

# EMPOWERkids



Health and social education for children

## EmpowerKids-tool and usability

“EmpowerKids – Health education and social advice for low-income families with young children”

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SEMINAR  
Rakvere, 8.3.2017

The project is co-financed by the Central Baltic Programme 2014-2020



## Project target group

- Children from low-income families aged 6 to 12 years and their families
- Professionals: health care personnel, social workers, kindergarten- and (pre)school teachers



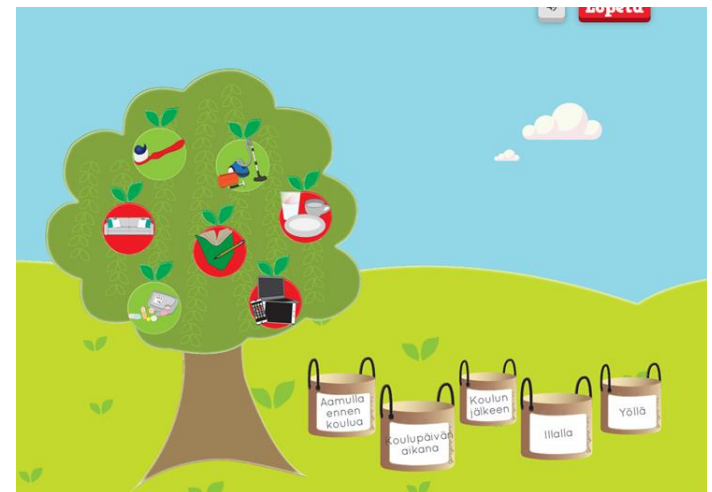
## EmpowerKids-tool - to empower the children in need-based manner

- EmpowerKids-tool is a child-friendly and attractive tool
- It enables the professionals to detect each child's individual situation and needs
- It enables the professionals to give tailored and individualized counseling for children
  - *Children feel that they are supported and empowered to make healthy choices in their everyday life to enhance their current and future health and wellbeing*



# EmpowerKids-tool -description

- Web-based gamified application ([www.tool.empowerkids.eu](http://www.tool.empowerkids.eu))
- Tool includes four parts: **physical activity, nutrition, resources and daily rhythm**
- Children assess their health and wellbeing as well as factors affecting it through these four parts either alone or with professionals
- Professionals receive information on the children's situation through tool and use this information in conversations with children (and families)
- Information/results are also used when developing interventions for the community



## EmpowerKids-tool -development

- Iterative development process together with project group members, professionals and children from participating countries
- First testing round with prototype during February 2017 with 95 children and 14 professionals
- Usability questionnaires and interviews
- Second testing round with further developed tool during fall 2017



## EmpowerKids-tool -how to empower children?

- Discover the strengths and positive things

**SUPPORT AND STRENGTHEN  
THEM**

- Detect the difficulties and needs for change

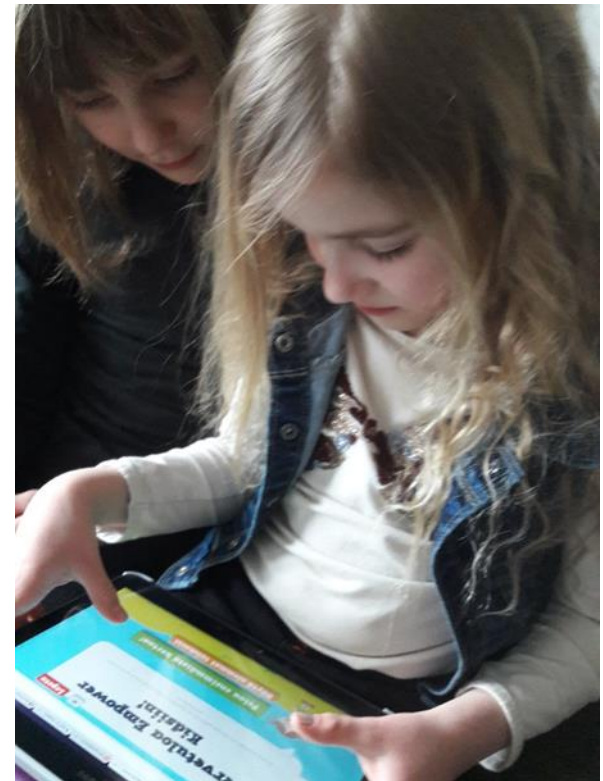
**DISCUSS ABOUT THEM,  
HELP FIND THE SOLUTIONS AND  
SET GOALS TOGETHER**



## Usability of the EmpowerKids-tool

- Usability of WellWe was measured with System Usability Scale (SUS)
- It has proved to be a valid and reliable tool to evaluate the usability of products, systems and services
- It has been used in many studies and can be applied to a wide range of technologies
- It consists of ten statements (items) to which respondent answers according to own perception using 5point Likert scale ranging from “strongly agree” to “strongly disagree”
- SUS scores in total have a range of 0 to 100 (100 being the best possible score)

Brooke, J. (1996). SUS: A "quick and dirty" usability scale. In P. W. Jordan, B. Thomas, B. A. Weerdmeester, & A. L. McClelland (Eds.), *Usability Evaluation in Industry*. London: Taylor and Francis.







## USABILITY STATEMENTS/ITEMS<sup>\*)</sup>

1. I think that I would like to use this application frequently

2. I found the application unnecessarily complex

3. I thought the application was easy to use

4. I think that I would need the support of a technical person to be able to use this application

5. I found the various functions in this application were well integrated

6. I thought there was too much inconsistency in this application

7. I would imagine that most people would learn to use this application very quickly

8. I found the application very awkward to use

9. I felt very confident using the application

10. I needed to learn a lot of things before I could get going with this application

<sup>\*)</sup> Scoring: 5=strongly agree and 1=strongly disagree.



# System Usability -results/children

Mean of answers	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8	Question 9	Question 10	SUS SCORE
CHILDREN FIN	3	2,11764706	3,52941176	1,70588235	2,6470588	2,5882353	3,2352941	2,7058824	3,5882353	1,647058824	63,08823529
CHILDREN LAT	3,558139535	2,04651163	4,23255814	2,90697674	3,627907	2,4418605	3,8372093	1,6744186	4,0697674	2,604651163	69,12790698
CHILDREN EST	4,233333333	1,9	4,66666667	3,23333333	3,8666667	2,5666667	4,3666667	1,4666667	4,1333333	2,6	73,75
ALL CHILDREN	3,597157623	2,02138623	4,14287886	2,61539748	3,3805442	2,5322541	3,8130567	1,9489892	3,9304454	2,283903329	68,65538076

**Table 3.** Descriptive Statistics of SUS Scores for Adjective Ratings\*

Adjective	Count	Mean SUS Score	Standard Deviation
Worst Imaginable	4	12.5	13.1
Awful	22	20.3	11.3
Poor	72	35.7	12.6
OK	211	50.9	13.8
Good	345	71.4	11.6
Excellent	289	85.5	10.4
Best Imaginable	16	90.9	13.4

Bangor, A., Kortum, P.T. & Miller, J.T. (2009). Determining What Individual SUS Scores Mean: Adding an Adjective Rating Scale. Journal of Usability Studies 4(3), 114-123.

