

# PREDICTORS OF METHAMPHETAMINE USE IN DISADVANTAGED NEIGHBOURHOODS IN CZECHIA

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## SUMMARY

**Objective:** This study aims to identify predictors of the lifetime prevalence of methamphetamine use in the population of Czech disadvantaged neighbourhoods.

**Methods:** Using data from a face-to-face representative survey, two types of analysis were performed. A bivariate analysis (unadjusted odds ratios estimated with logistic regression) was conducted to determine the relationship with a dependent variable (lifetime prevalence of methamphetamine use). Subsequently, three multivariate binomial logistic regression models (socio-demographic and socioeconomic status, incarceration and victimization, mobility and space) were conducted to control for the influence of other variables.

**Results:** In a series of multinomial logit models, we have found the following predictors to be significantly associated with lifetime prevalence of methamphetamine use: age, gender, Roma ethnicity, net monthly household income, unstable housing, lifetime experience with incarceration, lifetime experience with discrimination, urban-rural divide, and index of rural peripheralization.

**Conclusions:** The results suggest that methamphetamine users are multidimensionally disadvantaged and therefore constitute a vulnerable group with specific needs. This should be considered when designing services and policies targeting methamphetamine use in disadvantaged neighbourhoods.

**Key words:** methamphetamine, drug use, disadvantaged neighbourhoods, Roma

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<https://doi.org/10.21101/cejph.a7121>

## INTRODUCTION

The use of methamphetamine in Czechia can be traced back to the 1970s. Locally referred to as Pervitin, methamphetamine was among the most popular illicit drugs on the Czech drug scene in the 1980s when it was consumed in closed communities and produced in domestic laboratories (1, 2). Domestic production of methamphetamine dominated even after the country's transition from state socialism to capitalism, though it was partially overtaken by large-scale production which supplied the commercial black market that gradually evolved in the wake of 1989 (1–3). In recent decades, methamphetamine has proliferated the night-time economy (4, 5). Methamphetamine is currently recognized as the most frequently used high-risk illicit drug in Czechia, with young adults, clients and employees of the night-time economy, and prisoners identified as the groups most at risk (3, 4). In terms of socio-demographic characteristics, the average age of methamphetamine users in treatment is 33 and most of the users have primary or secondary education (3). From a socioeconomic point of view, most of the methamphetamine users in treatment are single, have unstable housing, and have unstable or illegal income (3).

Methamphetamine was, along with cannabis, recently reported as the most frequently used illicit drug among Roma in disadvantaged neighbourhoods (6, 7). This can be seen as a shift from

the early 2000s, when volatile substances such as toluene were considered the dominant drug among Roma in Czechia (8, 9) and surrounding countries (10). However, existing knowledge regarding illicit drug use in Czech disadvantaged neighbourhoods, both urban and rural, is generally limited. The government conceptualizes such neighbourhoods as “socially excluded localities” (SELs), using both material and symbolic criteria (11). Among the general population, these localities are mostly stigmatized as “Gypsy ghettos”, even though Roma often constitute a smaller part of their population (12). Despite representations of SELs as having higher rates of drug use (3), Kupka et al. (13) found no significant difference in the lifetime prevalence of illicit drug use between disadvantaged and more affluent neighbourhoods within the same municipalities with the exception of LSD use and methamphetamine use, where the latter was found to be higher in disadvantaged neighbourhoods (cf. 14).

The present study aims to contribute to existing knowledge on illicit drug use in disadvantaged neighbourhoods by asking “What are the predictors of the lifetime prevalence of methamphetamine use among SEL residents?” The strength of this contribution is that the sample is representative of SELs in Czechia. Furthermore, the study fills the gap in knowledge that lies in the lack of information about predictors of methamphetamine use in SELs in Czechia based on a representative sample. As methamphetamine is the most prevalent high-risk substance not only in SELs but also in

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the whole country (3), its use may further marginalize users and impede social inclusion policies. Therefore, it is policy relevant to identify the factors that increase the chance of methamphetamine use, both at an individual and environmental level.

