RURAL/URBAN DISPARITIES IN THE SITUATION OF CHILDREN AND WOMEN IN SERBIA

MICS

unicef
for every child

RURAL/URBAN DISPARITIES IN THE SITUATION OF CHILDREN AND WOMEN IN SERBIA

MICS

RURAL/URBAN DISPARITIES IN THE SITUATION OF CHILDREN AND WOMEN IN SERBIA

CONTENTS

ABBREVIATIONS

DPA   densely populated areas

IPA   intermediate populated areas

TPA   thinly populated areas

ECD   early child development

ECDI   early child development index

GPI   gender parity index

MICS   Multiple Indicator Cluster Survey

NAR   net attendance rate

PPP   preparatory preschool programme

TFR   total fertility rate

LIFE COURSE AND SPATIAL ASPECTS OF THE APPROACH

This study applies a life course theoretical approach and attempts to understand the different life paths of individuals and groups in a particular social and cultural context. The life course of each individual consists of different phases that are related to special roles, activities, relationships, identities and events that change over time and can arise from each other, can be simultaneous but also independent (Elder et al., 2003). Mayer (2002) identifies four key structures that influence life paths: 1. social structures, 2. institutional structures, 3. culture, and 4. the 'traversed path' of an individual throughout life. Social structures include class/stratum position, gender, place in the political power structure and available resources (financial, material and social). For example, when a family has sufficient material resources, it can provide optimal education for children (especially girls), which makes them less susceptible to dropping out of school, early marriage and marital violence, and more likely to have a longer life expectancy. Institutional support can be universal, have more or less coverage, cover more or fewer services and target groups, and as such have the effect of reducing or even deepening social inequalities. For example, subsidies for children in kindergartens belonging to vulnerable groups provide children with access to early education and increase their chances of staying longer in the education system and having better success. At the same time, giving priority to children whose parents are employed when enrolling in kindergarten hinders unemployed mothers from working or looking for work, and thus binds them to the private sphere. Culture encompasses norms and values and implies 'designs' of when it is time in life for which role and how to behave in accordance with that role. In the domestic context, expectations from individuals to go down the so-called standardized path still dominate, and these paths imply a clear sequence of events: education, employment, creating an independent household, marriage and parenthood. The last structure that Mayer mentions is the 'path traversed', which for an individual is the structure of already made decisions and (un)used chances during life. Previous events in life have an impact on the future ones by either increasing or limiting the further range of possibilities in different fields. When a girl enters into an early marriage, there is a high probability that she will leave (current high school) education, that she will not study, and that she will spend a significant number of years as inactive in the labour market. In that sense, we can recognize certain timings as risky for the possibility of realizing future events or expected outcomes: non-attendance of preschool institutions, early marriage, dropping out, etc.

Another theoretical framework related to the life-course are theories that indicate that inequalities or advantages increase during life like a snowball. The first variant of this approach (George and Ferraro, 2016), the *theory of cumulative advantages and disadvantages*, indicates that people born with certain privileges have a significant chance to increase them during life, and those born deprived are more likely to accumulate problems and disadvantages. The former will have better conditions for growing up, more adequate nutrition, better education, better-paid jobs with less risk, material security, better health, etc., while the latter will have to deal with challenges that will limit them to develop their potential. Ferraro et al. (2009) extend the application of this approach through the *theory of cumulative inequalities* by noting several new aspects that can help deepen the understanding of how inequalities are generated and accumulated. First of all, sudden social breakdowns (such as a pandemic) or changes affect differently people who are of different ages or in different stages of life. Children may have difficult access to education, young people to potential partners, and middle-aged people to the labour market. Further, deprivation often comes with a package of risks that amplify each other, as well as privilege. For example, those children who did not have a stimulating environment for learning at home, most often children who do not have their own room, the opportunity to isolate themselves while studying, were exposed to child labour, which led to low school achievement. The authors note that although life paths are affected by the accumulation of risks and available resources, it is necessary to keep in mind the agency as well. Personal desire and actions that are directed towards changing one's life in a certain direction can lead to progressive decisions and practices, such as staying in the education system, additional training, migration, etc.

Given that one part of this study deals with the population living in Roma settlements, research shows that ethnic minorities have more challenges and risks that affect their life course. They are more likely to drop out of the education system, where systemic discrimination, inadequate access, and poor learning outcomes are still present (Babović et al., 2018; Savić et al., 2001). Furthermore,

they are more likely to stay out of the labour market or to join it under less favourable conditions, which includes informal work and risky work (Jakšić and Bašić, 2002; UNDP, 2017; Jakobi et al., 2021). This population relies heavily on informal support networks and insufficiently on institutional ones, which all together lead to choices and events that multiply risks and affect the overall well-being (Field and Leicester, 2000; Wilson, 1996).

As depopulation trends are one of the most important challenges in the country, in this analysis they will be tackled by including spatial analysis in the focus. The depopulation trends are seen as a result of several mutually interdependent processes: 1. low fertility, 2. changes in the value system (from familialism to individualism), 3. imbalance in the expectation of behaviour of men and women in marriage/partnership, 4. relatively high costs of raising a child, 5. high migration rates, 6. low immigration rates, 7. relatively high mortality rates of the adult population, etc.

Some of these processes are impossible, or very difficult, to reverse, such as reaching high fertility rates, stopping emigration, or migration from rural to urban areas, but they can be slowed down. The thoughts of researchers and policymakers are therefore increasingly moving towards achieving a *higher level of quality of life*, rather than increasing the number of inhabitants of the country. Higher level of quality of life could be achieved through higher living standard, lowering inequalities based on gender, social class, ethnicity, settlement, region, etc., and lowering health risks.

The methodological limitation of applying this approach to MICS data is reflected in the lack of retrospection of various events at the individual level on the basis of which specific life paths can be reconstructed, and the chances of presence or absence of certain events and risks associated with them can be measured. The approach used is a proxy of life paths based on the analysis of age cohorts of children and women belonging to different social strata and ethnic groups. The intention is to identify the specific risks that children, young people and women face at different ages of life, risks that may be a consequence of both the social context and life events.

In the analysis, two levels of social reality will be directly related: 1. spatial framework and 2. characteristics of women and children during their life course. Analytical concepts to be used for explaining spatial differences are: 1. intra-settlement disparities (inequalities within a type of settlement) and 2. between-settlement disparities. The second pair of concepts is used for explaining differences between different types of settlements (e.g., urban and rural), while the first one, for expressing differences in the characteristics of the population in the different types of settlements.

The settlements are divided into three groups according to population density:

1. **densely populated areas (DPA)** or high-density clusters (urban centres) include fields of 1 km^2 with a density of at least 1,500 inhabitants per km^2 and a minimum settlement population of 50,000 residents;

2. **intermediate populated areas (IPA)** or urban clusters include fields of 1 km^2 with a density of at least 300 inhabitants per km^2 and a minimum population of 5,000 in a settlement; and

3. **thinly populated areas (TPA)** or village clusters include all settlements not falling in the previous groups.

The classification of children is formed in accordance with the developmental stages and the educational cycle so that this population is divided into three phases of development: 1. infant (0–23 months) and early childhood (24–59 months); 2. preschool children, and primary school children (2.1. first 6–9 years old and 2.2 second cycle, 10–13 years old). To identify differences in the patterns of life course of women — namely the course encompassing the domains of education, marriage/union, and motherhood — three age cohorts of women are followed: young women (15–24 years old), young adulthood (25–35 years old) and middle-aged women (36–49 years old).

At the end of the introduction, it should be added that the author conceptually and structurally relies on a study *Rural/Urban Disparities in the Situation of Children and Women, The analysis of Multiple Indicator Cluster Survey data* conducted in 2015 (UNICEF, 2015).

CHILDREN: GAPS AND DISPARITIES

## Children 0–4 and 5–17 in DPA, IPA and TPA

The material conditions of children's lives

The state of children's housing

Local research has shown real estate to be somewhat more attainable in rural areas and smaller towns (due to lower costs and demand) and that families have access to a greater number of rooms and more space. Meanwhile, the other side of the rural life coin is that the quality of housing is significantly lower. MICS data confirm these findings, indicating that children growing up in rural areas live significantly more frequently in inadequate housing. Children in TPA are more likely to live in housing with leaking roofs, damp floors or walls and where mould is present. One in five children in rural areas live in housing where mould is present, while one in four live in damp housing. Health conditions affecting all generations, including a number of chronic diseases, can result from housing in such conditions and, at the same time, poor quality housing can also, in relative terms, cost more to maintain.

On the other hand, according to the perceptions of their parents, children in DPA are faced with a greater risk of noise, environmental pollution and crime in the areas where they live. The parents of children under the age of 5 living in IPA deem this to be a less harmful environment than the parents of children from the same age group in DPA. Yet the parents of children aged 5–17 in IPA identify risks in practically the same way as their DPA counterparts. One possible explanation for this is that there is greater caution among parents of children growing up in IPA, which is particularly evident in terms of the risk of crime. In any event, perceptions of risk by parents with older children are heightened in more densely populated areas.

Chart 1. Housing characteristics — percentage of children 0–17 years old, Serbia
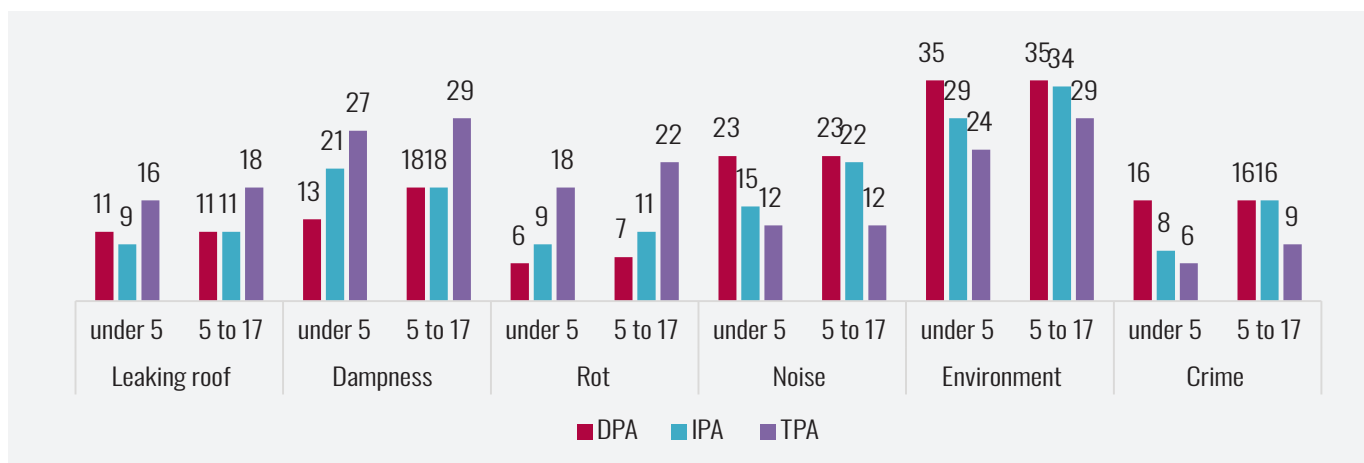
Per cent distribution of children (0–17 years) by selected housing characteristics

The circumstances of children living in Roma settlements are rather more dire than those of the general population. The condition of housing units across all types of areas is far worse in Roma settlements. The parents of children in Roma settlements are more likely to see environmental hazards (noise and pollution) as a challenge, while crime is a factor, particularly in DPA. In contrast to the general population, we do not see significant differences in housing condition across settlements of various sizes, indicating

that deprivation in terms of housing is relatively evenly distributed and that inadequate housing is equally present across all types of areas.

Chart 2. Housing characteristics — percentage of children 0–17 years old, Serbia Roma settlements
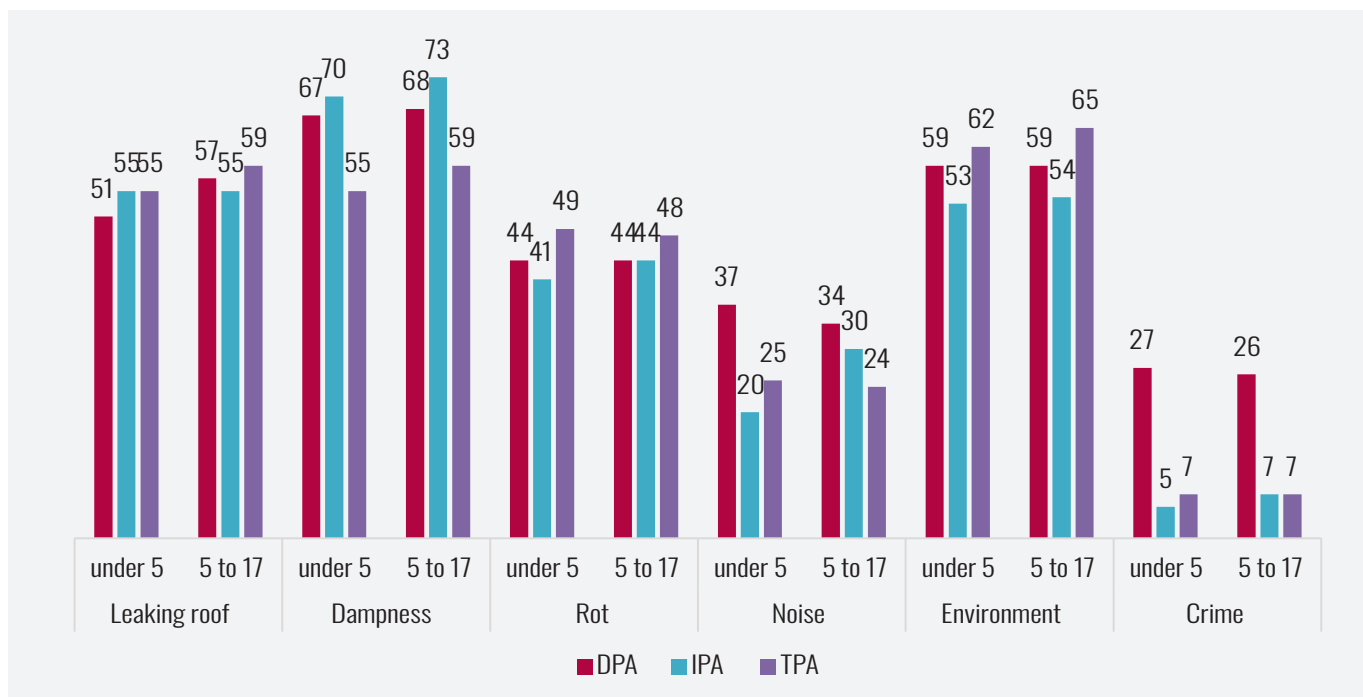
Per cent distribution of children (0–17 years) by selected housing characteristics

Sanitation infrastructure

Even though the data indicate that there are no significant differences in the availability of unimproved sanitation infrastructure according to the type of area,[1] there is still significantly less provision of sewage in TPA compared with urban areas. In TPA, a relatively small number of children (24 per cent of under-fives and 20 per cent of 5–17-year-olds) live in households that are connected to the sewage system, while this share is significantly higher in IPA (79 per cent and 80 per cent respectively) and DPA (92 per cent of children of all ages). Interestingly, a significant proportion (52 per cent) of IPA belonging to the Belgrade administrative region are still not connected to the sewage system, with this proportion being significantly lower in other regions.

The most common alternative to sewerage system connection is a septic tank.[2] Risks stemming from maintenance and emptying septic tanks are greater in TPA, where unsafe disposal of excreta from onsite sanitation facilities takes place in 13 per cent of cases (16 per cent in households with children under 5 and 11 per cent for those with children aged 5–17). These figures are 2 per cent in IPA and 0.1 per cent in DPA. Local research (Petrović, Pantić et al., 2016; Dokmanović et al., 2016; Rajković et al., 2014) shows that the environmental hazards resulting from inadequate septic tank maintenance and poor checks of their use have a major impact primarily on the poor quality of water in rural areas (Table A1 in Appendix).

---

1   The proportion of children living in households with unimproved sanitation infrastructure is as follows: Under-fives: 2.1% in TPA, 0% in IPA, and 1.2% in DPA. For 5–17-year-olds these figures are: 0.5% in DPA, 0.0% in IPA and 0.2% in TPA.
2   For children under 5 in TPA 68%, IPA 20% and DPA 7%, and for children aged 5–17 in TPA 71%, IPA 20% and DPA 8%.

The circumstances of children living in Roma settlements are even less favourable in terms of sanitation infrastructure when compared to children from the general population. One child in 20 living in DPA (5 per cent of under-fives and 4 per cent of 5–17-year-olds), slightly more in IPA (8 per cent of under-fives and 6 per cent of 5–17-year-olds) and more still in TPA (12 per cent of under-fives and 13 per cent of 5–17-year-olds) lack access to improved sanitation facilities.

Access to water

Almost all households in all types of areas have access to improved sources of drinking water; however, certain differences in access to water are still in evidence. All children living in DPA have access to water from improved sources, while in IPA and TPA only a small percentage[3] of children use unimproved sources of drinking water.

The data show that rural households are more frequently forced to compensate for a lack of adequate drinking water by purchasing bottled water, which puts additional strain on household budgets. Vojvodina stands out as a region where these problems are more pronounced, both in rural and urban areas. It is closely followed by the Belgrade region. The Southern and Eastern Serbia region stands out because here a significant number of TPA households with children rely on wells or protected springs (see Tables A2–A5 in Appendix). TPA households with children belonging to the poorest or second wealth index quintiles are more likely to rely on a protected spring, while those in better-off households are more likely to purchase bottled water, indicating the differences existent in rural areas and the risks to which poorer households are exposed.

Chart 3. Drinking water available when needed

Percentage of household population with drinking water available in sufficient quantities

■ DPA   ■ IPA   ■ TPA
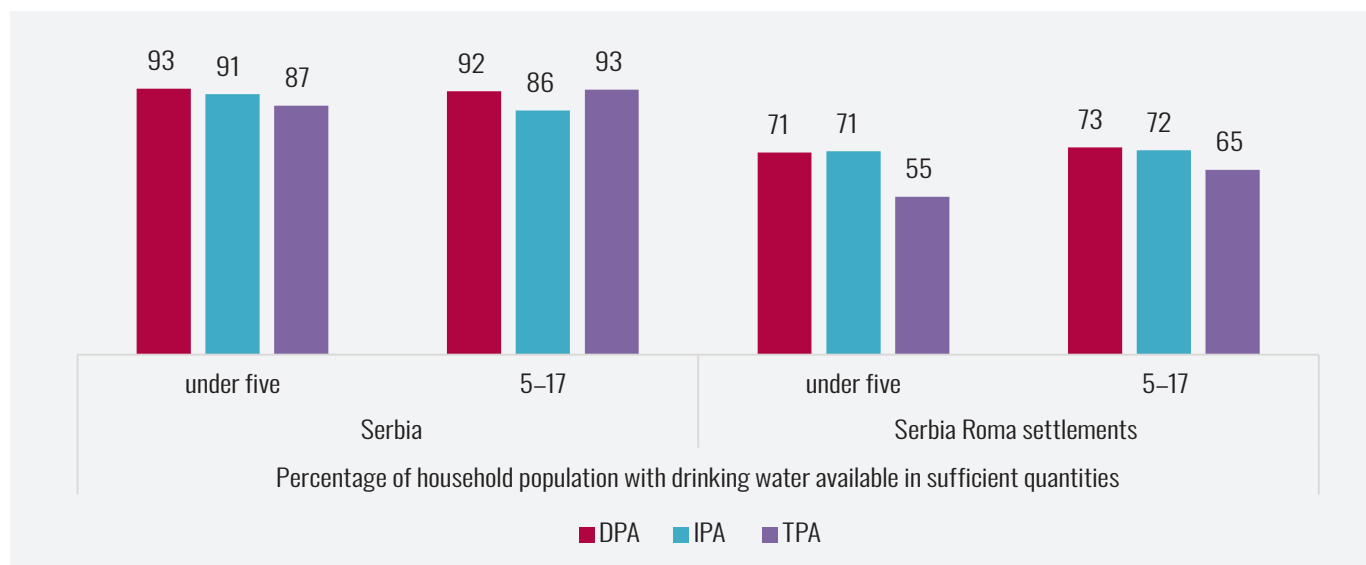
Percentage of children (0–17 years) with drinking water available in sufficient quantities

Certain differences also emerge in the availability of desired quantities of water. Children living in IPA are somewhat worse off, where a slightly larger number do not have enough water for their needs. Most of those who lack sufficient water state that water is not available from springs, but those in IPA state, significantly more frequently, that the spring itself is not accessible — indicating a problem specific to households in smaller settlements. While it is possible to compensate for some infrastructural shortfalls in

---

3   The proportion of children living in households with unimproved water sources is as follows: Under-fives: 0% in TPA, 0% in IPA and 0.1% in DPA, and for 5–17 year-olds: 0.0% in DPA, 0.5% in IPA and 0.4% in TPA.

rural areas by turning to traditional methods, this is not true of IPA and children in these areas are faced with insufficient quantities of water.

The proportion of children living in Roma settlements without adequate access to water is somewhat greater than in the general population. As with the general population, those in TPA households are forced to compensate for the lack of drinking water by purchasing bottled water, but the incidence of this practice is lower than in the general population, most likely due to the lower average purchasing power of these households. This leads us to the next finding, that a significant number of children live in households with insufficient quantities of drinking water available. One in four children in DPA and IPA and one in three in TPA do not have access to an adequate supply of drinking water.

Other infrastructure

Children living in DPA have better access to cleaner technologies in their households. Those in DPA are significantly more likely to rely on clean fuels and technologies for cooking, heating and lighting. Infrastructure in IPA and TPA is significantly more traditional, less reliable, requires a greater commitment of time, and is also less environmentally friendly. Those in TPA are by far the least likely to use clean technologies, indicating, on the one hand, a lack of infrastructure and, on the other, the risks to which children are exposed. Children living in poorer households (with a lower wealth index) and in which the head of the family has completed only primary education are at greater risk. Moreover, poorer rural children (belonging to households up to 60 per cent on the wealth index) are more likely to live in households relying on less-clean technologies, when compared with their poorer counterparts from DPA (Table A6 in Appendix).

Chart 4. Primary reliance on clean fuels and technologies for cooking, space heating and lighting
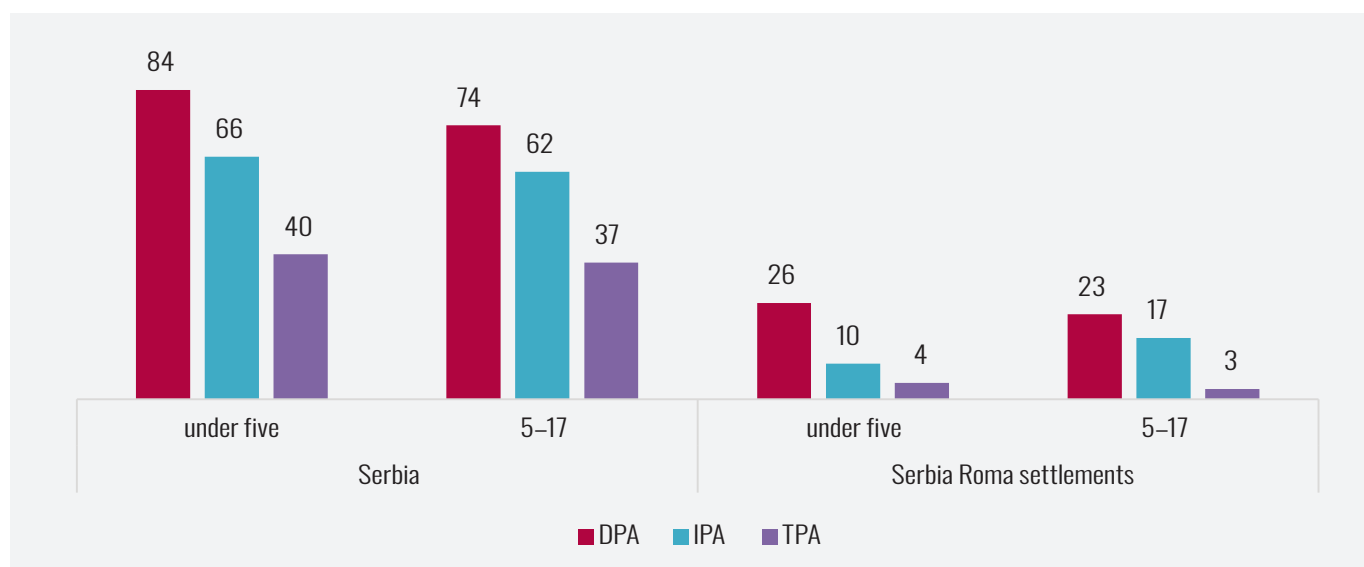
Percentage of children (age 0–17 years) living in households using clean fuels and technologies for cooking, space heating, and lighting

Chart 5. Primary reliance on clean fuels and technologies for cooking, space heating and lighting, Serbia
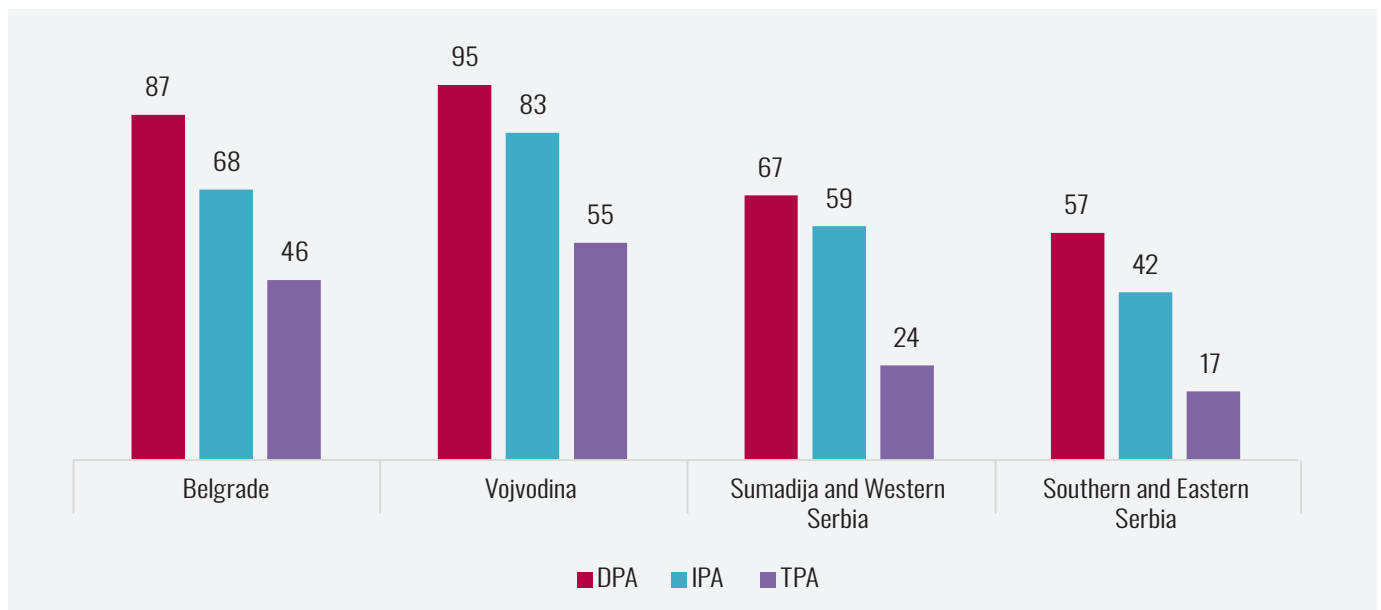
Percentage of children (0–17 years) living in households using clean fuels and technologies for cooking, space heating, and lighting

Access to digital technologies

Most children in all types of areas have access to the internet. Even so, almost one in ten children up to the age of 17 in TPA live in a household with no internet connection. These families and their children remain deprived of access to a significant amount of information and up-to-date knowledge on parenting and family life that is now online. Access to the internet and possession of adequate technologies have become particularly significant during the ongoing COVID-19 crisis, as they have become crucial for monitoring and participation in education processes. Bearing in mind that almost one in ten children in TPA live in a household without access to the internet, it is likely that these children are mostly lost to education processes. In cumulative combination with other sources of inequality, this difference will, in all likelihood, further impact their educational opportunities.