# System Usability -results/professionals

Mean of answers	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8	Question 9	Question 10	SUS SCORE
PROFESSIONALS FIN	3	3,33333333	3,33333333	1,66666667	3,66666667	2,33333333	3,66666667	2	4	2,6666666667	64,16666667
PROFESSIONALS LAT	4	1	4,33333333	1	4,66666667	1	5	1	5	1	95
PROFESSIONALS EST	3,5	1,75	4,125	1	3,625	1,875	4,75	2,125	4,625	1,375	81,25
ALL PROFESSIONALS	3,5	2,02777778	3,93055556	1,22222222	3,9861111	1,7361111	4,4722222	1,70833333	4,5416667	1,68055556	80,13888889

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# EMPOWERkids



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## HOW KIDS ARE DOING -a short summary of results

“EmpowerKids – Health education and social advice for low-income families with young children”

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Rakvere, 8.3.2017

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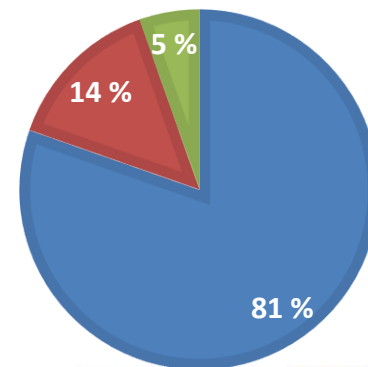
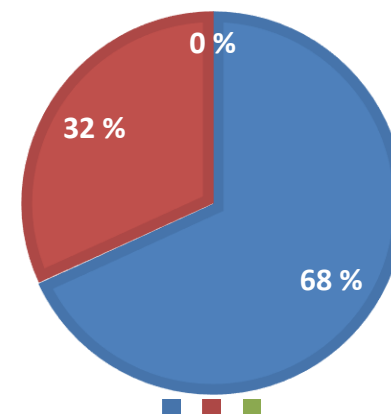
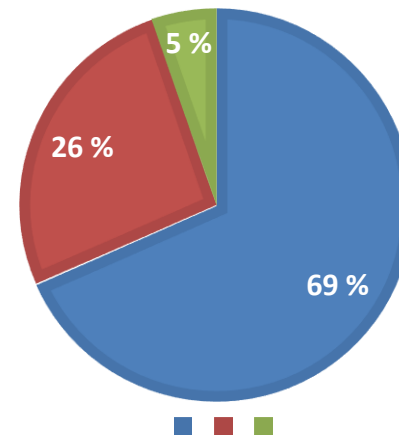
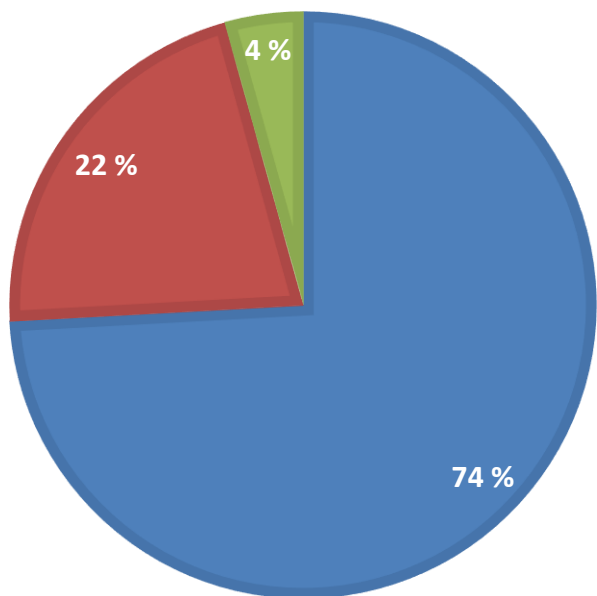
## Children testing the tool

- All together 116 have "played" EmpowerKids-tool
- 50 girls and 66 boys
- Mean age 8,7 years
  - 38 children from Estonian (19 girls, 19 boys, mean age 7,4 years)
  - 22 children from Finland (11 girls and 11 boys, mean age 7,6 years)
  - 56 children from Latvian (20 girls and 36 boys, mean age 9,5 years)
- Low-income status of the child
  - 20 yes
  - 8 no
  - 88 unknown