## MATERIALS AND METHODS

### Data Collection

Data were mostly collected via a cross-sectional survey conducted in 2016 in Czech disadvantaged neighbourhoods. In addition, existing data sets (15, 16) were used in order to construct two variables: the urban-rural divide and rural peripheralization. The survey was primarily oriented towards victimization experience but included questions regarding illicit drug use and other topics. A total of 2,566 questionnaires were acquired using face-to-face interviews with inhabitants who were at least 15 years old and had lived at their current address for at least one month.

The sampling was carried out in two phases. Using a government list of disadvantaged neighbourhoods (11), the neighbourhoods were divided into five quintiles based on the number of residents in the municipality and the share of the inhabitants of disadvantaged neighbourhoods in the municipality's total population; 181 towns with 289 disadvantaged neighbourhoods were selected using all possible combinations of quintiles from both categories in every Czech region (excluding Prague). A broad spectrum of municipalities, from small towns with a large share of people in disadvantaged neighbourhoods to large cities with a small share of people in disadvantaged neighbourhoods, was therefore covered.

The second step used quota sampling. As the inhabitants in question can be considered a hard-to-survey group, random sampling was not possible. The quotas reflected the demographic structure of disadvantaged neighbourhoods and municipalities (gender and age) and were based on the data provided by the Czech Statistical Office.

### Data Analysis

To identify predictors of the lifetime prevalence of methamphetamine use in SELs, two types of analysis were performed. First, we conducted a bivariate analysis (unadjusted odds ratios estimated with logistic regression) to determine the relationship with a dependent variable (lifetime prevalence of methamphetamine use). Second, three multivariate binomial logistic regression models were conducted to control for the influence of other variables: socio-demographic and socioeconomic status, incarceration and victimization, mobility and space. Each model included control variables from the group of independent variables and the variables of age and gender. The variables were also assessed for multicollinearity, the tolerance values were higher than 0.1 and the VIF was not greater than 10, which indicates no issues with multicollinearity (17).

## Variables

### Dependent Variable

The dependent variable is lifetime prevalence of methamphetamine use. We used lifetime prevalence because the previous

analysis of the data showed that very few respondents in SELs reported a current prevalence of illicit drug use with the exception of cannabis (13), which corroborates the results of selective studies on illicit drug use (excluding cannabis) in the Czech population (3); furthermore, from the perspective of lifetime prevalence, methamphetamine use is the most frequent, as shown by our previous research (13) and other research (3).

### Independent Variables

In this study, we used three groups of independent variables: socio-demographic status and socioeconomic status, incarceration and victimization, space and mobility. The study considered the following variables which inform about socio-demographic status: gender (male/female), age (15–29, 30–44, 45–59, 60 and over), ethnicity (Czech, Roma, Slovak, other), education (elementary, secondary without a diploma, secondary with a diploma, higher education), and marital status (in a relationship, single, and divorced or widowed). The socioeconomic status of the respondents was described in terms of the following variables: labour force status (unemployed, employed and other – unqualified labour, qualified labour, junior administrative worker, head administrative/technical worker, professional and research specialist, housewife, maternal/parental leave, pensioner, disability leave, and student), housing conditions (stable housing, unstable housing – lodging house, non-residential property, or other building without a lease agreement), and net monthly household income divided into the following categories: up to CZK 12,000 (up to approx. EUR 444), CZK 12,001–14,000 (approx. EUR 444–518), CZK 14,001–20,000 (approx. EUR 518–740), CZK 20,001 and above (approx. EUR 740 and above).

Discrimination, victimization, and incarceration are indicated in three categories: lifetime experience with discrimination (yes/no), lifetime experience with violent victimization (yes/no), lifetime experience with incarceration (yes/no). Discrimination was defined in the questionnaire as a situation where a person or group is treated less favourably than others because of a specific personal characteristic, such as being Roma, having a disability, having young children, being of advanced age, etc. We asked respondents if they had been discriminated against when looking for a job, at work, when looking to purchase or rent property for housing or extend their lease, purchasing goods or services, visiting the doctor, at school (both as a student or parent) or elsewhere. If a respondent answered yes at least once, s/he was identified as having lifetime experience with discrimination. Violent victimization means that a respondent reported at least one experience of being subjected to at least one of the following types of conduct: hate crime, threats of violence, physical assault, sexual harassment, bullying, extortion, psychological violence, sexual exploitation, robbery, rape, and sexual abuse.