Most households rely on desktop computers, with laptops or tablets being somewhat rarer. All of these devices (except desktops) are more likely to be owned by DPA households. The Survey on the Use of Information and Communication Technologies (RZS, 2021) yields practically identical results, indicating that poorer and more rural households are less likely to possess a computer and internet access. Longitudinal data show that access to the internet is spreading quickly, particularly in less populated areas, thus gradually narrowing the digital divide. For example, in 2014 only 66 per cent of children aged 5–17 in TPA had access to the internet, while in 2019 this figure was 91 per cent (Table A7 in Appendix).

Children living in Roma settlements are significantly less likely to live in households with access to digital equipment and the internet than their counterparts in the general population. Somewhat more than half of these children have a personal computer, while around a third have a laptop or a tablet. Three quarters of households have access to the internet, but it is likely that a significant number of them access the internet via mobile phones. These data indicate that a significant number of children lacked adequate means to participate in classes and other school activities during the COVID-19 crisis, the effects of which will likely be evident in future drop-out rates. There are no significant differences across types of areas in terms of access to the internet and digital technologies, indicating that there is no digital divide based on place of residence. As with the general population, children living in Roma settlements are experiencing a narrowing of the digital divide across the types of areas in which they live. For example, in 2014 only 13 per cent of children aged 5–17 in TPA had access to the internet, while in 2019 this figure grew to 70 per cent (SORS and UNICEF, 2015).

Chart 6. Access to digital technologies — percentage of children 0–17 years old, Serbia
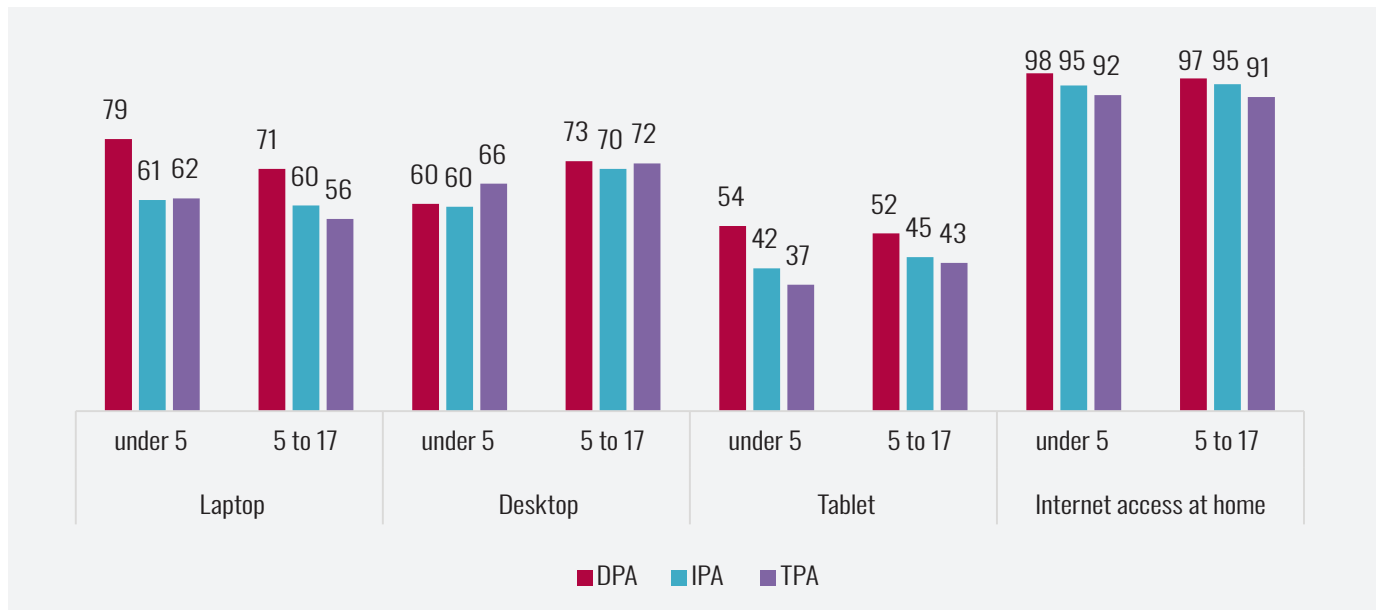
Per cent distribution of children (0–17 years) by selected housing characteristics

Chart 7. Access to digital technologies — percentage of children 0–17 years old, Serbia Roma settlements
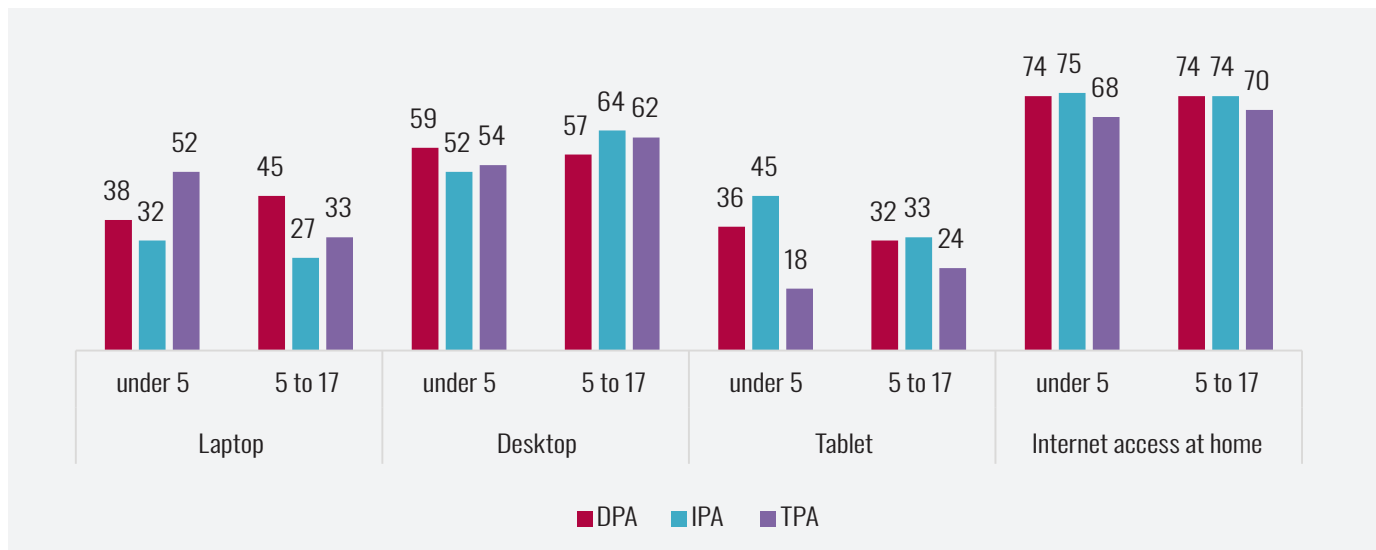
Per cent distribution of children (0–17 years) by selected housing characteristics

Wealth status

The wealth index[4] measures the degree of material well-being that is one of the more significant predictors both of the risks to which families and individuals are exposed, as well as their life chances — from child mortality, health and a safe household environment to educational opportunities, such as literacy, educational aspirations, educational level, drop-out rates at all educational levels, etc. (Shea and Kiersten, 2004). The material conditions children live in are much less favourable in less populated areas. This gap is particularly great when it comes to children under the age of 5 and those aged 5–17. In TPA, 73 per cent of children under the age of 5 belong to the category of those with a wealth index score below 60 per cent. In IPA, this figure is slightly less than half (around 45 per cent), while in DPA it is 22 per cent. When it comes to children aged 5–17 the gap is similar, with three quarters (73 per cent) in TPA being in the below 60 per cent category, while half (49 per cent) of IPA children are in this category, as are a third (33 per cent) of DPA children. Over the last five years, these circumstances have changed very little, with the only positive movement evident for children aged under 5 living in DPA, where there has been some reduction in the numbers of poor children. Even though this is a positive shift, it points to a potential widening of the gap between urban centres and the rest of the country.

Chart 8. Poorest 60 per cent of children (0–17) in three areas, Serbia (2014–2019)
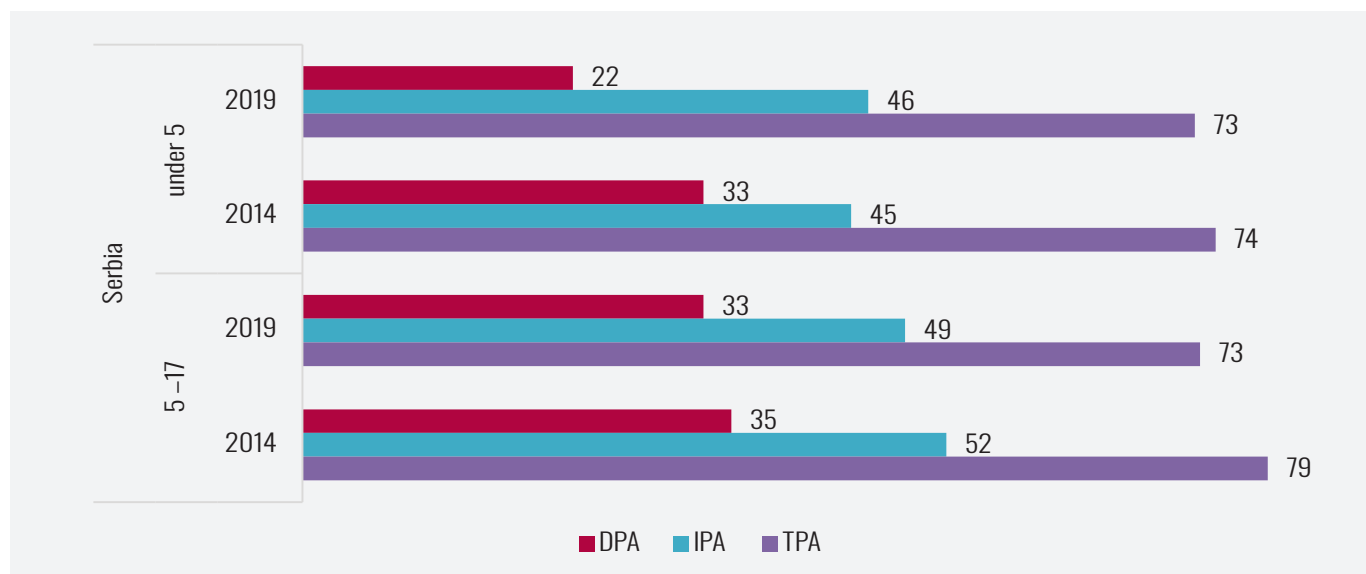
Per cent distribution of the children population 0–17 years old in 2014 and 2019

The wealth index shows us that children in Roma settlements are in a significantly worse position than children from the general population across all age groups and that these differences are evident in DPA and IPA but not when it comes to TPA. Based on this, we can conclude that urban poverty is linked to ethnic and social backgrounds, while in the countryside poverty is systematically tied to the limitations typical for rural areas. When we look only at children living in Roma settlements, we see that the circumstances of those living in urban areas (DPA and IPA) are slightly more favourable than those living in TPA. As many as four in five children aged under 5 in TPA live in households that are categorized as being below 60 per cent on the wealth index, while this is the case for two thirds of IPA children and just over half of DPA children. The results are almost identical for children aged 5–17. Even though certain differences are evident in the chart, these are not statistically significant, which indicates that the circumstances in which children live have not changed significantly and that it is imperative to work on improving the living conditions of families with children living in Roma settlements.

---

4   The index is adjusted to the surveyed population, so in addition to a number of common ones, there are also special indicators for the general and the population living in Roma settlements. For more on the methodology, see Statistical Office of the Republic of Serbia and UNICEF (2020, 30).

Chart 9. Poorest 60 per cent of children (0–17) in three areas, Serbia Roma settlements
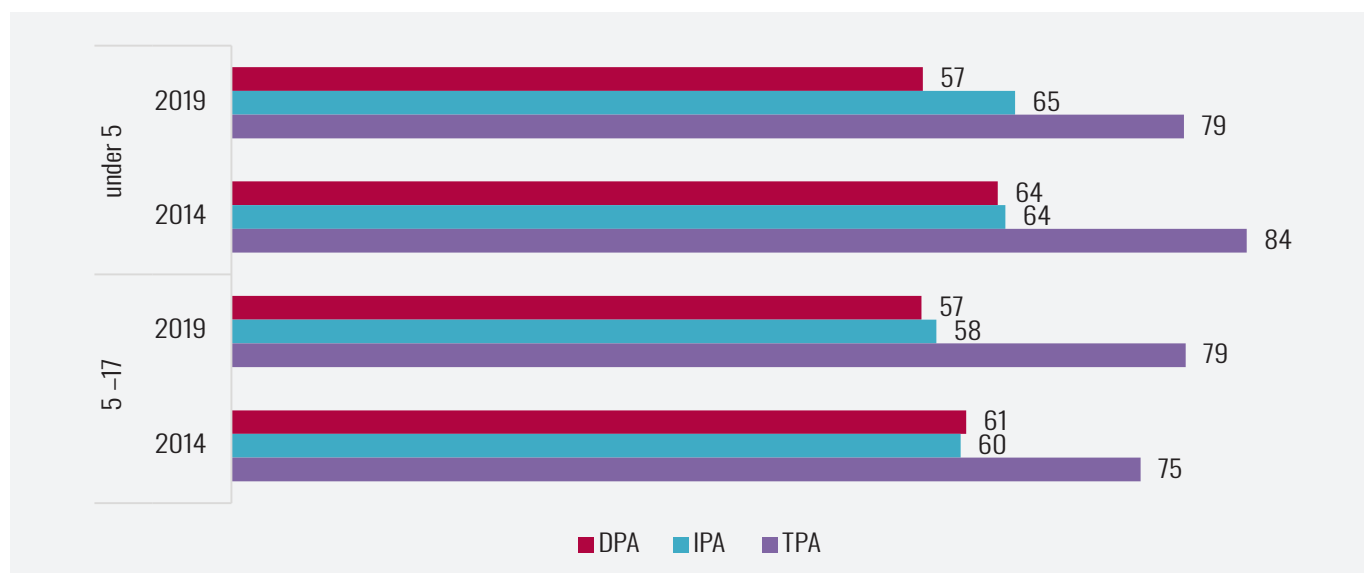
Per cent distribution of the children population 0–17 years old in 2014 and 2019

Maternal education: cultural capital

The cultural capital of parents, particularly mothers, is an important predictor of whether a child's developmental potential will be achieved. Better educated parents tend to create an encouraging learning atmosphere and are in a better financial position to involve their children in various non-formal and informal learning activities. The educational profile of the household in which children grow up also differs across various areas of population density. Only one in ten children aged under 5 in DPA have a mother who has completed only primary education (or has not finished primary school) compared to 15 per cent of children in TPA. On the other hand, in DPA more than two thirds of children under 5 have mothers who have attended higher education, while in TPA this proportion is less than a quarter. Things are somewhat different if we look at mothers with older children (aged 5–17). Here there is no significant difference between TPA and IPA when it comes to mothers with secondary education, though there are significantly fewer in DPA. Half of all mothers in DPA have completed higher education compared with just over a quarter in IPA and a sixth in TPA. As the level of maternal education decreases, the likelihood that the child will live in a poorer household (as measured by the wealth index and degree of material deprivation) increases.

It seems that differences in TPA amount to differences between Belgrade and the rest of rural Serbia. In the Belgrade region, as many as 54 per cent of children under 5 grow up with mothers who have attended higher education, while this figure is lower in all other regions (in Vojvodina it is 28 per cent, in Southern and Eastern Serbia it is 18 per cent, and in Šumadija and Western Serbia it is 22 per cent). This indicates a regional disparity between the microenvironments in which children live and the domination not only of urban centres but also a concentration of resources in just one such centre — Belgrade.

Change over time indicates an improvement in maternal educational level across all types of areas and for children from both age groups. For children under 5, the gap in maternal cultural capital has remained constant over time but the gap in maternal education for children aged 5–17 has increased between DPA and other areas, indicating the migratory movement of the well-educated with (older) children but also the greater opportunities mothers from larger urban centres have to complete higher education.

Chart 10. Education of mother — children 0–17 years old, in three areas, Serbia
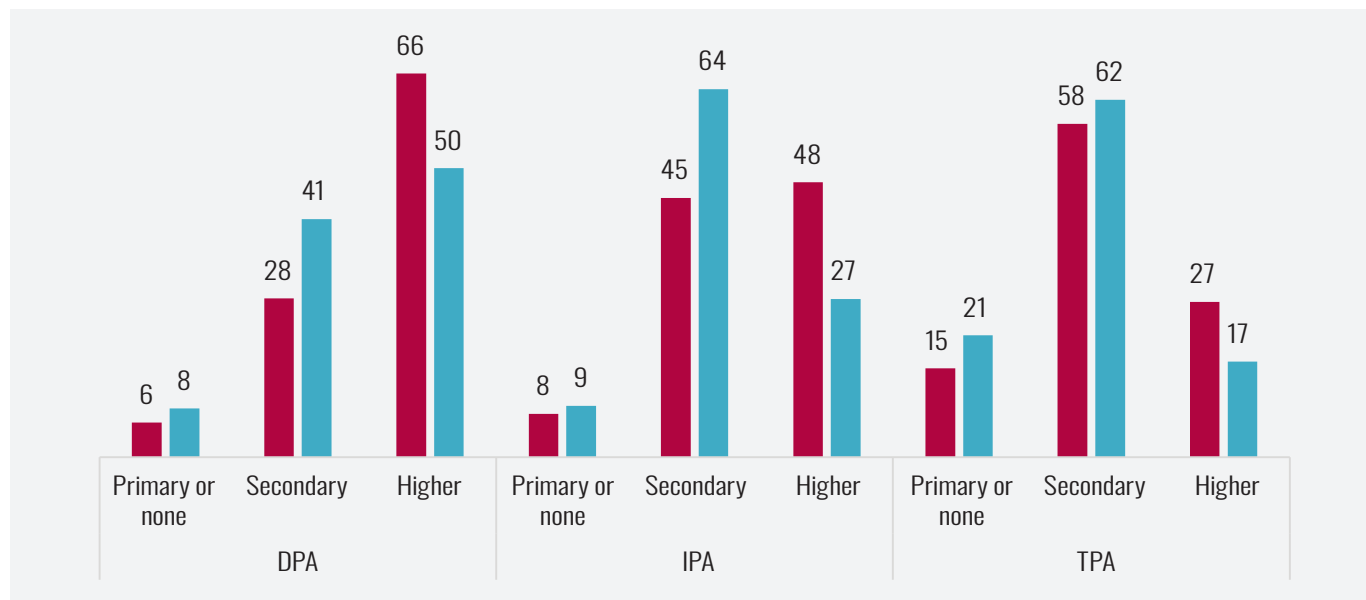
Per cent distribution of children (0–17 years) — education of mother in three areas

Chart 11. Trends in the education of the mother (children under 5), Serbia (2014–2019)
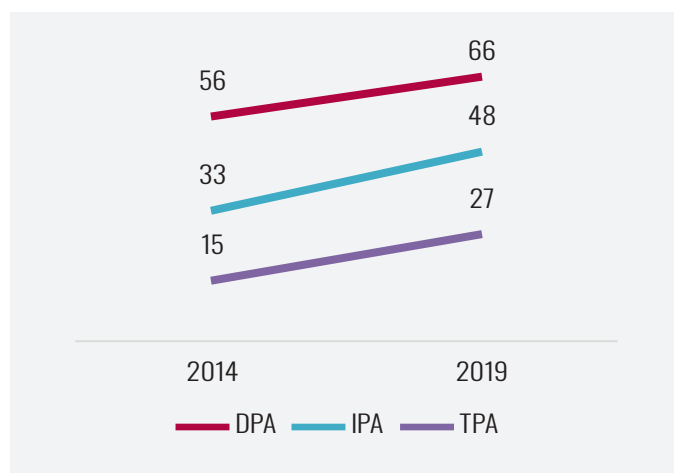
Per cent distribution of children (0–4 years) whose mothers have higher education, comparative 2014 and 2019

Chart 12. Trends in the education of the mother (children 5–17), Serbia (2014–2019)
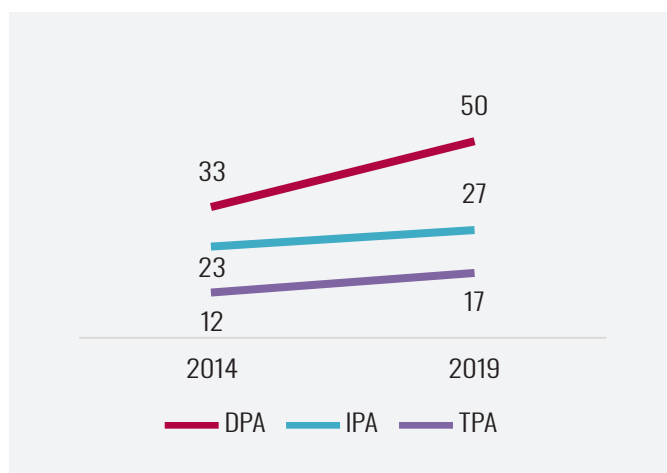
Per cent distribution of children (5–17 years) whose mothers have secondary or higher education, comparative 2014 and 2019

The educational level of mothers living in Roma settlements is evidently less favourable relative to the general population of mothers. A significant number of mothers in Roma settlements have not completed primary education, the most commonly completed educational level is primary education, and just one in ten mothers have completed secondary or higher education. This unfavourable educational structure either firmly binds mothers to traditional female roles and excludes them from the labour market or otherwise places them in the workforce in highly vulnerable positions. Differences in educational level vary only very slightly across areas of

population density or children's age (though there is a modest trend of mothers with younger children having somewhat better educational outcomes). This population has seen some progress in terms of educational structure, though the improvements are relatively minor (Tables A8–A9 in Appendix).

Chart 13. Education of mother — children 0–17 years old, in three areas, Serbia Roma settlements
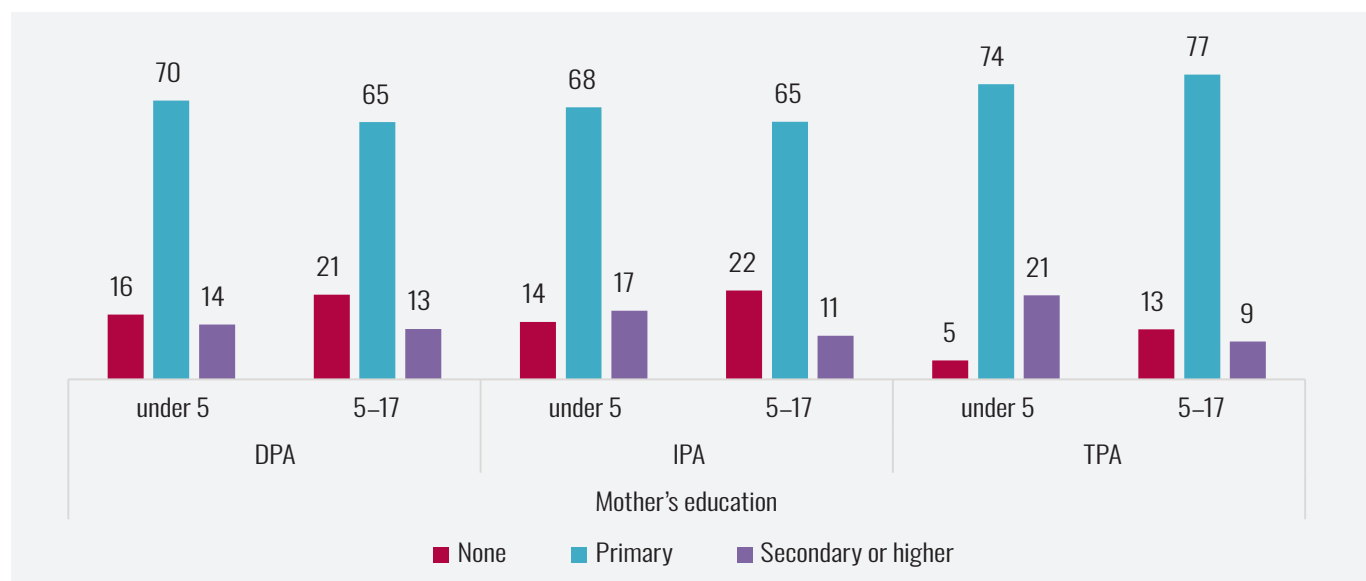
Per cent distribution of children (0–17 years) — education of mother in three areas

In addition to their educational level, the position of mothers in the labour market is an important indicator of the resources available to the household, but also of the model of attitudes to work and gender equality children are exposed to in the home. The long-term unemployment or inactivity of one parent increases the chances of financial deprivation and the lasting poverty of the family (Papadopoulos and Tsakloglou, 2016), hence the employment of both parents, particularly the mother, is a good indicator of this risk. Our analysis indicates that a significantly greater number of children in TPA (of both age cohorts) have mothers who are inactive, while both DPA and IPA have relatively higher proportions of mothers who are in work. A number of local studies indicate that mothers are prone to withdrawing from the workforce subsequent to having a child, though this withdrawal is more pronounced in TPA, and so the work–parenting balance is skewed along gender lines (with men taking on the role of provider, while women are caregivers). A mother's absence from the labour market directly impacts a child's likelihood of living in a poorer household (as measured by the wealth index), which cumulatively increases risks for both child and household (see Table A10 in Appendix).

The mothers of children in Roma settlements have a very unfavourable employment status in comparison to the general population. Most mothers do not work and are primarily dedicated to caring for the family. This proportion is particularly high when the children are young and decreases as they grow older. This trend is present across all types of areas. There are no major differences in the work status of mothers by area density, indicating a dearth of opportunities and significant barriers to employment across all area types. In contrast to the mothers from the general population, where slightly more opportunities for work are notable in urban areas, this population does not exhibit such differences, indicating that these mothers cannot make use of the advantages available in larger urban centres (i.e., DPA).