# Physical activity

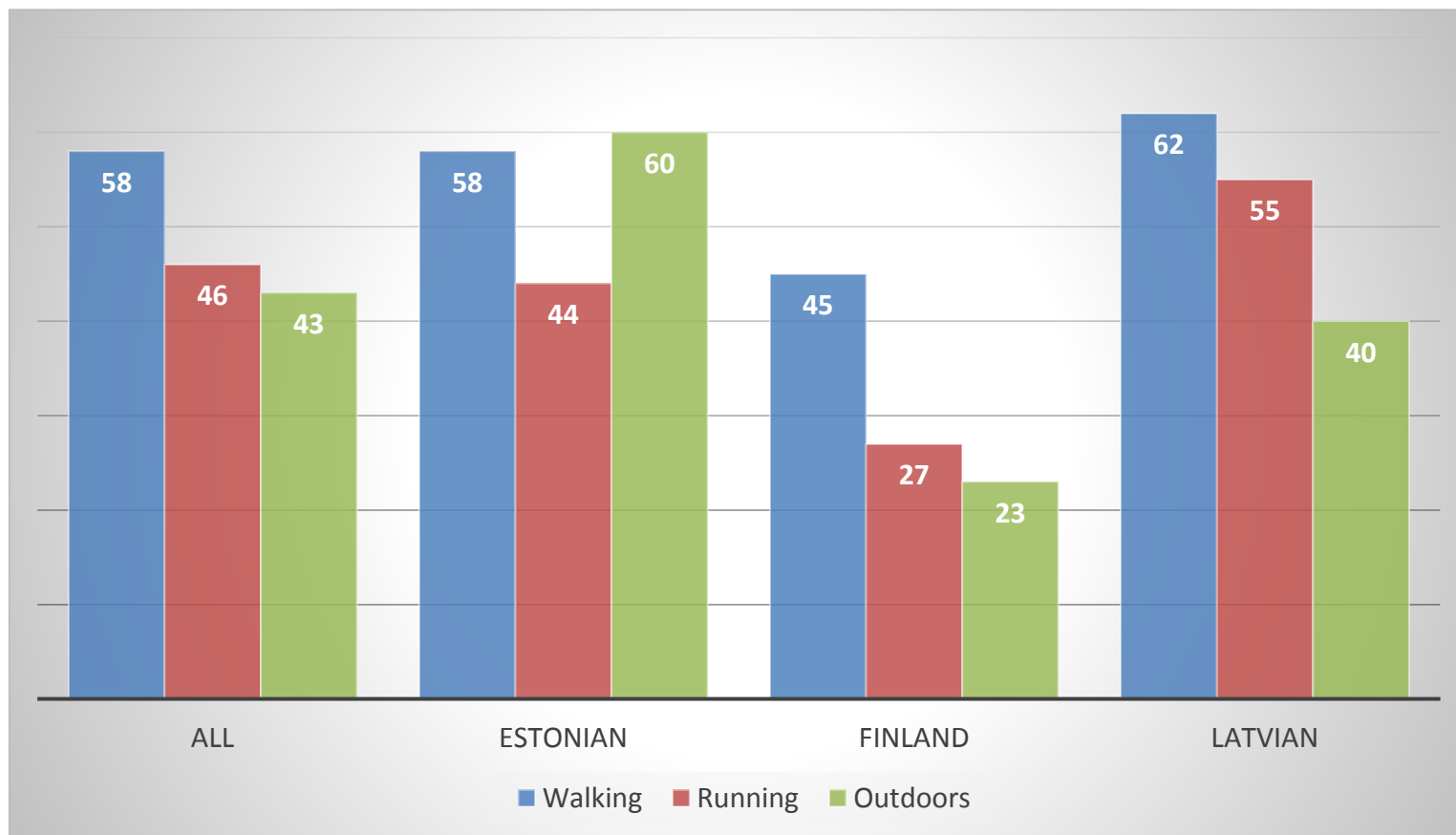
## ALL CHILDREN

- meets the PA recommendation
- doesn't meet the PA recommendations
- no information



# Physical activity

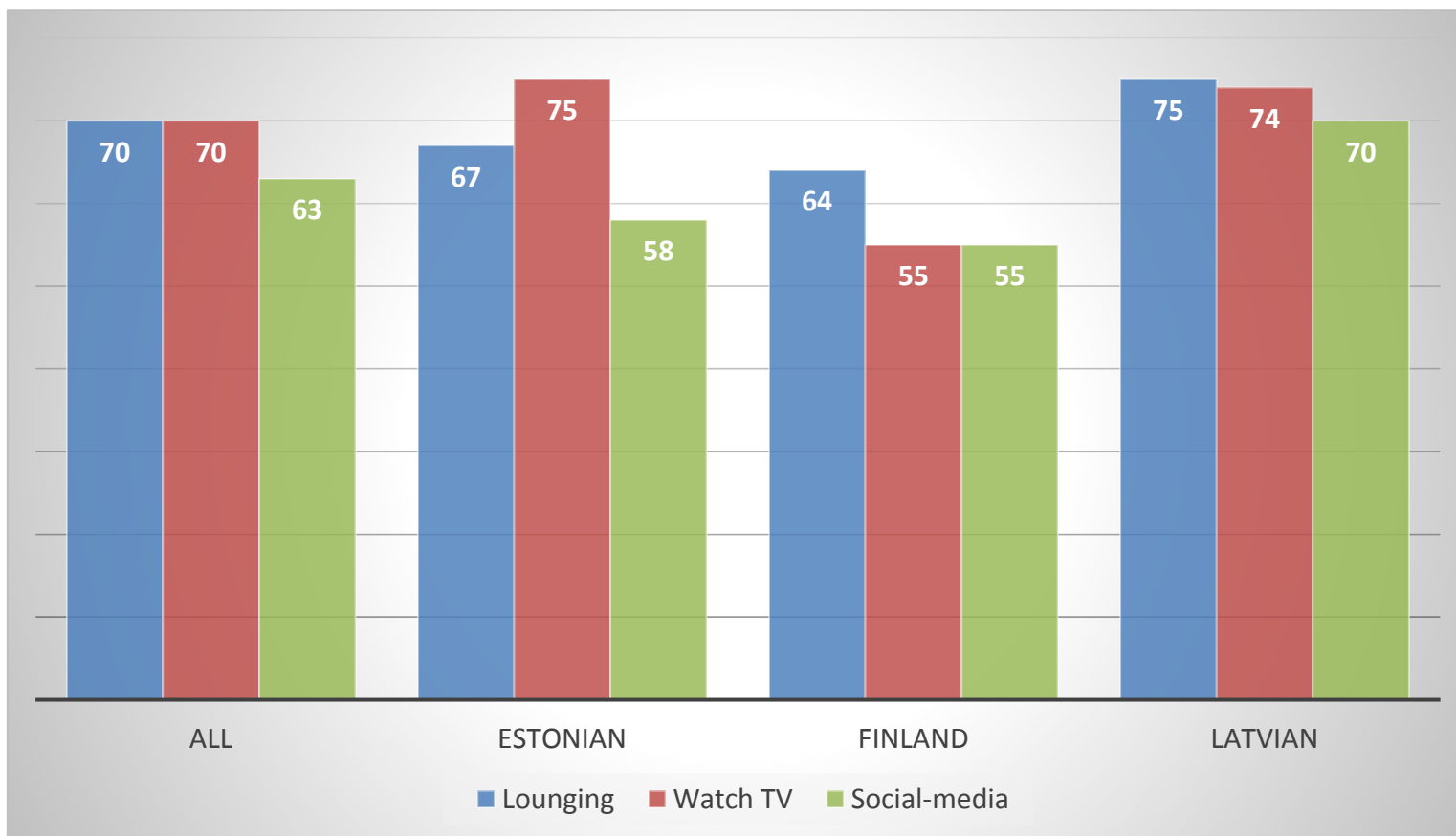
- Most popular DAILY physical activities (%)





