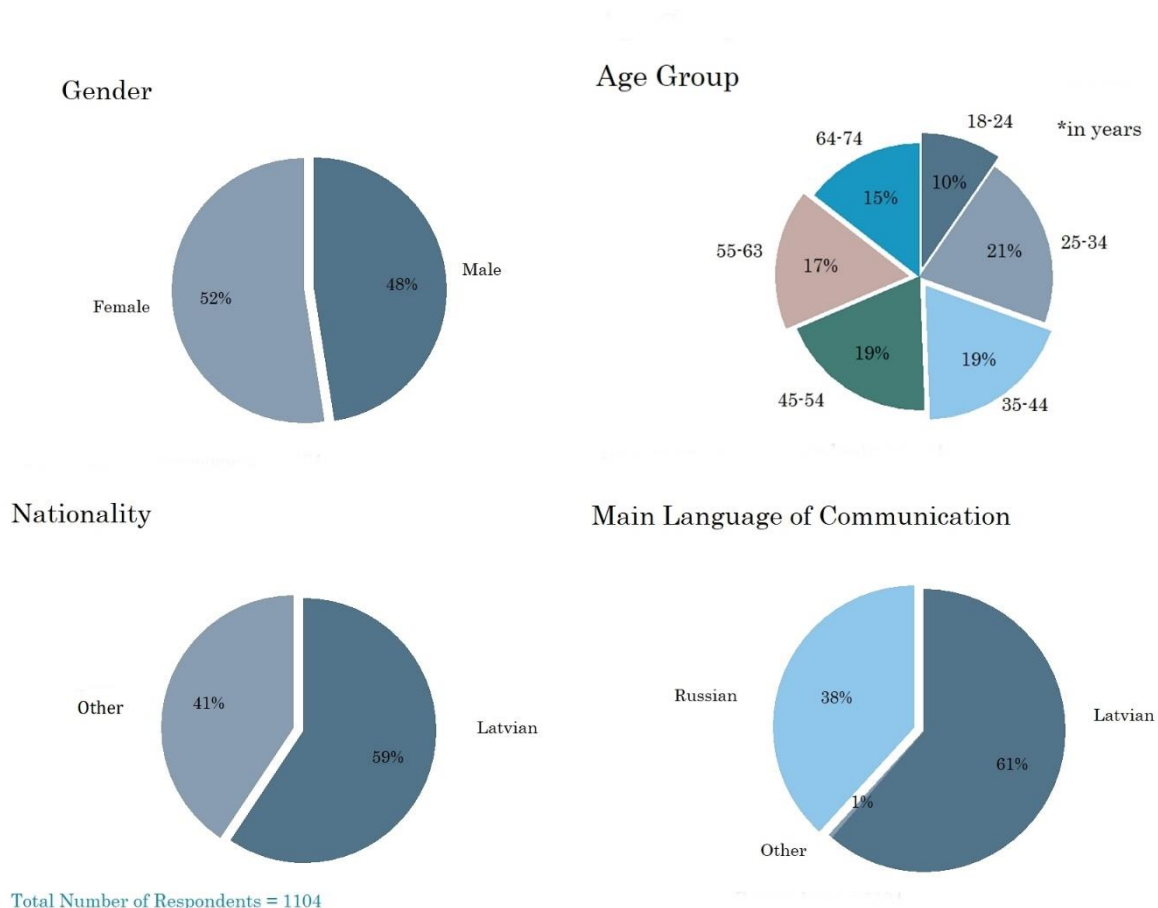

Figure 4. Gender, Age group, Nationality and main language of communication

Respondents are almost equally divided on the basis of **gender**, there are 579 females (52% of the respondents) and 525 males (48% of the respondents).

In terms of **nationality**, 59% of the respondents are Latvian while 41% answered that their nationality is other than Latvian. 61% of the respondents identified Latvian as their main **language** of communication while 38% said their main language of communication is Russian and 1% said it is other than Latvian and Russian.

The respondents are evenly distributed among different **age groups**. The age groups are 18-24, 25-34, 35-44, 45-54, 55-63 and 64-74. By comparing the respondent size with the population pyramid of Latvia, it can be seen that the proportion of population under survey which is aged between 18-74 is 73% of the population of Latvia. (see Appendix for Population Pyramid of Latvia)

1104 respondents are distributed among six different age groups in exact proportion to their share in the population pyramid of Latvia with a minor exception of age group 25-34 which is overrepresented by approximately 1% (see Table 4).

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Table 2. Age Group based distribution of samples.

Age Group	Sample(%)	Population Pyramid (%)	% in Population under survey
18-24	10	7.04	9.68
25-34	21	14.6	20.07
35-44	19	13.4	18.42
45-54	19	13.7	18.83
55-63	17	12.78	17.57
64-74	15	11.22	15.42
TOTAL	100%	72.74% of Total Pop.	100

2. BACKGROUND OF THE RESPONDENTS

Figure 5 shows the **type of home** in which the respondent resides. There are three categories: "Apartment block with more than 8 apartments" is the most common one as 75% of the respondents reside in this type of home. The proportion of single-family house in Latvia is 28%[1] but in our study, the proportion of single-family house is 16%, probably due to the face-to-face data collection method, which entails the risk of receiving results from bigger apartment blocks. For the same reason, the proportion of Apartment block with more than 8 apartments in Latvia is 68% against 75% in the study (see Figure 5).

Do you live in a … ?

Apartment block with more than 8 apartments 75%

Single family home 19%

6%

Semi-detached house, terraced house, apartment block with less than 8 apartments
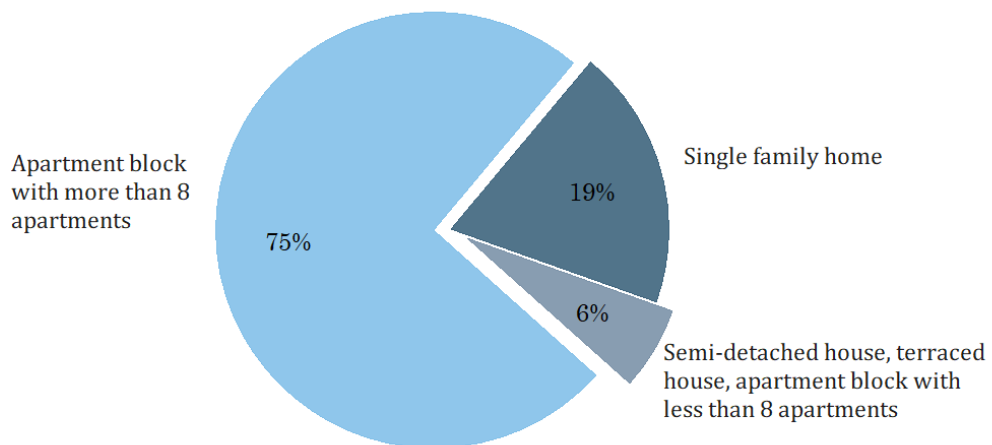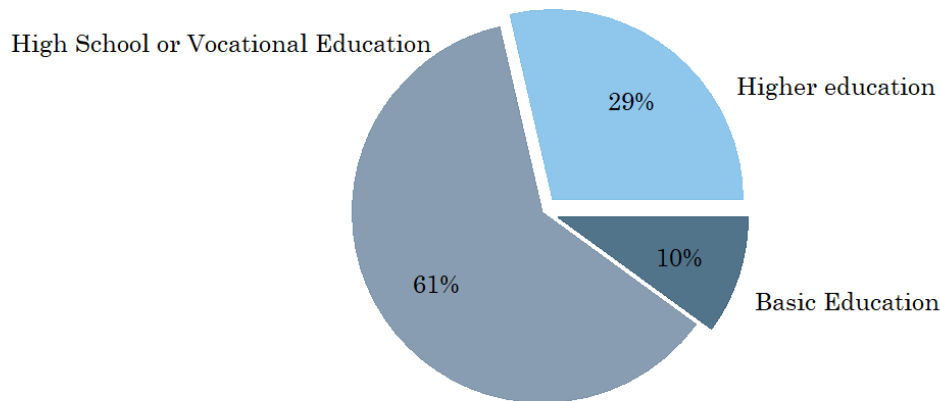
Total Number of Respondents = 1104

Figure 5. Type of home

Figure 6 shows the **education level** of the respondents. Out of 1104 respondents, 61% has High School or Vocational Education, 29% has Higher Education while 10% have attained basic education level (see Figure 6).

[1] Population and Housing Census 2011, Central Statistical Bureau of Latvia (CSB). See Appendix for more information.

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Which education-level have you obtained?

