Participation in mushroom picking in Finland

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The most used mushroom species

Cantharellus

Boletus

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The most used mushroom species

Lactarius

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Background

- Wild mushrooms are still widely used as a part of daily diet
- Nowadays picking mushrooms is a leisure activity, the interest has been growing during the last decades
- There are voluntary organizations to enhancing mushroom picking to households by providing exhibitions of edible mushrooms, maps of good picking sites etc.
- Metla provides forecasts of mushroom crops regionally
- a growing branch of industry;

  Boletus -mushroom export to Italy!

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Aim of the study

- to improve understanding of the importance of mushroom picking among the Finnish population

- to produce models which allow calculations for predictions of number of pickers, geographical distribution of forest land needed for picking etc.

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Data and methods

- Population survey in 1998-2000
- Sample 12000; respondence rate 84
- Telephone interview data has 10651 respondents
- Mail questionnaire data has 5535 respondents; 2736 mushroom pickers
- description statistics (distributions, means, medians), cross tabulations and χ^2 -test
- logistic regression modeling

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Socio-economics related to participation in mushroom picking

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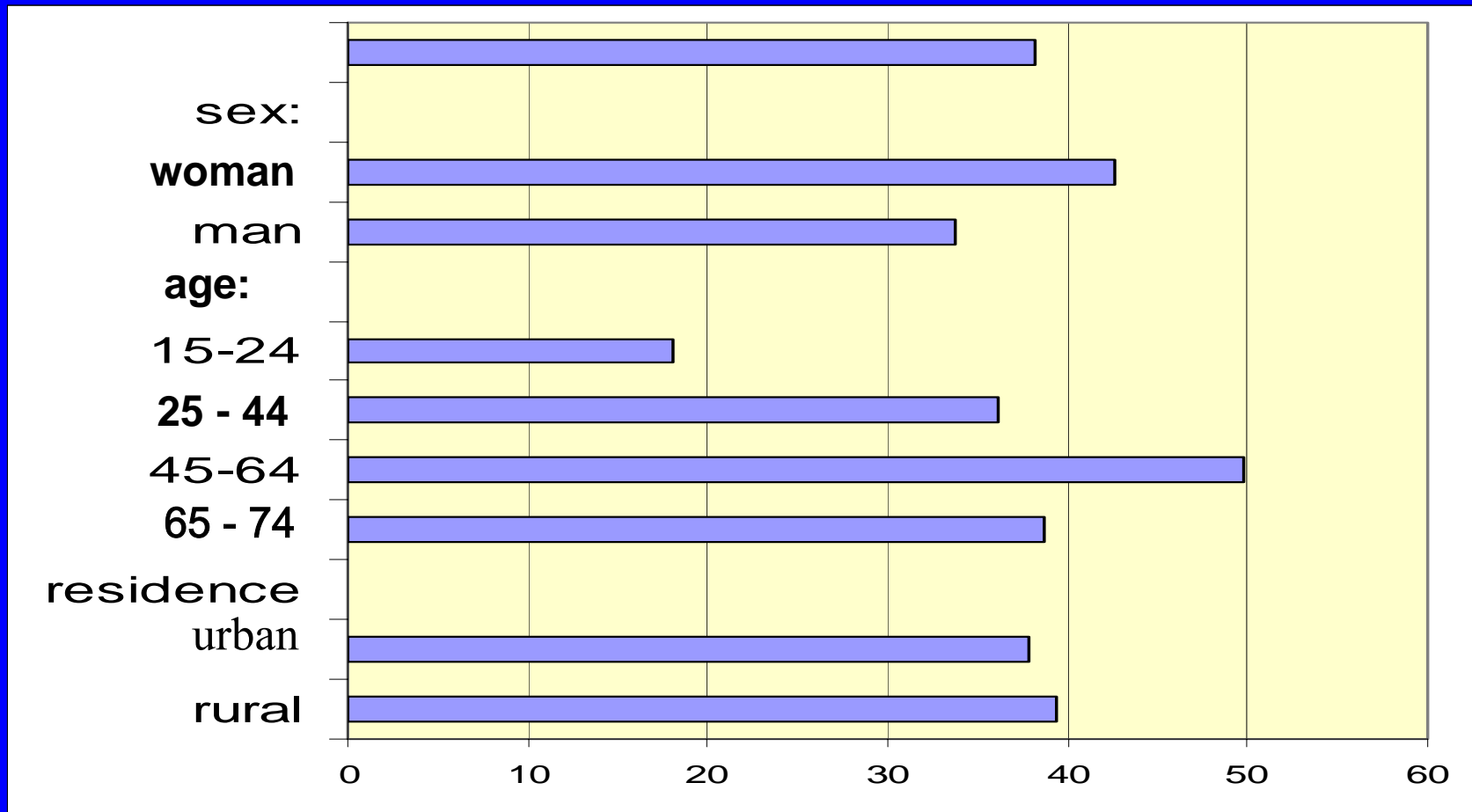
Mushroom picking participation in regions