Chart 14. Employment status of mother — children 0–17 years old, in three areas, Serbia
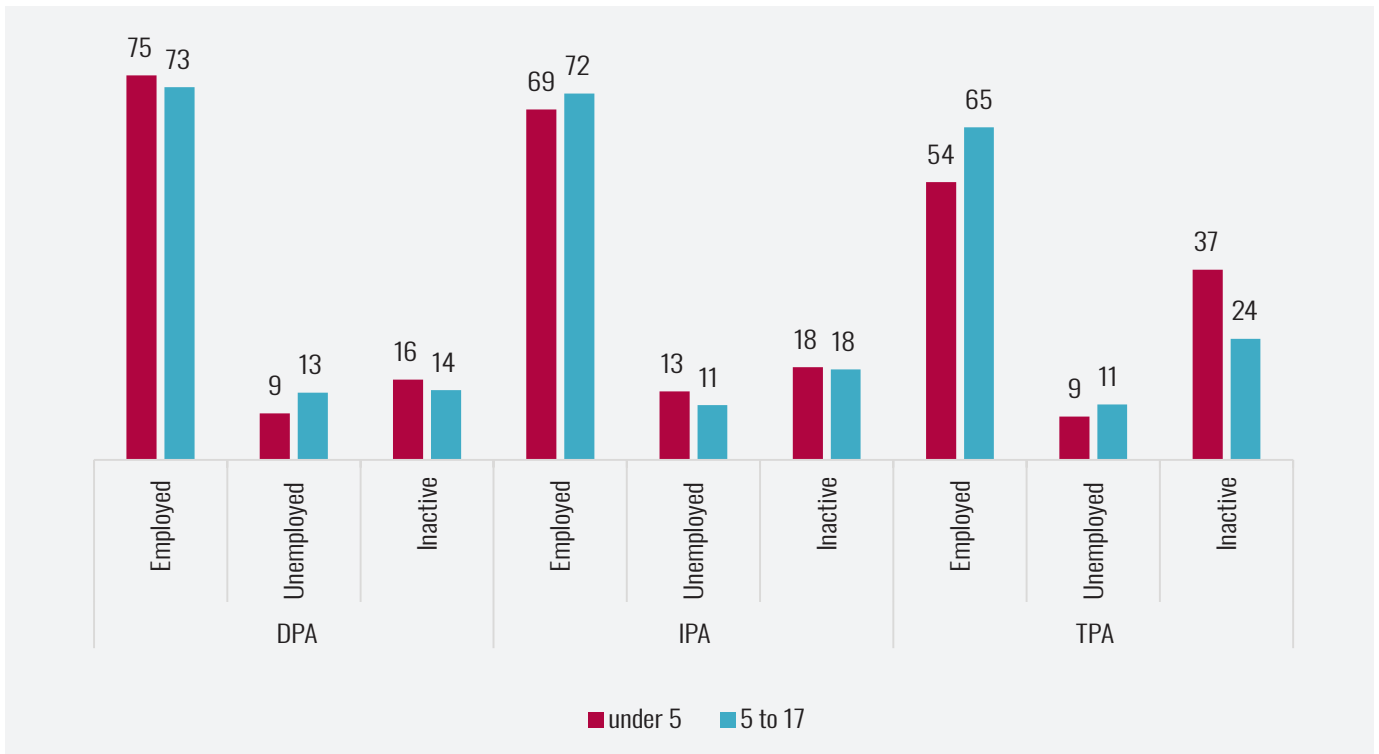
Per cent distribution of children (0–17 years) — activity status of mother in three areas

Chart 15. Employment status of mother — children 0–17 years old, in three areas, Serbia Roma settlements
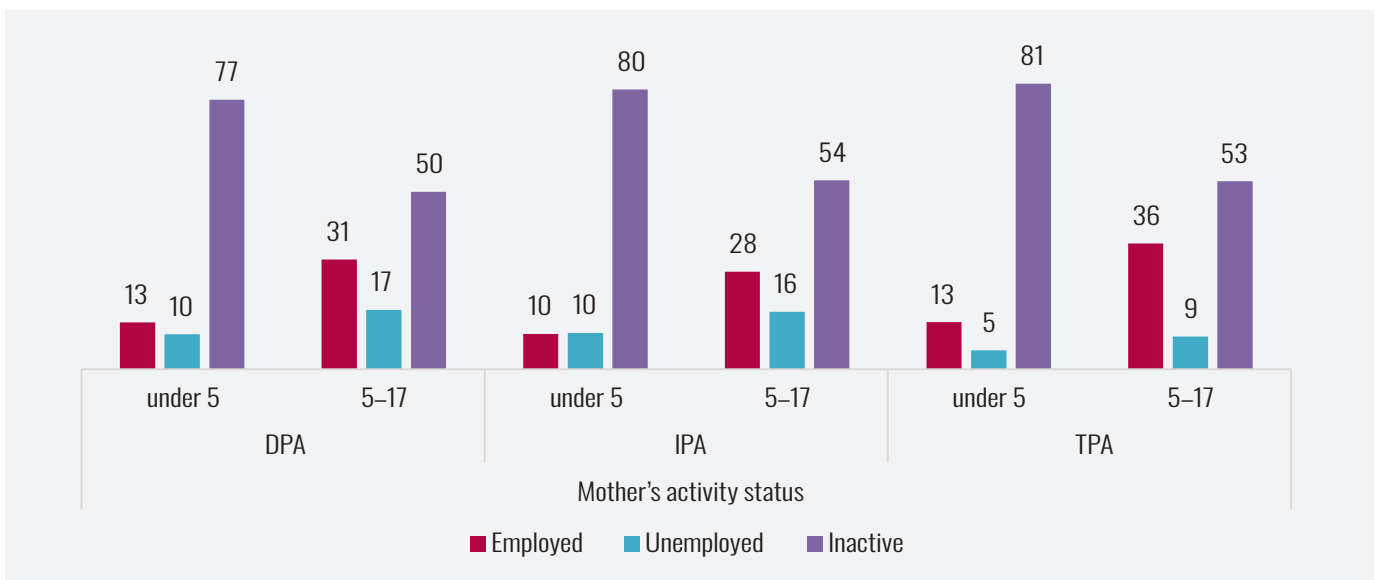
Per cent distribution of children (0–17 years) — activity status of mother in three areas

Material status: deprivation

In this chapter, particular attention will be paid to the measurements first employed in this MICS study — i.e., material deprivation based on SILC methodology.

Chart 16 shows differences in the degree of material deprivation according to the type of area children live in, indicating that the less densely populated areas are in a somewhat less favourable position. In TPA one child in four under the age of 5 and almost a third of children aged 5–17 live in households that are unable to afford three of the nine items considered to be basic necessities. The gap between children in DPA and those in TPA and IPA appears even more pronounced when households that are able to afford all of the measured items are included.

Chart 16. Material deprivation of children 0–17 years old, in three areas, Serbia
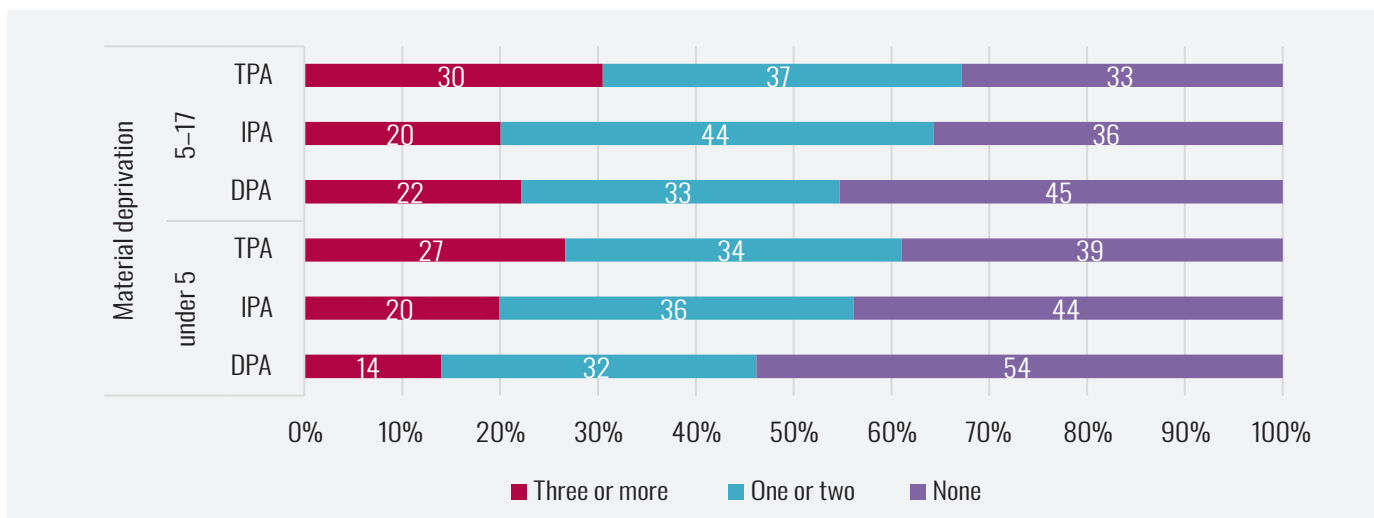
Per cent distribution of the children 0–17 years old, by material deprivation in three areas

Chart 17. Material deprivation of children 0–17 years old, in three areas, Serbia Roma settlements
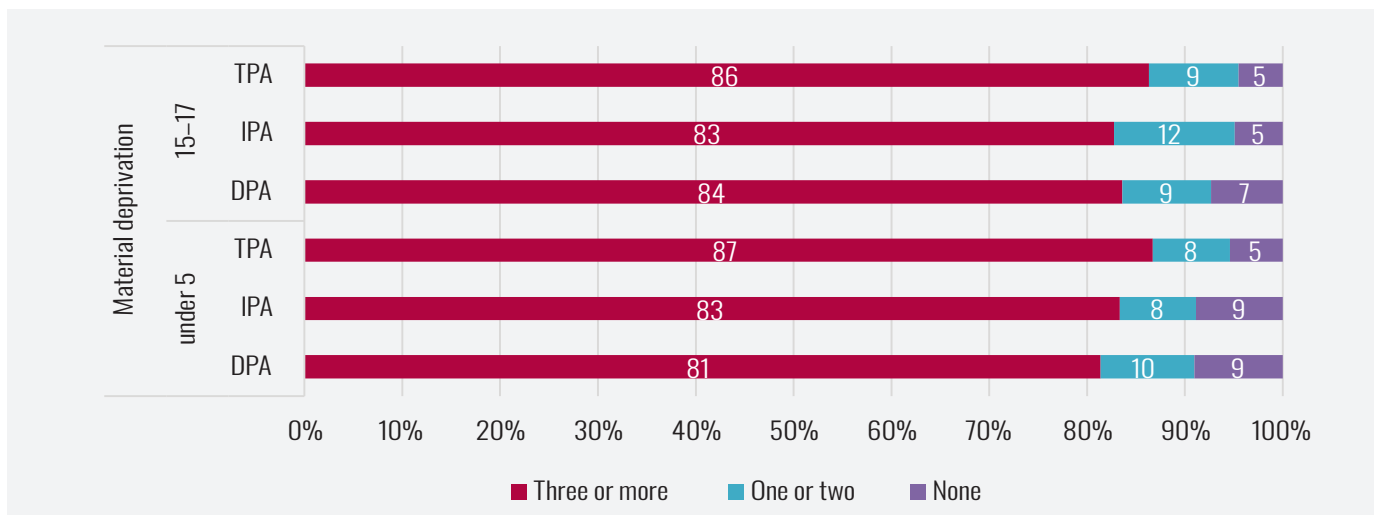
Per cent distribution of the children 0–17 years old, by material deprivation in three areas

The material deprivation of children in Roma settlements is rather pronounced, irrespective of the size of settlement. More than one fifth of children in all area types and irrespective of age live in households characterized by a lack of basic items necessary for contemporary daily life. These data warn that it is imperative that measures be taken to protect children facing both acute and long-term risks of poverty and deprivation.

Social transfers

When looking at social transfers, we find that institutions recognize the greater vulnerability of those living in less densely populated areas. In the general population, households with children in TPA are almost twice as likely to claim financial social assistance, child allowance and caregiver allowance — measures specifically designed for the materially disadvantaged. One in three children in TPA and one in five in IPA and DPA live in households that receive some form of governmental material or financial support. Social transfers are less common in households with children aged 5–17, though this difference is more evident in TPA (see detailed tables A11 and A12 in Appendix).

Chart 18. Coverage of social transfers and benefits — any social transfers or benefits
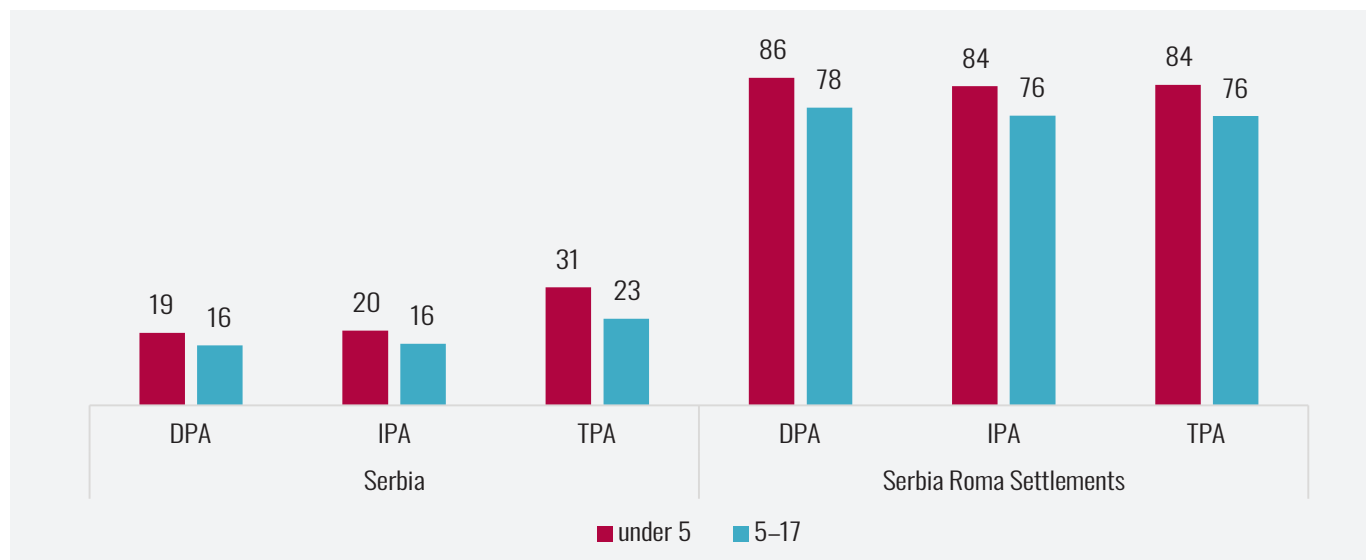
Percentage of children under age 18 living in households that received social transfers or benefits in the last three months

In Roma settlements, children are significantly more likely to live in households that are in receipt of social transfers. As many as four out of five children live in a household that is in receipt of some form of material assistance. For most social transfers there is no significant difference regarding the population density of the area in which children live, nor in terms of the children's age, which indicates that support is relatively evenly distributed across these two criteria.

Children under 5 in DPA, IPA and TPA

Child health: immunization

According to the UNICEF Immunization Roadmap (UNICEF) and the WHO Immunization Agenda 2030, the strategic aim is to complete the immunization of children at the national level and that everyone has the same health opportunities — i.e., that "everyone is protected by full immunization, regardless of location, age, socioeconomic status or gender-related barriers" (WHO). The WHO recommendation (WHO) is that children receive a compulsory vaccine to protect them from the following infectious diseases: tuberculosis, tetanus, pertussis, polio, measles, rotavirus, hepatitis B, *Haemophilus influenzae* type b, pneumococcal bacteria/disease, diphtheria and rubella. According to Serbian standards, all of these vaccines (with the exception of that against rotavirus) are part of the childhood vaccination plan and are administered during the child's first year (except the MMR vaccine, which can be administered at 12 to 15 months of age), while a second dose for some of these is administered during the child's second year.[5]

Overall, not all children in Serbia are covered by vaccines, and the data indicate that there are small differences in complete coverage for children aged 24–35 months among the general population, dependent on place of residence. Children in IPA are the best covered, with a small drop-off for children in TPA. Adhering to advice regarding the timing of vaccines, as well as trust in vaccination itself, is a greater problem in urban centres than in smaller towns and the countryside.

Chart 19. Immunization coverage of children aged 24–35 months, Serbia
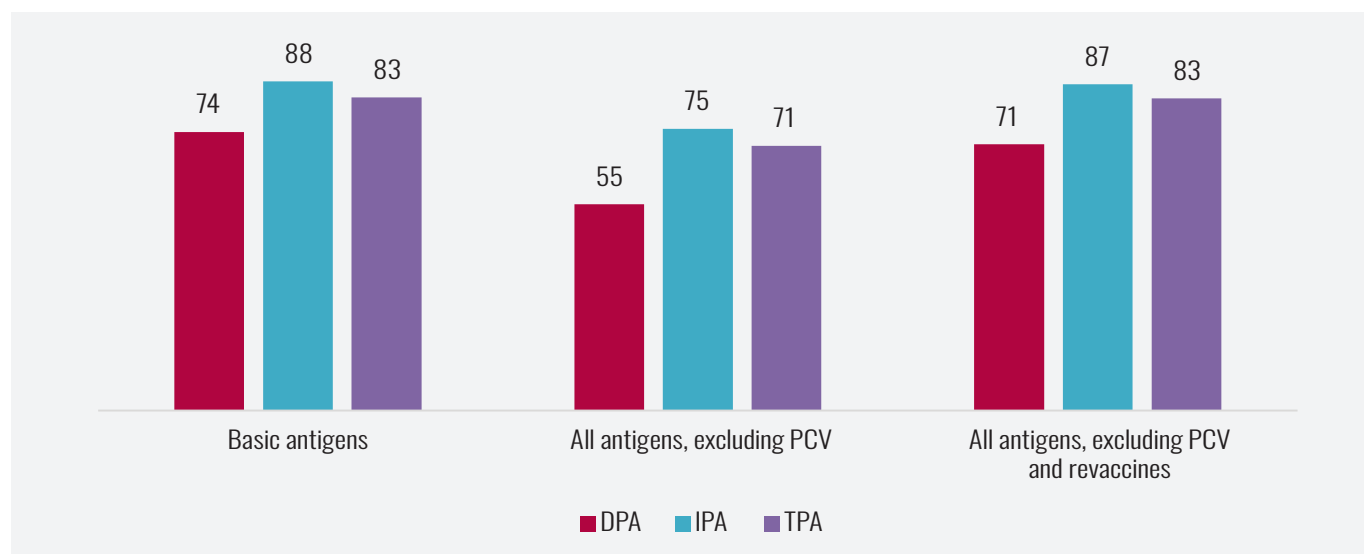
Percentage of children aged 24–35 months currently vaccinated against vaccine — preventable childhood diseases (Crude coverage)

---

[5]   Vaccination includes: "BCG (for tuberculosis) and Hepatitis B vaccines (within 24 hours of birth), two subsequent doses of the Hepatitis B vaccine, three doses of the Pentavalent vaccine containing DTP, polio, and Haemophilus influenzae type b (Hib) antigens, three doses of the Pneumococcal (conjugate) vaccine (PCV), revaccination doses of DTP, polio, Hib and PCV, and one dose of the MMR vaccine containing measles, mumps, and rubella antigens. All vaccinations should be received during the first year of life except the first dose of MMR at 12–15 months, the revaccination doses of DTP, polio and Hib at 18–23 months and the PCV revaccine at 12–23 months of age." (SORS and UNICEF, 2020: 115).

Chart 20. Immunization coverage of children aged 24–35 months, Serbia Roma settlements
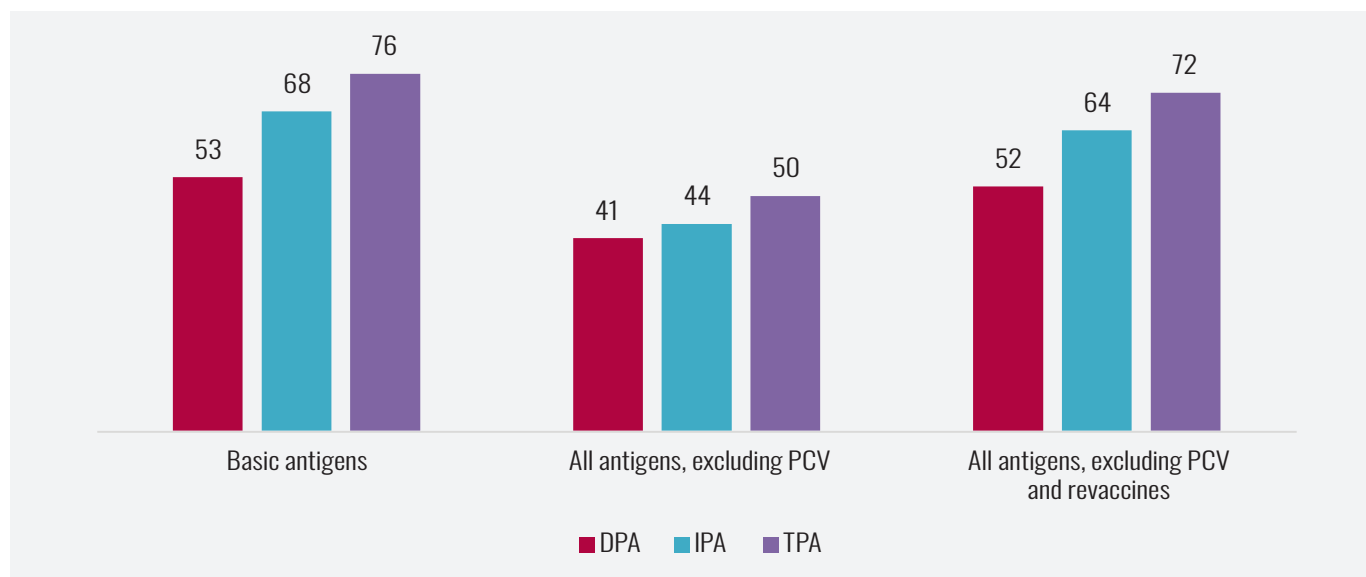
Percentage of children aged 24–35 months currently vaccinated against vaccine — preventable childhood diseases (Crude coverage)

Children in Roma settlements are significantly less well covered by vaccination as compared to the general population. Interestingly, children in TPA are better covered than those in DPA, pointing to some of the challenges of urban centres where only around half of children receive the basic vaccines. This population also exhibits significant differences in the level of measles vaccine (MMR) coverage. This vaccine is significantly more likely to be administered to children in TPA than those in DPA.[6] The challenges of childhood vaccination programmes become all the more serious when the ongoing debate and scepticism toward COVID-19 vaccination is taken into account.

Nutrition

Studies have shown mixed results when it comes to adequate breastfeeding practices by place of residence. Globally, some claim this practice is more prevalent in rural areas (Nguyen Thu et al., 2012), while others claim the same for urban areas (Aschbrenner and Cornish, 2017). In economically underdeveloped countries and regions, adequate alternatives to breastfeeding or adequate access to food are not available, making breastfeeding a matter of necessity. In economically developed countries this practice is being abandoned due to inadequate medical and advisory support.

In Serbia, there are no differences in terms of absolute participation across types of areas when it comes to whether children were ever breastfed. Most children (90 per cent) across all area types were breastfed to some degree and the proportion received their mother's milk during the first hour after birth or during their first day. However, the logistic regression model — which combines characteristics of the female population, household wealth indicators and area type — indicates that breastfeeding is more common in DPA than in TPA, more common for children in poorer households and for mothers who are inactive (as opposed to mothers in employment). In other words, breastfeeding is less common in TPA among better-off families and mothers who are in employment. These analyses are in line with descriptions of this practice, where breastfeeding is the dominant feeding practice in poorer families due to a lack of resources, while in better-off families it is recognized as a practice that is beneficial for the infant. In this sense, the culture of breastfeeding is more prevalent in DPA than in TPA, when education, wealth and work status are controlled for.

---

6   Children living in TPA were more likely to receive an MMR vaccine (59.1%) than those in IPA (41.1%) and DPA (28%).

Table 1. Logistic regression, factors associated with breastfeeding

Ever breastfed	B	Exp(B)
(Intercept)	2.728***	15.306
Poorest 60% (ref. Richest 40%)	0.836*	2.307
DPA	1.215*	3.370
IPA (ref. TPA)	−0.089	0.915
Primary or none (mother)	−0.306	0.736
Secondary (ref. Higher)	0.274	1.315
Employed (mother)	−1.123*	0.325
Unemployed (ref. Inactive)	−1.114	0.328

***p < 0.001; **p < 0.01; *p < 0.05

Although the experience of breastfeeding is more or less present across all area types, differences do begin to appear when it comes to the length and manner of breastfeeding. In TPA, for children in the first six months, breastfeeding is less likely to be the exclusive or predominant form of feeding, when compared to more urban areas (IPA and DPA). On average, a little more than a third of DPA children are exclusively breastfed, while the corresponding figures for TPA and IPA are half this number. In terms of breastfeeding being the predominant form of feeding, TPA stand out as the areas where this practice is less prevalent.

Comparison with data from 2014 reveals that there has been an increase in the number of DPA and TPA children who are exclusively breastfed, while in IPA the rate has remained the same. The predominance of breastfeeding has remained at the same level as five years earlier, indicating that among some mothers who are otherwise more ready to breastfeed there is a greater acceptance of the practice of exclusively relying on breastfeeding.

On the other hand, children in Roma settlements are less likely to be breastfed compared with the general population of children, whether it is the exclusive feeding method or the predominant one. Urban areas (DPA) are where this practice is least prevalent among this population of children. When compared to 2014, the data show that only DPA saw a decline in this practice — a fact that requires particular attention.

Chart 21. Infant feeding practices, in three areas, children aged 0–5 months
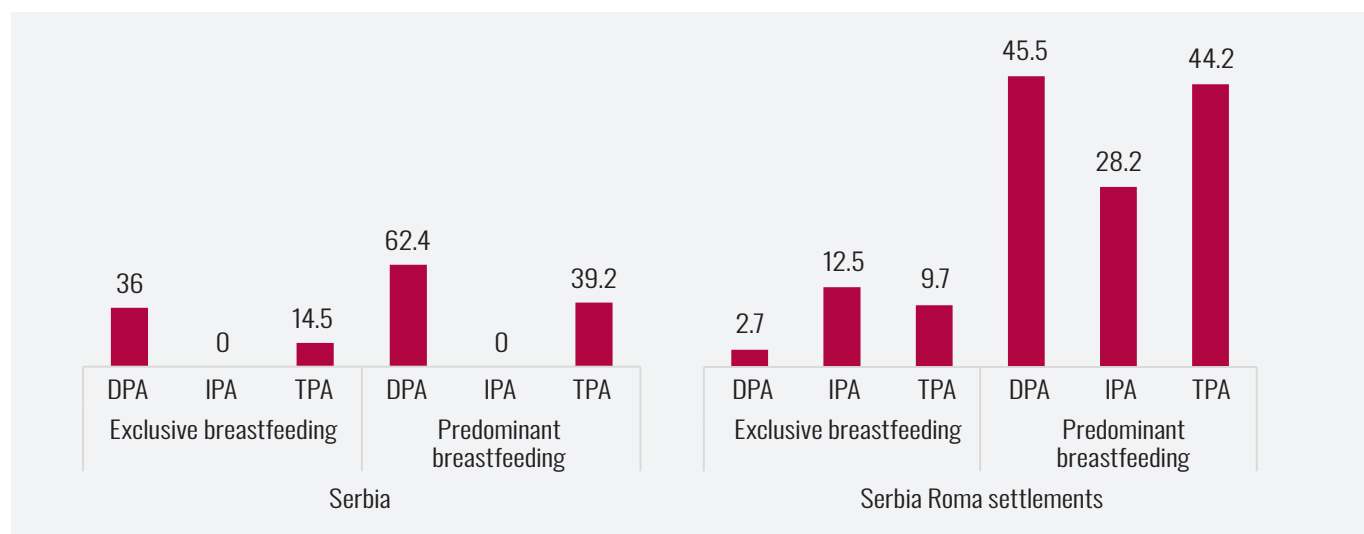
Percentage of living children according to breastfeeding status

The already mentioned findings are more evident still when we look at the median duration of breastfeeding by area type. Breastfeeding as the exclusive form of feeding in TPA lasts only two weeks, while in DPA it lasts around two months. The median duration of any breastfeeding in TPA is less than three months, while in DPA it is more than eight months, which indicates a significantly shorter breastfeeding duration in less densely populated areas.

Chart 22. Duration of breastfeeding
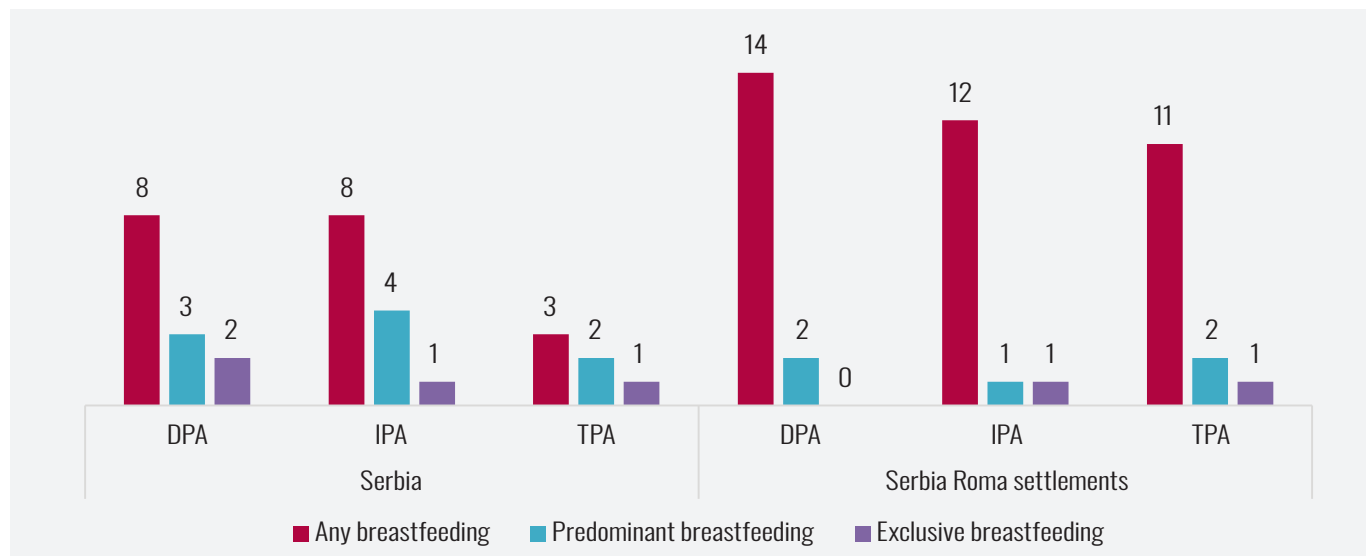
Median duration of any breastfeeding among children aged 0–35 months and median duration of exclusive breastfeeding and predominant breastfeeding among children aged 0–23 months

The length of time for which children living in Roma settlements are breastfed reveals an interesting pattern that could potentially indicate poverty as a context in which breastfeeding practices form. In these settlements, the practice of relying on any breastfeeding is significantly longer than in the general population, lasting for approximately one year. Children in DPA are breastfed the longest. On the other hand, breastfeeding as an exclusive or predominant feeding method is practised for shorter times than in the general population, which tells us that children begin consuming other foods earlier but also that they continue to consume their mother's milk for longer.