High School or Vocational Education

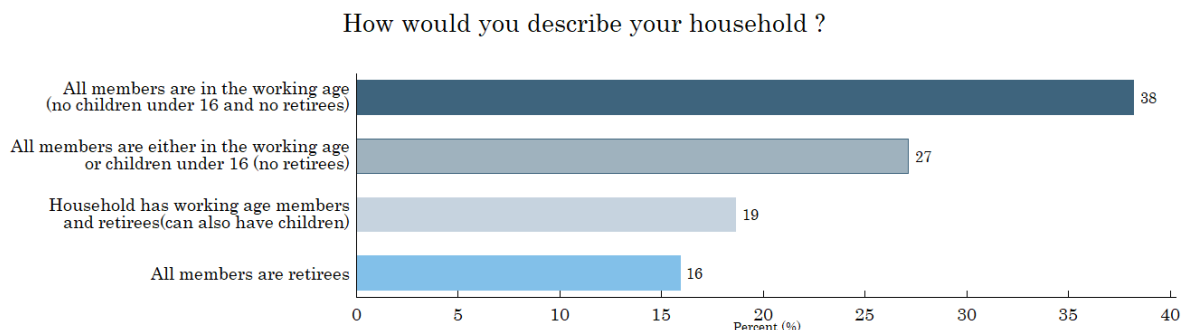Higher education

29%

10%

Basic Education

61%

Total Number of Respondents = 1104

Figure 6. Education level

Figure 7 and 8 give a structural composition of the family of the respondents.

Figure 7 represents the **labor market status of the respondent's family**. 38% of the respondents only have working members (no retirees or children), 27% of the respondents either have all working member or children. 19% of the respondents have working members and retirees and may also have children. In 16% of the respondents, all the family members are retired.

62% of the respondents said that they have either children or retirees or both in their household. The focus of our study is children and elderly people (retirees) who are the most vulnerable to a fire accident. The policymakers should formulate the policy keeping in mind the relative vulnerabilities of different risk groups, e.g. children and elderly people (see Figure 7).

How would you describe your household ?

All members are in the working age (no children under 16 and no retirees)	38
All members are either in the working age or children under 16 (no retirees)	27
Household has working age members and retirees(can also have children)	19
All members are retirees	16

Percent (%)

Base: All Respondents, n=1104

Figure 7. Labour market status

Figure 8 shows the **household size of the respondents**. 32% of the respondents just have 2 members in the household, while 18% just had one. The proportion of 3-member household and 4-member household is 24% and 17% respectively. Just 9% of the respondents have a relatively large of 5 or more than 5 family members in the household (see Figure 8).
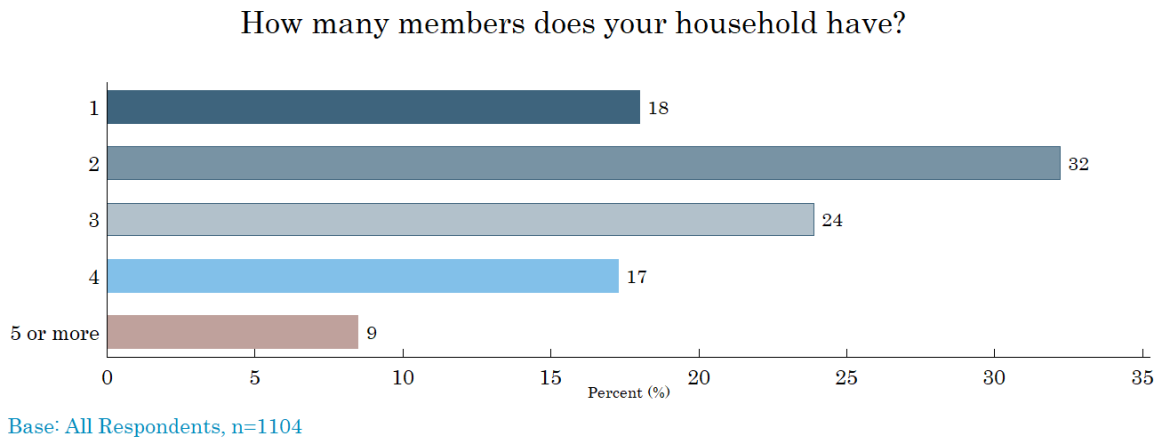
How many members does your household have?

Base: All Respondents, n=1104

Figure 8. Household size

Figure 9 represent the **current employment status of the respondents**. Almost six-tenth (59%) of the respondents are wage workers, while 21% of the respondents are retired. 4% are self-employed and 1% are students. 7% of the respondents are unemployed. Out of 1104, 4% are just **at home** and the same proportion of respondent is on child care leave (home with children) (see Figure 9).

Which status would describe you the best?

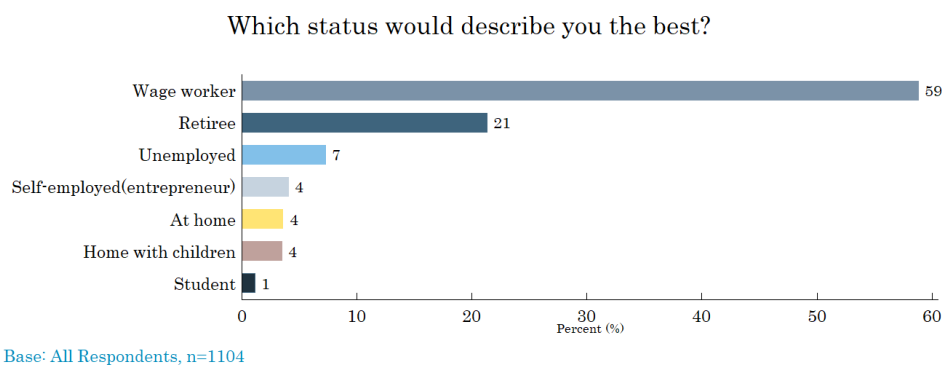Base: All Respondents, n=1104

Figure 9. Employment Status

Out of 1104 respondents, the number of people who are working and whose job position is available in the survey is 663. Figure 10 shows the **different position at which 663 working people are**

employed. 49% of the respondents are top specialist, while 44% are skilled workers. Top level management position has been taken by 8% of the respondents respectively (see Figure 10).

In which position are you working?

Top Management

8%

Top Specialist 49%

44%

Skilled Worker
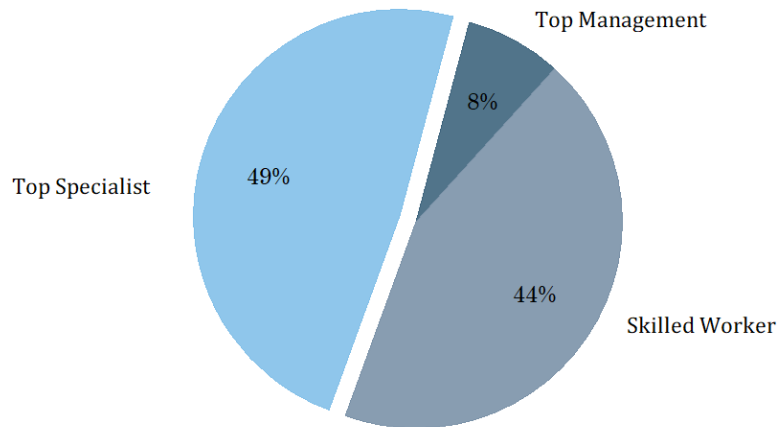
Base: Those who are working with specified working position, n=663

Figure 10. Position of the working respondent

Figure 11 shows **the per capita income level of the respondents**. More than one-fifth of the respondents have the highest per capita income (5 is the highest level of income). 20% of the people said that it is difficult to say how much is the households' income per member. (see Figure 11).

How high was your households' income per member?

1	4
2	17
3	22
4	14
5	22
Difficult to Say	20

Percent (%)
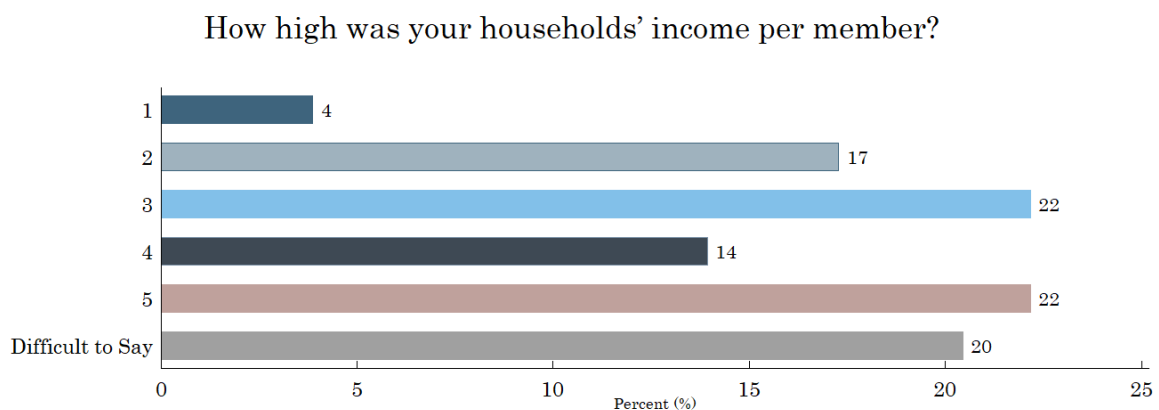
Base: All Respondents, n=1104

Figure 11. Income level

Figure 12 displays the **participatory level of the respondents in different types of activities**.

