SOCIO-SPATIAL DETERMINANTS OF PREFERENCE FOR THE ACTIVE TRANSPORT MODES:

Evidence from the Croatian Travel Behaviour Survey

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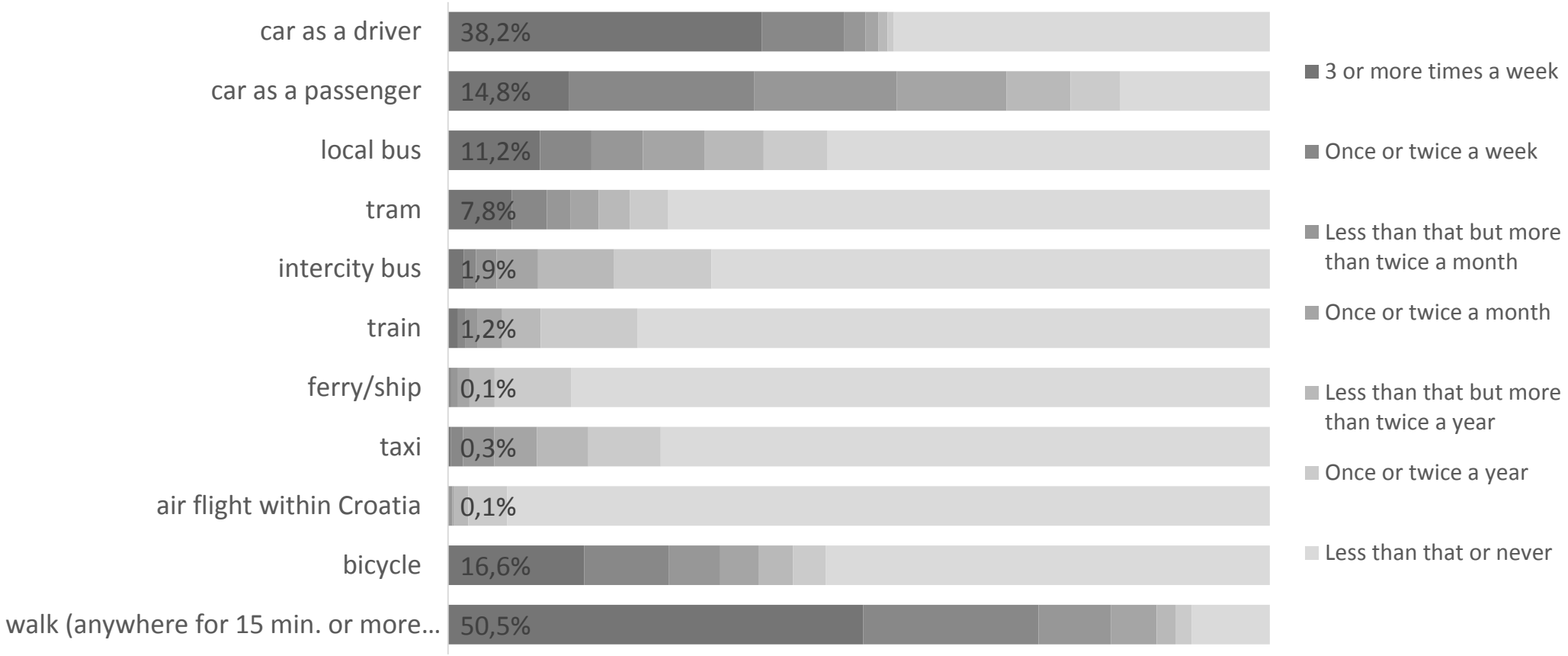
CROATIAN TRAVEL BEHAVIOUR SURVEY 2014: AIMS AND OBJECTIVES

- The travel behaviour survey was conducted as a part of the „National Traffic Model for the Republic of Croatia” project.
- The primary aim of the survey was to provide information about personal travel within Croatia while the second aim was to obtain the background information needed for better understanding of travel behaviour.
- Specific objectives of the survey were to collect information on travelling on the assigned day, usual mode of travel, preferences for commuting, general attitudes towards travel, and personal and household data.