Mobility and space consist of four categories: residential mobility in the past 12 months, duration of residence in the current municipality, urban-rural divide, and index of rural peripheralization. Residential mobility in the past 12 months (no mobility, from another municipality or country, and within the current municipality) and duration of residence in the current municipality (more than six years, less than six years) are derived from three questions: how long a respondent has lived at his/her current address, how long s/he has lived in the current municipality, and which municipality s/he lived in before.

The categories of urban-rural divide and the index of rural peripheralization are based on the existing classification of Czech space and are adapted to a municipal level, which is described in detail by Bernard and Šimon (15) and Šimon (16). The municipalities of residence were also categorized using the urban-rural classification with a scale ranging from urban to remote rural areas (urban or peri-urban municipality, rural municipality, remote rural municipality) (16).

The municipalities of residence were categorized using an index of rural peripheralization. This index divides rural municipalities into four categories according to the sum of the dimensions of peripherality: peripheral in one dimension, peripheral in two dimensions, peripheral in three or four dimensions, and non-peripheral – a category that includes municipalities classified as urban and peri-urban. The index of rural peripheralization includes four dimensions: low qualifications, lower standard of living, and the absence of a middle class; unemployment and social exclusion; demographic challenges (mainly a higher proportion of seniors); and poor transport accessibility to services (education, health care, employment opportunities, and public administrative services in larger towns) (14).

## RESULTS

Table 1 presents the results of the descriptive statistics analysis. The sample comprises 52% of females, 30% of Roma, and 63% of people with elementary education. In terms of experience with incarceration and victimization, 16% of the respondents have been imprisoned, 47% have experienced discrimination and 30% have endured violent victimization. The majority of respondents lived in urban and peri-urban municipalities (67%) and non-peripheral municipalities (74%). Eight percent (173) of inhabitants of SELs have used methamphetamine in their lifetime.

In the bivariate analysis, among the variables capturing socio-demographic and socioeconomic status, the following variables were found to be associated with the lifetime prevalence of methamphetamine use at a 0.05 level of significance: gender (female gender in comparison to male gender decreased the odds of methamphetamine use), age (age brackets above the 15–29 age group had lower odds of methamphetamine use), ethnicity (Roma in comparison to Czech ethnicity increased the odds of methamphetamine use), marital status (being single increased the odds of methamphetamine use in comparison to being in relationship, being widowed decreased the odds of methamphetamine use in comparison to being in relationship), labour force status (being unemployed increased the odds of methamphetamine use in comparison to other labour force statuses), net monthly household income (having an income of 14,001–20,000 and 20,001 and higher increased the odds of methamphetamine use in comparison to an income up to 12,000), and housing conditions (unstable housing increased the odds of methamphetamine use in comparison to stable housing) (Table 2). Similar results were obtained in the multivariate analysis, with the exception of marital status and labour force status, as they were no longer significantly associated with the lifetime prevalence of methamphetamine use (Table 3).

In the bivariate analysis, the results show a significant relation at a 0.05 level of significance between all the variables that repre-

sent experience with incarceration and victimization (experience with incarceration, experience with discrimination, and experience with violent victimization); furthermore, all of these experiences were shown to increase odds of methamphetamine use. After controlling for age, gender and other variables in this group, experience with violent victimization was no longer significantly associated with the lifetime prevalence of methamphetamine use.

In the bivariate analysis, among the variables capturing mobility and space, the following variables were found to be associated with the lifetime prevalence of methamphetamine use at a 0.05 level of significance: index of rural peripheralization (residence in a locality that was identified as peripheral across two dimensions increased the odds of methamphetamine use compared to residence in non-peripheral locations) and duration of residence in the current municipality (a duration of less than six years, in comparison to a duration of more than six years, increased the odds of methamphetamine use). The multivariate model shows that after controlling for age and gender and other variables in this group, the urban-rural divide (remote rural municipality) and index of rural peripheralization (peripheral in two dimensions, and peripheral in three or four dimensions) were significantly associated with the lifetime prevalence of methamphetamine use.