Regarding **attending cultural events (such as theatres, cinemas, museums, libraries, art exhibitions, concerts) or participating in non-professional cultural activities**, 18% of respondents answered that they are doing it "very often" or "quite often". Most often participation in this kind of activities are less

frequent (answers "sometimes" or "very seldom" were marked by 66%). 16% of the population replied that they never visit such events.

According to the study carrying out some **household improvement projects (like renovation, decoration, spring cleaning, gardening, repairing)** is relatively most popular activity from the list: "very often" and "quite often" in such projects are involved 22% of respondents, 63% answered "sometimes" or "very seldom", while 14% admitted that they do not perform such kind of projects at all.

23% also answered that when they go **shopping**, they "very often" or "quite often" **choose products based on extra qualities (such as health impact, ecological footprint, your type of brand, local origin, fair trade)**. 59% said that they do it "sometimes" or "very seldom", while 18% have not done it at all.

When asked how often they **go out with their friends or acquaintances (to the cafe, restaurant, nightclub, pub)**, only 13% thought that it is "very often" or "quite often". More than half (56%) answered that it happens less frequently (answers "sometimes" or "very seldom") and 31% answered that they never do it (see Figure 12).

Please describe how often do you perform these activities

| | Not at all | Very Seldom | Sometimes | Quite often | Very often |

	Not at all	Very Seldom	Sometimes	Quite often	Very often
How often do you visit cultural events (such as theatres, cinemas, museums, libraries, art exhibitions, concerts) or participate in non professional cultural activities?	16	27	39	16	2
How often do you come up with household improvement projects (such as renovation, decoration, spring cleaning gardening, repairing)?	14	22	41	19	3
When you go shopping, how often do you choose products based on extra qualities (such as health impact, ecological footprint, your type of a brand, local origin, fair trade)?	18	25	34	19	4
How often do you go out with your friends or acquaintances (to cafe, restaurant, nightclub, pub)?	31	25	31	11	2

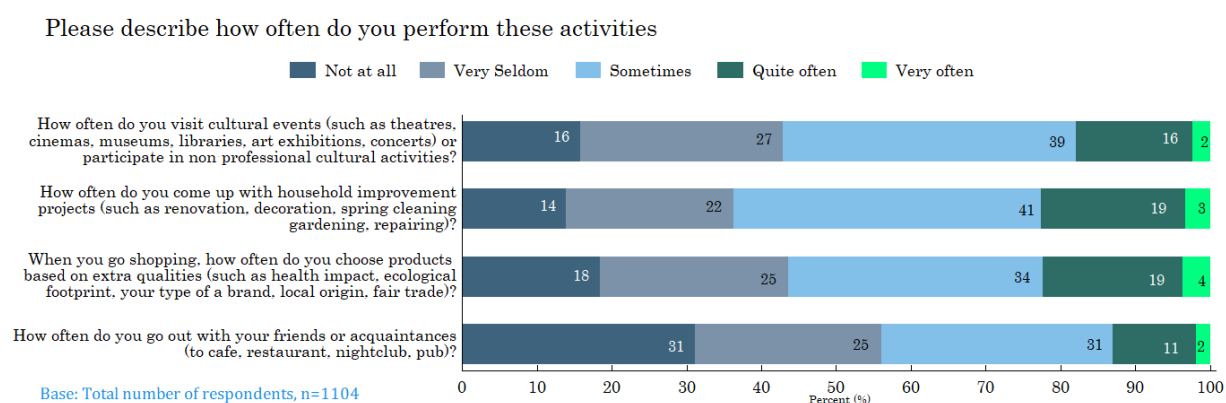Base: Total number of respondents, n=1104

Percent (%)

Figure 12. Participation in activities

Characterizing their **involvement in different kinds of civic organizations**, 79% answered that they do not take any part in this activity at all. 15% mentioned that they participate in one, 3% - in two, 1% - in three, while 2% answered that they are members of or take part in more than three organizations (see Figure 13, left).

According to survey data, 9% of the population do not follow **the news** at all. At least once a day the actual information is received by 91% of respondents: 41% answered that they read, watch or listen to the news once a day, 26% - that they do it twice a day, 11% - three times per day, while 14% replied that they do it more than 3 times a day (see Figure 13, right).

How many different civic organizations do you take part in or are a member of (such as societies of profession, hobbies, sports clubs, religion, communities, people of special needs, or other NGOs)?
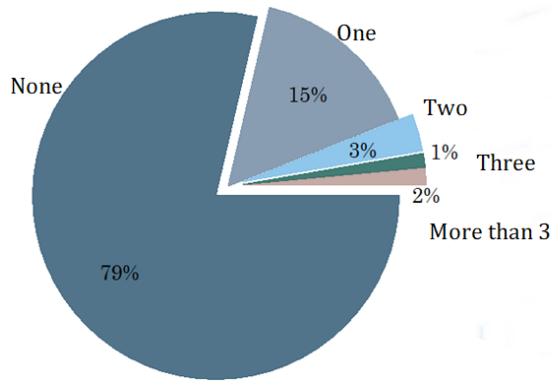
How many times per day do you usually keep up with (read, watch or listen to) the news?
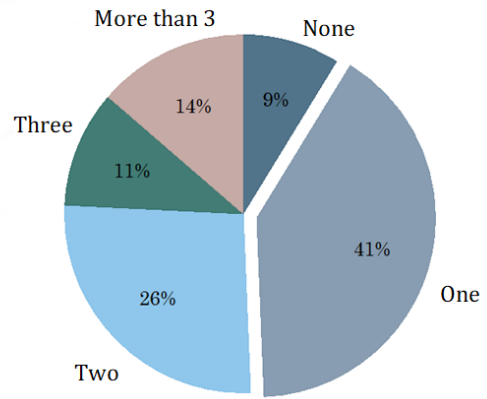
Base:All respondents, n=1104

Figure 13. Membership and News

3. MAIN RESULTS OF THE QUANTITATIVE SURVEY

Around 27% recognized the **smoke detector's fire alarm**. While majority of the respondents, 35% indicated that it is some kind of danger-risk alarm, 9% - that it is a sound of the security/burglar alarm, 2% - that it is the alarm of the empty battery of a smoke detector or a similar device. About 9% of the respondents said it is some other sound. 18% said they cannot recognize it. So about three-fourth of the respondents failed to recognise the sound of smoke detector's fire alarm (see Figure 14).

Assuming you hear this sound [the smoke detector fire alarm will be played], what is the issue?

Base: All Respondents, n=1104
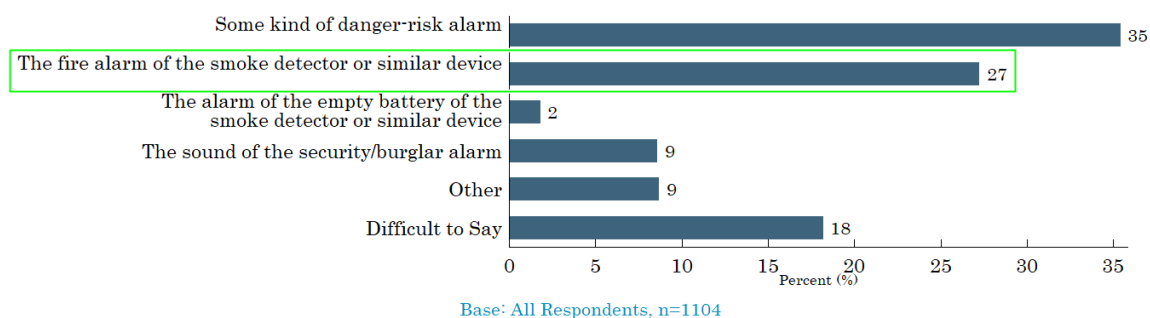
Figure 14. The sound of the smoke detector fire alarm

The **smoke detectors sound of an empty battery**, in turn, was recognized by 18% of study participants. 11% considered the sound to be an alarm for some kind of danger-risk, 4% - the sound of the security/ burglar alarm, but 3% - a fire alarm of a smoke detector or a similar device. About 8% said it is some other sound while more than half, 56% said it is difficult to say. So, about 82% of the respondents failed to recognize the sound of an empty battery (see Figure 15).

Assuming you hear this sound [the sound of empty battery of the smoke detector will be played], what is the issue?