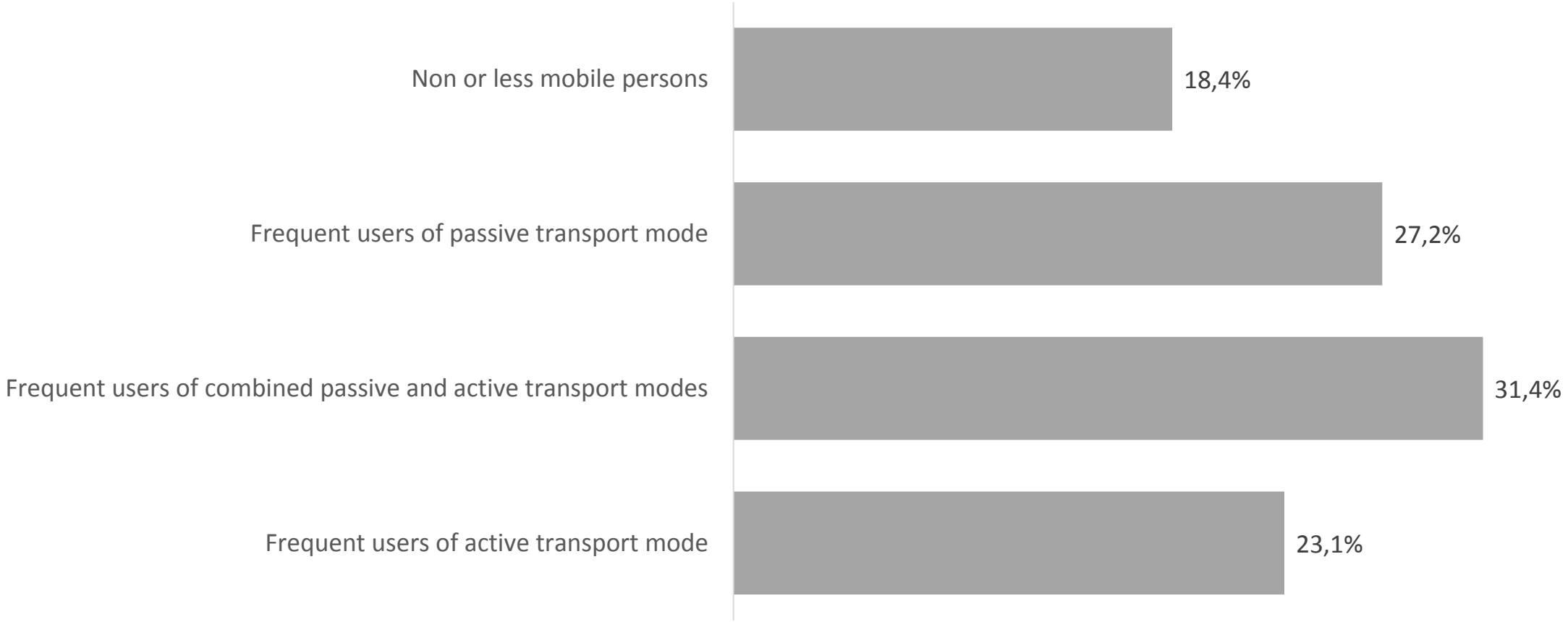
DATA AND METHOD

- RESEARCH DESIGN AND DATA COLLECTION
  - The target population was those aged 14 and older living in private households in Croatia. The sample was composed of 3,000 respondents.
  - Paper and pencil interviewing (face-to-face) was used as the mode of data collection.
  - The fieldwork was conducted from September 2014 to November 2014.
- SAMPLING DESIGN
  - The survey was based on a stratified multistage random probability sample with four stages in total. The Primary Sampling Units (PSUs) were settlements, the Secondary Sampling Units were streets within settlements, the Third Sampling Units were households, and the last stage and the Fourth Sampling Units were individuals.