Participation rate , %

more than 50

40-49

30-39

under 30

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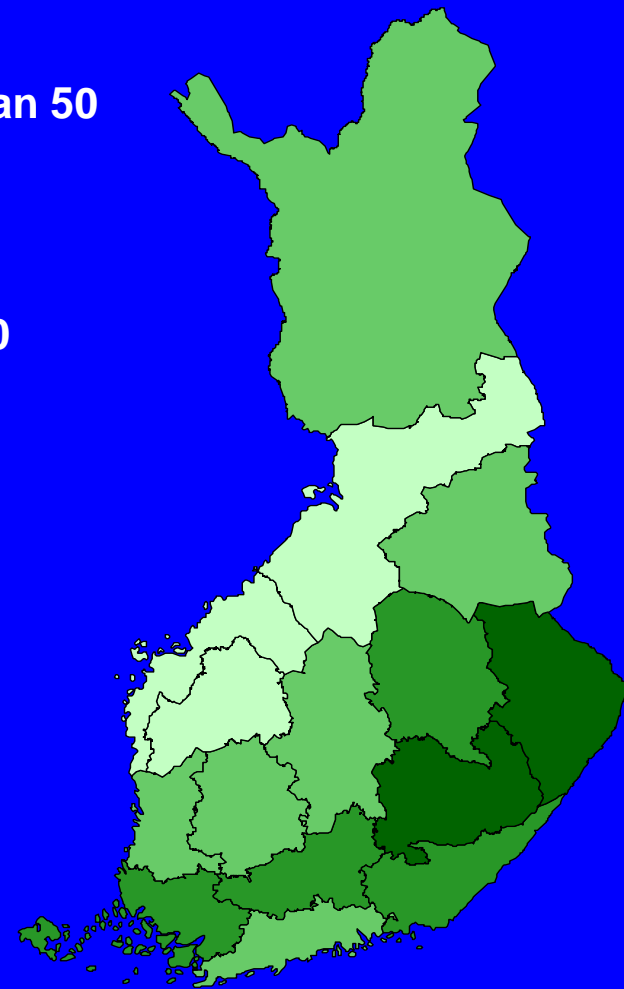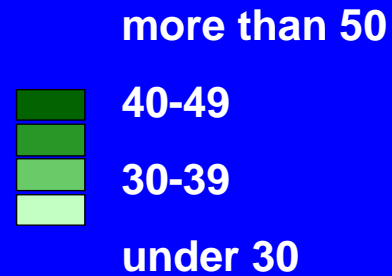
Participation in mushroom picking, logistic regression model