Base: All Respondents, n=1104

Figure 15. Empty battery alarm

Asked **whether during the last year they have discussed the fire safety and how to act in case of the fire**, the majority (68%) of respondents marked that none of these topics have been discussed at their home. 19% of respondents indicated that the fire safety issues have been discussed and 13% noted that proper behaviour in case of the fire has been discussed at home. In total, the fire safety related discussion took place in just 27% of the households (see Figure 16).
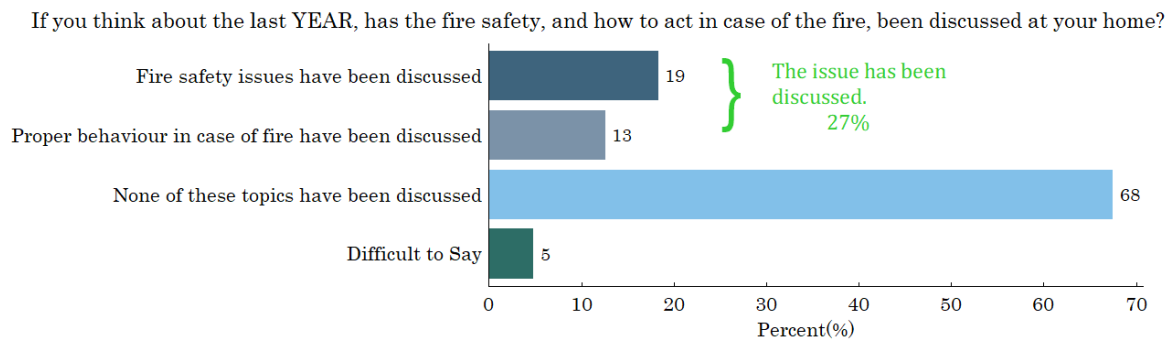
If you think about the last YEAR, has the fire safety, and how to act in case of the fire, been discussed at your home?

Category	Percent
Fire safety issues have been discussed	19
Proper behaviour in case of fire have been discussed	13
None of these topics have been discussed	68
Difficult to Say	5

The issue has been discussed. 27%

Base: All Respondents, n=1104

Figure 16. Fire safety discussion
*Since each respondent could mark more than one answer, the total percentage of the graph exceeds 100%.

When asked **how interested they are in receiving information on fire safety**, in general, 74% said that they are interested ("very interested" and "relatively interested"). The lack of interest ("not interested at all" and "relatively not interested") was admitted by just 18% of the participants of the study (see Figure 17).

How interested are you in receiving information about fire safety, assuming this will be delivered from a preferred medium?

Very interested — Relatively interested — Relatively not interested — Not interested at all — DIFFICULT TO SAY

20%
7%
5%
13%
54%

Not Interested 18%

Interested 74%
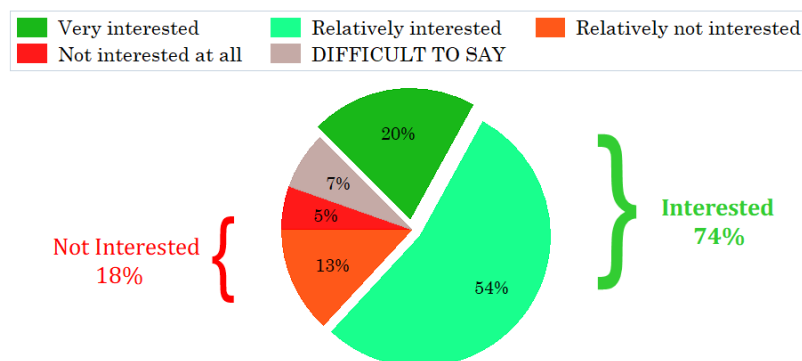
Base: all Respondents, n=1104

Figure 17. Fire safety information

When asked **whether they have children aged 5-15 in their household**. 30% of the respondents answered in affirmative while 70% said that they do not have children aged between 5-15 years. Respondents who replied that there are children aged between 5 and 15 in their household (n=320) were asked to indicate whether they have **received information on fire safety from their children** who attend a kindergarten or a primary school, 47% of respondents replied that they have received it. About 42% of study participants who replied that there are children aged between 5 and 15 in their

household answered that the information on fire safety from their children has not been received. 4% of the respondents said that their children do not go to kindergarten or primary school (see Figure 18).

How do you assess the importance of fire extinguisher at your home?

Have you received information regarding fire safety from your children from kindergarten or from primary school ?

YES — My child does not go to kindergarten or primary school
NO — Difficult to Say

47%
42%
4% 7%
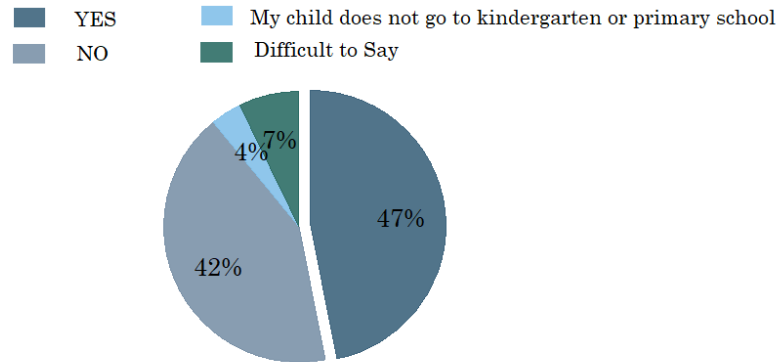
Base: Respondents who has a child at home aged 5-15 years, n=320

Figure 18. Fire safety in school

According to the survey, 64% of respondents replied that it is **important** (answers "very important" and "relatively important") **to have a fire extinguisher in their home**. The opposite opinion (answers "relatively unimportant" and "not important at all") have 28% of study participants (see Figure 19).

How do you assess the importance of fire extinguisher at your home?

Not important at all — Relatively unimportant — Relatively important
Very important — DIFFICULT TO SAY

6%
10%
22%
22%
42%

Not Important 28%
Important 64%
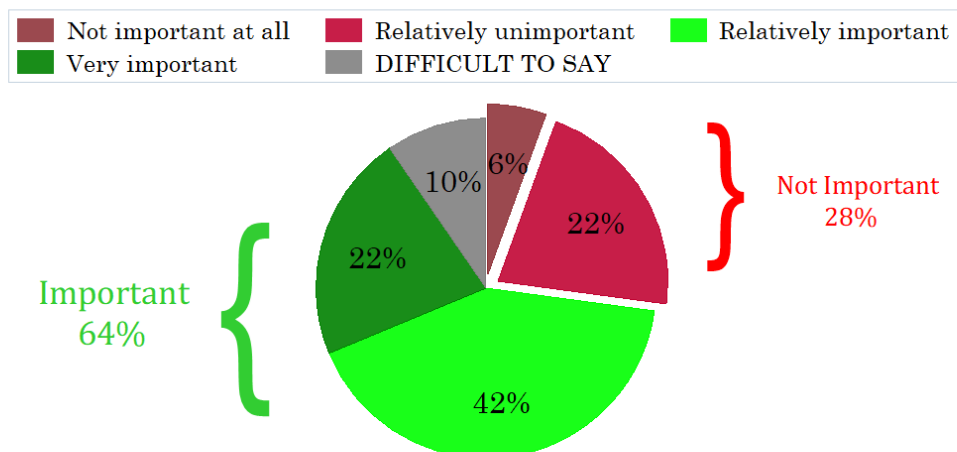
Base: All Respondents, n=1104

Figure 19. Importance of fire extinguisher

Asked whether or not they **have a fire extinguisher in their home**, 13% of respondents replied that they have one, but 86% - that they do not. While 1% of the respondents said it is difficult to say whether they have a fire extinguisher at home or not (see Figure 20).

There is a statistically insignificant difference between the groups who think that fire extinguisher is important and actually having one at home in comparison to those who do not think it is important and do not have it at home (χ^2-test = 3.65 with a probability of 0.056, insignificant result at p=0.05).

So, one can conclude that if the respondents even say that fire extinguisher is important then they might not have a fire extinguisher (see Appendix for statistical test).

Is there a fire extinguisher in your home? (in case of an apartment a fire extinguisher inside the apartment)
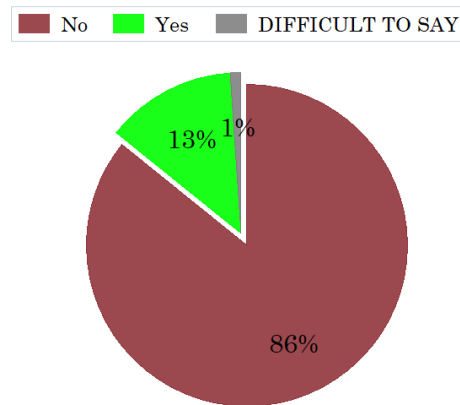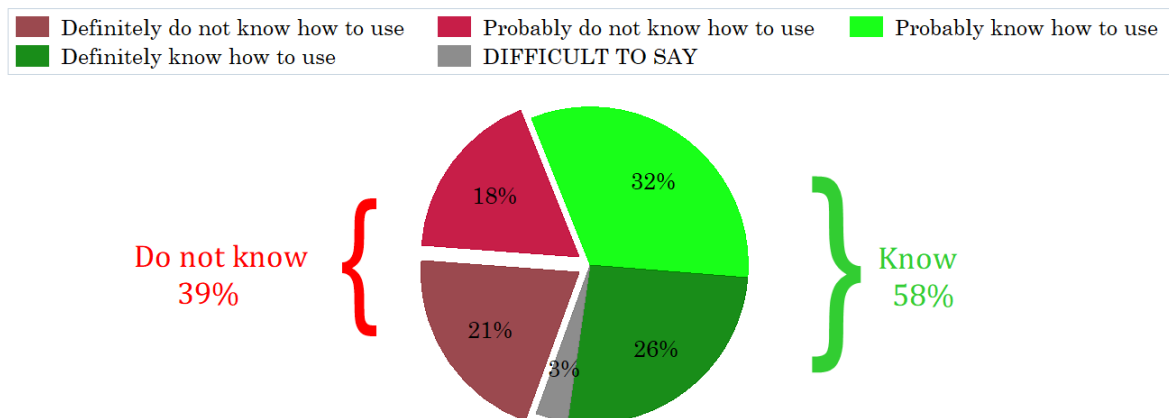

Base: All Respondents, n=1104

Figure 20. Availability of fire extinguisher

In total, 58% of respondents indicated that they have **competence in using fire extinguisher** (answers "definitely know how to use" and "probably know how to use") and 39% noted that they do not know how to use it (answers "definitely do not know how to use" and "probably do not know how to use"). While 3% said it is difficult to ascertain their competence in using a fire extinguisher (see Figure 21).