## DISCUSSION

This study aimed to identify predictors of the lifetime prevalence of methamphetamine use in Czech disadvantaged neighbourhoods. Some recent studies have suggested a high prevalence of methamphetamine use in this context (7, 13), which corresponds to other studies from “non-Western” cultural contexts (18). The predictors were examined using the categories of socio-demographic and socioeconomic factors, incarceration and victimization, and space and mobility. Using a series of multinomial logit models, we found the following predictors to be significantly associated with the lifetime prevalence of methamphetamine use among respondents living in SELs: age, gender, Roma ethnicity, net monthly household income, unstable housing, lifetime experience with incarceration, lifetime experience with discrimination, urban-rural divide, and index of rural peripheralization.

Among the socio-demographic and socioeconomic factors, age, gender, ethnicity, net monthly household income, and housing were identified as significant predictors. The significance of Roma ethnicity confirms the suggestion that Roma residents of SELs present a vulnerable group in terms of illicit drug use, although the prevalence of methamphetamine use may be lower than previously estimated (6). Seen as a non-white category in Czech society (19), the finding that Roma have a higher chance of having lifetime experience with methamphetamine use challenges the perception of methamphetamine as a “drug of the White” in other cultural settings (20). This finding supports evidence from other studies on this topic and, at the same time, illustrates a long-term trend of changing consumption patterns among Roma from volatile substances to other drugs including methamphetamine (6, 13). Future research in this area should thus inquire into which factors have led to this shift and also how Czechia compares with other central European countries.

The association between unstable housing and methamphetamine use has been previously reported in Czechia (3). This study

**Table 1.** Descriptive statistics (N=2,566)

		Sample		No lifetime prevalence of methamphetamine use		Lifetime prevalence of methamphetamine use	
		n	%	n	%	n	%
Gender	Male	1,224	48	1,102	90.0	122	10.0
	Female	1,342	52	1,291	96.2	51	3.8
Age	15–29	828	32	735	88.8	93	11.2
	30–44	671	26	609	90.8	62	9.2
	45–59	599	23	583	97.3	16	2.7
	60 and above	468	18	466	99.6	2	0.4
Ethnicity	Czech	1,514	59	1,428	94.3	86	5.7
	Roma	778	30	707	90.9	71	9.1
	Slovak	123	5	119	96.7	4	3.3
	Other	151	6	139	92.1	12	7.9
Education	Elementary	1,613	63	1,496	92.7	117	7.3
	Secondary without a diploma	740	29	693	93.6	47	6.4
	Secondary with a diploma or higher education	213	8	204	95.8	9	4.2
Marital status	In relationship	1,113	43	1,047	94.1	66	5.9
	Single	873	34	781	89.5	92	10.5
	Divorced or widowed	580	23	565	97.4	15	2.6
Labour force status	Employed and other	1,765	69	1,662	94.2	103	5.8
	Unemployed	801	31	731	91.3	70	8.7
Net monthly household income (in CZK)	Up to 12,000	719	28	693	96.4	26	3.6
	12,001–14,000	357	14	348	97.5	9	2.5
	14,001–20,000	1,095	43	988	90.2	107	9.8
	20,001 and above	246	10	224	91.1	22	8.9
Housing conditions	Stable housing	2,142	83	2,009	93.8	133	6.2
	Unstable housing	424	17	384	90.6	40	9.4
Lifetime experience with discrimination	Yes	1,200	47	1,089	90.8	111	9.3
	No	1,364	53	1,302	95.5	62	4.5
Lifetime experience with violent victimization	Yes	761	30	684	89.9	77	10.1
	No	1,805	70	1,709	94.7	96	5.3
Lifetime experience with incarceration	Yes	413	16	341	82.6	72	17.4
	No	2,153	84	2,052	95.3	101	4.7
Residential mobility in the past 12 months	No mobility	1,980	77	194	90.2	21	9.8
	Within the current municipality	371	14	344	92.7	27	7.3
	From another municipality or country	215	8	1,855	93.7	125	6.3
Duration of residence in the current municipality	More than six years	1,929	75	1,813	94.0	116	6.0
	Less than six years	637	25	580	91.1	57	8.9
Urban-rural divide	Urban and peri-urban municipality	1,718	67	1,601	93.2	117	6.8
	Rural municipality	579	23	538	92.9	41	7.1
	Remote rural municipality	269	10	254	94.4	15	5.6
Index of rural peripheralization	Non-peripheral	1,909	74	1,786	93.6	123	6.4
	Peripheral in 1 dimension	334	13	316	94.6	18	5.4
	Peripheral in 2 dimensions	162	6	144	88.9	18	11.1
	Peripheral in 3 or 4 dimensions	161	6	147	91.3	14	8.7