## Physical activity

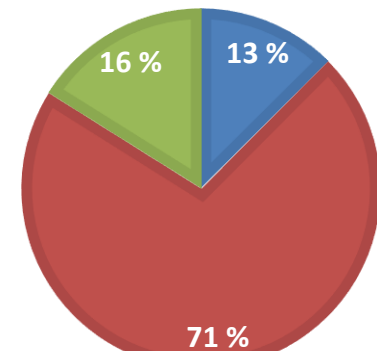
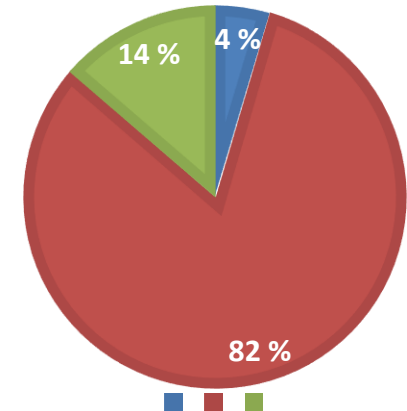
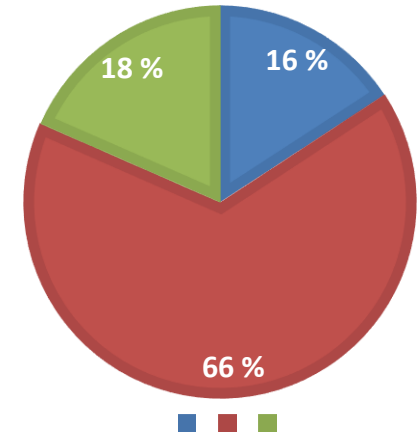
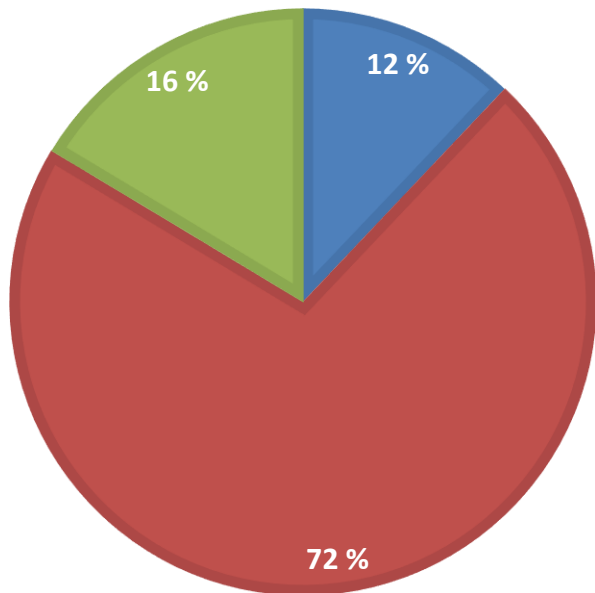
- Most popular DAILY physical inactivities (%)