How do you assess your competence in using fire extinguisher?
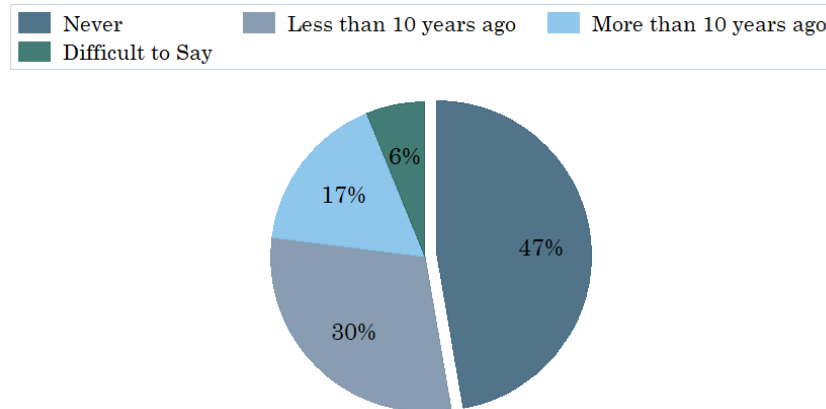

Base: All Respondents, n=1104

Figure 21. Competence in using fire extinguisher

When asked to indicate when was **the last time they have used a fire extinguisher in training or in the real situation**, 47% of respondents replied that they have never used it. 30% indicated that they have used a fire extinguisher less than 10 years ago, but 17% have had such an experience more than 10 years ago while for 6% it is difficult to say when they used one (see Figure 22).

The relationship between respondents who said that they know how to use the fire extinguisher ("Definitely know how to use" and "Probably know how to use") and those who have used them ("Less than 10 years ago" or "More than 10 years ago") in past is statistically significant (χ^2-test = 15.3483

with a probability of 0.000 at p=0.05). Thus, one can conclude that if the respondents says they have used fire extinguisher in past then it is more likely that they know how to use a fire extinguisher (see Appendix for the statistical test).

When was the last time you used a fire extinguisher, in training or real situation?

| ■ Never | ■ Less than 10 years ago | ■ More than 10 years ago |
| ■ Difficult to Say | | |

6%
17%
47%
30%

Base: All Respondents, n=1104

Figure 22. Last using a fire extinguisher

According to the survey, **68%** of respondents replied that it is **important** (answers "very important" and "relatively important") **to have a smoke detector at home**. The opposite opinion (answers "relatively unimportant" and "not important at all") had 23% of study participants. While 9% of the respondents find it difficult to say whether a smoke detector is important or not (see Figure 23).

How do you assess the importance of smoke detector at your home?

| ■ Not important at all | ■ Relatively unimportant | ■ Relatively important |
| ■ Very important | ■ Difficult to Say | |

Not important
23% {
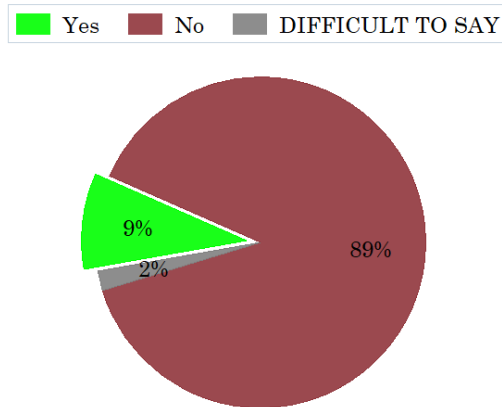17%   47%
6%
9%
21%   } Important
68%
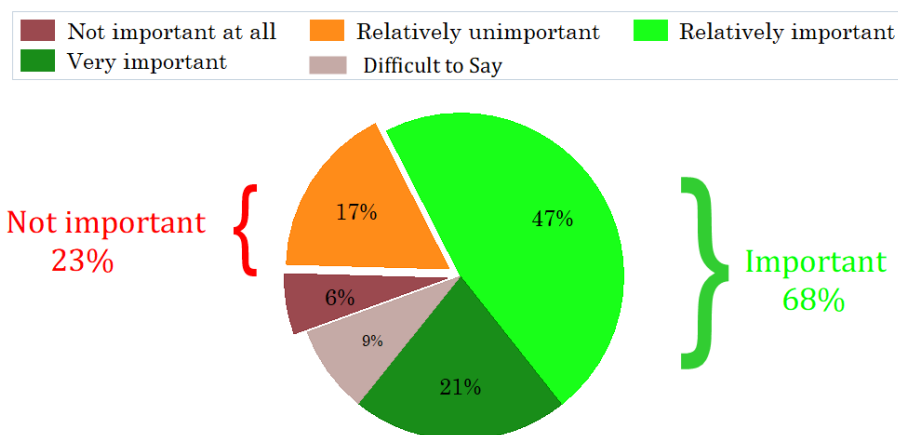
Base: All Respondents. n=1104

Figure 23. Importance of smoke detector

About 90% of respondents indicated that **they don't have a smoke detector in their home**. The fact that there is smoke detector was mentioned by just 9% of the study participants (see Figure 24).

Has smoke detector or other fire detection device been installed at the ceiling of your current home? [This might be also a part of the security system]


Base: All Respondents, n=1104

Figure 24. Smoke detector in the home

The relationship between respondents who said that they think that smoke detector is important and those who also replied that they have smoke detector installed in their home is statistically significant (χ^2-test = 28.0006 with a probability of 0.000 at p=0.05). Thus, one can conclude that if the respondents says that smoke detector is important then they are more likely to have it installed in their home (see Appendix).

The respondents who indicated that they **do not have a smoke detector** in their home (n=980) were asked to name the main reasons for that. The data shows that the most frequently respondents mentioned lack of time (19%) and other reasons (19%), but 16% do not believe that smoke detector would help and 2% of them used to have it but now it is removed. 12% mentioned that they do not know how to install it, 8% indicated that it is difficult to choose what would be the best buy (which manufacturer or model), 8% - that nothing is available with suitable price. 17% said it is difficult to say why they do not have it (see Figure 25).

Which of the following statements is the main reason you have not installed smoke detector in your home?
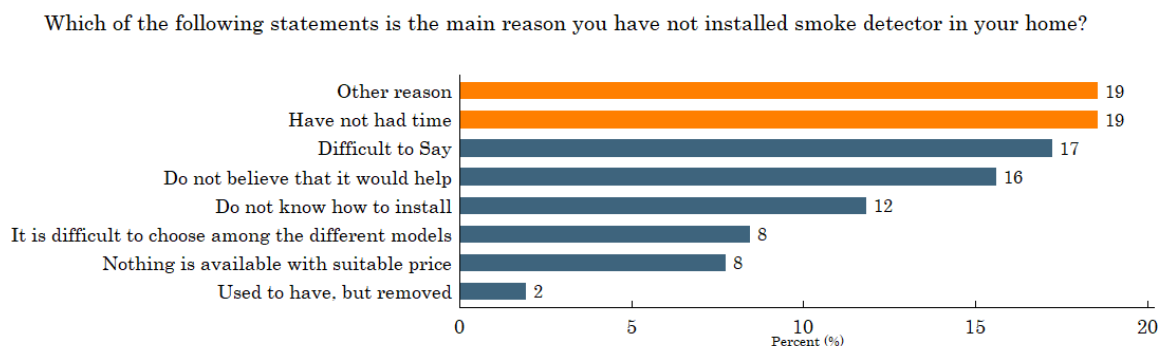
Base: Respondents who do not have smoke detector at their home, n=980

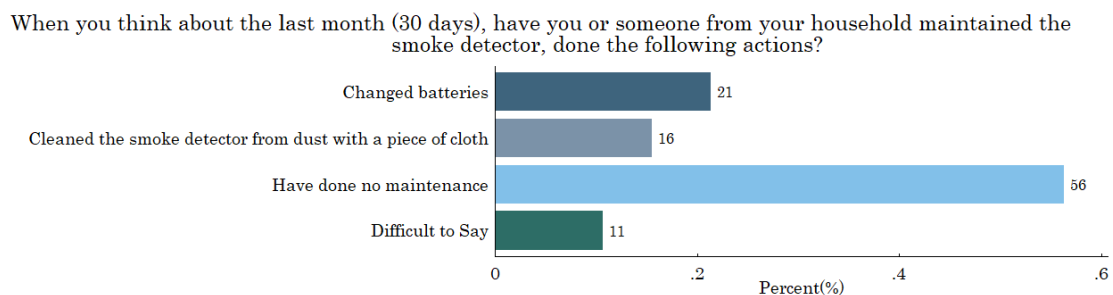Figure 25. Main reason for not installing smoke detector

In answering the question "**When you think about the last month (30 days), have you or someone from your household controlled the working condition of the smoke detector (pushing the test button)?**", 30% of respondents who have a smoke detector marked that they have done it by themselves and 17% - that somebody else from the household have done so. About half (47%) of respondents indicated that nobody has controlled the working condition of the smoke detector during the last month (see Figure 26).