	Parameter estimates	p-value	Odds ratio
Constant	-5.049	<0.0001	
Female, ref. male	0.665	<0.0001	1.944
Age	0.050	<0.0001	1.052
Education level (ref. high)			
low	-0.214	<0.0007	0.808
middle	0.009	0.8704	1.009
Size of municipality of residence , (ref. ≥ 100 000)			
under 10 000	0.228	0.0008	1.256
10 000–99 999	0.160	0.0071	1.173
Region (ref. western and northern F.)			
Southern Finland	0.724	<0.0001	2.063
Eastern Finland	0.867	<0.0001	2.381
Poor mushroom season (ref.. good)	-0.697	<0.0001	2.007
Number of outdoor activities	0.149	<0.0001	1.161
N	10347		
Proportion of participants (%)	38.2		
Proportion of correctly classified (%)	72.2		
p-value	<0.0001		
Pseudo R²	0.191		

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Examples of mushroom picking probabilities by gender, region of residence and the quality of the mushroom season

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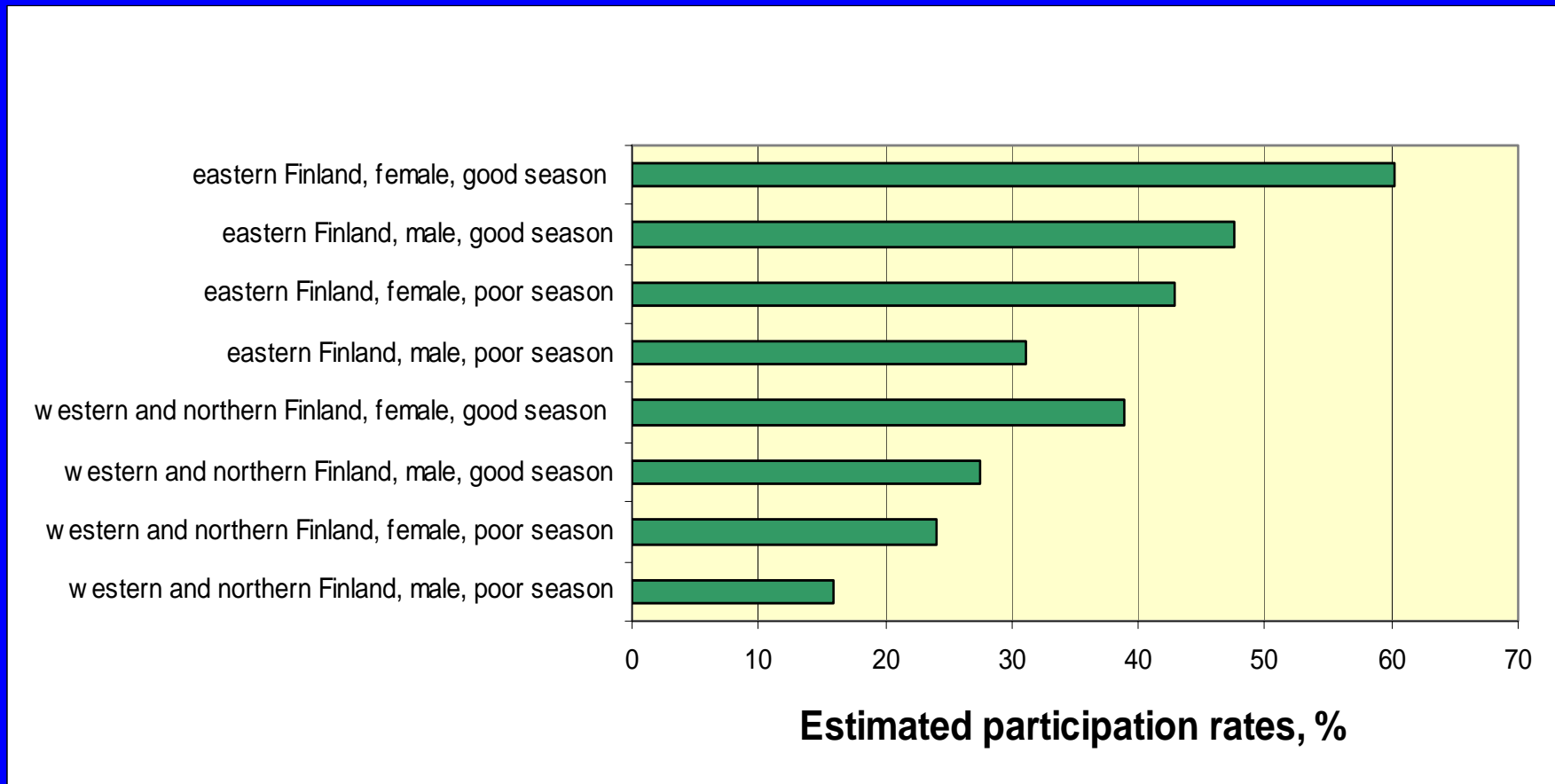
Distance to the closest site