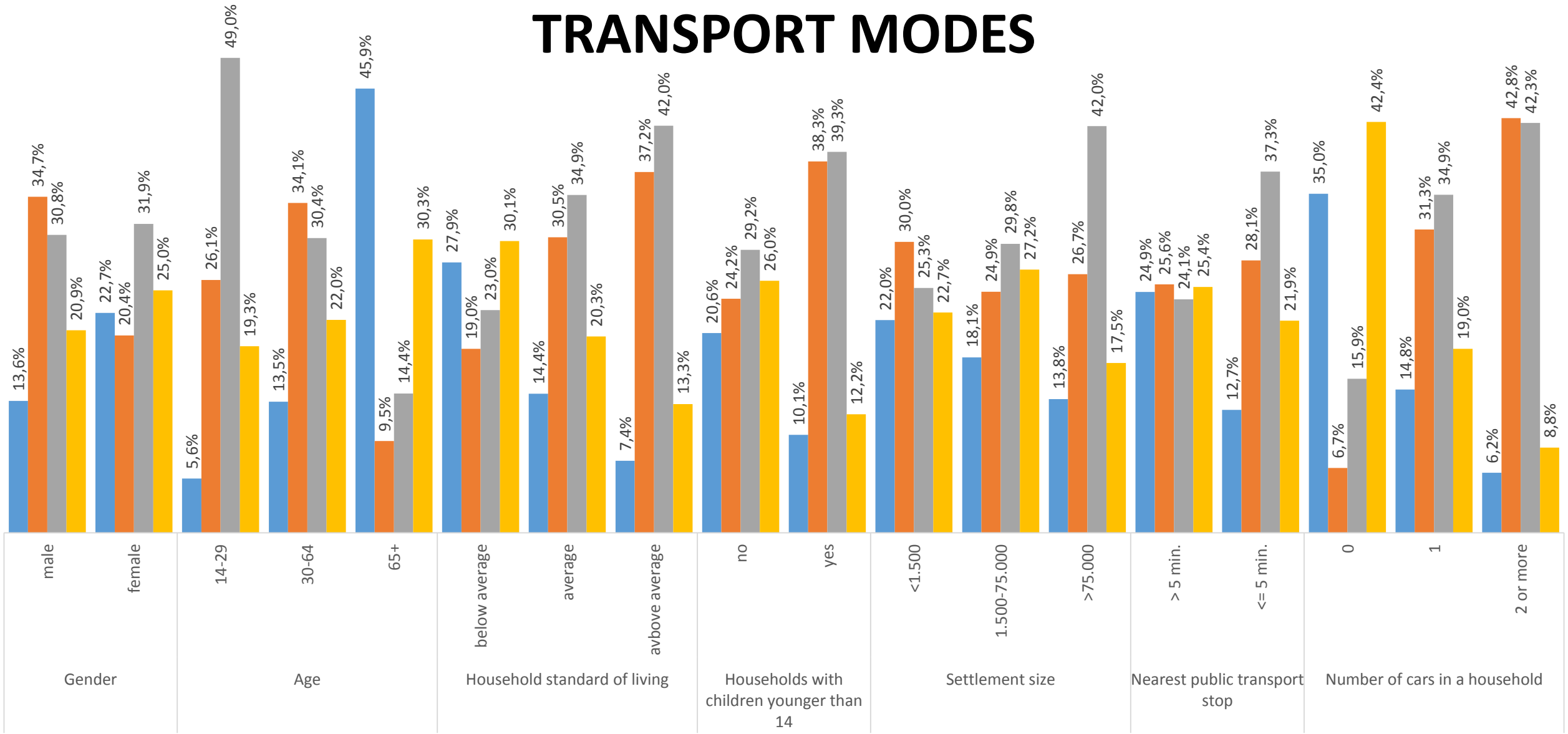
FREQUENCY OF USE OF DIFFERENT FORMS OF TRANSPORT IN THE LAST YEAR



PREVALENCE OF FREQUENT USE OF ACTIVE AND PASSIVE TRANSPORT MODES



SHARE OF USERS OF ACTIVE AND PASSIVE TRANSPORT MODES



PREDICTORS OF TRANSPORT MODE USE

- To determine the effect of independent variables on the active or passive transport mode use, a hierarchical binary logistic regression was employed.
- Consequently, 3 separate regression models were formed for analysis of odds ratios of being a:
  - *frequent user of passive transport mode or frequent user of active transport mode (Model 1)*
  - *frequent user of passive transport mode or frequent user of combined passive and active transport modes (Model 2)*
  - *frequent user of combined passive and active transport modes or frequent user of active transport mode (Model 3)*
- Independent variables:
  - gender, age, household standard of living, households with children younger than 14 years, settlement size, nearest public transport stop, and number of cars in households

RESULTS OF REGRESION ANALYSES

Independent variables	Model 1 (dependent variable: 0=frequent user of passive transport mode; 1= frequent user of active transport mode)			Model 2 (dependent variable: 0=frequent user of passive transport mode; 1=frequent user of combined passive and active transport modes)			Model 3 (dependent variable: 0=frequent user of combined passive and active transport modes; 1=frequent user of active transport mode)		
	S.E.	Wald	Exp(B)	S.E.	Wald	Exp(B)	S.E.	Wald	Exp(B)
Gender (reference: male)									
female	0,130	41,384**	2,305	0,100	28,476**	1,708	0,117	3,836	1,258
Age (reference: 14-29)									
30-64	0,162	5,725*	0,679	0,119	24,266**	0,556	0,144	1,498	1,193
65+	0,211	12,000**	2,075	0,184	0,002	1,008	0,173	22,799**	2,279
Household standard of living (reference: below average)									
average	0,145	9,526**	0,640	0,121	1,567	0,859	0,129	10,358**	0,661
above average	0,302	5,550*	0,491	0,206	0,071	0,946	0,272	7,308**	0,480
Households with children younger than 14 (reference: no)									
yes	0,153	18,440**	0,519	0,108	0,316	0,941	0,144	12,992**	0,596
Settlement size (reference: <1.500)									
1.500 - 75.000	0,148	9,598**	1,581	0,117	3,879*	1,260	0,136	1,123	1,155
>75.000	0,179	0,014	0,979	0,132	2,865	1,251	0,162	9,177**	0,612
Nearest public transport stop (reference: > 5 minutes)									
<=5 minutes	0,135	2,667	0,802	0,107	2,709	1,193	0,124	12,268**	0,648
Number of cars in a household (reference: 0)									
1	0,202	83,488**	0,158	0,209	5,844*	0,603	0,151	62,48**	0,304
2 or more	0,236	142,638**	0,060	0,220	7,732**	0,543	0,194	106,954**	0,134
-2 LL	1.467,47			2296,998			1777,849		
Model χ^2	474,851** (df=11)			95.572** (df=11)			333,965** (df=11)		
Nagelkerke R^2	0,382			0,072			0,259		
Homser and Lemeshow χ^2	4,818			15,736			13,230		

KEY FINDINGS

- Model 1:
  - gender, age, household standard of living, households with children younger than 14 years, settlement size, and number of cars in households
- Model 2:
  - gender, age, settlement size, and number of cars in households
- Model 3:
  - age, household standard of living, households with children younger than 14 years, settlement size, nearest public transport stop, and number of cars in households