Among the general population of children, there are no significant differences in dietary diversity, meal frequency or acceptable diet in terms of whether the infant is currently being breastfed or across area types. On average, one child in four fails to receive the minimum acceptable diet. Among children living in the Roma population, the proportion of those not achieving the minimum required dietary diversity, meal frequency or acceptable diet is significantly higher than among the general population. More than half of these children fail to receive the minimum dietary diversity, one in twelve do not receive meals at the required frequency, and almost two thirds do not get the minimum acceptable diet. As is the case with the general population, there are no differences in terms of place of residence.

Significant findings are evident in both samples showing that, as children stop breastfeeding, the number of those failing to receive the minimum acceptable diet increases (see Tables A13 and A14 in Appendix). This difference is evident in DPA and TPA, both for children from the general population and those living in Roma settlements, indicating that the culmination of breastfeeding leads to increased risks of inadequate nutrition and that these risks are more pronounced in urban centres than in the countryside. It is probable that for some children a longer breastfeeding period would mean a more adequate diet.

Chart 23. Infant and young child feeding practices
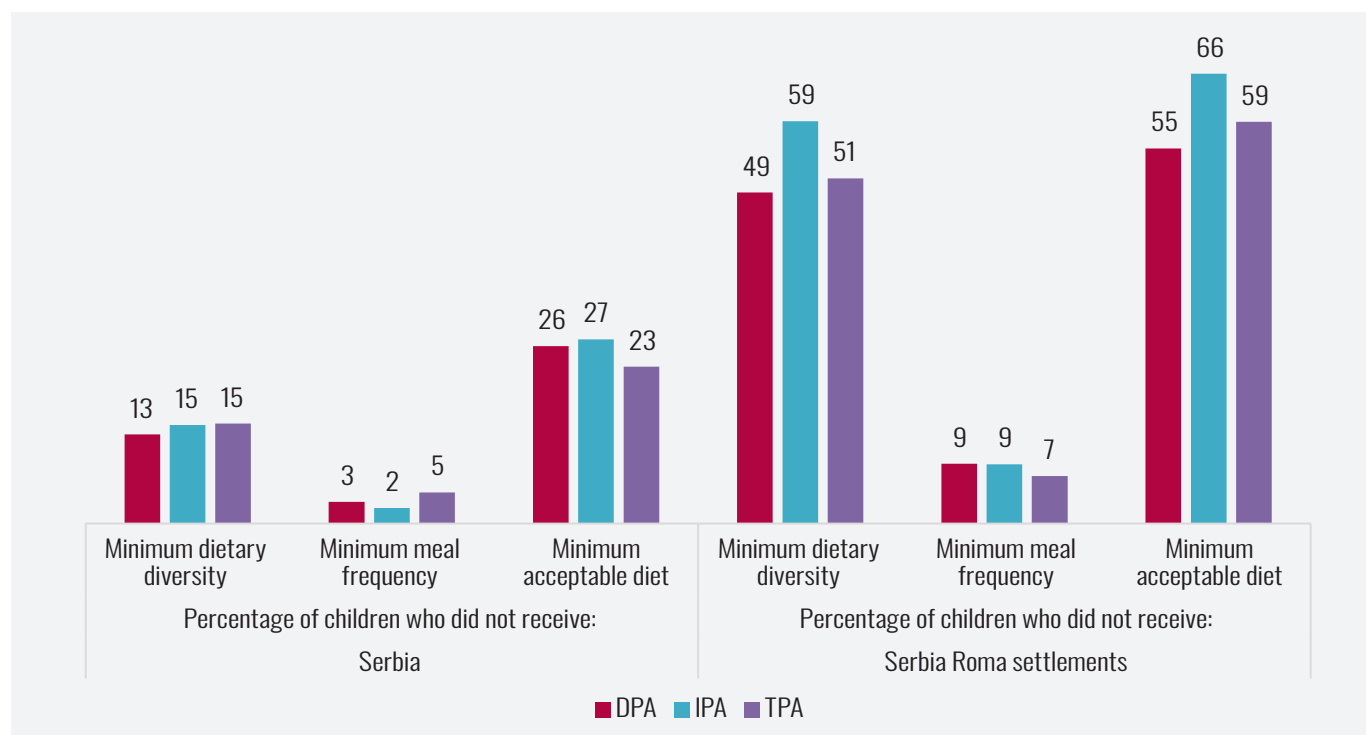
Percentage of children aged 6–23 months who received appropriate liquids and solid, semi-solid or soft foods the minimum number of times or more during the previous day

Nutritional status

The data also indicate that certain differences in the nutritional status of children exist according to the type of area in which they live. Among the general population of children, the key problem is being overweight, something that holds across all area types. Meanwhile, for children living in Roma settlements, a significant number of stunted children and a certain number of underweight children are noted.

Research into links between the sociodemographic characteristics of the household, the mother and the child show us the following: the categories of *underweight* and *wasted* are more common among children living in IPA (as compared with TPA) and, interestingly, the category *underweight* is less common among children whose mothers have completed secondary education, compared with mothers who have completed university-level education. The category of *stunted* is more prevalent among boys, as is *overweight*.

Among the population of children living in Roma settlements, the area type is not correlated with any nutritional challenge. Children whose mother has not completed any schooling or has completed only primary school are significantly more likely to be underweight compared with children whose mothers are better educated. Boys are more likely to be stunted or overweight. Other nutritional challenges do not correlate with the analysed characteristics, indicating that these relatively serious problems are relatively well distributed across this population.

Chart 24. Nutritional status of children
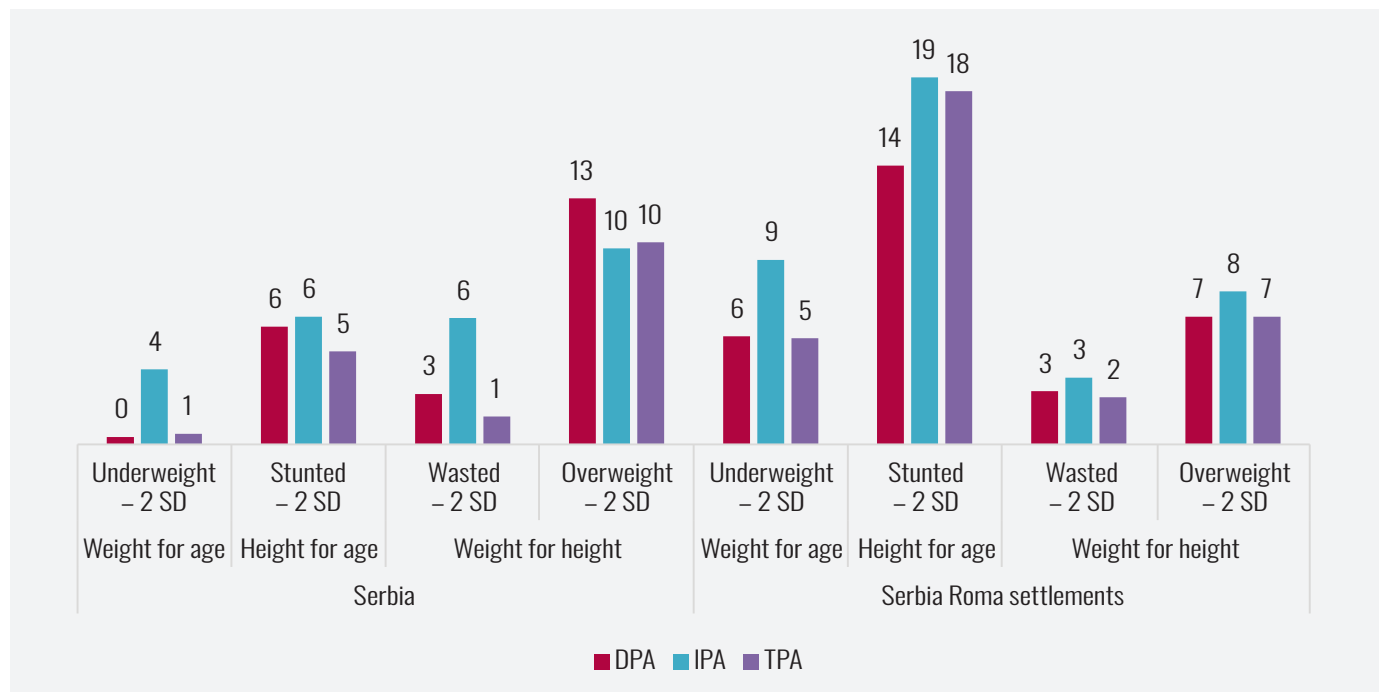
Percentage of children under age 5 by nutritional status according to three anthropometric indices: weight for age, height for age, and weight for height

Table 2. Logistic regressions, factors associated with nutritional status according to anthropometric indices, Serbia

	Underweight — 2 SD		Stunted — 2 SD		Wasted — 2 SD		Overweight — 2 SD	
	B	Exp(B)	B	Exp(B)	B	Exp(B)	B	Exp(B)
(Intercept)	−5.523***	0.004	−4.079***	0.017	−4.403***	0.012	−2.201***	0.111
Male (ref. female).	1.241	3.460	0.910**	2.485	0.508	1.662	0.411*	1.508
Richest 40% (ref. Poorest 60%)	0.208	1.231	0.676	1.965	−0.372	0.689	−0.466	0.628
DPA	−0.631	0.532	0.56	1.751	0.508	1.662	0.077	1.080
IPA (ref. TPA)	1.856**	6.398	0.480	1.616	1.555*	4.736	−0.149	0.861
Primary or none	−0.045	0.956	0.237	1.267	0.745	2.107	0.023	1.023
Secondary (ref. Higher)	−1.841**	0.159	−0.180	0.835	−0.076	0.927	0.216	1.241

***p < 0.001; **p < 0.01; *p < 0.05

Table 3. Logistic regressions, factors associated with nutritional status according to anthropometric indices, Serbia Roma settlements

	Underweight — 2 SD		Stunted — 2 SD		Wasted — 2 SD		Overweight — 2 SD	
	B	Exp(B)	B	Exp(B)	B	Exp(B)	B	Exp(B)
(Intercept)	−5.027***	0.007	−2.182***	0.113	−4.156***	0.016	−3.092***	0.045
Male (ref. female).	−0.005	0.995	0.415**	1.515	−0.078	0.925	0.805*	2.237
Richest 40% (ref. Poorest 60%)	0.575	1.777	0.375	1.455	0.042	1.043	0.334	1.396
DPA	0.018	1.018	−0.224	0.800	0.122	1.130	0.153	1.166
IPA (ref. TPA)	0.645	1.906	0.066	1.068	0.390	1.477	0.244	1.277
None	2.110**	8.245	0.371	1.450	0.203	1.225	−0.482	0.617
Primary (ref. Secondary or Higher)	1.845*	6.328	0.140	1.150	0.573	1.773	−0.432	0.649

***p < 0.001; **p < 0.01; *p < 0.05

Trend analysis (from 2014) shows mixed results, which oscillate due to the relatively low incidence of the phenomena and, because we are unable to detect statistically significant differences between the two periods according to any criteria, we can, with some caution, conclude that there has been no significant progress or deterioration when it comes to children living in these types of settlement.

Early child development

Early child development (ECD) is expressed as a set of abilities that a child should develop between their third and fourth year. It is expressed through four dimensions: literacy–numeracy, physical, social–emotional and learning, which make up the early child development index (ECDI). Recognizing these dimensions, the MICS methodology enables us to identify the proportion of children who are not on track, but also to see how material conditions and family characteristics impact ECD and how ECD, in turn, impacts a child's later life chances — such as their mental and physical health, risky behaviour and similar (Irwin, Siddiqui, Hertzmann, 2007).

Chart 25. Early child development index score in three areas, children aged 36–59 months
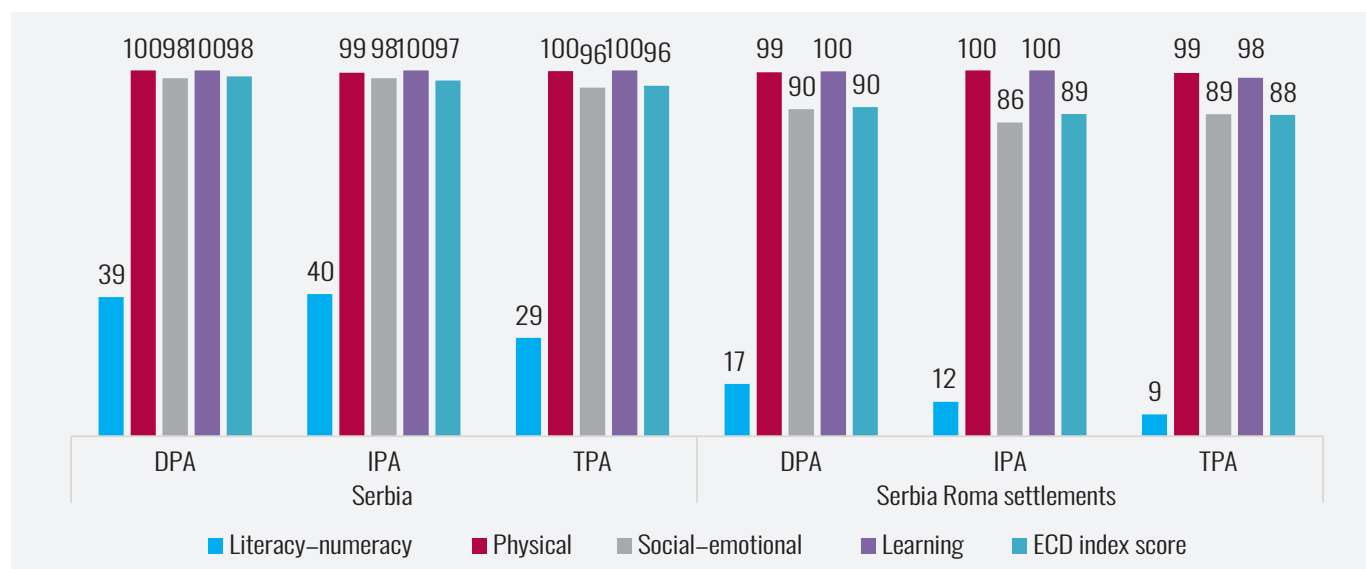
Percentage of children aged 36–59 months who are developmentally on track in literacy–numeracy, physical, social–emotional and learning domains, and the early child development index score

Among the general population, the scores for the physical, social–emotional and learning domains, as well as the ECDI, are high and do not differ across area type. In terms of their physical and learning characteristics, all children in the general population are on track. A significantly lower percentage of children are on track when it comes to literacy–numeracy, and analyses show that the differences between TPA and IPA/DPA are statistically significant, indicating that fewer children in rural areas are on track when it comes to literacy and numeracy.

When the sociodemographic characteristics of children and their families are introduced into the analysis, maternal education proves to be a key predictor of whether a child is likely to be on track in literacy–numeracy. Although the regression analysis does not show the significance of attending preschool in the whole sample, we still found that there are significant differences between children attending preschool in IPA and especially TPA. Children who attend kindergarten are more often on track (this association is not present in DPA). This proves to us the importance of preschool institutions in settlements with lower density.

Among the population of children living in Roma settlements, population density was not significantly linked with any of the above-listed dimensions, nor with the ECDI. However, among this population, kindergarten attendance is the only significant factor linked to literacy–numeracy. Those children who attended kindergarten were more likely to be on track for this dimension.

Table 4. Logistic regression, factors associated with literacy–numeracy, Serbia

	B	Exp(B)
(Intercept)	−0.967***	0.38
Richest 40% (ref. Poorest 60%)	−0.12	0.887
DPA	0.33	1.397
IPA (ref. TPA)	0.345	1.412
Primary or none	−0.908**	0.403
Secondary (ref. Higher)	0.152	1.164
Early education	0.339	1.404

***p < 0.001; **p < 0.01; *p < 0.05

Table 5. Logistic regression, factors associated with literacy–numeracy, Serbia Roma settlements

	B	Exp(B)
(Intercept)	−1.327*	0.265
Richest 40% (ref. Poorest 60%)	−0.125	0.883
DPA	0.715	2.045
IPA (ref. TPA)	0.408	1.503
None	−0.836	0.434
Primary (ref. secondary or higher)	−0.142	0.868
Early education	−0.839*	0.432

***p < 0.001; **p < 0.01; *p < 0.05

Support for learning

A household environment that is more stimulating for the development of motor and cognitive abilities is significant as it forms the pattern of relations towards learning and can affect a child's aspirations and capabilities in later life. Children who live in DPA and IPA experience a more stimulating environment than children who live in TPA, particularly when it comes to exposure to books. As the number of books increases, so the gap in book ownership widens between children who live in areas of various population densities, indicating that children from urban areas have improved access to these kinds of resources at home than children from the countryside. Other factors that are important for encouraging learning and development do not differ across area types. Longitudinal analyses indi-

cate that over the five-year period there has been some increase in the number of DPA and IPA children who own three or more books. In TPA there has been no increase in this regard. There has also been no increase in the proportion of children who own ten or more books in any of the area types. Interestingly, there has been some increase in homemade toy ownership in DPA and IPA.

Chart 26. Learning materials, Serbia
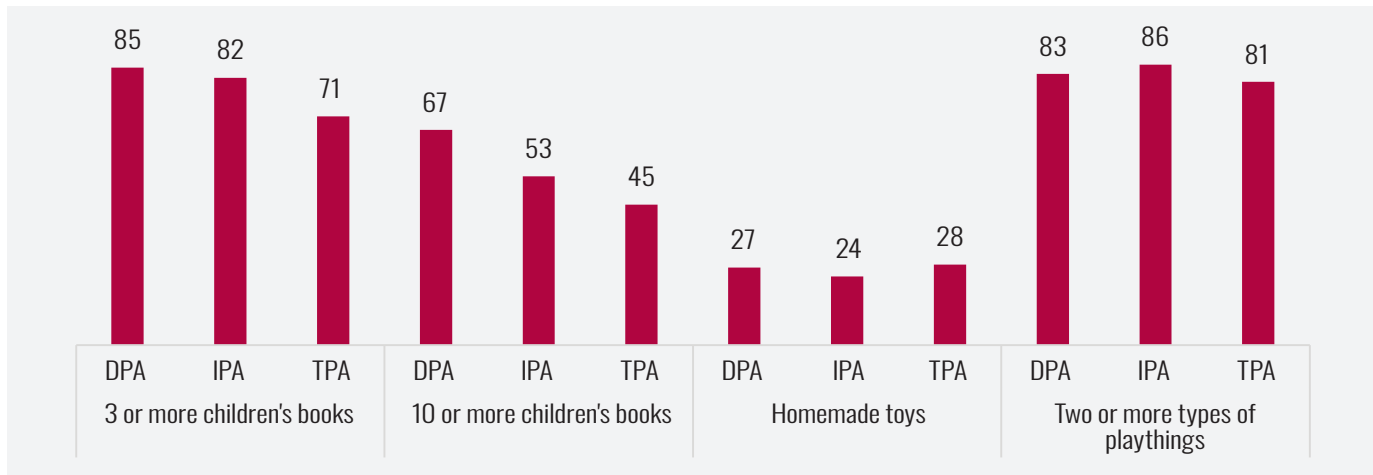
Percentage of children under age 5 by the number of children's books present in the household, and by the type and number of playthings that the child plays with

Children living in Roma settlements are significantly less likely to have access to all of the items that are important for early development and encouraging learning. Particularly low is the number of books per household. The small differences according to area type are not statistically significant, which indicates that these items — and the opportunities and practices they pertain to — are relatively well distributed across households, irrespective of an area's population density. Trend analysis shows that over a five-year period the number of children with three or more books has decreased in DPA and IPA and that the number of children with homemade toys has also decreased across all area types. Even so, overall, the number of children who own two or more types of playthings has increased, mostly stemming from an increase in shop-bought toys.

Chart 27. Learning materials, Serbia Roma settlements
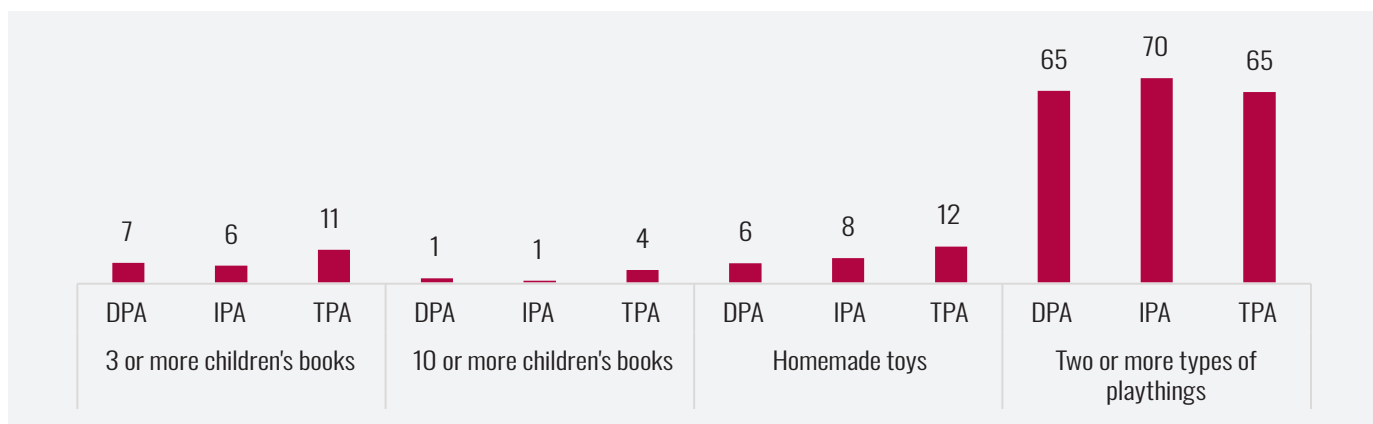
Percentage of children under age 5 by the number of children's books present in the household, and by the type and number of playthings that the child plays with

Involvement of parents

When it comes to the degree of parental involvement in activities related to early childhood development, we see two key things: First, the patriarchal division of gendered household roles, resulting in mothers being far more engaged than fathers, but also that things are gradually changing towards fathers participating more in all activities.

The degree of maternal involvement does not differ across area types, indicating that women are equally involved in all activities pertaining to children. We chose to focus on paternal involvement for two reasons. Firstly, because a very high level of maternal involvement and, secondly, because in those cases what the child can learn and develop depends on the involvement of the second parent. Chart 28 looks at the activities of children aged 1–2 and indicates that there are differences between TPA and IPA/DPA, in terms both of all individual activities in which fathers are involved and paternal involvement in four or more activities. Differences between area type (which favour more densely populated areas) are greater for those activities that are more directly focused on cognitive development (reading, storytelling, singing, naming, counting and drawing), and lesser in terms of play and taking children outside. This tells us that children in urban areas are more likely to have more complex interactions with their fathers and achieve additional learning, beyond what they learn from their mothers. Analyses indicate that there are no significant differences in the level of involvement of either parent in various activities that depend on the gender of the child. Chart 29, which looks at different parenting practices of children aged 3–4, indicates that as children grow, paternal involvement declines, particularly in DPA. This makes it seem that differences in paternal activities between areas of different population density are becoming reduced. This finding can be explained either as the result of specific family dynamics in which fathers are more likely to be involved while the child is younger but whose involvement then declines or as an increase in paternal involvement over time (those with younger children are now more likely to be involved than those whose children are now somewhat older).

Trend analysis supports the second explanation and indicates an increase in paternal involvement over the five-year period for those who are involved in four or more activities with their children. However, this change is statistically significant only in DPA, indicating that a gap is opening up in terms of parental practices between the area types.

Chart 28. Support for learning, children aged 1–2, Serbia
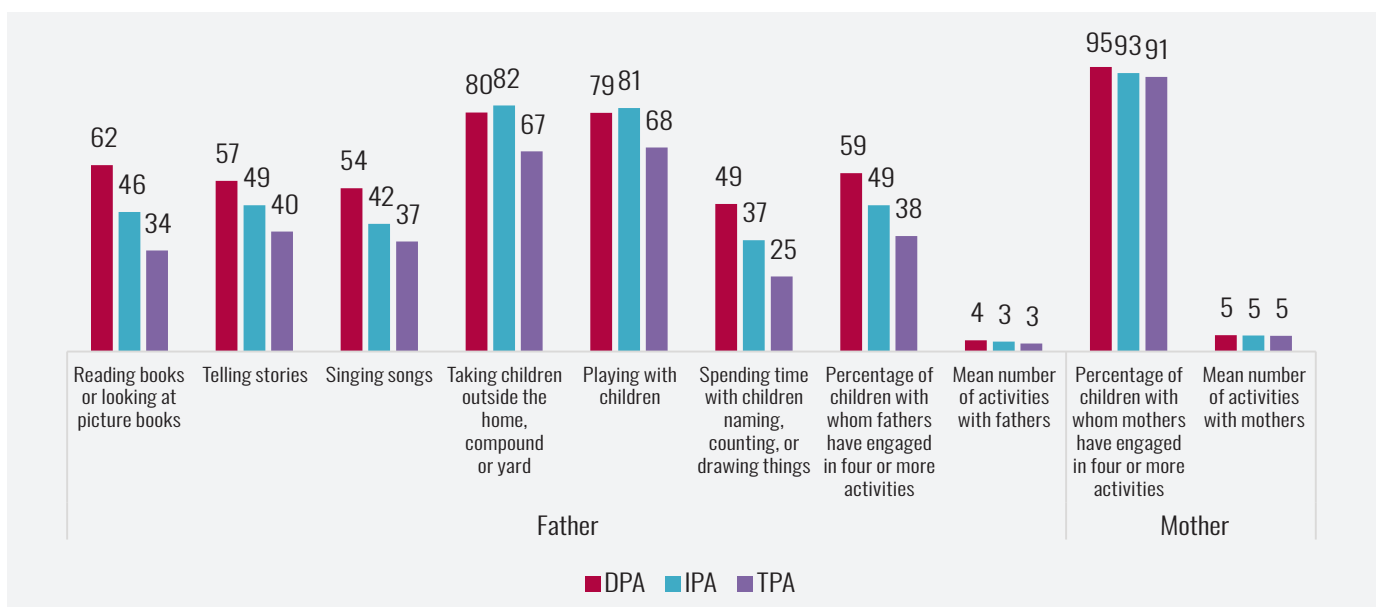
Percentage of children aged 1–2 years with whom adult household members engaged in activities that promote learning and school readiness during the last three days, and engagement in such activities

Chart 29. Support for learning, children aged 3–4, Serbia
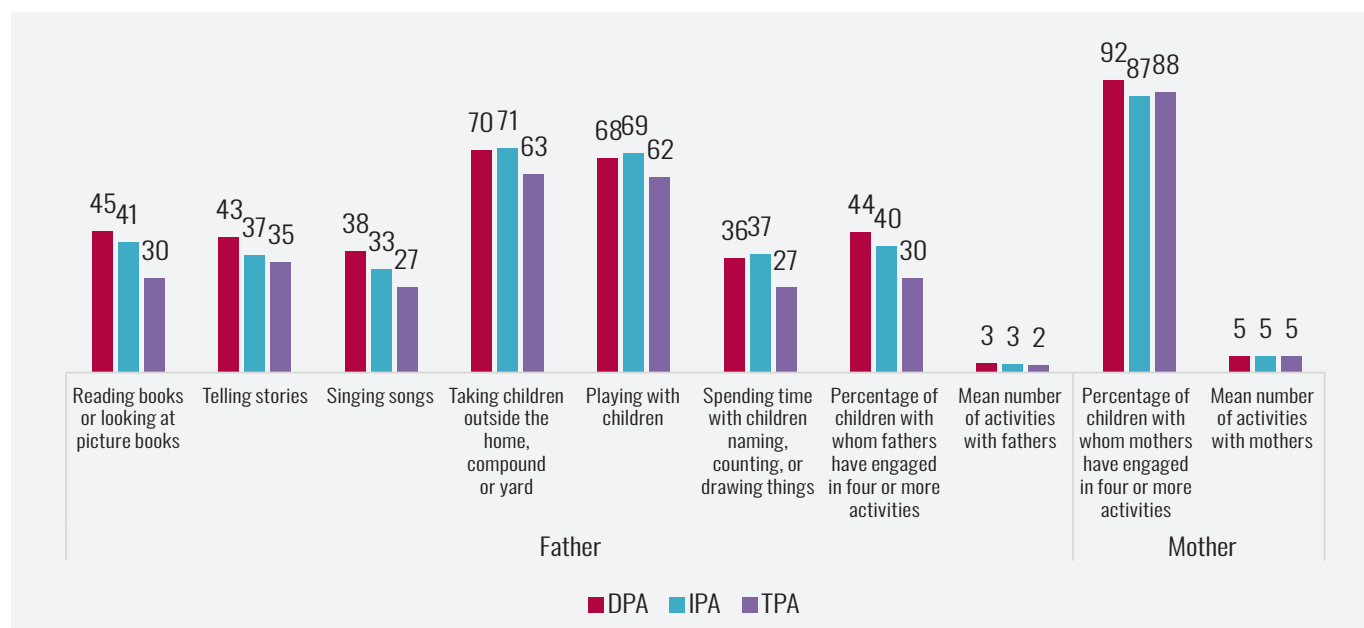
Percentage of children aged 3–4 years with whom adult household members engaged in activities that promote learning and school readiness during the last three days, and engagement in such activities

The logistic regression model tells us that, even when individual characteristics and household characteristics have been controlled for, urban areas (DPA) are where fathers are more involved in their child's upbringing. In urban areas, a new kind of fatherhood is emerging and being stimulated, which is having a positive effect on children's development. As is to be expected, the degree of paternal involvement is greater among the better-off population (the richest 40 per cent) and among fathers who have completed higher education.