When you think about the last month (30 days), have you or someone from your household controlled the working condition of the smoke detector (pushing the test button)?
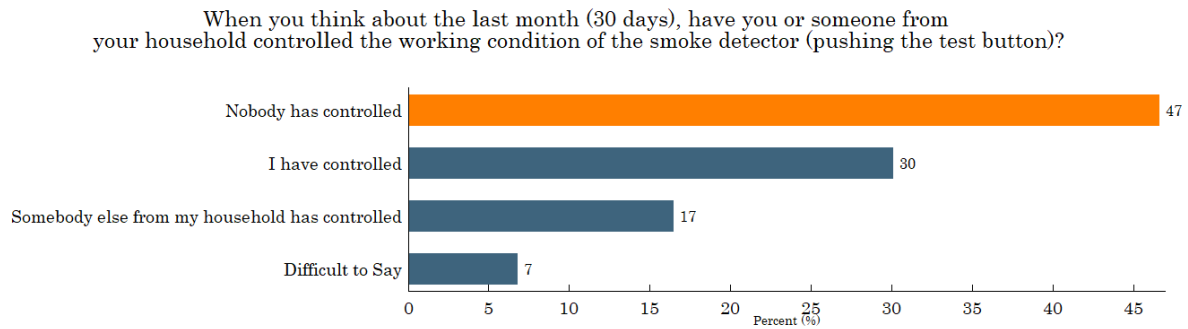
Base: Respondents who have smoke detector at their home, n=103

Figure 26. Pushing test button

Asked about doing **smoke detector's maintenance in the last month** to the respondent who has smoke detectors in their home and it was controlled in last 30 days (n=103), 21% of respondents indicated that they have changed the batteries. 16% of respondents marked that the smoke detector has been cleaned with a piece of cloth. More than half, 56% respondents indicated that they have done no maintenance (see Figure 27).

When you think about the last month (30 days), have you or someone from your household maintained the smoke detector, done the following actions?
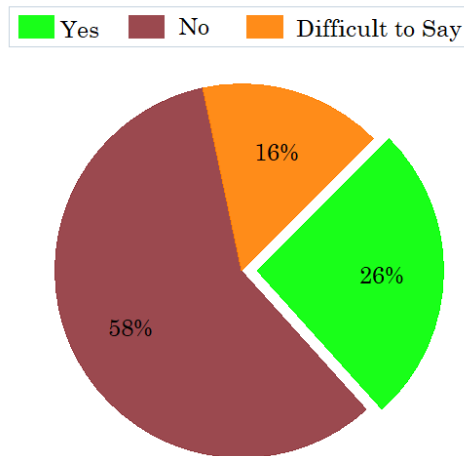

Base: Respondents who have smoke detector at their home and it was controlled by some person in last 30 days, n=103

Figure 27. Maintenance of smoke detector

According to the study, when asked has there been conducted wiring inspection in their home in the last five years? 26% of respondents indicated that they had a wiring inspection in last five years in their home, but 58% - said that there was no wiring inspection conducted during last five years in their home. While 16% said that it is difficult to answer this question (see Figure 28).

Have you or someone else swept the chimneys of your heating system in the last two years?
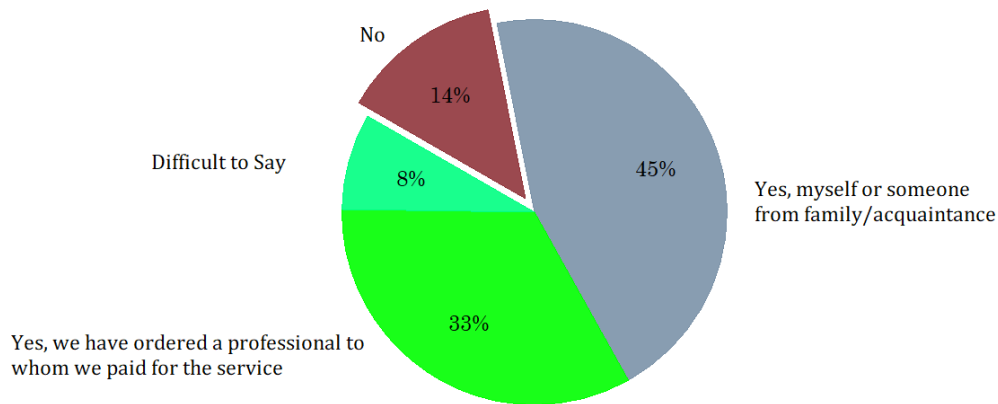
Base: Respondents whose house has gas heating, a stove heating or a fireplace, n=333

Figure 30. Swept the chimneys

Respondents, whose house is equipped with gas heating, stove heating or a fireplace and who have swept chimneys by themselves or it has been done by someone of family/acquaintances or no one has done it in the last two years, were asked whether **they have hired a professional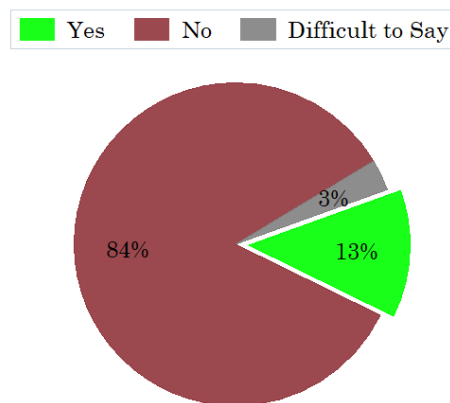 in the last five years to clean the chimneys and inspect the heating system**. The survey shows that 13% have done it and 84% have not paid to a professional for this service in the past five years (see Figure 31).

Thinking back to five last years, have you ordered a professional to sweep your chimneys and inspect the heating system?

Base: Respondents whose house has gas heating, a stove heating or a fireplace and who have swept the chimney by or by someone from family/acquaintance have swept or have ordered a professional service to sweep the chimney, n=195

Figure 31. Responses of respondents whose chimney was not swept by a professional in last 2 years

Asked **whether they or someone from their household sometimes smokes indoors**, 15% answered that they themselves smoke indoors and 9% - that a member of the household does it. Another 19% mentioned that they or someone from the household smokes but not indoors. 59% of respondents answered that there are no smokers in the household. Overall 21% of the respondents said the smoking is done inside (see Figure 32).

Do you, or someone from your household smoke sometimes inside? (option a and b can both be chosen)
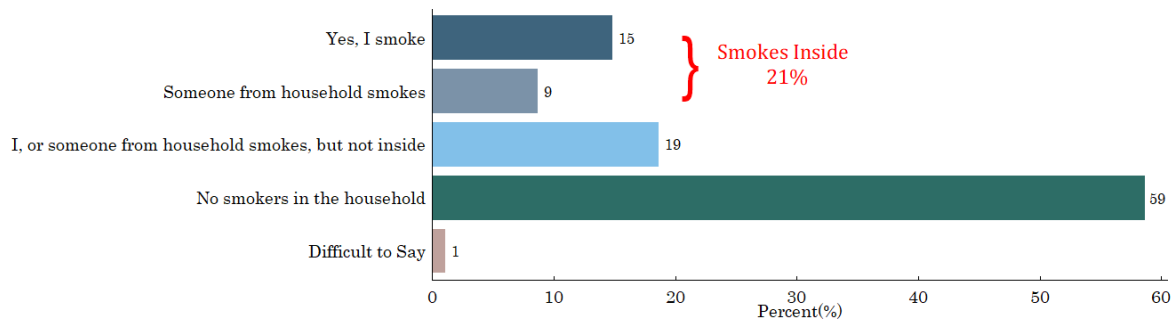
Base: All respondents, n=1104
*Since each respondent could mark more than one answer, the total percentage of the graph exceeds 100%.

Figure 32. Smoking

According to the survey, in the case of fire, **75% of respondents would call** 112 which is the correct emergency number to dial in case of a fire emergency. Number 01 would be called by 5% of respondents, 4% would call 113, 3% - number 110. It should be noted that 6% (61 out of 1104) of respondents abstained from naming a specific phone number to which they would call in the case of fire.