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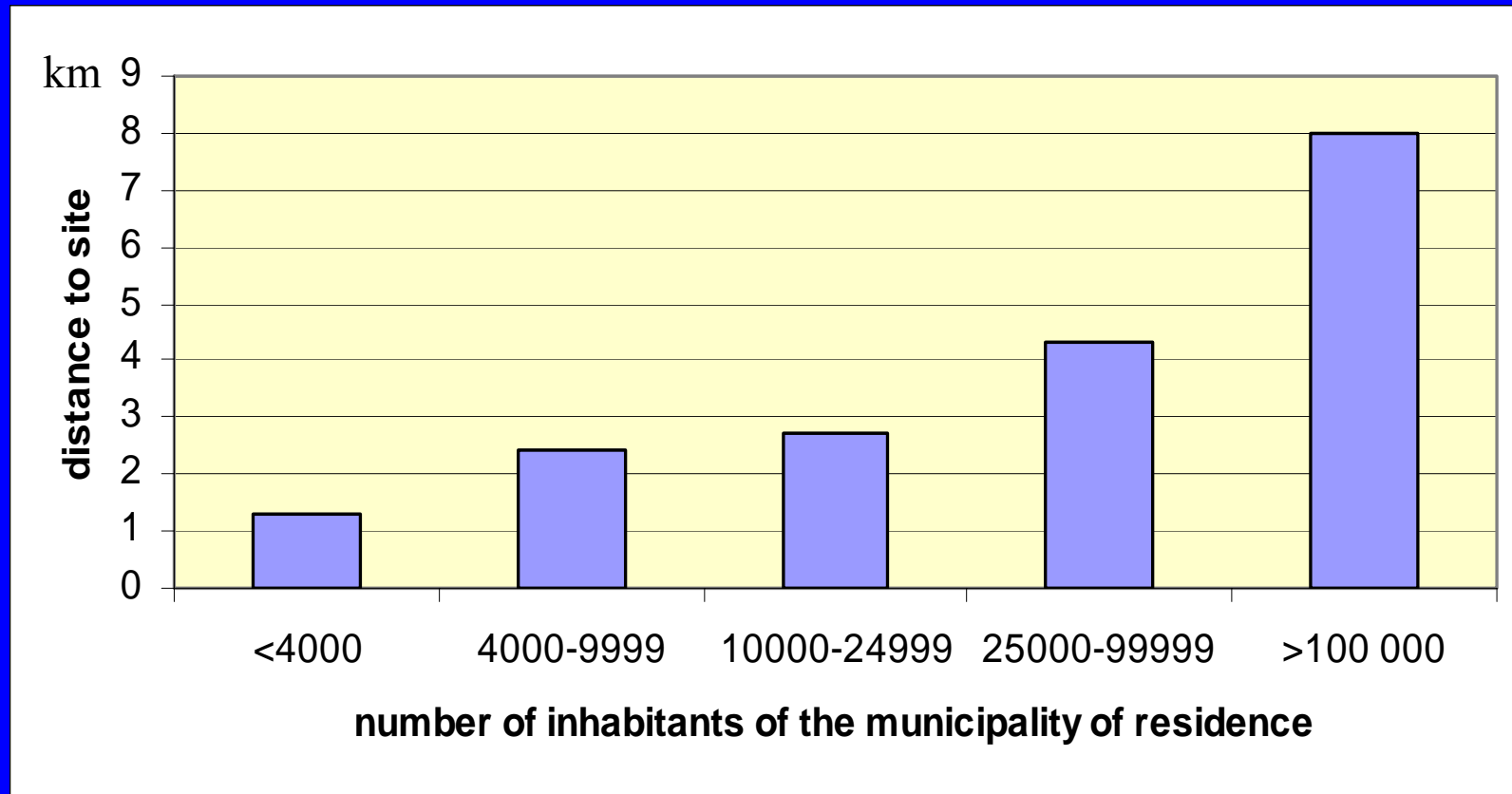
Mushroom picking participation frequency, negative binomial regression model