Table 6. Logistic regression, factors associated with fathers' engagement, Serbia

Serbia	B	Exp(B)
(Intercept)	0.008	1.009
Richest 40% (ref. Poorest 60%)	−0.347*	0.706
DPA	0.427*	1.532
IPA (ref. TPA)	0.240	1.271
Primary or none	−0.739*	0.478
Secondary (ref. Higher)	−0.307	0.736

***p < 0.001; **p < 0.01; *p < 0.05

Analysis of parenting practices among children living in Roma settlements shows that parents, particularly fathers, are drastically less involved in most activities with their children. When it comes to infants (aged 1–2), only around half of mothers are involved in four or more activities, and as the child grows, this involvement declines slightly. Only one in ten fathers are involved at this same level, but, interestingly, fathers of children aged 1–2 in TPA and IPA are more involved than those living in DPA.

Chart 30. Support for learning, children aged 1–2, Serbia Roma settlements
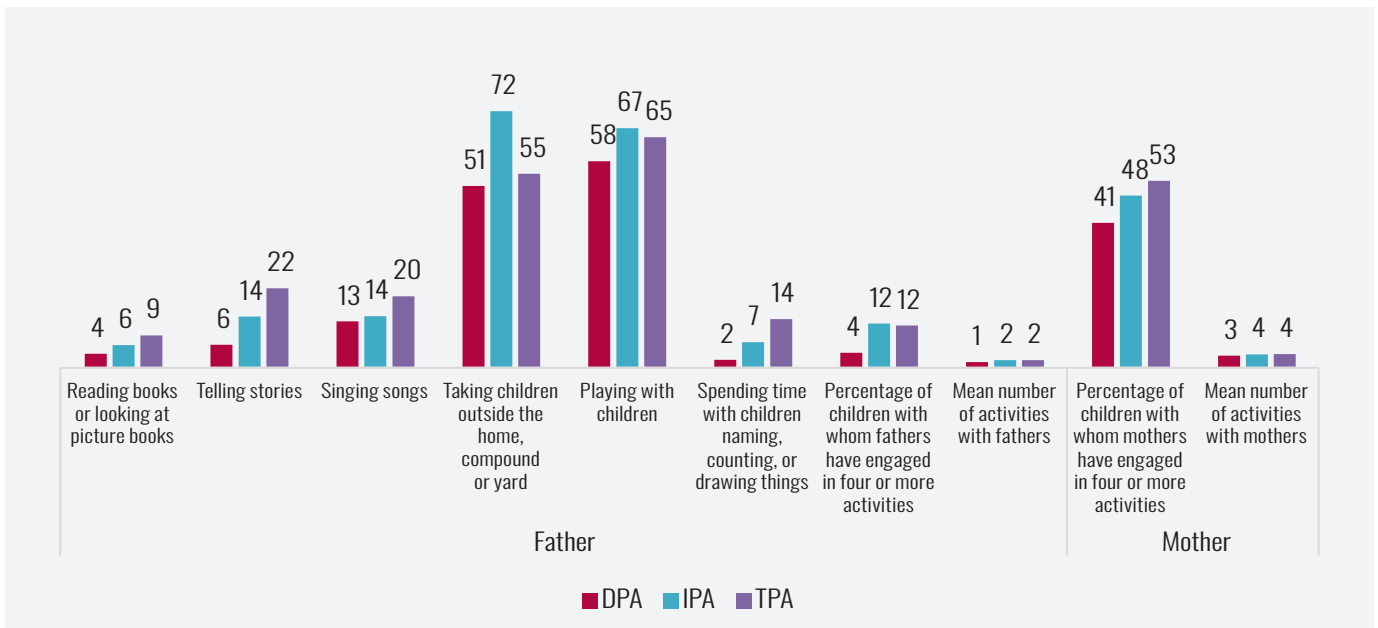
Percentage of children aged 1–2 years with whom adult household members engaged in activities that promote learning and school readiness during the last three days, and engagement in such activities

Chart 31. Support for learning, children aged 3–4, Serbia Roma settlements
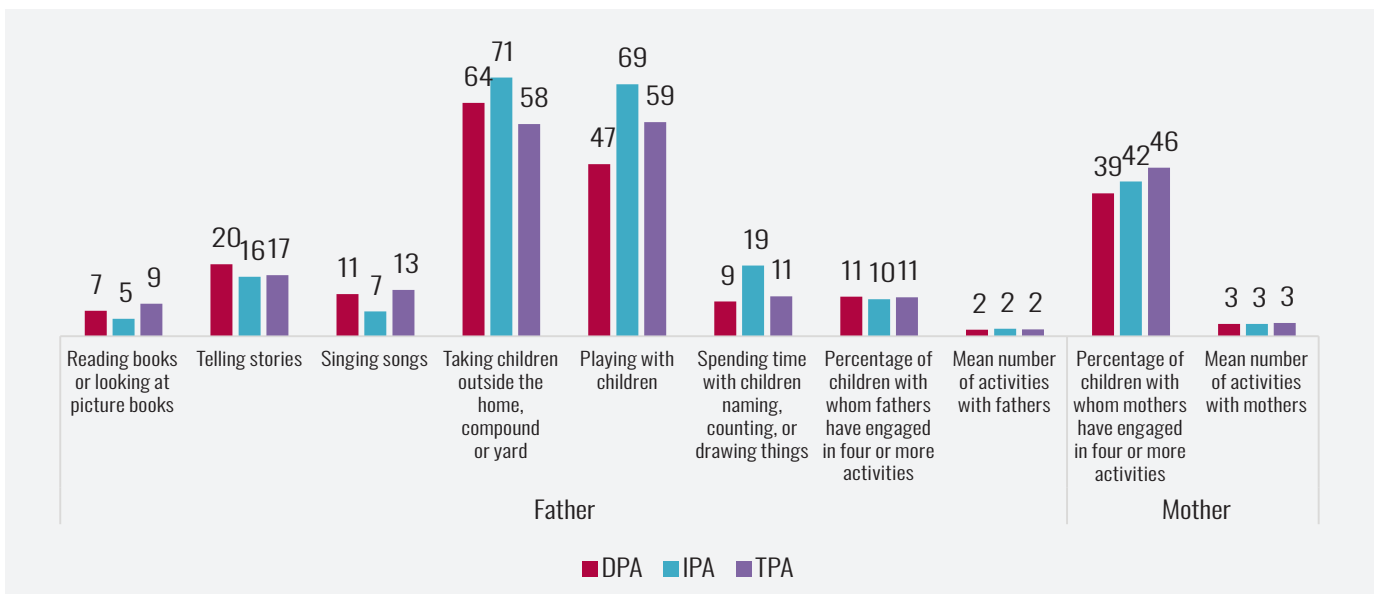
Percentage of children aged 3–4 years with whom adult household members engaged in activities that promote learning and school readiness during the last three days, and engagement in such activities

Responsibilities pertaining to children also indicate a gender gap, which increases as the size of the settlement decreases. MICS6 in Serbia uses this set of indicators for the first time (and it is used only in Serbia), so in addition to measuring gender distribution in terms of housework, it also indicates children's models of behaviour in the home. The involvement of both parents, not only in interactive activities with children but also in daily responsibilities pertaining to children, carries with it a message to children about gender equality. Almost all women/mothers are involved in daily responsibilities such as preparing food or tidying children's rooms, while the involvement of men in this regard is lower, and indeed lower still when larger settlements are included. The differences between DPA, on the one hand, and IPA and TPA, on the other, are particularly pronounced.

Chart 32. Support for daily activities
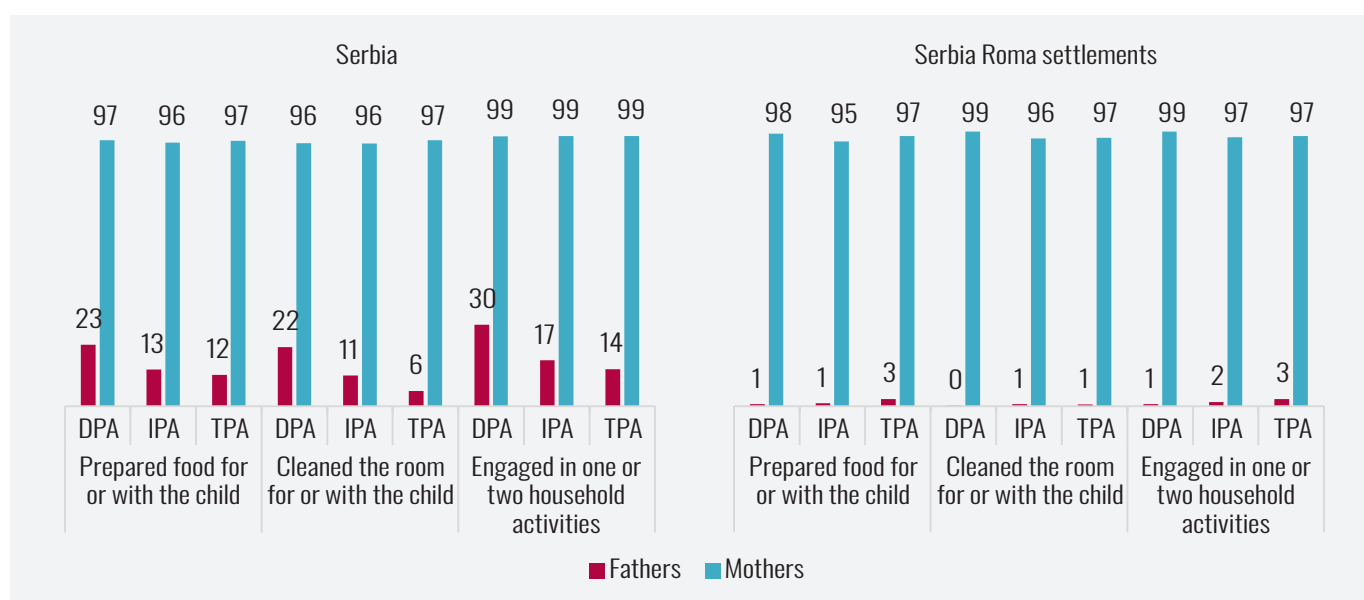
Percentage of children aged 1–4 years with or for whom a household member has engaged in one or two household activities during the last three days

The logistic regression model indicates that the key correlations emerge with place of residence, household wealth status and paternal education. Men in DPA are more likely to be involved in daily responsibilities pertaining to children, but only when they are members of better-off families and if the father has completed higher education (compared to women with secondary education). Therefore, as is the case with parental involvement in childhood development, daily childcare tasks are mostly part of urban cultural practice, irrespective of the other characteristics of fathers.

Table 7. Logistic regression, factors associated with fathers' engagement, Serbia

Engaged in one or two household activities	B	Exp(B)
(Intercept)	−0.943***	0.389
Richest 40% (ref. Poorest 60%)	−0.585**	0.557
DPA	0.522*	1.685
IPA (ref. TPA)	0.010	1.010
Primary or none	−0.290	0.748
Secondary (ref. Higher)	−0.607*	0.545

***p < 0.001; **p < 0.01; *p < 0.05

Early childhood education in DPA, IPA and TPA

Attending preschool education is linked to a number of positive developmental outcomes for children. Data from Chart 33 show clear differences in access to preschool institutions across areas with different population densities. In DPA and IPA, almost three quarters of children attend some form of preschool institution, while this figure for TPA is less than half. It is clear that infrastructure is less well developed in the countryside and that different life dynamics (particularly agricultural production) and family structures (multi-family households) can reduce the need for preschool institutions. During the five-year period, the proportion of children attending preschool institutions in TPA doubled and grew significantly in IPA, indicating that infrastructure in less well-developed areas is improving and meeting the needs of parents for this kind of service, but also that the gap in these services is reducing between area types. When it comes to children living in Roma settlements, we see a very low rate of kindergarten attendance, irrespective of area type, and we do not see the same increasing trend that is evident in the general population of children. This tells us either that programmes for the integration of these children are not achieving their goals or that there is (hidden) discrimination against these children.

Chart 33. Early childhood education
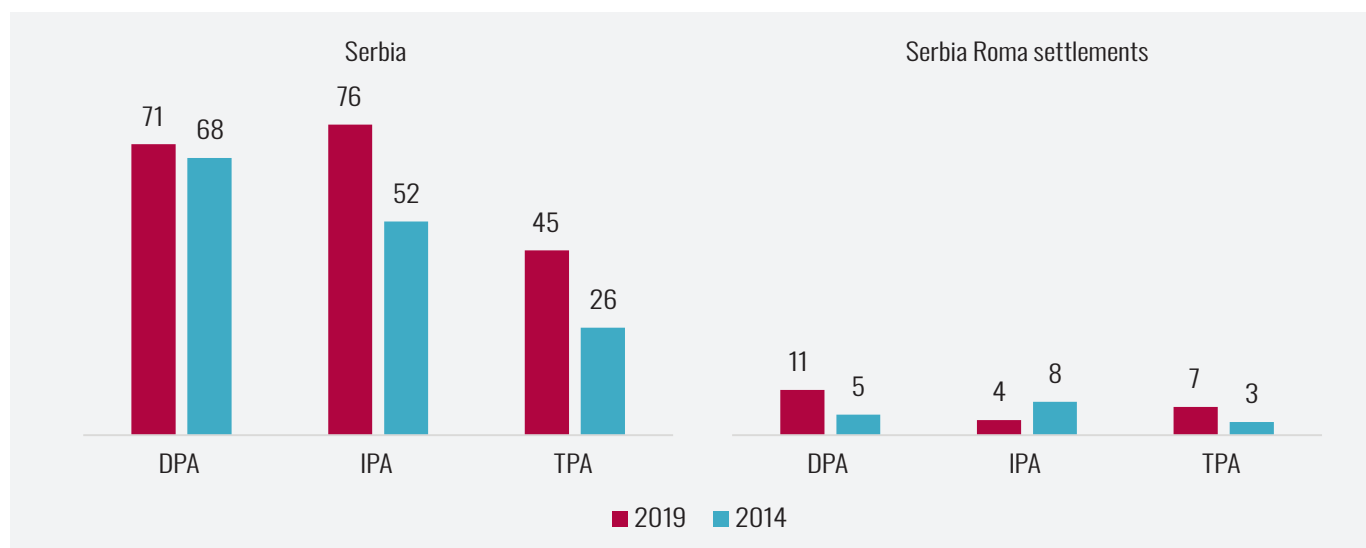
Percentage of children aged 36–59 months who attend early childhood education

When we introduced a standard set of indicators into the logistic regression model, it turned out that non-attendance of early childhood education correlated with poverty, place of residence, maternal education and the mother's employment status. Children living in households belonging to the 60 per cent poorest segment of the population, as measured by the wealth index, are less likely to attend preschool education when compared with children living in the 40 per cent of richest households. As the mother's educational level increases, so does the likelihood that a child will go to kindergarten, and children whose mothers are employed are also more likely to attend this kind of education. This last finding is to be expected, as most public kindergartens give preference in terms of places to employed parents. For our purposes, it is significant that when all indicators are controlled for, IPA emerge as the areas with greater rates of kindergarten attendance than TPA (the difference between TPA and DPA is not significant), which indicates that the supply and demand relationship for these services is somewhat better in these kinds of areas and that there is a better distribution of children according to household characteristics and parental education and employment status. The attendance of early childhood education among children living in Roma settlements is associated with the household's material status, which means that children living in the 60 per cent of poorest households are less likely to go to kindergarten. Interestingly, children are more likely to go to kindergarten if their mother is unemployed (compared with inactive mothers).

Table 8. Logistic regression, factors associated with attending early childhood education (children aged 36–59 months), Serbia

	B	Exp(B)
(Intercept)	0.677	1.968
Poorest 60% (ref. Richest 40%)	−0.87***	0.419
DPA	0.203	1.225
IPA (ref. TPA)	0.93**	2.536
Primary or none	−1.863***	0.155
Secondary (ref. Higher)	−0.704**	0.495
Employed (mother)	0.877**	2.405
Unemployed (ref. Inactive)	−0.352	0.703

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$

Table 9. Logistic regression, factors associated with attending early childhood education (children aged 36–59 months), Serbia Roma settlements

	B	Exp(B)
(Intercept)	−1.62***	0.198
Poorest 60% (ref. Richest 40%)	−0.74*	0.477
DPA	0.31	1.363
IPA (ref. TPA)	−0.865	0.421
Primary or none	−1.896	0.15
Secondary (ref. Higher)	−0.804	0.447
Employed (mother)	0.413	1.512
Unemployed (ref. Inactive)	1.104*	3.015

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$

Even though attending a preparatory preschool programme (PPP) is compulsory for all children before they start school, PPP coverage is still not complete. DPA and TPA are the areas where a number of children fall through the cracks, while IPA have the best, almost complete, coverage. Comparison with 2014 shows that there has been some potential reduction in PPP coverage in DPA and TPA (although these findings need to be approached with caution, as they do not amount to statistical significance). When it comes to children living in Roma settlements, things are even less favourable and there do not appear to be any differences across area type. Only a little over three quarters of these children attended PPPs in 2019, but trend analysis does show that there has been significant improvement in this regard for TPA and IPA children.

Chart 34. Preschool Preparation Programme (PPP) attendance
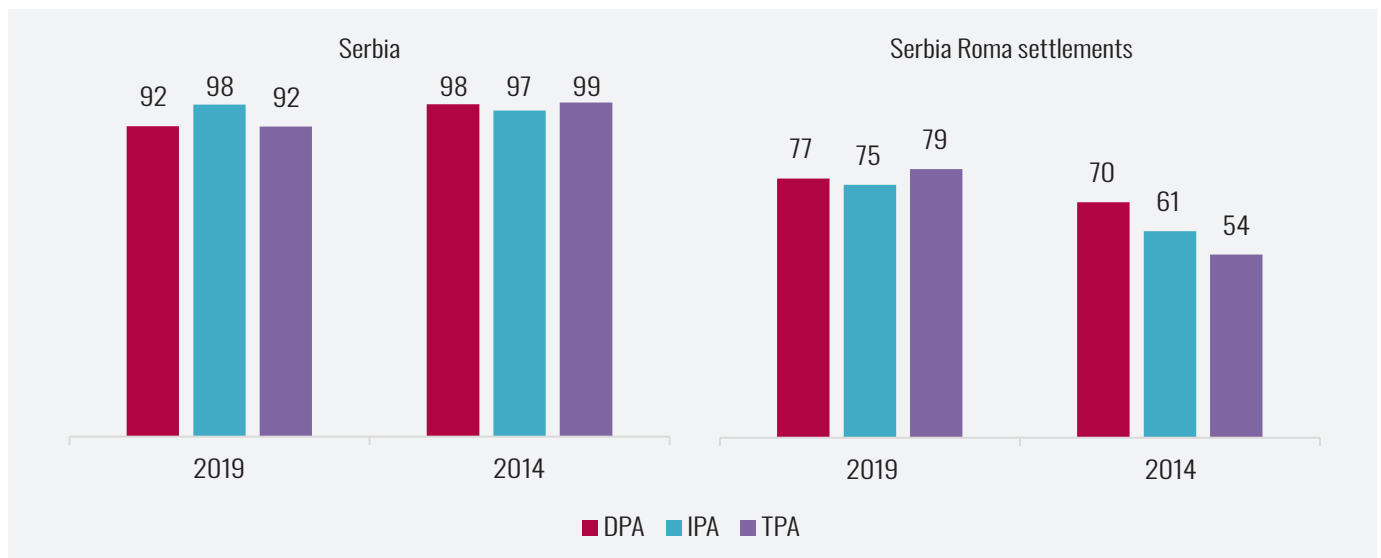
Percentage of children of PPP age attending/having attended PPP

Child disciplining

The disciplining of children aged 1–4 takes place using similar means and with a relatively similar rate of violent and non-violent methods across all area types. Around half of all children in this age group are raised with only non-violent discipline methods, while around a quarter of children endure some form of physical punishment. Interestingly, the analysis shows that there are no gender differences in how children are disciplined, nor across area types. The characteristic of the general population that is systematically linked to any violent discipline method is the material status of the household, in that violent methods are more common among the better-off segment of society (the richest 40 per cent). Even though it indicates that there has been some reduction in the use of violent methods of discipline, trend analysis shows the stagnation of these practices. Previous MICS analyses (UNICEF, 2015) show that there was a significant fall in violent discipline methods across the whole population between 2010 and 2014; however, it seems that this trend has been halted at what remains a relatively high level of prevalence.

All forms of violent discipline methods are significantly more prevalent among children living in Roma settlements, while non-violent discipline is significantly less common when compared with children from the general population. Almost half of all children in Roma settlements endure some form of physical punishment and around two thirds are exposed to some form of violent discipline method. The analysis shows that there are no differences in the methods applied to children of different genders and that there are no links with any other sociodemographic characteristic, including population density. This tells us that such practices are a widespread pattern of parenting across all social groups and area types. Trend analysis does not turn up any changes, hence in this segment of the population progress towards more modern styles of childrearing has stalled.

Chart 35. Child discipline
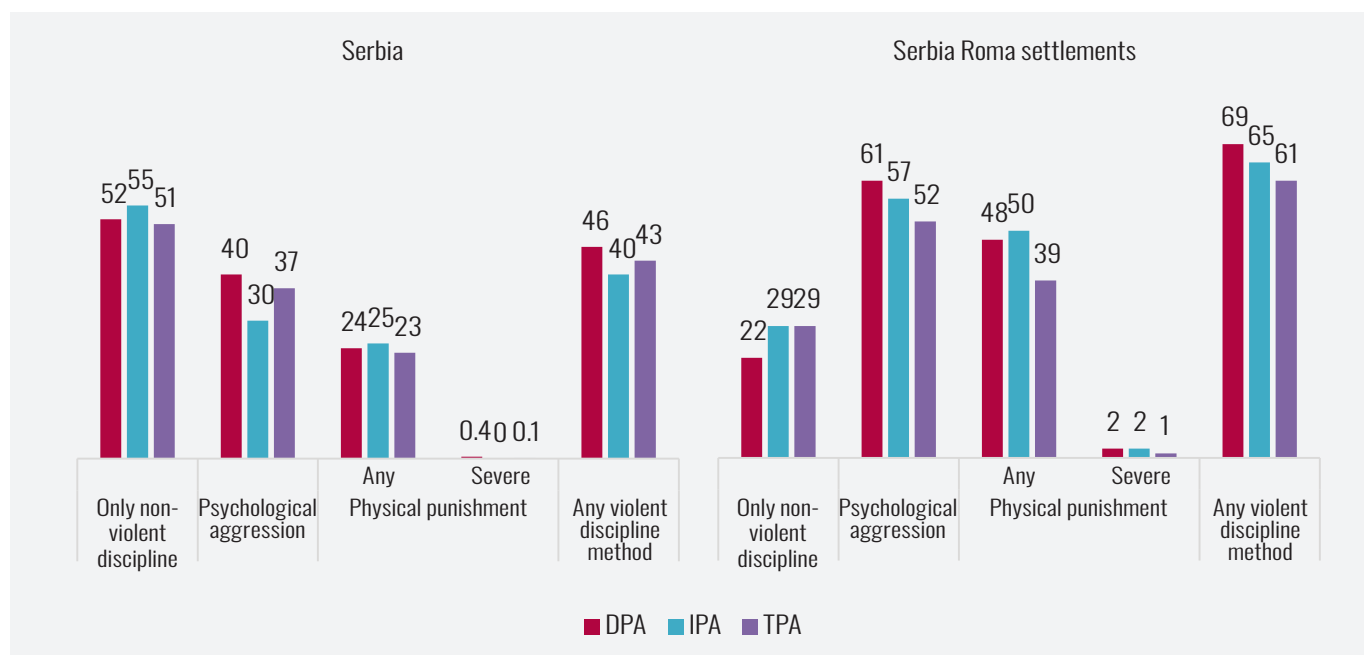
Percentage of children aged 1–4 years by child disciplining methods experienced during the last one month

Children aged 6–9: children in primary education ISCED 1

Gender parity index — primary education ISCED 1

Given that primary education is the first step in the education process and that this level is mandatory under Serbian law, all children having equal opportunities to attend school is crucial both for their individual life paths and for reducing risks for the society as a whole — including the risks of poverty, health risks, developmental risks and risks pertaining to future income. One of the more significant differences that characterizes underdeveloped regions is a gender gap in education. The gender parity index (GPI) is thought to be in balance: according to the MICS methodology, it is in the range of 0.97 and 1.03. When it is higher, boys are less well represented than girls; when it is lower, girls are under-represented. Local data show that in IPA, girls are under-represented in the lower grades of primary school and that this is a negative trend when compared with data for 2014. Since 2014, there has been no change for DPA and TPA. When looking at gender parity for children living in Roma settlements, the latest data show that boys are somewhat over-represented in DPA at this level, while gender parity is balanced in IPA and TPA. Trend analysis shows us that DPA underwent a shift in the gender balance in 2014, which now favours boys whereas girls had previously been over-represented. Both IPA and TPA arrived at gender balance, as boys are no longer over-represented in IPA and girls are no longer over-represented in TPA.