According to the survey, 56% of respondents have come across to **activities provided by a fire authority over the last two years**. Most frequently respondents have indicated that they have noticed the campaign about harmfulness of the grass fire "Don't burn your land!" (23%). The campaign about fire safety during the heating period was noticed by 15% of respondents, the campaign about safety on the water - by 14%, and the campaign about proper action after a road traffic accident – by 8%. Coming across to post-event information in mass media was marked by 23% of respondents, 17% indicated noticing safety tips in mass media before holidays, 12% -information in social networks, 10% - seminars on fire safety in workplaces, 10% of respondents have attended training.

Other, which is 14%, includes 3% - attended a fire evacuation drill, 3% - lectures on fire safety in educational institutions, 3% have come across inspections in the facilities by fire safety inspectors, 2% - 112 Day, 1% have been visited at home (e.g. inspection in residential sector), 1% have come across to Open Doors Day (see Figure 33).

Thinking back to last two years, have you come across to any activities provided by a fire authority? If so, which ones?
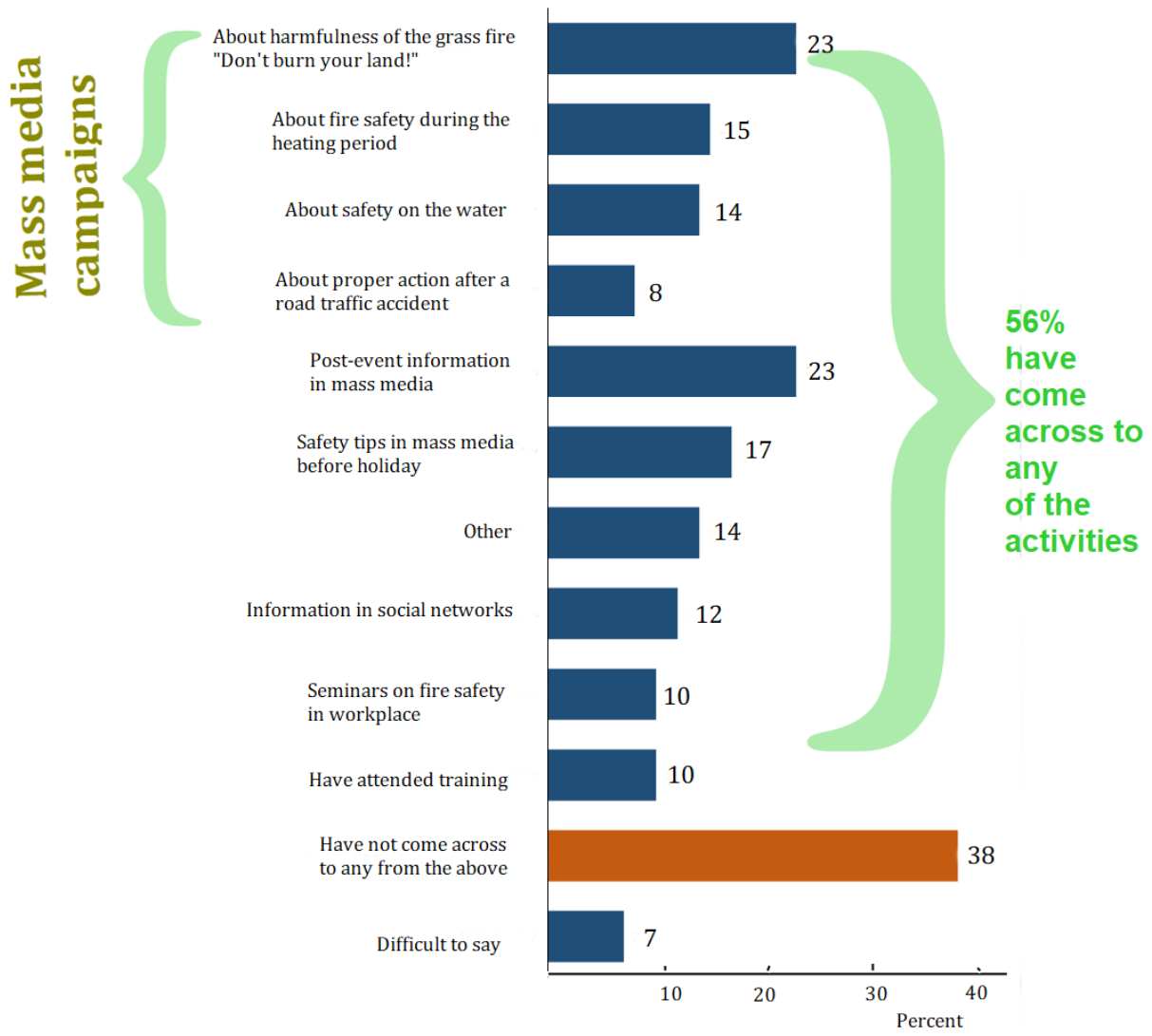
Figure 33. Activities by Fire Authority

Base: all respondents, n=1104

*Since each respondent could mark more than one answer, the total percentage of the graph exceeds 100%.

When asked "How long can a **sleeping person survive in case a fire starts** in the very same room?", 44% answered that they do not know. 30% of the respondents chose the **correct** answer that a sleeping person would survive for 5 minutes. Still - 18% believed that the right answer is 10 minutes, and 8% thought that in such conditions a sleeping person would be able to survive even longer – for 15 minutes (see Figure 34).

How long can a sleeping person survive in case a fire starts in the very same room?
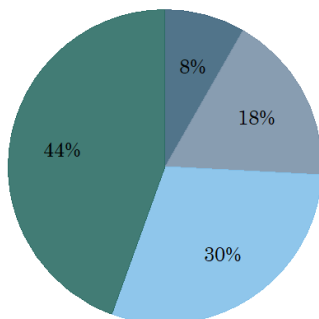
Base: All respondents. So, n=1104

Figure 34. Survival in case of fire

APPENDIX

Table 3. Municipality of Latvia

Municipality or County	Frequency	Percent	Cumulative Freq.
Rīga	367	33.24	33.24
Ventspils	38	3.44	36.68
Daugavpils	37	3.35	40.03
Gulbene	36	3.26	43.29
Jelgava	33	2.99	46.28
Rēzekne	28	2.54	48.82
Jēkabpils	26	2.36	51.18
Aloja	25	2.26	53.44
Jūrmala	25	2.26	55.7
Brocēni	24	2.17	57.87
Krustpils	24	2.17	60.04
Liepāja	24	2.17	62.21
Alūksne	23	2.08	64.29
Madona	22	1.99	66.28
Balvi	20	1.81	68.09
Carnikava	19	1.72	69.81
Dobele	18	1.63	71.44
Grobiņa	18	1.63	73.07
Ilūkste	17	1.54	74.61
Krāslava	16	1.45	76.06
Mālpils	15	1.36	77.42
Salaspils	15	1.36	78.78
Sigulda	15	1.36	80.14
Alsunga	13	1.18	81.32
Krimulda	12	1.09	82.41
Mārupe	12	1.09	83.5
Ogre	12	1.09	84.59
Ozolnieki	12	1.09	85.68
Valmiera	12	1.09	86.77
Viļaka	11	1.00	87.77
Aglona	10	0.91	88.68
Burtnieki	10	0.91	89.59
Engure	10	0.91	90.5
Inčukalns	10	0.91	91.41
Kuldīga	10	0.91	92.32
Nereta	10	0.91	93.23
Pļaviņas	10	0.91	94.14
Ropaži	10	0.91	95.05
Saldus	10	0.91	95.96

Limbaži	8	0.72	96.68
Līvāni	8	0.72	97.4
Olaine	8	0.72	98.12
Riebiņi	8	0.72	98.84
Roja	7	0.63	99.47
Ape	6	0.54	100.0
TOTAL	1104	100	-

Table 4. City of Latvia in the survey

City	Frequency	Percent	Cumulative Freq.
Rīga	367	33.24	33.24
Ventspils	38	3.44	36.68
Daugavpils	37	3.35	40.03
Rēzekne	28	2.54	42.57
Jelgava	25	2.26	44.83
Jūrmala	25	2.26	47.09
Liepāja	24	2.17	49.26
Carnikava municipality	19	1.72	50.98
Jēkabpils	18	1.63	52.61
Aloja	15	1.36	53.97
Mežāre parish	15	1.36	55.33
Mālpils municipality	15	1.36	56.69
Salaspils	15	1.36	58.05
Alsunga municipality	13	1.18	59.23
Alūksne	13	1.18	60.41
Grobiņa	13	1.18	61.59
Lēdurga parish	12	1.09	62.68
Madona	12	1.09	63.77
Mārupe municipality	12	1.09	64.86
Ogre	12	1.09	65.95
Sidrabene parish	12	1.09	67.04
Valmiera	12	1.09	68.13
Kuprava parish	11	1	69.13
Allaži parish	10	0.91	70.04
Aloja rural area	10	0.91	70.95
Alsviķi parish	10	0.91	71.86
Balvi	10	0.91	72.77
Dauksti parish	10	0.91	73.68
Dobele	10	0.91	74.59
Dzelzava parish	10	0.91	75.5
Kubuļi parish	10	0.91	76.41
Kuldīga	10	0.91	77.32