	Parameter estimates	Standard error	p-value
Constant	0.969	0.1229	<0.0001
Female (ref. male)	0.144	0.0456	0.0015
Age	0.013	0.0016	<0.0001
Southern Finland (ref. rest of F.)	0.294	0.0645	<0.0001
Eastern Finland (ref. rest of F.)	0.204	0.0786	0.0094
Size of municipality of residence less than 10 000 inhabitants (ref. 10 000 +)	0.102	0.0546	0.0622
Access to vacation home (ref. no access)	0.110	0.0465	0.0182
Poor mushroom season (ref. good season)	-0.179	0.0455	0.0001
Number of observations	2250		
p-value	<0.0001		
Pseudo R^2	0.389		
Alpha	1.223	0.0805	<0.0001

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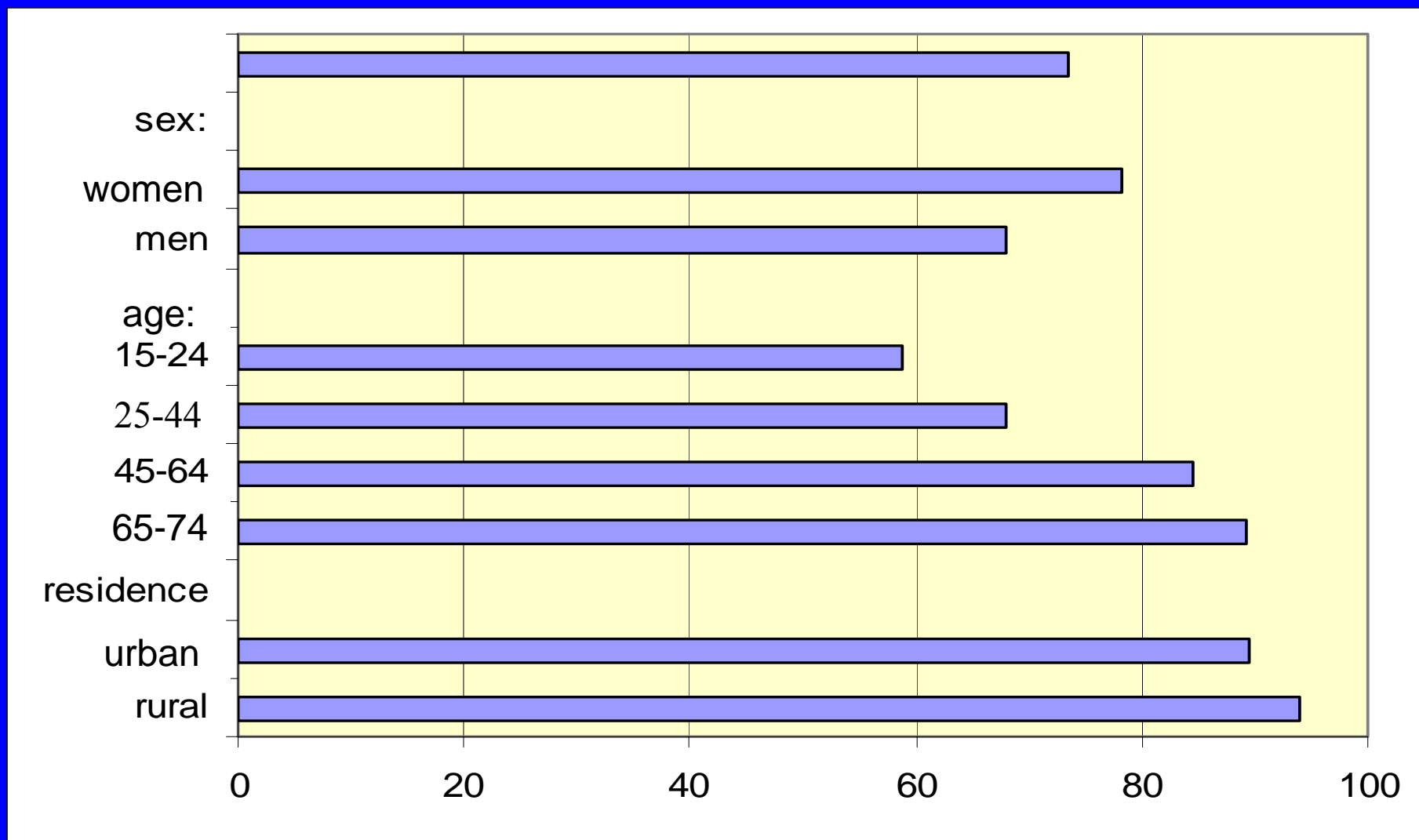
Who has learned mushroom picking skills