Table 10. Gender parity index (GPI) for primary school adjusted NAR

| | Serbia | | Roma settlements | |
	2014	2019	2014	2019
DPA	1.00	0.99	1.05	0.96
IPA	0.99	0.80	0.96	0.98
TPA	1.01	1.01	1.11	0.99

Chart 36. Primary school, out-of-school children
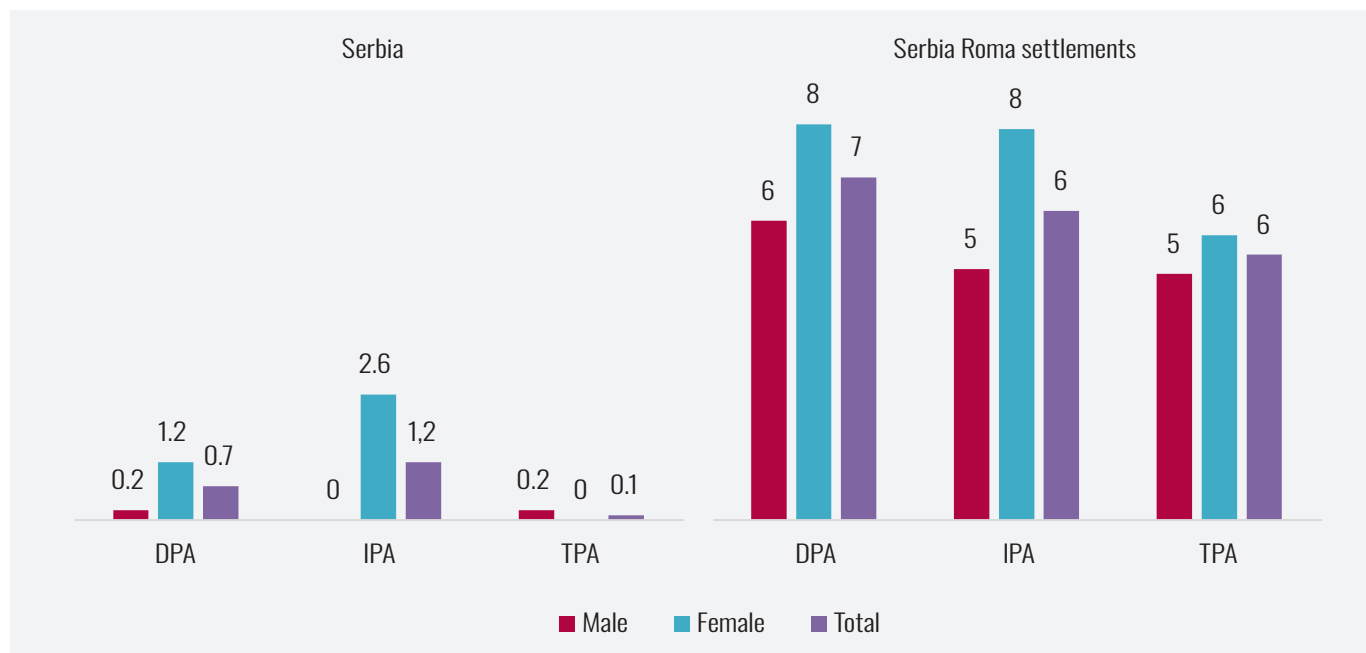
Percentage of children of primary school age out of school

Out of school. Even though primary education is compulsory, even the lower grades are not regularly attended by all children. In the general population, out-of-school children are relatively evenly distributed across all area types. Children living in Roma settlements are significantly more likely to be out of school, but even among this population there are no differences across area types.

Support for child learning

Various dimensions of **support for child learning** (see Tables A16 and A17 in Appendix) show no differences across area types in the general population of children. Parents received children's report cards, participated in parent–teacher meetings, met with teachers, showed awareness of a Parents' Council, were familiar with its decisions and discussed various issues through this body at approximately the same rate. The parents of children living in Roma settlements were somewhat less involved in school activities over the last year and also somewhat less aware of school management. The only difference across areas of different population density was a lower rate of awareness about the decisions of the Parents' Council in DPA than in IPA.

Although the data indicate somewhat better circumstances for children in DPA, in terms of available books at home, the differences are not statistically significant. On average, nine out of ten children receive help with their homework, while in TPA that support is somewhat less common than among parents in IPA and DPA, and this responsibility is taken up by other members of the family/household. Children living in Roma settlements have fewer books at their disposal than do their counterparts in the general population, with only one child in ten having three or more books at home. These children receive similar levels of support regarding their schoolwork as those in the general population, but mothers are significantly less likely to engage in this process (while fathers are equally likely). There are no differences across area type, indicating that this kind of support is relatively evenly distributed in both urban and rural areas.

Chart 37. Learning environment at home
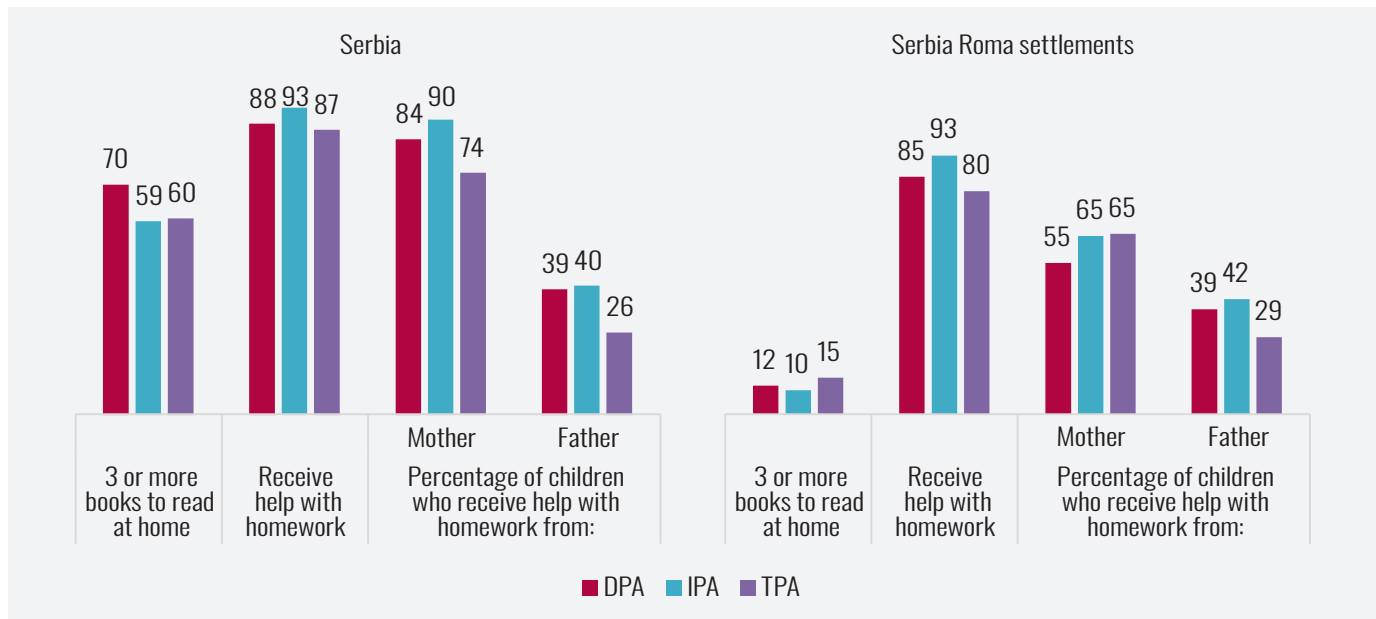
Percentage of children age 6–9 by the number of children's books present in the household, and by the type and number of playthings that the child plays with

Participation in school-related activities (see Tables A17 and A18 in Appendix) is relatively evenly distributed across all children, irrespective of population density. There are differences when it comes to paid sporting activities, where children in more densely populated areas are more likely to participate, and for foreign language classes, where there are significant differences between DPA and TPA (with rural children being less likely to participate). Children living in Roma settlements are significantly less likely to participate in any paid activities than their counterparts in the general population, but in this population there are no differences regarding population density. When it comes to free school activities, these children are more likely to attend remedial classes, less likely to attend extra classes, and less likely to be members of school clubs.

Chart 38. Percentage of children aged 6–9 years not able to attend class due to school closure

Percentage of children who in the last year could not attend class due to school closure
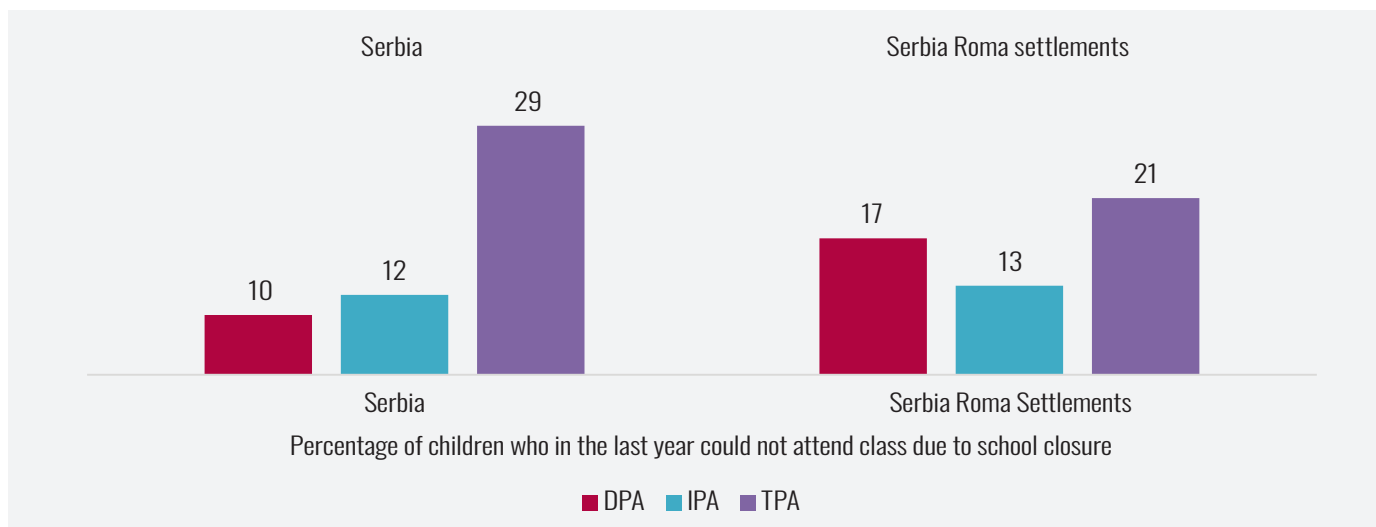
In TPA, more than a quarter of children could not attend classes over the last year due to school closure, which is significantly more than IPA and DPA children. In all area types, school closures were mostly caused by natural occurrences, although in IPA school closure was more commonly caused by industrial action (see Tables A19 and A20 in Appendix). Children living in Roma settlements were absent from school at the same rate, but among this population there are no differences by area type, indicating that the population is relatively equally exposed to this risk.

Disciplining

There are, overall, no significant differences in how children are disciplined across area types. Violent and non-violent methods are prevalent to a similar degree. On average, one in two children from the general population are exposed to non-violent methods. Among children in the Roma population, as many as three quarters of schoolchildren in the lower grades are exposed to some form of violent discipline, with half facing physical punishment.

Chart 39. Child discipline
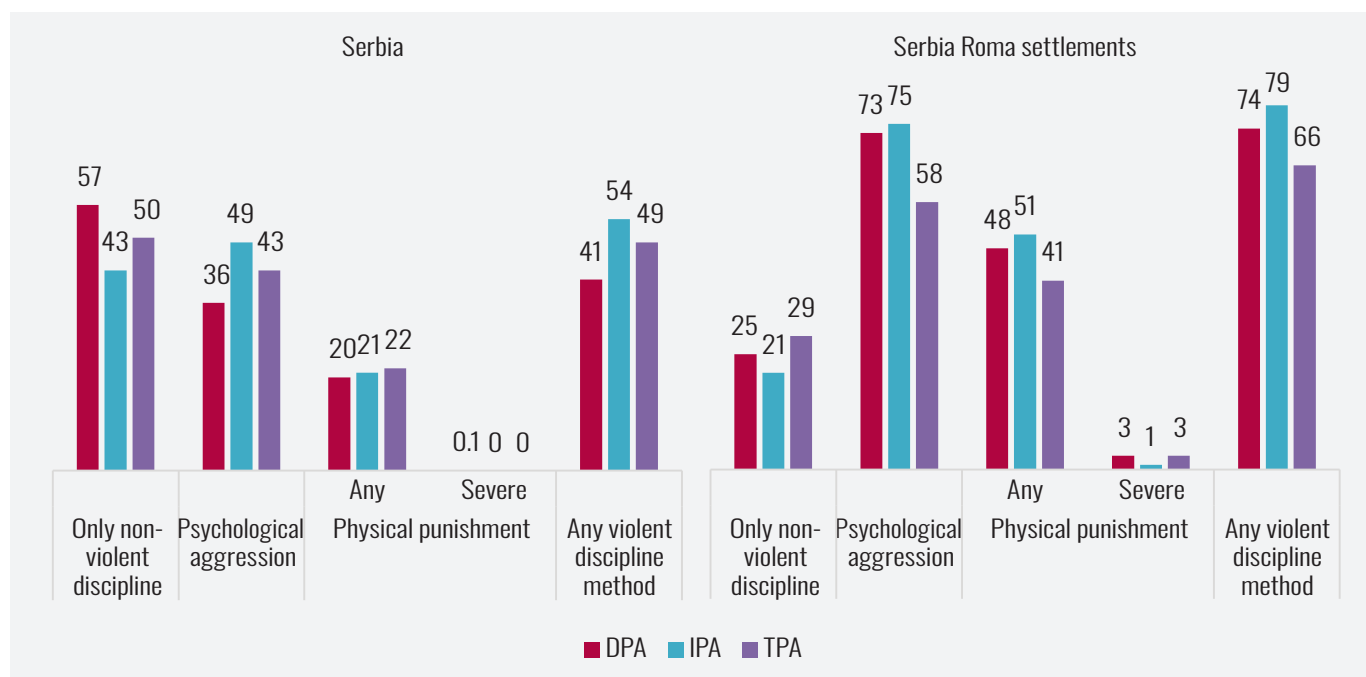
Percentage of children aged 6–9 years by child disciplining methods experienced during the last one month

Child labour

Analysis of child labour among the lower grades of primary school children shows that children living in TPA are significantly more likely to engage in economic activities than DPA children. TPA also have a significantly higher percentage of children engaged in economic activities or household chores above age thresholds or working under hazardous conditions than DPA. Even though there is not statistically significant difference in the data, work under hazardous conditions is detected almost exclusively in TPA and almost exclusively among girls. Activities pertaining to household chores do not exceed the age threshold and there are no significant differences by area type. Regression models that examine links between economic activities, work under hazardous conditions and place of residence, gender and wealth status show systemic links only with place of residence. Economic activities by age increase as the population density decreases, and work under hazardous conditions is significantly more prevalent in TPA than IPA.

Chart 40. Child labour, Serbia
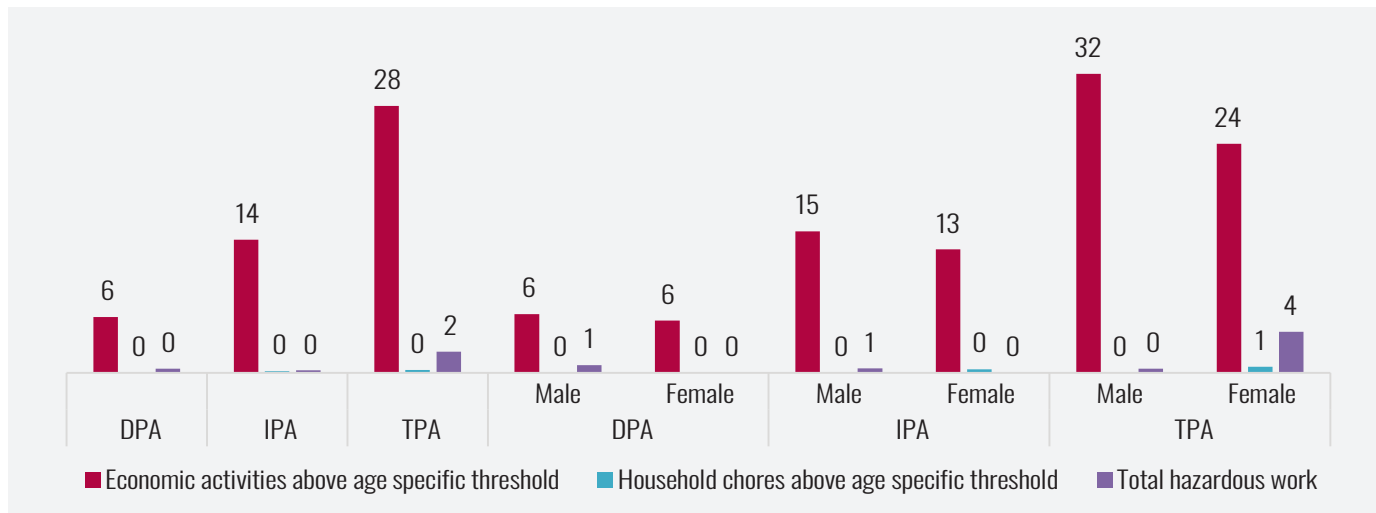
Percentage of children aged 6–9 years by involvement in economic activities or household chores during the last week and percentage engaged in child labour during the previous week

Overall, children living in Roma settlements are less burdened by economic activities above the age-specific threshold. Regression models that examine links between economic activity and place of residence, gender and wealth status show links for place of residence — where this is significantly more prevalent in TPA than IPA — and for gender — where boys engage in this kind of work more commonly.

Chart 41. Child labour, Serbia Roma settlements

Percentage of children aged 6–9 years by involvement in economic activities or household chores during the last week and percentage engaged in child labour during the previous week

Table 11. Logistic regression, factors associated with child labour, Serbia

	Economic activities above age-specific threshold	Total hazardous work
	B	**B**
(Intercept)	–1.302**	–2.276
Male (ref. female)	0.283	–1.176
Poorest 60% (ref. Richest 40%)	0.296	–1.888
DPA	–1.754***	–2.329
IPA (ref. TPA)	–0.808*	–2.741*

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$

Table 12. Logistic regression, factors associated with child labour, Serbia Roma settlements

	Economic activities above age-specific threshold
	B
(Intercept)	–2.338**
Male (ref. female)	1.213*
Poorest 60% (ref. Richest 40%)	–0.961
DPA	–0.292
IPA (ref. TPA)	–2.340*

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$

Primary education: 10–13

Gender parity index — primary education ISCED 2

The gender parity index for the general population of children attending the higher grades of primary school is balanced across all area types. Since 2014 there has been some change in DPA as the position of girls has improved. Among children living in Roma settlements, there are significant disparities in all area types. Girls are over-represented in DPA, while boys are over-represented in TPA and IPA classrooms. Trend analysis shows that the position for boys in DPA is declining, while there is some improvement for girls living in IPA, whereas there have been significant oscillations in TPA where girls had been over-represented but now boys are.

Table 13. Gender parity index (GPI) for lower secondary school adjusted NAR

	Serbia		Roma settlements	
	2014	**2019**	**2014**	**2019**
DPA	0.95	1.01	1.06	1.08
IPA	1.01	1.00	0.86	0.90
TPA	1.00	0.97	1.17	0.93

Chart 42. Lower secondary school, out-of-school children
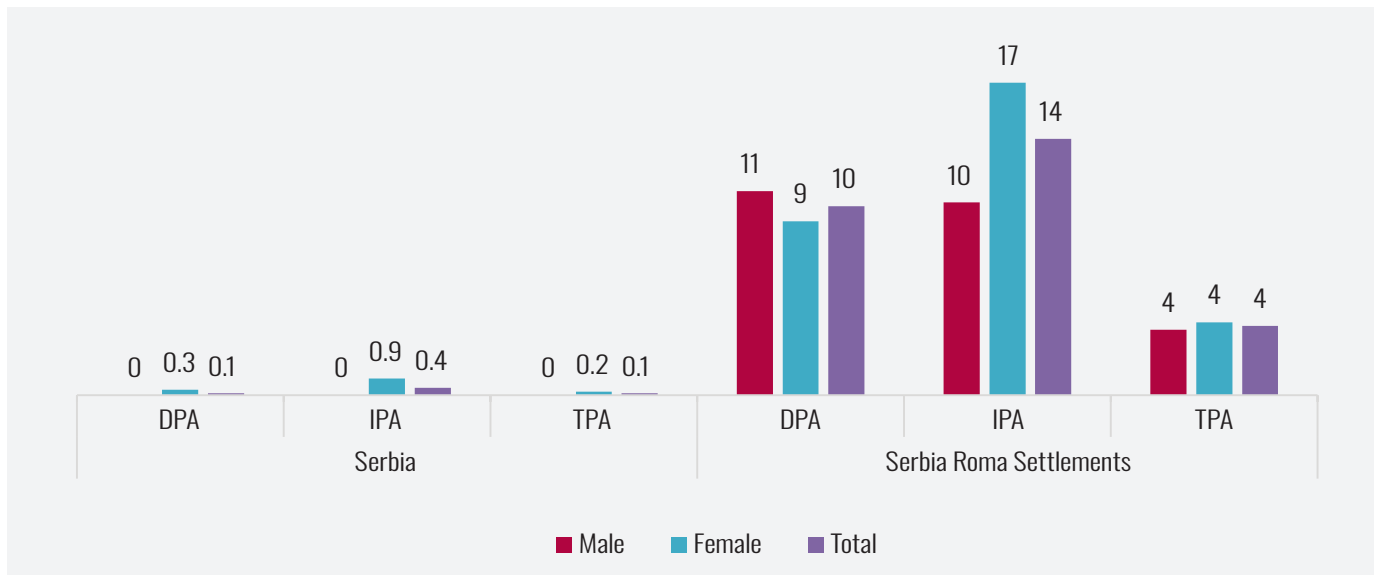
Percentage of children of lower secondary school age out of school

Out of school. Out-of-school children in the general population are relatively evenly distributed across all area types and there are no gender differences. Interestingly, participation in the higher grades of primary school is lower than for the lower grades. Children living in Roma settlements are significantly more likely to be out of school, but there are no differences across area types in this population. The only difference we have recorded is that out-of-school girls outnumber out-of-school boys in IPA.

Support for child learning

Various dimensions of **support for child learning at school** (see Tables A21 and A22 in Appendix) do not show any differences across area type for the general population. Parents receive children's report cards, participate in parent–teacher meetings, meet with teachers, showed awareness of a Parents' Council, were familiar with its decisions and discussed various issues through this body at approximately the same high rate. The parents of children living in Roma settlements were somewhat less familiar with decisions made by the Parents' Council and what this body discussed than their counterparts in the general population. These parents were also less likely to attend school ceremonies or sports days. Differences across areas of different population density were not significant, hence it is possible to conclude that they stem from some other social attributes of the population.

The data indicate that children living in DPA are slightly better-off than those in other areas — significantly so when it comes to TPA children — in terms of the number of books available at home. Around two thirds of children receive help with their homework but mothers are somewhat less likely to engage in this activity in TPA than in DPA. Children who live in Roma settlements have fewer books at their disposal than children in the general population, with only around one in ten having three or more books at home. These children received help with their schoolwork at approximately the same rate as their counterparts in the general population, but mothers were significantly less likely to engage in this process (though fathers engaged at similar rates). There were no differences according to place of residence, hence it can be concluded that support is relatively evenly distributed across area types.

Chart 43. Learning environment at home
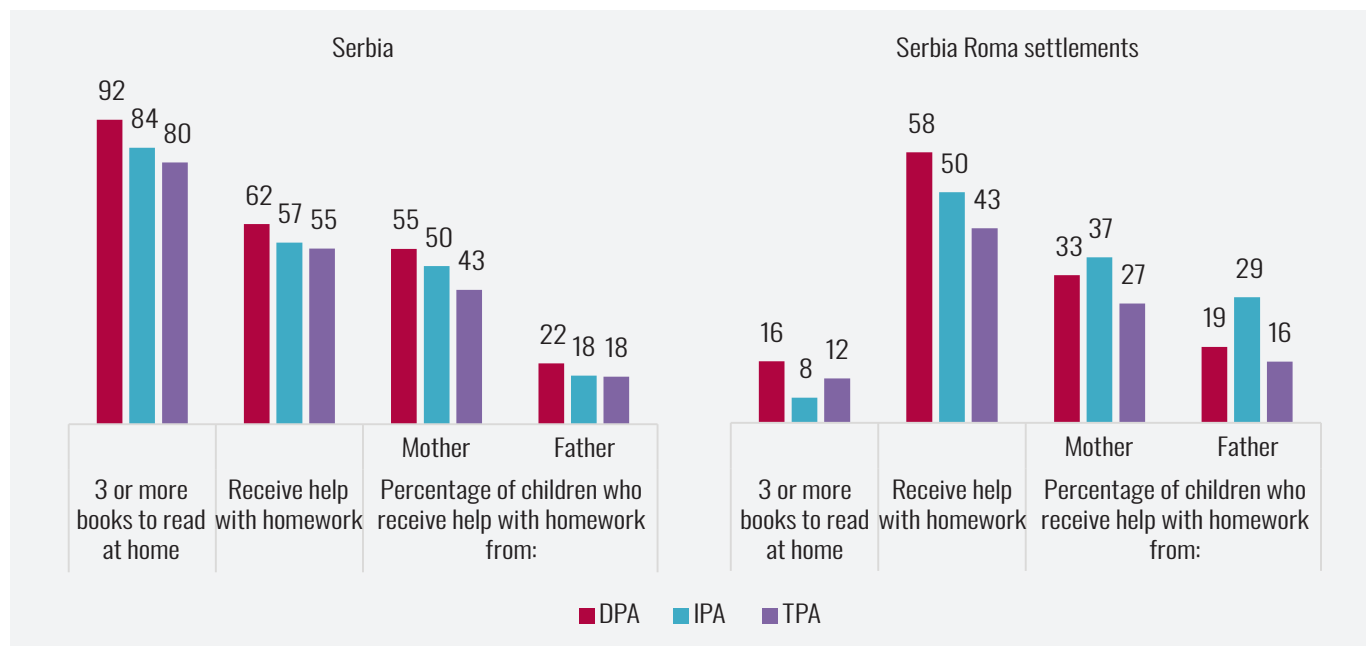
Percentage of children age 10–13 by the number of children's books present in the household, and by the type and number of playthings that the child plays with

When it comes to participation in paid school activities (see Tables A23 and A24 in Appendix), as population density decreases so does children's participation in sport. Meanwhile, IPA children are less likely to learn foreign languages than their counterparts in DPA. When it comes to free activities, DPA children are significantly more likely to attend extra classes than children living in TPA. Children who live in Roma settlements are significantly less likely to participate in all paid activities and there are no differences in terms of this participation across area types. When it comes to free school activities, these children are more likely to attend remedial classes but less likely to attend extra classes or school clubs.

In TPA a significant proportion of children did not attend school due to school closures. The most common cause of these closures was natural occurrences. In DPA and IPA, schools were more likely to be closed due to industrial action (see Tables A25 and A26 in Appendix).

Chart 44. Percentage of children aged 10–13 years not able to attend class due to school closure

Percentage of children who in the last year could not attend class due to school closure
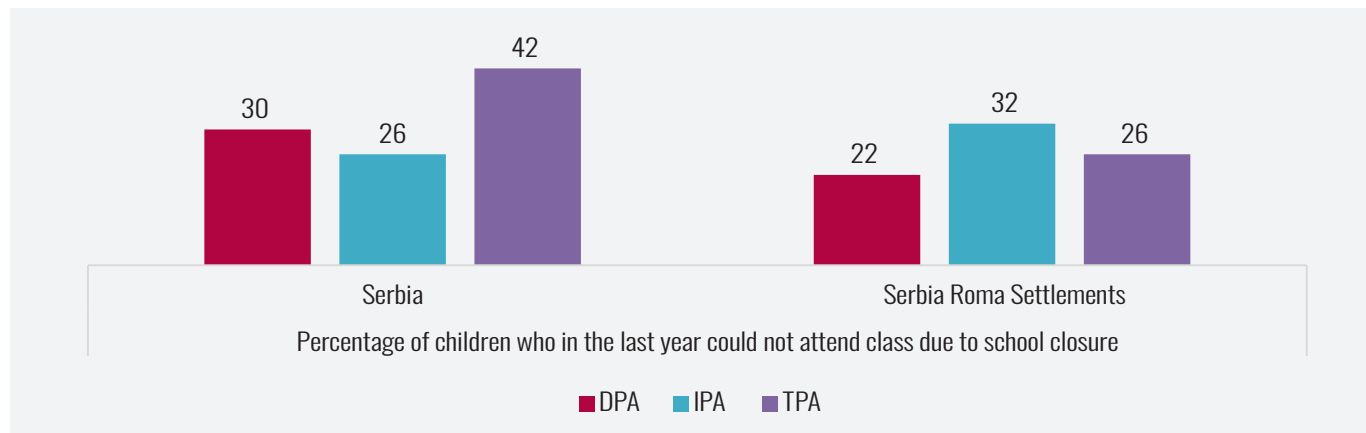
Child discipline

Children attending the higher grades of primary school are disciplined in a similar way to younger schoolchildren. In terms of the measures used by parents, there are no differences according to the age of the child. There are also no differences according to the type of violence parents use on average, nor according to gender. Regression analysis (Tables A27 and A28 in Appendix) tells us that the only characteristic that is systematically linked to non-violent methods is maternal education, where mothers who have completed higher education are less likely to use violent methods than mothers who have completed only primary education. Things are similar for children living in Roma settlements, where there are no significant differences according to any sociodemographic characteristic and the only difference being between boys and girls living in DPA. Girls living in urban areas are more likely to experience non-violent discipline methods than boys, while boys are more likely to experience violent discipline methods.