# Nutrition

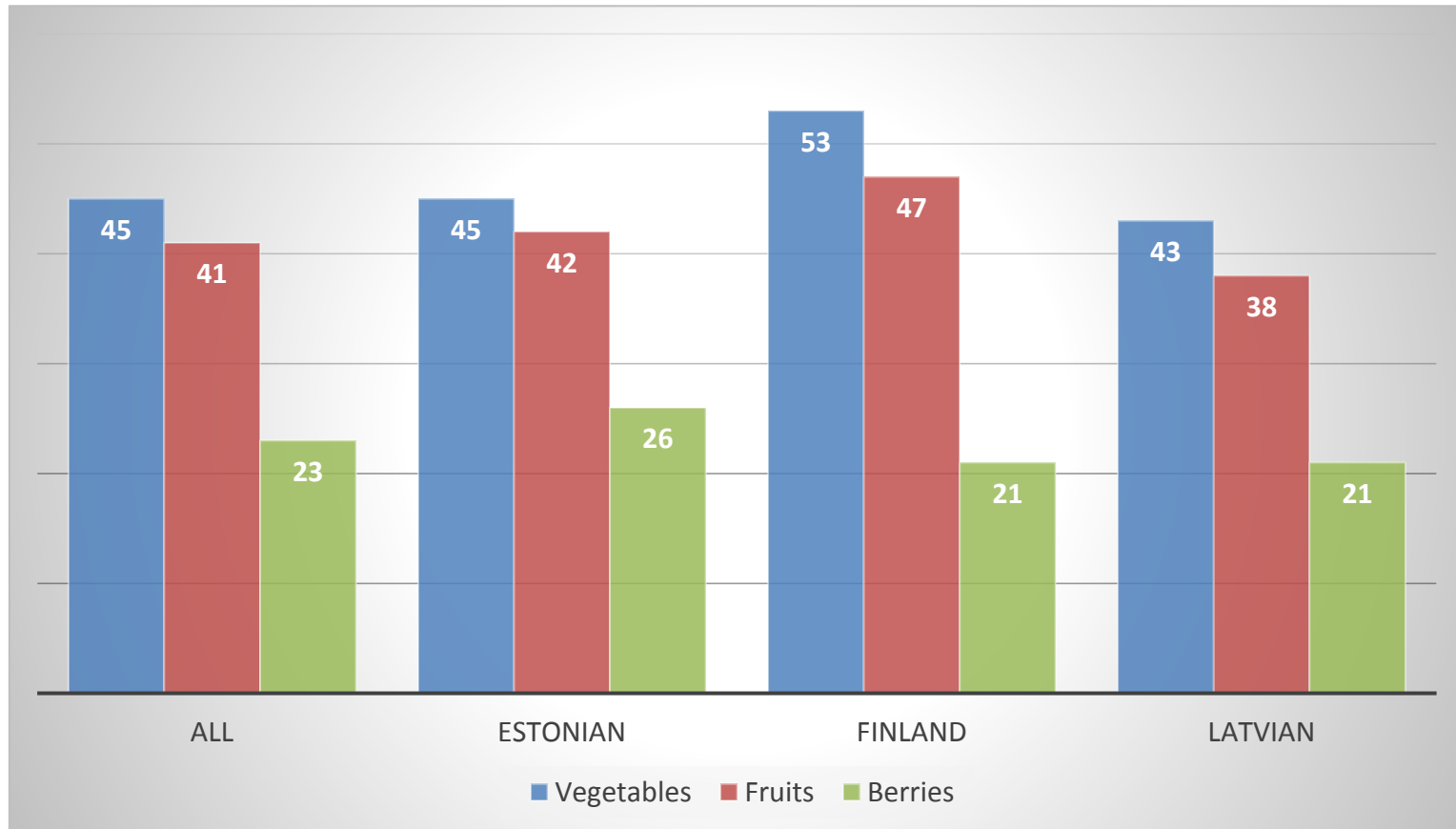
## ALL CHILDREN

- child eats versatile
- child doesn't eat enough versatile
- no information



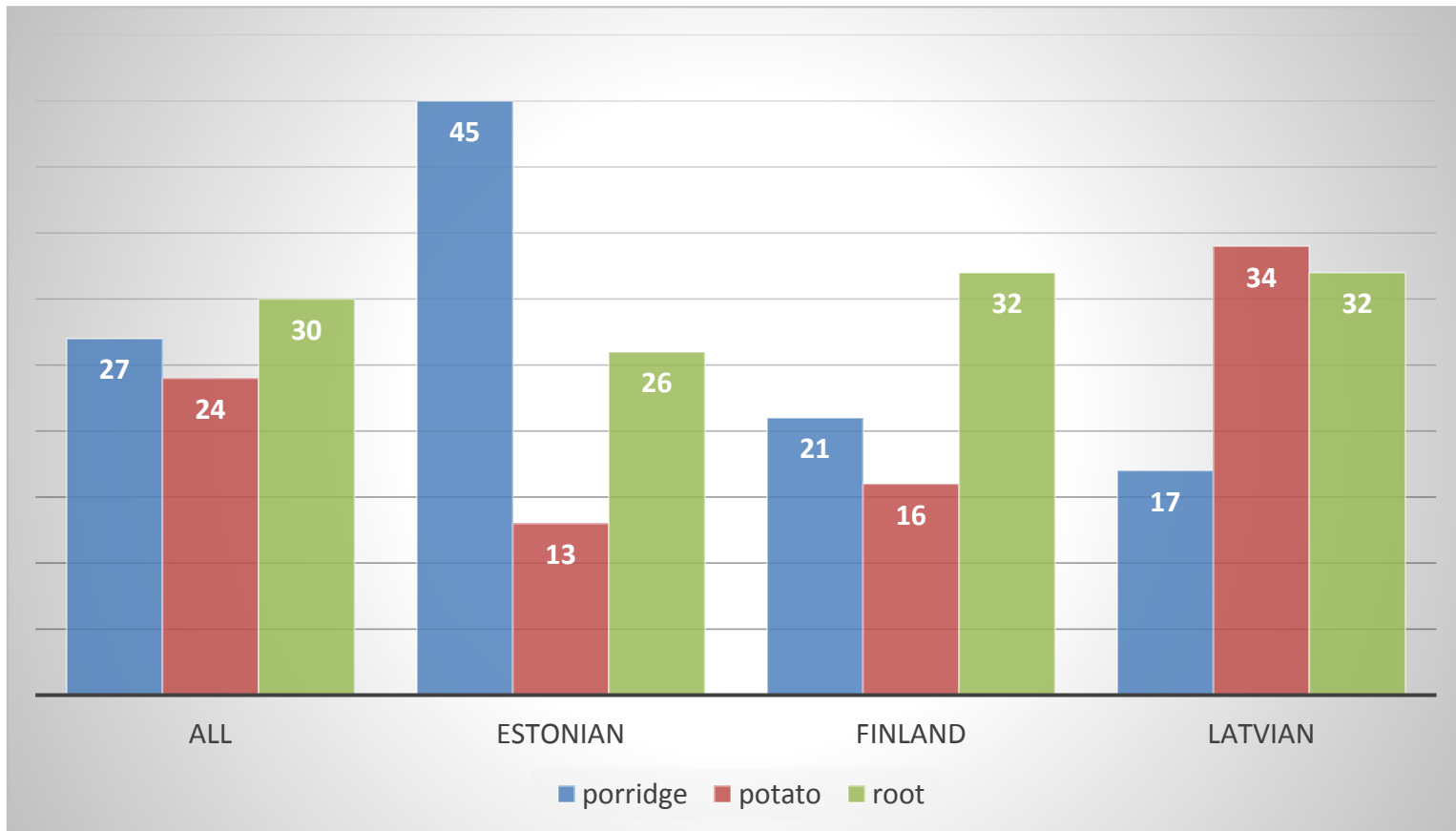
# Nutrition

- Healthy DAILY choices (%)



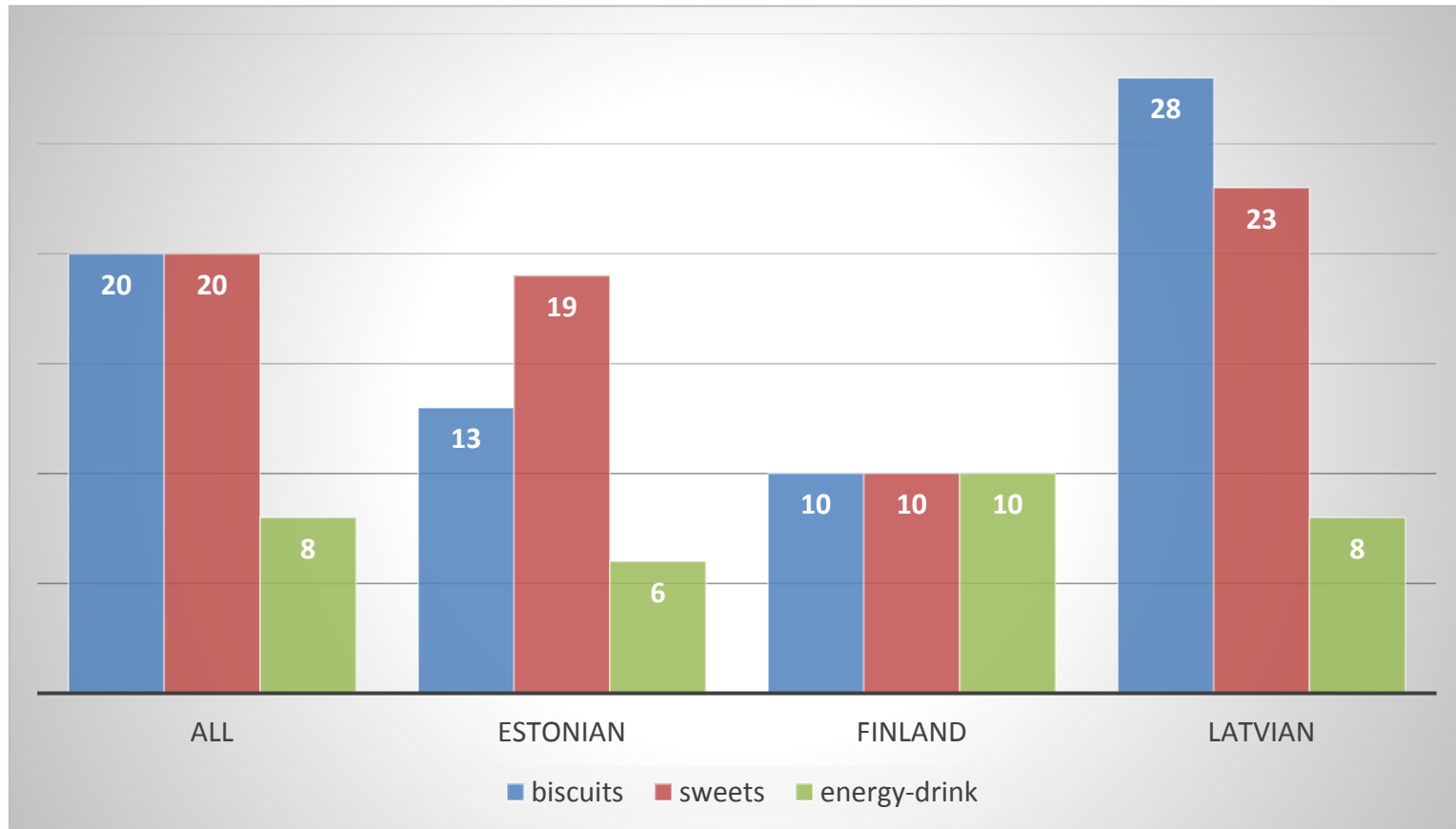
# Nutrition

- Healthy DAILY choices (%)