Kursīši parish	10	0.91	78.23
Nereta parish	10	0.91	79.14
Pļaviņas	10	0.91	80.05
Rencēni parish	10	0.91	80.96
Ropaži municipality	10	0.91	81.87
Sigulda	10	0.91	82.78
Smārde parish	10	0.91	83.69
Vangaži	10	0.91	84.6
Šķeltova parish	10	0.91	85.51
Bebrene parish	9	0.82	86.33
Gulbene	9	0.82	87.15
Krustpils parish	9	0.82	87.97
Krāslava	9	0.82	88.79
Lizums parish	9	0.82	89.61
Blīdene parish	8	0.72	90.33
Brocēni	8	0.72	91.05
Bērze parish	8	0.72	91.77
Dignāja parish	8	0.72	92.49
Gaiķi parish	8	0.72	93.21
Līvāni	8	0.72	93.93
Olaine	8	0.72	94.65
Pāle parish	8	0.72	95.37
Rušona parish	8	0.72	96.09
Stradi parish	8	0.72	96.81
Valgunde parish	8	0.72	97.53
Šēdere parish	8	0.72	98.25
Roja parish	7	0.63	98.88
Ūdrīšu parish	7	0.63	99.51
Trapene parish	6	0.54	100.0
TOTAL	**1104**	**100**	-

TARTU ÜLIKOOL
RAKE

Population Pyramid of Latvia -2017

	Male	Female
100+	0.0%	0.0%
95-99	0.0%	0.1%
90-94	0.1%	0.5%
85-89	0.4%	1.3%
80-84	0.8%	2.2%
75-79	1.4%	3.0%
70-74	1.7%	3.1%
65-69	2.0%	3.1%
60-64	2.8%	3.8%
55-59	3.4%	4.1%
50-54	3.3%	3.8%
45-49	3.2%	3.4%
40-44	3.4%	3.5%
35-39	3.3%	3.2%
30-34	3.7%	3.5%
25-29	3.8%	3.6%
20-24	2.8%	2.6%
15-19	2.1%	2.0%
10-14	2.6%	2.5%
5-9	2.8%	2.7%
0-4	2.4%	2.2%
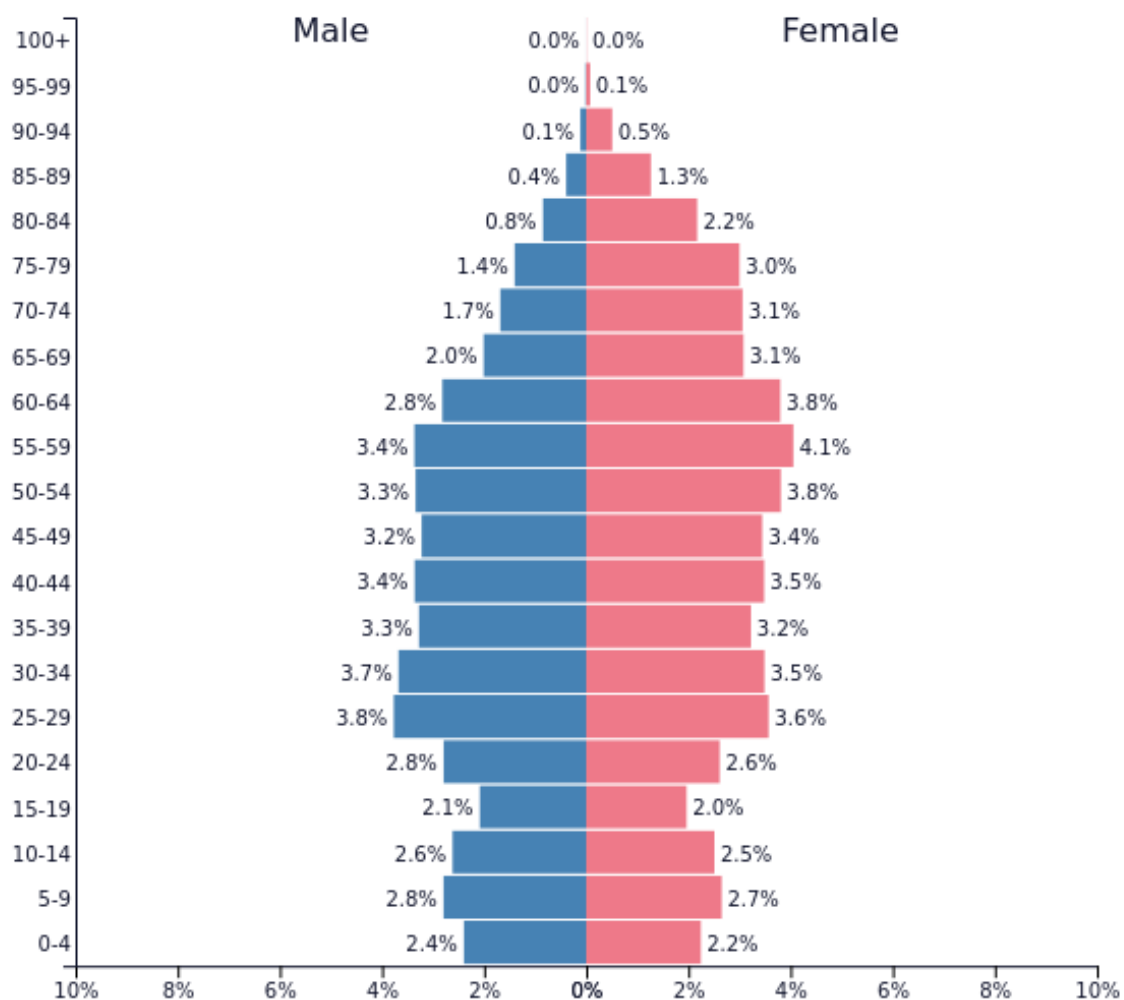
Latvia - 2017
Population: **1,944,564**

Latvian residents by type of conventional dwelling occupied thereof; 2011 (%)

Latvia residents by type of conventional dwelling occupied thereof; 2011 (%)
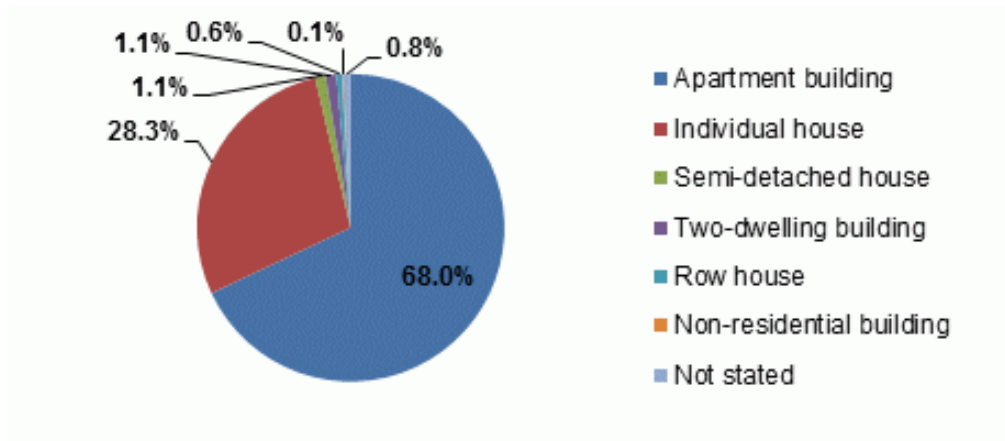
Chi2 Test for Fire Extinguisher

Rows-Fire Extinguisher Not Important -1 and Important-2

Column- Don't have a fire extinguisher-1, Have one -2

```
. tabulate fire1notimp2imp fireyes2no1, chi2
```

FIRE (1-Not IMP, 2-IMP)	Fire-Yes-2, No-1		Total
	1	2	
1	256	28	284
2	582	98	680
Total	838	126	964

Pearson chi2(1) =   3.6544   Pr = 0.056

Chi2 test for presence of Smoke Detector and its importance

Rows-Smoke Detector- Not Important -1 and Important-2

Column- Don't have a Smoke detector-1, Have one -2

```
. tabulate smokeimp2notimp1 smokeyes2no1, chi2
```

Smoke Imp-2, NotImp-1	Smoke yes-2, No-1 1	2	Total
1	247	4	251
2	640	99	739
Total	887	103	990

```
          Pearson chi2(1) =  28.0006   Pr = 0.000
```

Chi 2 test for relationship between they know how to use the fire extinguisher ("Definitely know how to use" and "Probably know how to use") and those who have used them ("Less than 10 years ago" or "More than 10 years ago") in past.

Row: 1= Knows how to use, 0=Doesn't know how to use

Column: 1=Have used it in past, 0=Never used it.

```
. tabulate question91knowhottouse question101used, chi2
```

Question 9(1-know hot to use)	Question 10(1-used) 0	1	Total
0	262	289	551
1	328	225	553
Total	590	514	1,104

```
        Pearson chi2(1) =  15.3483   Pr = 0.000
```