Chart 45. Child discipline, Serbia
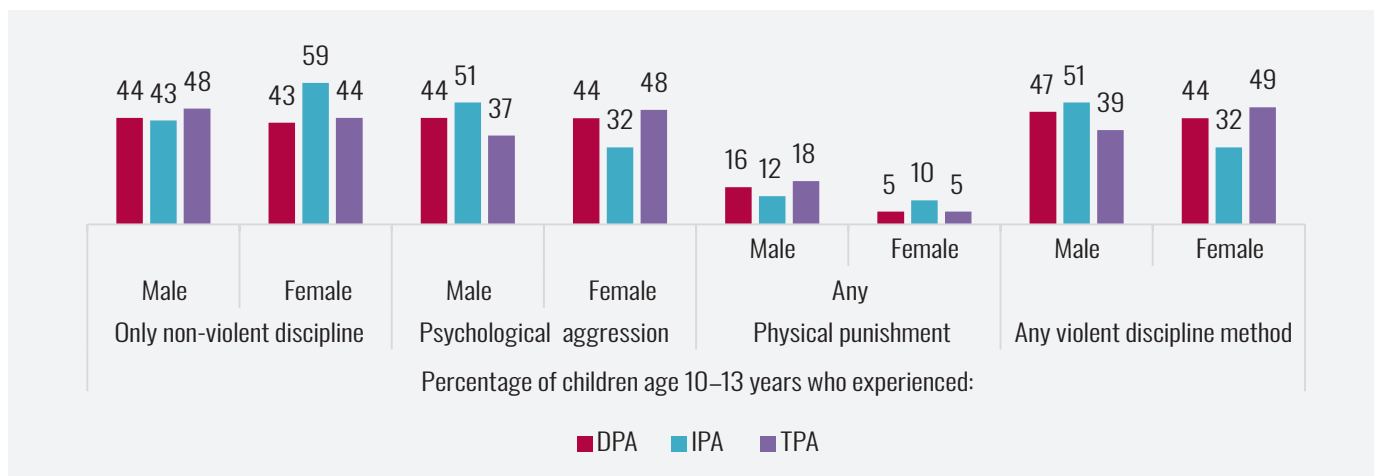
Percentage of children aged 10–13 years by child disciplining methods experienced during the last one month

Chart 46. Child discipline, Serbia Roma settlements
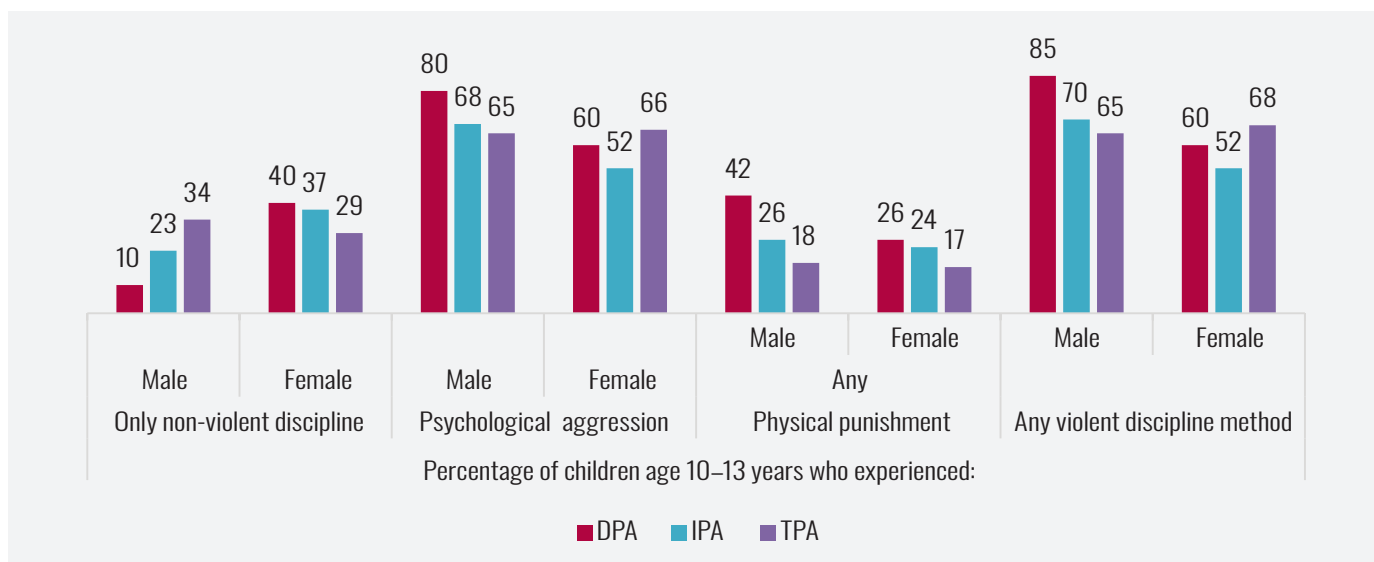
Percentage of children aged 10–13 years by child disciplining methods experienced during the last one month

When it comes to attitudes to punishment, here too we noted certain convergence in parental practice among the general population. There are no differences in these attitudes across area type, nor in terms of maternal educational level. The percentage of mothers who believe that children need to be punished physically from time to time is similar across both the general population and among mothers who live in Roma settlements. Mothers do differ across place of residence, however, given that these attitudes are significantly more prevalent in DPA than in TPA.

Chart 47. Percentage of mothers/caregivers of children aged 10–13 years who believe that physical punishment is needed to bring up, raise or educate a child properly

Percentage of mothers/caretakers who believe that a child needs to be physically punished

■ DPA   ■ IPA   ■ TPA
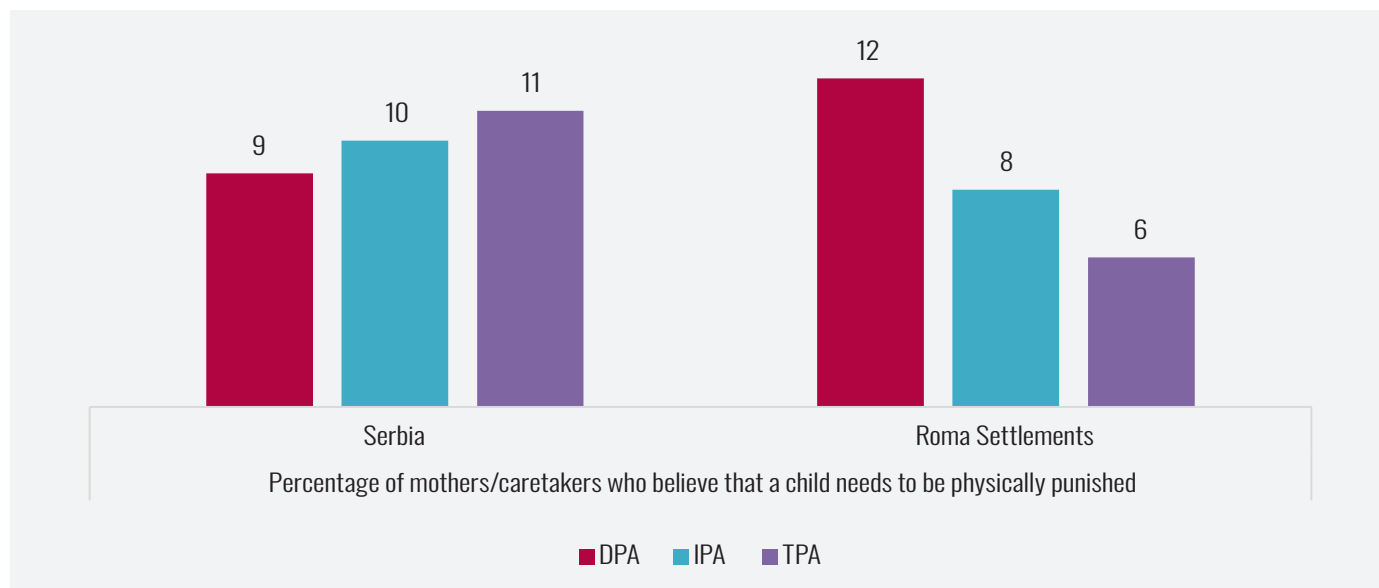
Child labour

Data on child labour for children in the higher grades of primary school show that children living in TPA are significantly more engaged in economic activities compared with their counterparts from DPA and IPA. The data also show that a significantly larger percentage of children in TPA are engaged in economic activities or household chores above the age-specific thresholds than those living in IPA and DPA. Work under hazardous conditions is also significantly more prevalent among TPA children and almost exclusively among boys. Differences between boys and girls are more pronounced in rural areas, indicating that boys participate in the framework earlier and more intensively. Household chores above an age-specific threshold are at a relatively low level and there are no differences across area type. Regression models that examine links between economic activities and work under hazardous conditions and place of residence and wealth status indicate systemic linkages between place of residence and gender, in that economic activities increase as the population density decreases and that this mostly affects boys. Work under hazardous conditions is more common in TPA than in IPA, again mostly among boys.

Chart 48. Child Labour, Serbia
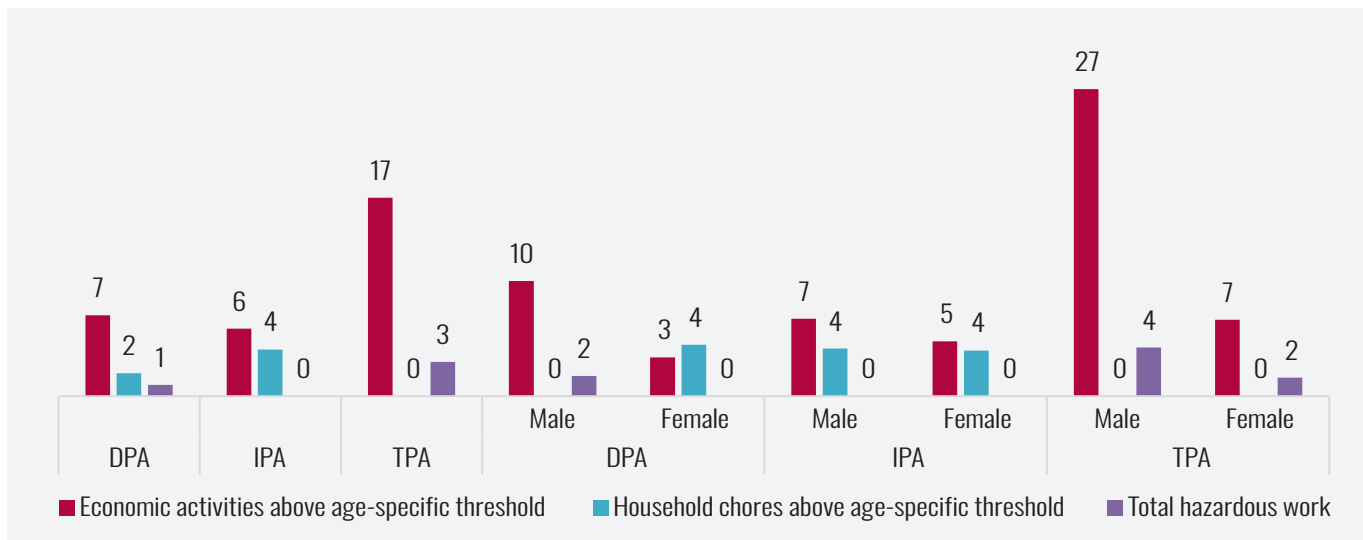
Percentage of children aged 10–13 years by involvement in economic activities or household chores during the last week and percentage engaged in child labour during the previous week

Children living in Roma settlements are less burdened with child labour than children in the general population. Examining links through regression models reveals that, similar to the general population, economic activities are more common for boys and more prevalent in TPA than IPA. Work under hazardous conditions is more likely in less densely populated areas and, interestingly, in those families who fall into the poorer 60 per cent.

Chart 49. Child labour, Serbia Roma settlements
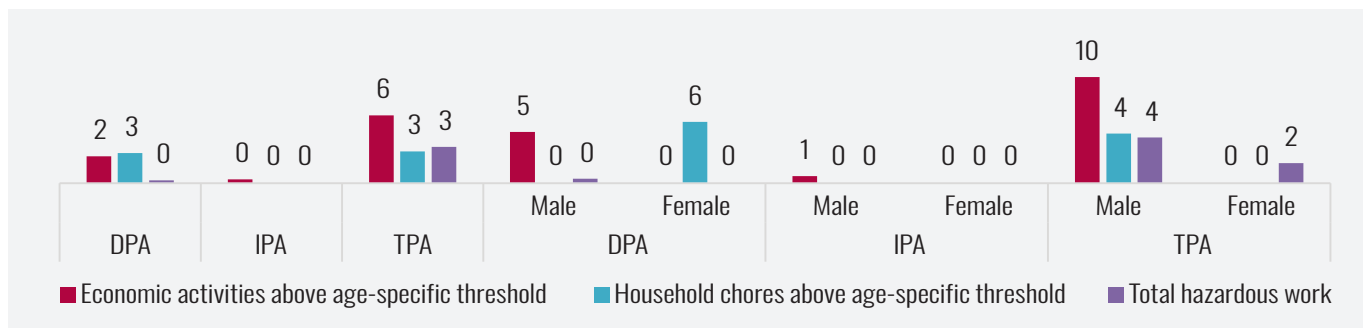
Percentage of children aged 10–13 years by involvement in economic activities or household chores during the last week and percentage engaged in child labour during the previous week

Table 14. Logistic regression, factors associated with child labour, Serbia

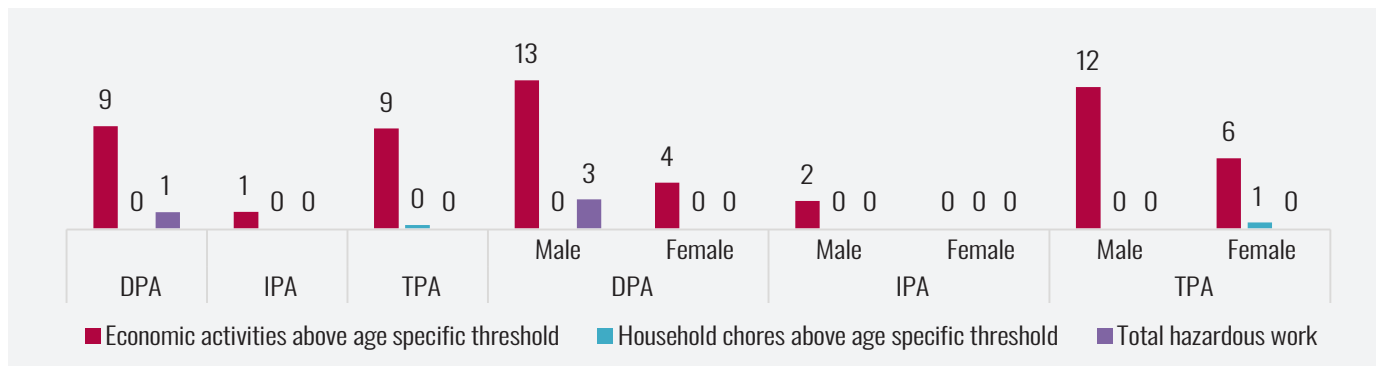|	Economic activities above age-specific threshold	Total hazardous work
	B	B
(Intercept)	−2.433***	−5.364***
Male (ref. female)	1.320**	1.421**
Poorest 60% (ref. Richest 40%)	0.035	1.183
DPA	−1.063*	−0.78
IPA (ref. TPA)	−1.272*	−32.309***

***p < 0.001; **p < 0.01; *p < 0.05

Table 15. Logistic regression, factors associated with child labour, Serbia Roma settlements

	Economic activities above age-specific threshold	Total hazardous work
	B	B
(Intercept)	−29.672***	−2.277
Male (ref. female)	28.334***	0.908
Poorest 60% (ref. Richest 40%)	−1.265	−4.587**
DPA	−0.881	−3.550*
IPA (ref. TPA)	−3.243*	−32.593***

***p < 0.001; **p < 0.01; *p < 0.05

Upper secondary education: 14–18

Gender parity index — upper secondary education ISCED 3

In terms of secondary school attendance, certain gender disparities are evident among the general population living in DPA and IPA. In DPA, more girls attend secondary school, while in IPA they are less well represented than their peers. In TPA, gender parity is balanced. Trends indicate that, since 2014, there has been a narrowing of the gap in DPA, though a gap is still evident, and that there has been an oscillation in IPA where girls were previously outnumbered boys but are now in the minority. During this short period, TPA achieved equilibrium. Among children living in Roma settlements, there has been significant improvement. From a previously significant over-representation of boys across all area types, gender disparities have become balanced out in DPA and TPA, while in IPA the gap has narrowed, though boys remain over-represented.

Table 16. Gender parity index (GPI) for upper secondary school adjusted NAR

	Serbia		Roma settlements	
	2014	2019	2014	2019
DPA	1.10	1.04	0.77	0.96
IPA	1.08	0.91	0.28	0.72
TPA	1.07	0.98	0.79	0.97

Chart 50. Upper secondary school, out-of-school children
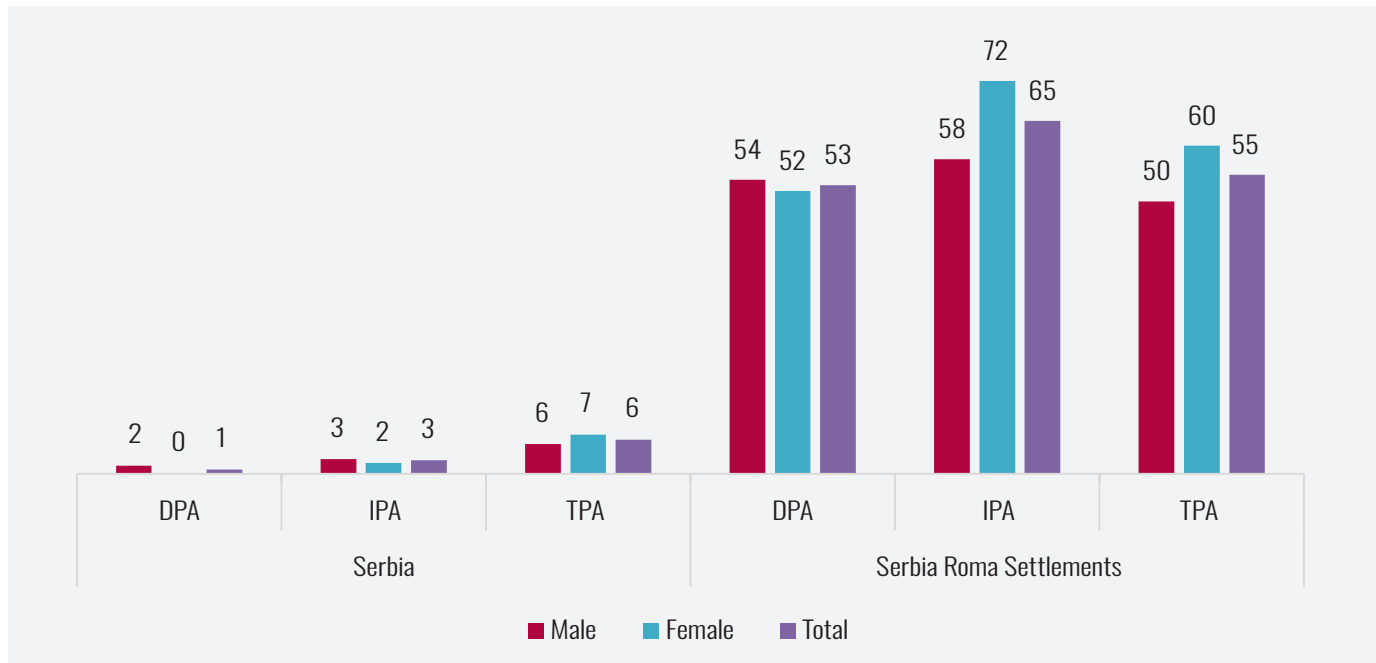
Percentage of children of upper secondary school age out of school

Out of school. In the general population, out-of-school children are more prevalent in TPA. This indicates that compulsory schooling does manage to keep children in the education process across various area types but that rural children are more quickly excluded from that process, regardless of their gender. Children living in Roma settlements are significantly more likely to be out of school, though even in this population there are no differences across area types or gender.

Child labour

Analysis of the activities of adolescents aged 14–17 reveals an almost complete absence of child labour in DPA and relatively similar rates in IPA and TPA. The analysis shows that work under hazardous conditions is significantly more common in IPA and TPA than in DPA, as well as that this kind of work is almost always done by boys; this also being indicated supported by the significant differences in participation in such work between boys and girls in IPA and TPA. In summary, rural children are more likely to participate in economic activities both above and below age-specific thresholds. Differences in terms of household chores are not statistically significant and barely exceed the age-specific threshold. The gender component of child labour is clear: boys engage in it significantly more frequently than girls. Adolescents living in Roma settlements are more likely to engage in economic activities and work in hazardous conditions than their peers in the general population. Even though the percentages appear to show large differences between boys and girls, these are not statistically significant. Neither are the differences between area types.

Chart 51. Child Labour, Serbia
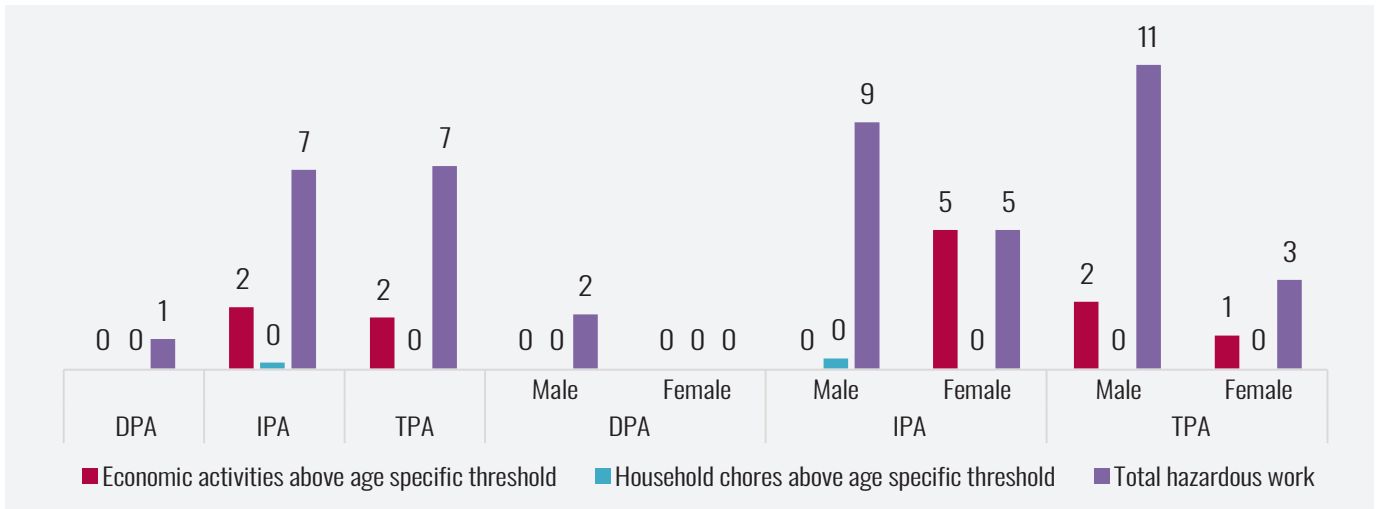
Percentage of children aged 14–17 years by involvement in economic activities or household chores during the last week and percentage engaged in child labour during the previous week

Chart 52. Child Labour, Serbia Roma settlements
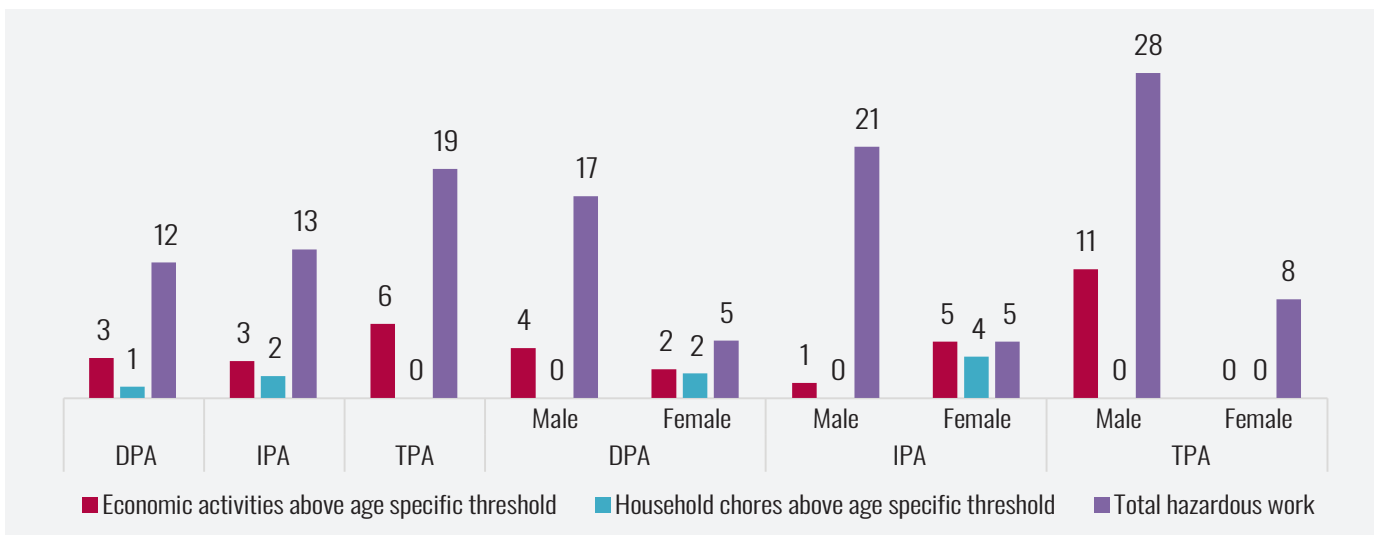
Percentage of children aged 14–17 years by involvement in economic activities or household chores during the last week and percentage engaged in child labour during the previous week

WOMEN: GAPS AND DISPARITIES

Household and environment

In the general population of women, those living in TPA are more likely to live in households where the roof leaks, the walls and floors are damp, and where there is mould, compared with women living in DPA. The analysis indicates a lower quality of housing units in rural areas than in central urban areas. Among women living in Roma settlements, the situation is significantly less favourable than in the general population of women. Although some differences indicate poorer infrastructure in rural areas, these differences are not statistically significant, indicating that poor housing conditions for women are relatively uniform in terms of place of residence.