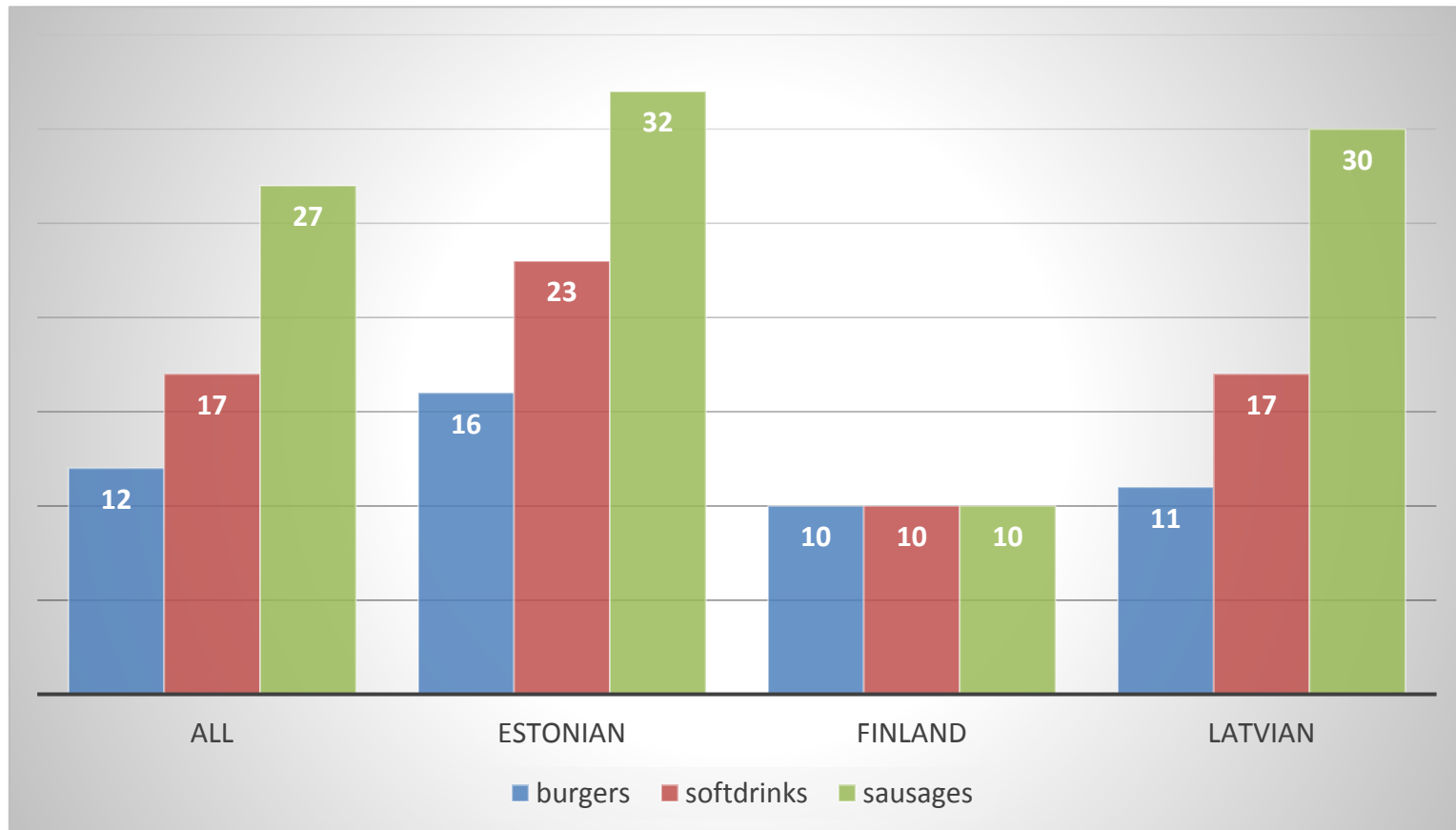
# Nutrition

- Unhealthy DAILY choices (%)



# Nutrition

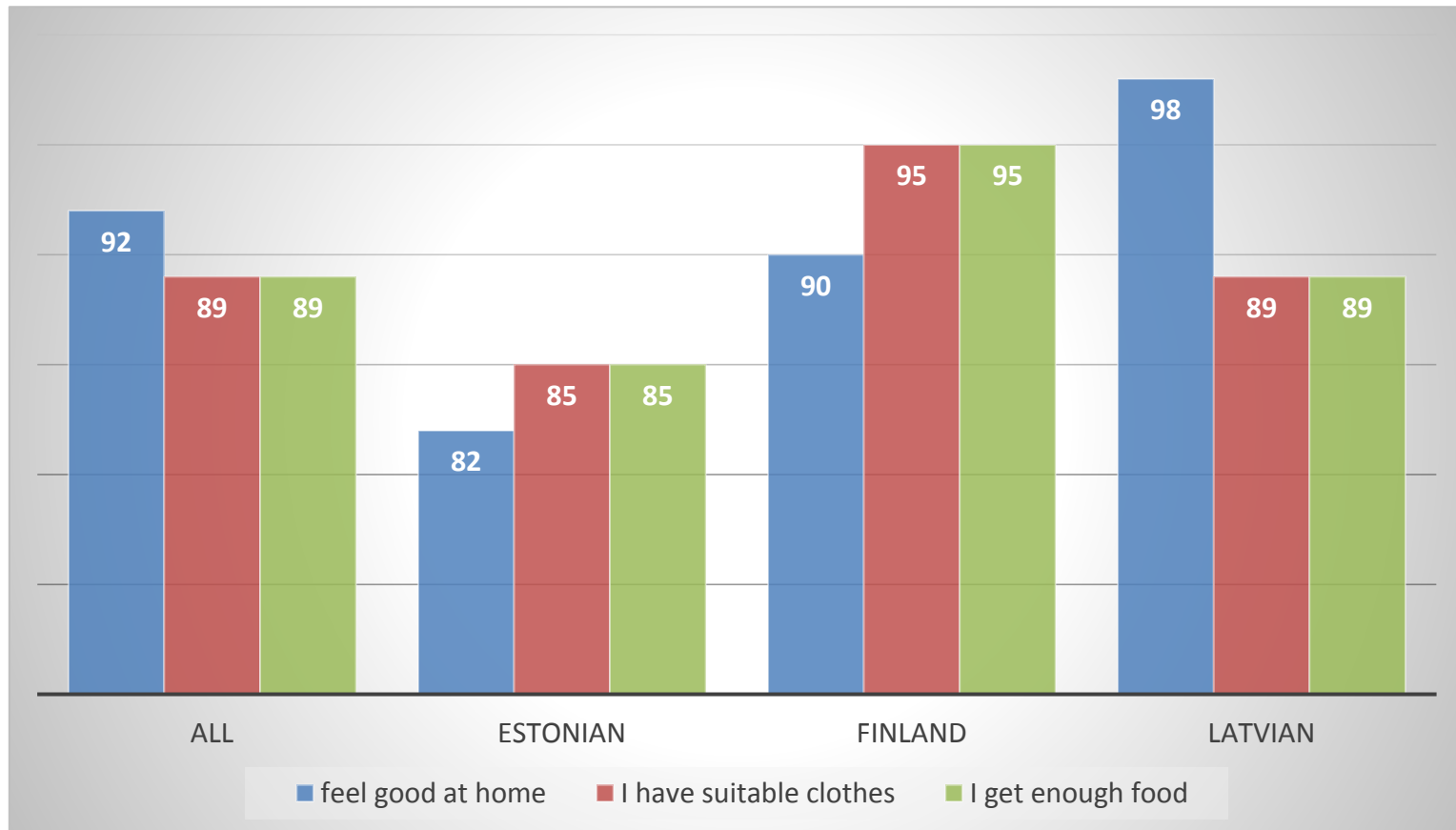
- Unhealthy DAILY choices (%)