**Table 2.** The bivariate analysis (unadjusted odds ratios): predictors of lifetime methamphetamine use

			p-value	OR	95% CI for OR	
Socio-demographic and socioeconomic status	Gender	Female (ref. male)	0.001	0.357	0.255	0.500
	Age	30–44 (ref. 15–29)	0.001	0.805	0.573	1.129
		45–59 (ref. 15–29)	0.001	0.217	0.126	0.373
		60 and above (ref. 15–29)	0.001	0.034	0.008	0.138
	Ethnicity	Roma (ref. Czech)	0.002	1.668	1.202	2.312
		Slovak (ref. Czech)	0.262	0.558	0.201	1.548
		Other (ref. Czech)	0.261	1.433	0.765	2.688
	Education	Secondary without a diploma (ref. elementary)	0.425	0.867	0.611	1.231
		Secondary with a diploma or higher education (ref. elementary)	0.106	0.564	0.282	1.129
	Marital status	Single (ref. in relationship)	0.001	1.869	1.344	2.598
		Divorced or widowed (ref. in relationship)	0.003	0.421	0.238	0.745
	Labour force status	Unemployed (ref. employed and other)	0.007	1.545	1.127	2.119
	Net monthly household income (in CZK)	12,001–14,000 (ref. up to 12,000)	0.343	0.689	0.320	1.487
		14,001–20,000 (ref. up to 12,000)	0.001	2.887	1.860	4.479
		20,001 and more (ref. up to 12,000)	0.001	2.618	1.455	4.710
	Housing conditions	Unstable housing (ref. stable housing)	0.016	1.573	1.087	2.278
Discrimination, victimization and incarceration	Lifetime experience with discrimination	No (ref. yes)	0.001	0.467	0.339	0.644
	Lifetime experience with violent victimization	No (ref. yes)	0.001	0.499	0.365	0.682
	Lifetime experience with incarceration	No (ref. yes)	0.001	0.233	0.169	0.322
Mobility and space	Residential mobility in the past 12 months	From another municipality or country (ref. no mobility)	0.056	1.606	0.989	2.610
		Within the current municipality (ref. no mobility)	0.489	1.165	0.757	1.793
	Duration of residence in the current municipality	Less than six years (ref. more than six years)	0.011	1.536	1.104	2.138
	Urban-rural divide	Rural municipality (ref. urban or peri-urban municipality)	0.824	1.043	0.721	1.508
		Remote rural municipality (ref. urban or peri-urban municipality)	0.451	0.808	0.465	1.406
	Index of rural peripheralization	Peripheral in 1 dimension (ref. non-peripheral)	0.465	0.827	0.497	1.376
		Peripheral in 2 dimensions (ref. non-peripheral)	0.025	1.815	1.076	3.062
		Peripheral in 3 or 4 dimensions (ref. non-peripheral)	0.272	1.383	0.776	2.465

proves the statistical significance of this relationship and supports the general relevance of unstable housing as an important factor when assessing social stability (21, 22).