	Parameter estimates	p-value	Odds ratio
Constant	-2.903	<0.0001	
Female (ref. male)	0.660	<0.0001	1.936
Age	0.048	<0.0001	1.049
Region, ref. nothern F.			
Uusimaa, southern F.	0.964	<0.0001	2.623
Eastern Finland	1.119	<0.0001	3.061
Access to a vacation home	0.193	0.0787	1.213
Number of outdoor activities	0.080	<0.0001	1.083
N	2221		
Mushroom picking skills (%)	73.2		
Proportion of corr.class., %	75.3		
p-value	<0.0001		
Pseudo R²	0.137		

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Learning to pick mushrooms

As a child

- women
- young
- beyond secondary education
- in labour force or student
- living in a city, large size
- living in southern or eastern Finland
- urban childhood
- modern outdoor activities: downhill skiing, spending time at vacation home

As an adult

- man
- middle aged or old
- secondary education
- farmer or pensioner
- living in rural areas
- living in western Finland
- rural childhood
- traditional outdoor activities: picking berries, hunting, fishing

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Frequency, time and money for recreation

	Learned as a child	Learned as an adult
	mean (median), difference significant * - **	
number of picking occasions per year in average	6,3 (4,0)	7,8 (5,0) **
outdoor recreation, participation, number of hours per week	8,7 (5,8)	9,2 (6,5) *
number of outdoor recreation occations during the days off or weekend per week	1,1 (1,0)	1,2 (1,0) **
amount of money spent for outdoor recreation, Euro per occation in average	15,6	22,3 **

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Conclusions

- Mushroom picking seems to be highly related to regional culture

- Mushroom pickers are active outdoor people

- Mushroom picking has increased it's popularity among well-educated urban people even that it is consumptive recreation activity

- It is likely that mushroom picking will continue to attract urban people in future

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Discussion

- Management practices of close-to-urban forests which are suitable for mushroom picking should consider mushroom picking as valuable type of use

- Commercial mushroom picking has a lot of potential in Finland, and it could be supported more by government

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Mushrooms make us happy!!
Thank you