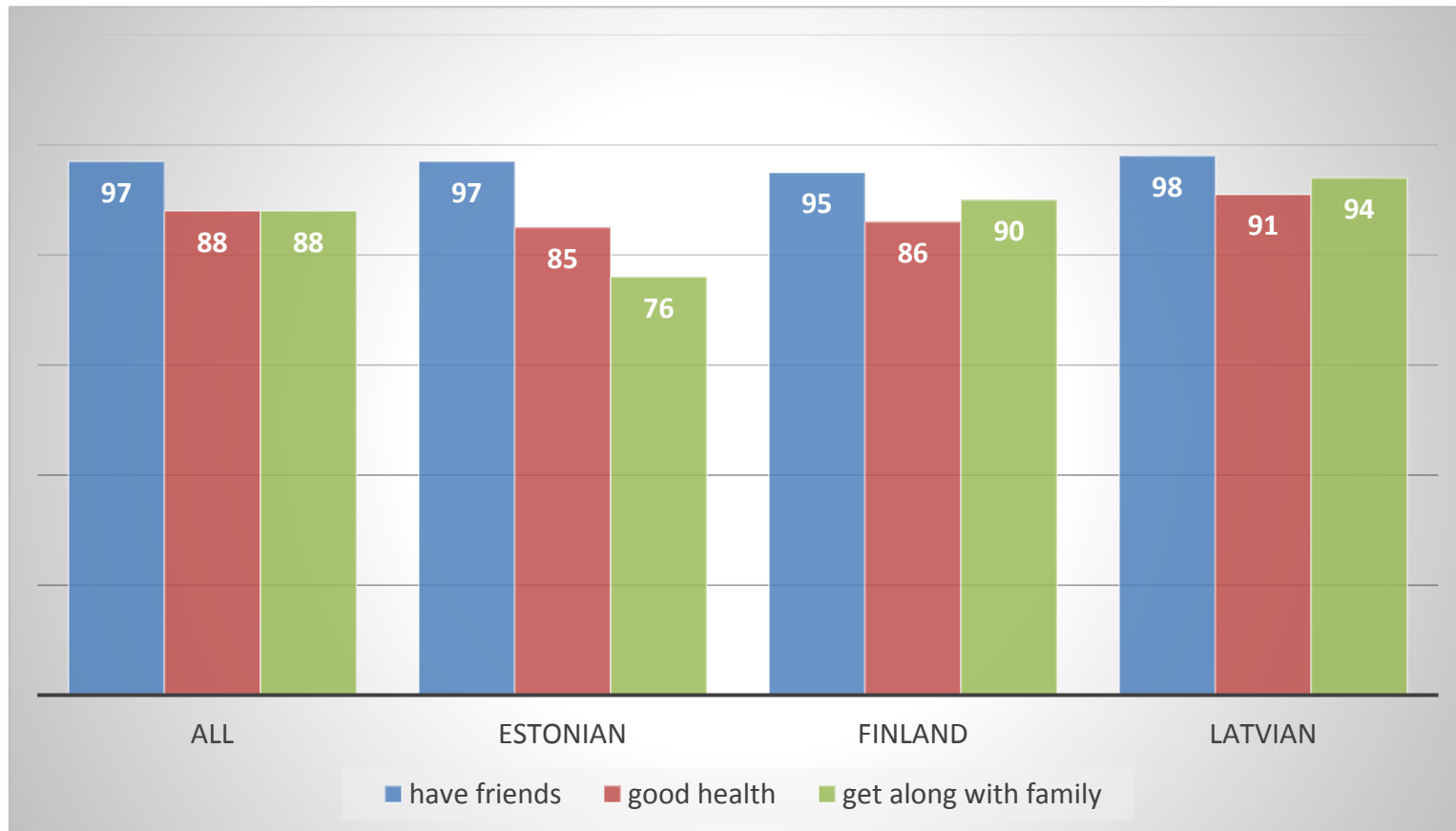
# Resources

- I agree and I partly agree (%)