Lifetime experience with incarceration and discrimination were significantly associated with the lifetime prevalence of methamphetamine use. The association between incarceration and methamphetamine use corresponds to findings furnished by other studies both from Czech (3) and international contexts (23), though they do not focus on disadvantaged neighbourhoods specifically. Future research should thus strive to clarify the relationship between incarceration and methamphetamine use: is incarceration the cause of methamphetamine use or rather the effect? Experience with discrimination seems to be an important predictor of illicit drug use among marginalized people across various cultural settings (24, 25). Once again, the relationship between the two remains unclear and should subsequently be addressed.

In the category of mobility and space, residents of SELs in remote rural municipalities compared to residents of SELs in urban or peri-urban municipalities exhibit a lower chance of lifetime prevalence of methamphetamine use. Remote rural municipalities are defined by their distance from the nearest urban centre (more than 25 minutes by car) (15), meaning that the protective nature of this factor might lie in the limited availability of illicit drugs. However, it seems necessary to differentiate between different types of rural areas in terms of structural disadvantage. Residence in a rural municipality that is peripheral in two or more dimensions conversely increases the chance of lifetime prevalence of methamphetamine use compared to non-peripheral municipalities. As illustrated in the case of rural USA with increasing reports of methamphetamine use (26), it seems that residing in a rural location may not necessarily decrease the chance of methamphetamine use. The relationship between methamphetamine use and living



**Table 3. Binomial logistic regression models (adjusted odds ratios) of methamphetamine use controlled for age and gender and variables in the group**

		Model 1 (socio-demographic and socioeconomic status)				Model 2 (incarceration and victimization)				Model 3 (mobility and space)			
		p-value	OR	95% CI for OR	p-value	OR	95% CI for OR	p-value	OR	95% CI for OR	p-value	OR	95% CI for OR
Gender	Female (ref. male)	0.001	0.308	0.201	0.471	0.586	0.402	0.855	0.334	0.236	0.001	0.334	0.236
	30–44 (ref. 15–29)	0.072	0.702	0.478	1.032	0.516	0.351	0.758	0.806	0.571	0.221	0.806	0.571
	45–59 (ref. 15–29)	0.001	0.240	0.128	0.449	0.106	0.058	0.192	0.215	0.124	0.001	0.215	0.124
	60 and above (ref. 15–29)	0.001	0.033	0.008	0.146	0.001	0.005	0.080	0.034	0.008	0.001	0.034	0.008
Ethnicity	Roma (ref. Czech)	0.009	1.619	1.130	2.318								
	Slovak (ref. Czech)	0.546	0.721	0.249	2.085								
	Other (ref. Czech)	0.735	1.137	0.539	2.400								
	Secondary without a diploma (ref. elementary)	0.255	0.790	0.527	1.185								
Education	Secondary with a diploma or higher education (ref. elementary)	0.779	0.897	0.421	1.913								
	Single (ref. in relationship)	0.082	1.395	0.958	2.030								
	Divorced or widowed (ref. in relationship)	0.760	1.108	0.575	2.132								
	Unemployed (ref. employed and other)	0.402	0.828	0.532	1.287								
Labour force status	12,001–14,000 (ref. up to 12,000)	0.001	0.193	0.082	0.452								
	14,001–20,000 (ref. up to 12,000)	0.614	1.174	0.629	2.191								
	20,001 and more (ref. up to 12,000)	0.829	0.923	0.444	1.915								
	Unstable housing (ref. stable housing)	0.022	1.611	1.071	2.424								
Housing conditions	No (ref. yes)					0.010	0.629	0.443	0.893				
	No (ref. yes)					0.087	0.742	0.526	1.044				
	No (ref. yes)					<0.001	0.146	0.097	0.221				
	From another municipality or country (ref. no mobility)									0.811	0.811	1.075	0.596
Residential mobility in the past 12 months	Within the current municipality (ref. no mobility)									0.981	0.981	0.995	0.636
	Less than six years (ref. more than six years)									0.231	0.231	1.282	0.854
	Rural municipality (ref. urban or peri-urban municipality)									0.194	0.194	0.561	0.235
	Remote rural municipality (ref. urban or peri-urban municipality)									0.013	0.013	0.263	0.091
Urban-rural divide	Peripheral in 1 dimension (ref. non-peripheral)									0.558	0.558	1.337	0.506
	Peripheral in 2 dimensions (ref. non-peripheral)									0.015	0.015	3.343	1.260
	Peripheral in 3 or 4 dimensions (ref. non-peripheral)									0.013	0.013	3.996	1.338
	Peripheral in 3 or 4 dimensions (ref. non-peripheral)												11.932

in remote and more peripheral rural municipalities should be explored in future research.