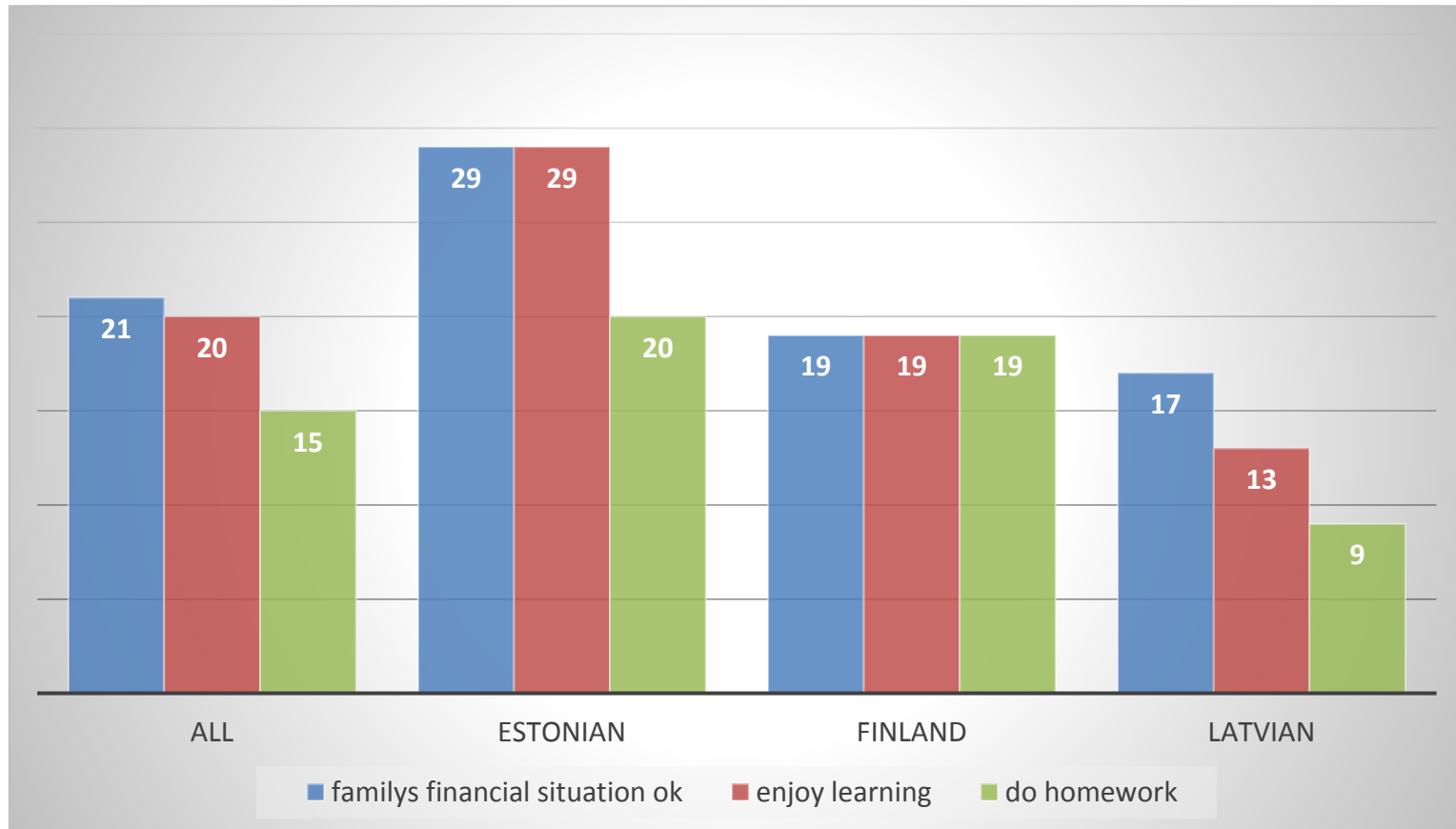
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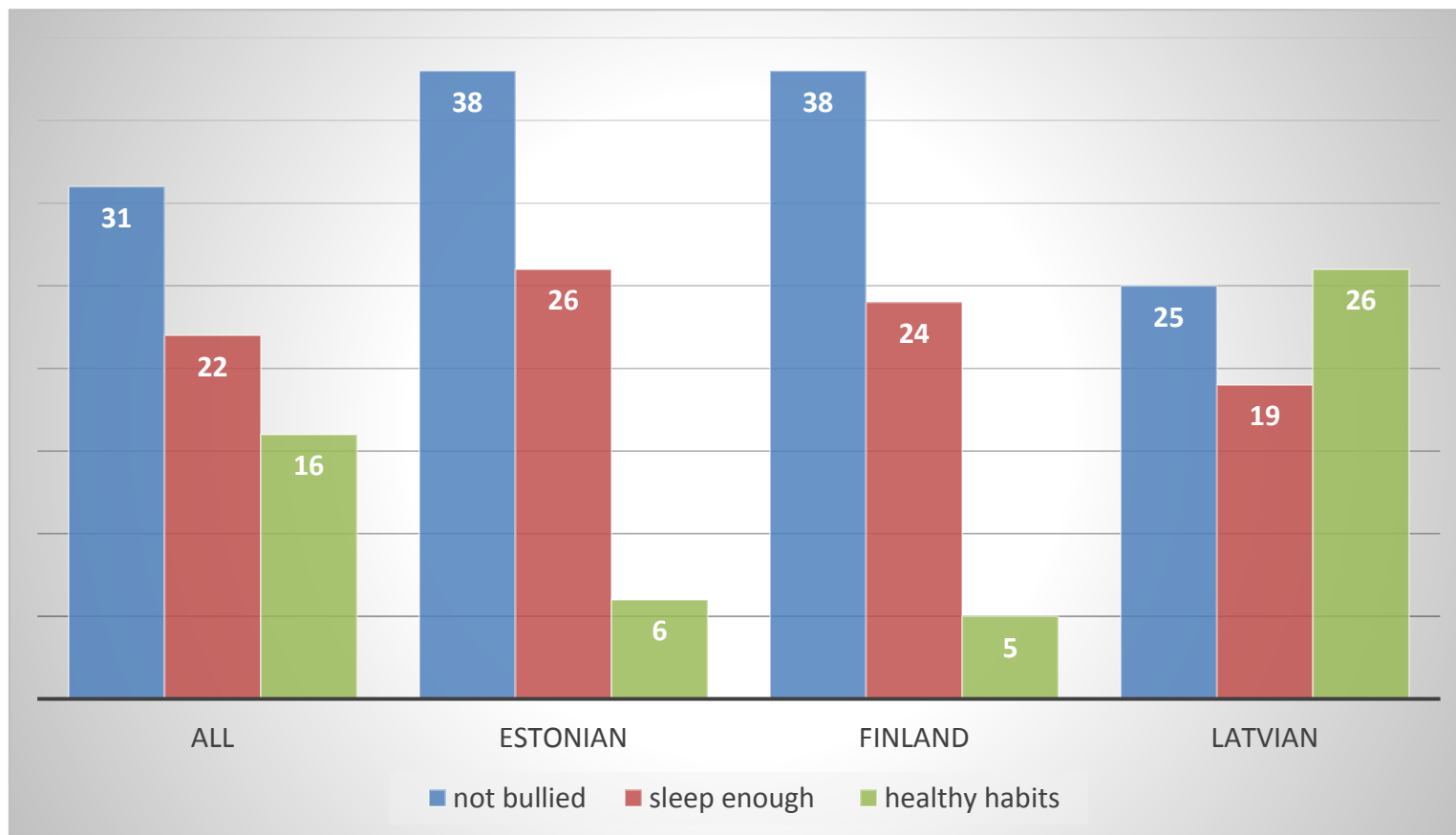
# Resources

- I disagree and I partly disagree (%)



## Resources

- I disagree and I partly disagree (%)





**Thank you!**