The strength of this study lies in the unique nature of the sample, comprising residents of SELs. The major limitation of this study is that we did not take into account recent prevalence of methamphetamine use. It was not possible to use measures of recent methamphetamine use, as very few respondents considered themselves active methamphetamine users. A sample with a substantially higher number of respondents should be used to analyse recent methamphetamine use. Furthermore, we did not use a more refined scale of methamphetamine use which might provide information about high-risk use. The other limitation is that the validity of the results is contingent on the respondent's willingness to answer honestly regarding sensitive topics, such as drug use (27). As mentioned above, the cross-sectional nature of our research only allowed us to observe correlations rather than answer more in-depth questions about causal mechanisms, such as whether methamphetamine use is the cause of higher discrimination or vice versa. The last limitation is that we gathered data only on the lifetime prevalence of methamphetamine use. Other indicators of methamphetamine use prevalence should be employed, especially those that indicate current use and measure how risky the use is. Future research in this area should examine the prevalence of methamphetamine use in previous months or year and should also explore research tools for measuring the riskiness of methamphetamine use.

## CONCLUSION

The predictors identified in this study point to the existence of a multidimensional disadvantage borne by inhabitants of SELs with experience of methamphetamine use. Roma ethnicity, low household income, unstable housing, experience with incarceration, experience with discrimination, and residence in an urban and peri-urban municipality or a more peripheral rural municipality all increase the chance of lifetime prevalence of methamphetamine use in SELs. The above characteristics of people with lifetime experience of methamphetamine use should be considered when designing services and policies targeting methamphetamine use in disadvantaged neighbourhoods. More information on the actual use of methamphetamine, its degree of riskiness, and the specific needs of methamphetamine users is certainly needed. Other quantitative and qualitative studies should be conducted and used as a supplemental source of information.

Although drawing policy recommendations from this study may be premature given the still insufficient knowledge on methamphetamine use in disadvantaged areas, the findings at least pave the way for a desirable direction. There should be ample services and policies which target the specific needs of methamphetamine users in SELs. In this case, this refers to their living conditions: unstable housing and low household income. Stable housing, which is considered an important factor in terms of social stability, should be made available. Furthermore, post-penitentiary services, drug treatment in prisons and specific services for people of Roma ethnicity should be supported. It is also advisable to target such services in urban and peri-urban SELs and more peripheral SELs. The broader social context, such as discrimination, is also of interest when drafting drug policies and should be taken into account by key actors.

## Acknowledgements

We are grateful to Martin Šimon from the Institute of Sociology of the Czech Academy of Sciences for providing the data on the urban-rural divide and index of rural peripheralization. We also thank Petr Lang from the Agency for Social Inclusion (CZ) and Lenka Hrbková from Masaryk University (CZ) for their comments on the paper's earlier drafts.

## Funding

The analysis and writing of this article were conducted with the support of the Charles University Institutional Support Programme Cooperation (HEAS). Data collection was supported by the Security Research Programme of the Czech Republic 2015-2020 (BV III/1-VS, project number: VI20152018022).

## Conflict of Interests

None declared

## Adherence to Ethical Standards

The article complies with the basic ethical recommendations at the time of research, including data protection. The interviews were confidential, anonymous and respondents were given the information before the interview started. The personal information was not collected, and it is not possible to link answers to the respondents. The approval of the Board of Ethics was not requested by the primary funding body for data collection, which was the Ministry of the Interior of the Czech Republic.

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*Received September 22, 2021*

*Accepted in revised form November 9, 2022*