Chart 53. Housing characteristics — per cent of women 15–49 years old
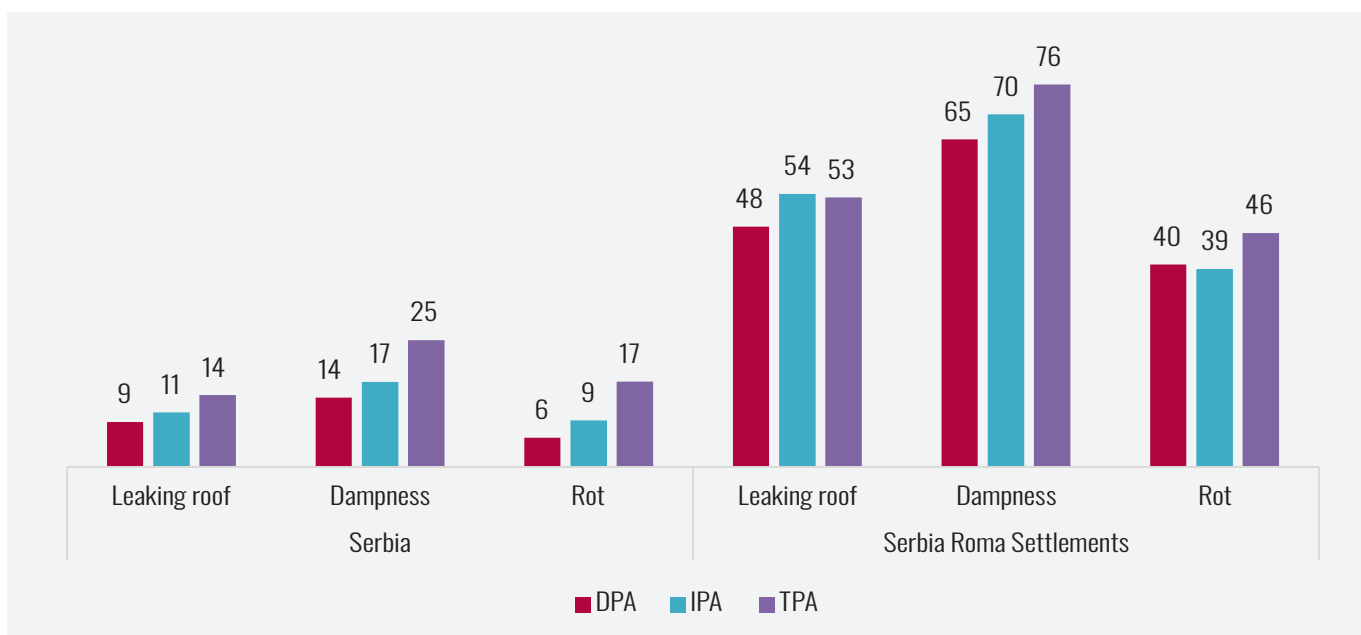
Per cent distribution of women 15–49 years old by selected housing characteristics

Infrastructure

Reliance on clean fuels and cooking technologies is significantly more common in DPA (in households that have reported cooking). TPA use clean technologies less frequently, pointing to the lack of infrastructure on the one hand and the risks to women in rural areas on the other. Furthermore, in all types of settlements, there are some differences between the availability of clean infrastructure and the financial position of the household in which they live (measured by wealth index), but this discrepancy is greatest in TPA, indicating the huge social gap in rural access to basic infrastructure. Among the population of women living in Roma settlements, this infrastructure is even less accessible and, as in the general population, the share of households with clean technology decreases with the reduction of settlements.

Chart 54. Clean fuels and technologies for cooking
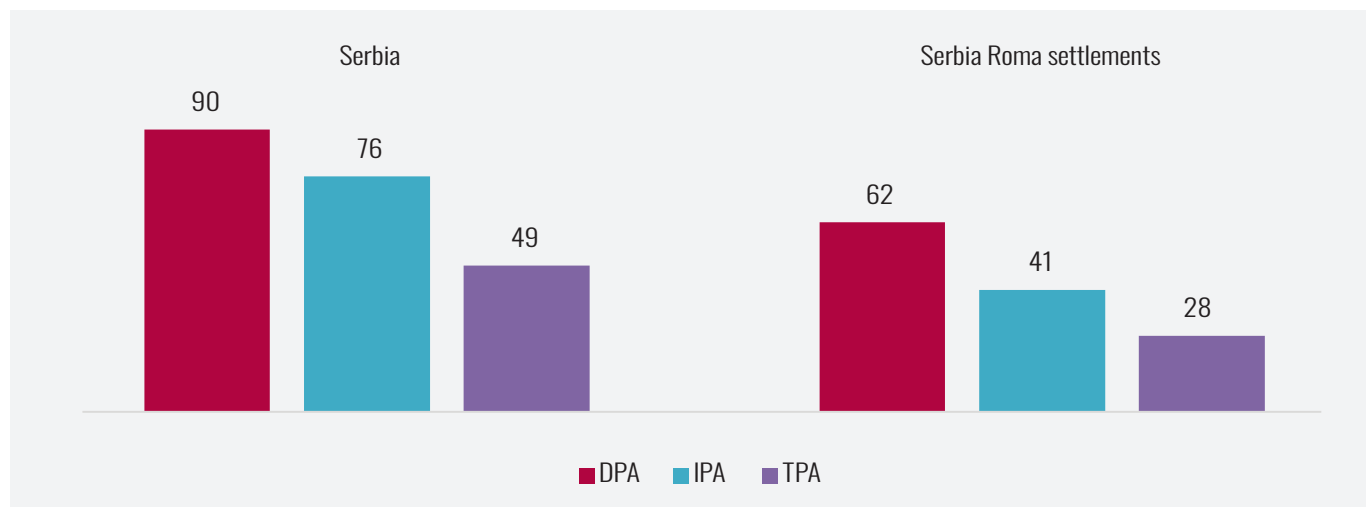
Per cent distribution of women 15–49 years old using clean fuels and technologies for cooking

Heating infrastructure also differs in relation to the size of the settlement, so that in smaller places it is significantly more traditional, less reliable, requires more investment, and is less environmentally friendly. Almost half of the households in TPA use the same infrastructure for food preparation and heating, while only one third have access to central heating. Bearing in mind that most of the housework is done by women in the countryside, this is potentially another indicator of women's workload, given that in addition to food preparation they usually take care to keep the home warm. The situation with the population in Roma settlements is significantly less favourable, and it worsens with the reduction of the size of the settlement.

Chart 55. Primary reliance on fuels and technologies for space heating
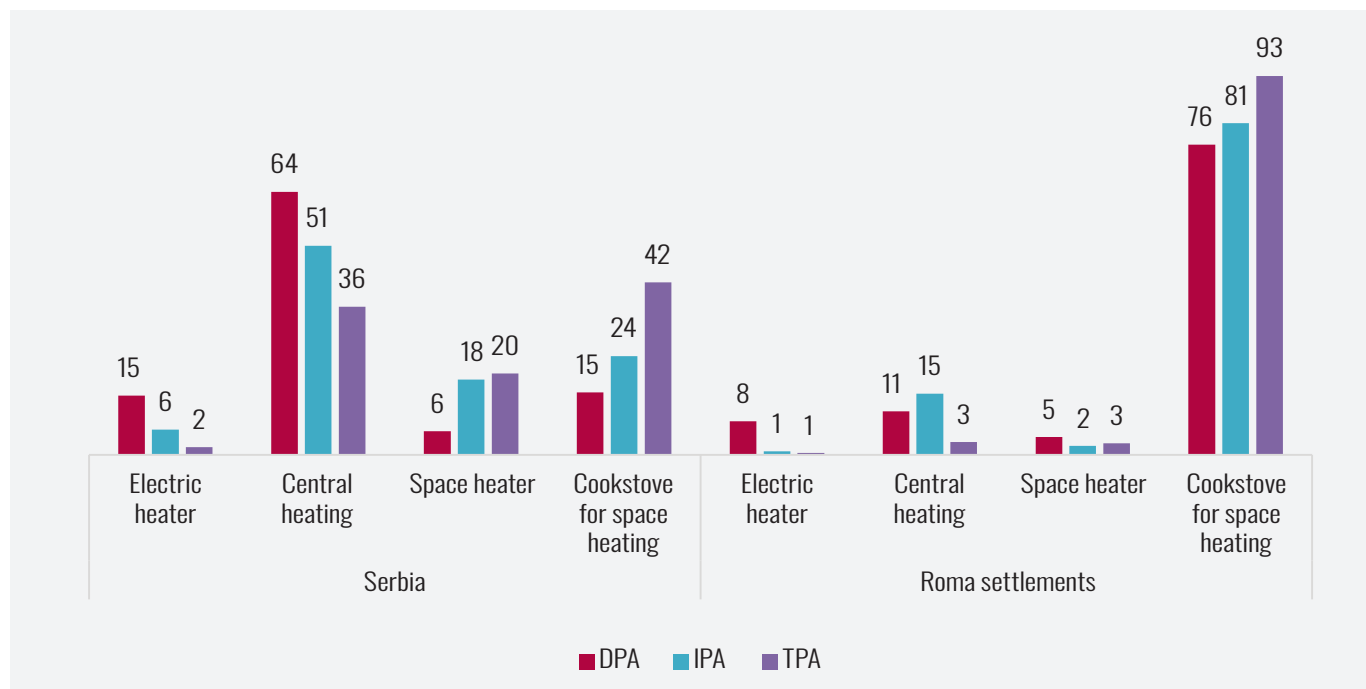
Per cent distribution of women 15–49 years old living in households using clean fuels and technologies for space heating

In summary, there are significant differences between the types of settlements according to the degree of use of clean technologies for cooking, heating and lighting. In all types of settlements, the Šumadija and Western Serbia and Southern and Eastern Serbia regions stand out as areas with much less developed infrastructure that allows the use of clean technologies. Regional differences are particularly pronounced in TPA settlements, indicating rather unequal living conditions for women in rural areas throughout Serbia. In Roma settlements, the situation is even more unfavourable compared with the general population of women and indicates differences between types of settlements. There are almost no women in TPA who live in households that rely exclusively on clean technologies.
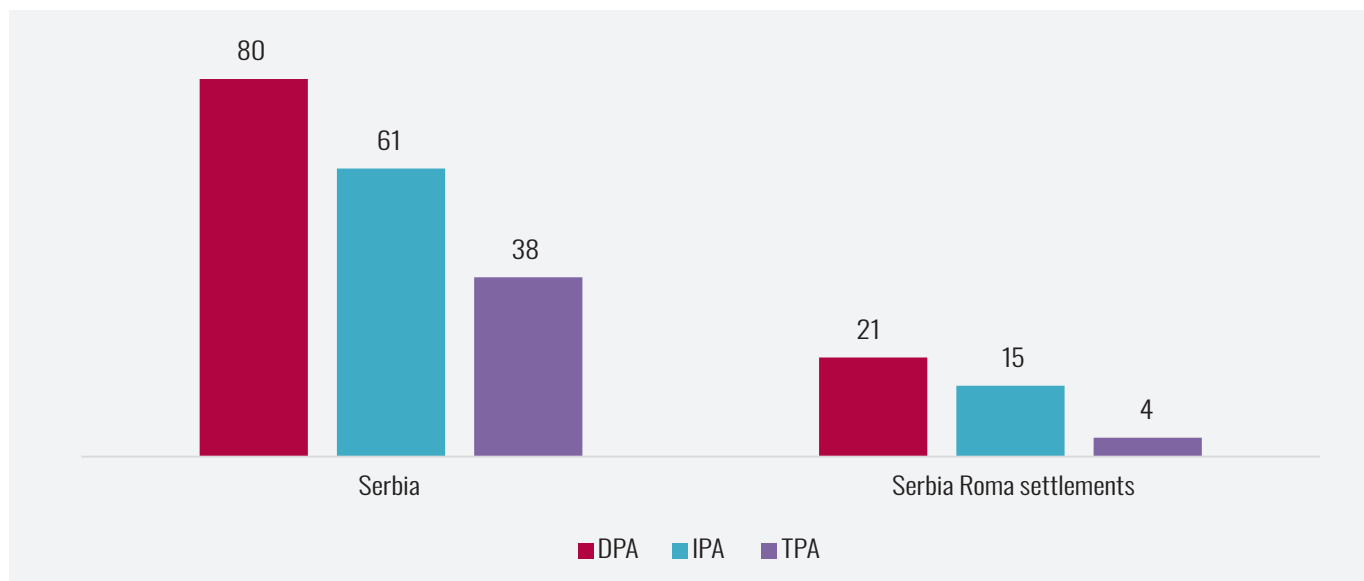
Per cent distribution of women 15–49 years old living in households using clean fuels and technologies for cooking, space heating and lighting

Digital access

The largest number of women in all types of settlements have access to the internet. However, 6.8 per cent of women aged 15–49 in TPA live in a household without an internet connection, while this share is lower in IPA (3 per cent) and DPA (3 per cent) (differences are statistically significant between DPA and TPA). These women remain deprived of the significant amount of information and modern knowledge about parenting and family life that is nowadays found on the web. In addition, the possibility of online work during the COVID-19 crisis was also unevenly distributed, because this type of work was inaccessible to a larger percentage of women in rural areas.

The analysis of trends shows us that the internet is becoming more accessible and that the gap between the village and the city is closing. Thus, in 2014, 88 per cent of women in DPA lived in households with an internet connection, 86 per cent in IPA, and significantly less in TPA, at 68 per cent. While in 2014 there was still a difference between the TPA on the one hand and the DPA and IPA on the other, that difference does not exist today. In households, a desktop computer is most often used, and less often a laptop or a tablet. All devices (except desktops) are more commonly owned by households in DPA (compared with TPA), indicating that access to technology is not uniform and that the digital divide still exists. As expected, the situation of women living in the Roma settlements is less favourable than that of the general population, given the overall situation in the household. But, unlike the general population, there are no differences among these women in the availability of technology or access to the internet according to the type of settlement. The analysis of trends among them also shows a significant improvement, even greater than in the general population when it comes to internet access. In 2014, 58 per cent of women had internet access in DPA, 46 per cent in IPA, and only 20 per cent in TPA, and in just five years the gap based on settlement type has closed.

Chart 57. Access to digital technologies — per cent of women 15–49 years old
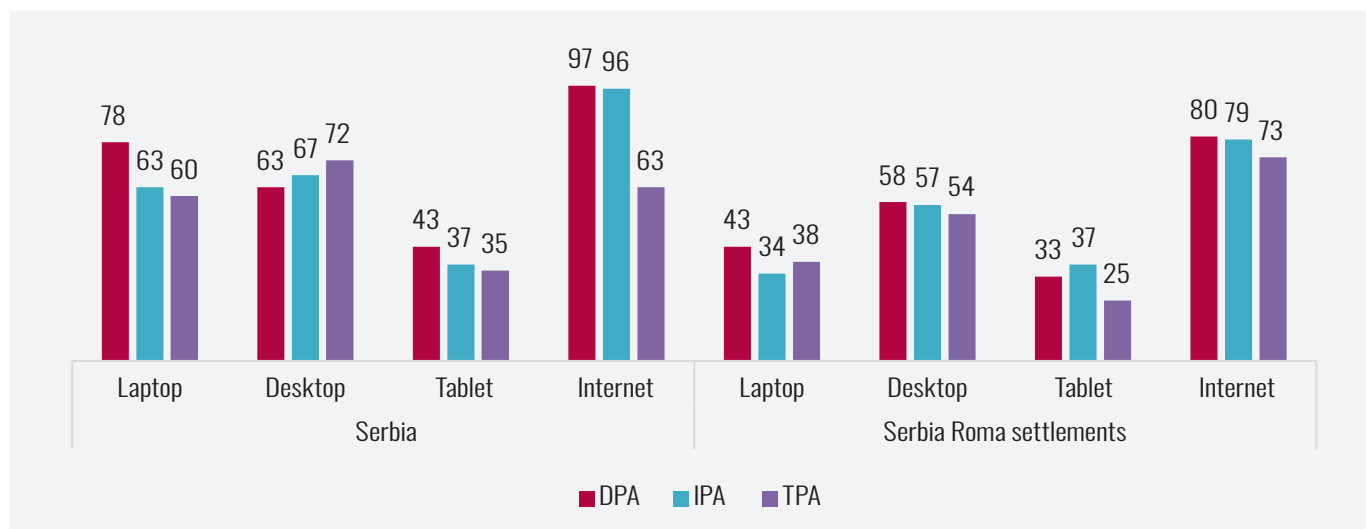
Per cent distribution of women 15–49 years old by selected housing characteristics

Wealth status

The material living conditions of women are significantly different in less populated areas. In TPA, three quarters of women aged 15–49 belong to the poorer 60 per cent category. The Wealth Index shows more pronounced differences between types of settlements (Chart 58), where welfare increases with increasing population density. The relative relationship of material well-being shows significantly greater differences between settlements and points to different material opportunities for women living in different types of settlements. Comparisons with the situation in 2014 indicate potential trends of improvement in the general population, although the only significant difference is recorded among women living in DPA, where the situation has changed for the better; i.e., the share of the poorest 60 per cent of women has decreased.

Chart 58. Poorest 60 per cent of women (15–49 years old) in three areas
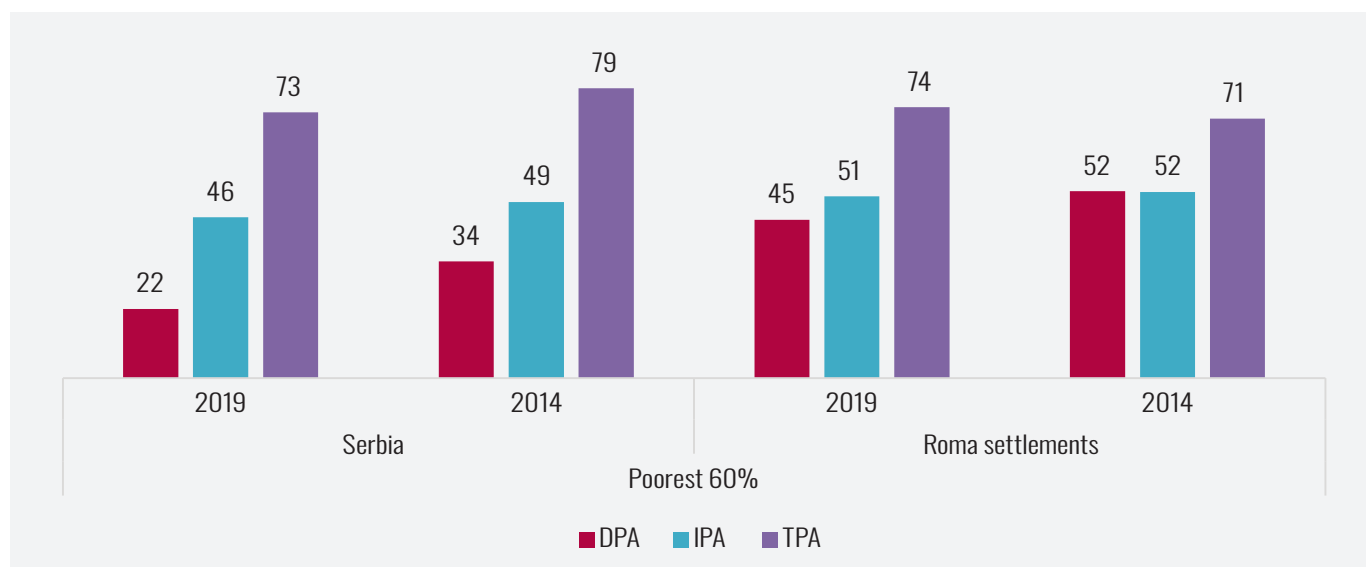
The material living conditions of women living in Roma settlements are relatively similarly distributed as in the general population of women, with the exception that women living in DPA and Roma settlements have a slightly lower wealth index. In this population, too, living conditions are significantly less favourable in less populated areas, and statistical differences occur between DPA and TPA, where three quarters of women are in the poorest 60 per cent of the population. The analysis of trends does not indicate significant changes in the last five years.

Material deprivation

Chart 59 shows us significant differences in the degree of material deprivation according to the type of settlement in which women live. In TPA, one in four women live in households that cannot afford three of the nine items considered basic necessities of life. The situation is a bit better in urban settlements, but the differences are not so great. The Southern and Eastern Serbia region stands out as having fairly pronounced deprivation among women in all types of settlements.

Chart 59. Material deprivation of women 15–49 years old, in three areas, Serbia
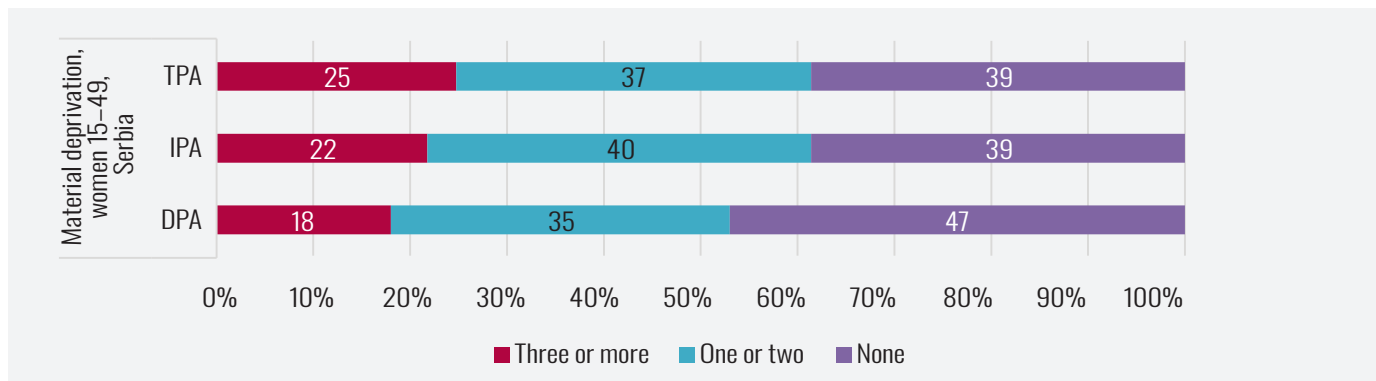
Per cent distribution of women 15–49 years old by material deprivation in three areas

Material deprivation is widespread among women living in Roma settlements. Four out of five women live in households with severe material deprivation. Analyses show that even in their case, these chances (statistically significant) do not depend on the place of residence, indicating a relatively uniform distribution of deprivation.

Chart 60. Material deprivation of women 15–49 years old, in three areas, Serbia Roma settlements
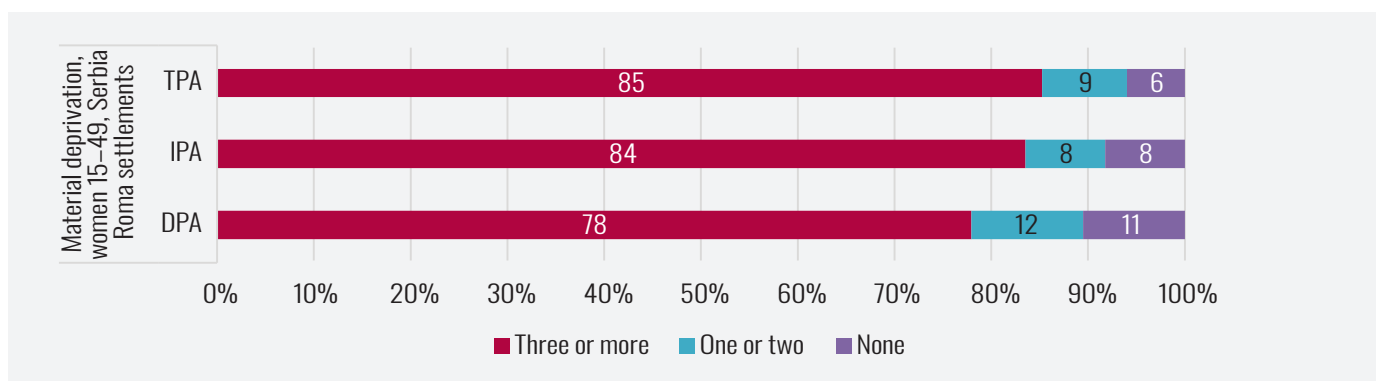
Per cent distribution of women 15–49 years old by material deprivation in three areas

Education and labour market position

Women's education is the most important channel of social promotion, a condition for achieving financial and material autonomy, and a very important factor for gender equality in the partnership. Education is proving to be a key factor influencing the well-being of women. From urban to rural areas, the share of women with primary and secondary education is growing and the share of women with higher education is declining.[7] Differences in education are a clear indicator of women's opportunities in the labour market in relation to their place of residence, where rural women will have fewer opportunities to do more skilled jobs and earn more. In addition to the instrumental aspect of education, lower education carries with it other risks, such as early marriage and early childbearing and the health risks associated with these events, etc.

Chart 61. Level of education — women 15–49 years old, Serbia
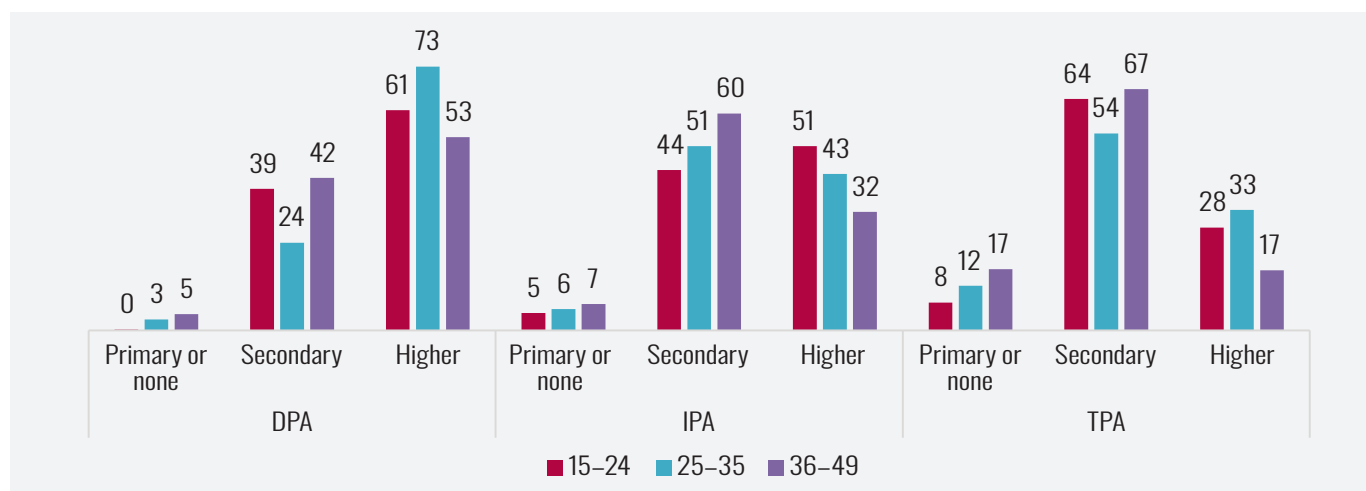
Per cent distribution of women 15–49 years old by educational status

Chart 62. Level of education — women 15–49 years old, Serbia Roma settlements
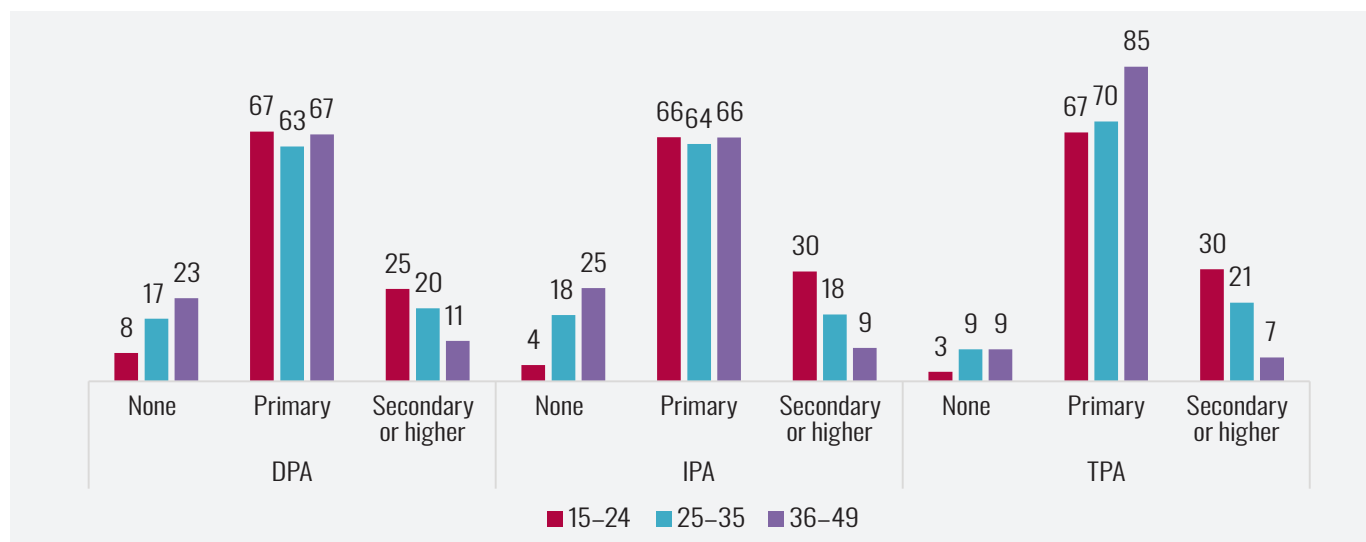
Per cent distribution of women 15–49 years old by educational status

7   Although the data indicate a better educational structure of women aged 25–35, in fact younger women will have a better education, but most of them are still in the process of education.

Women in Roma settlements are significantly less educated than the general population of women. In the countryside, as many as nine out of ten women have no education or have only completed primary education. Very few women in all types of settlements have higher education. The younger generations in all settlements are somewhat better educated; i.e., a slightly higher proportion have completed secondary education. Analyses show that there are no significant differences according to the size of the settlement.

Chart 63. Distribution of women 15–49 years by educational status, Serbia and Serbia Roma settlements
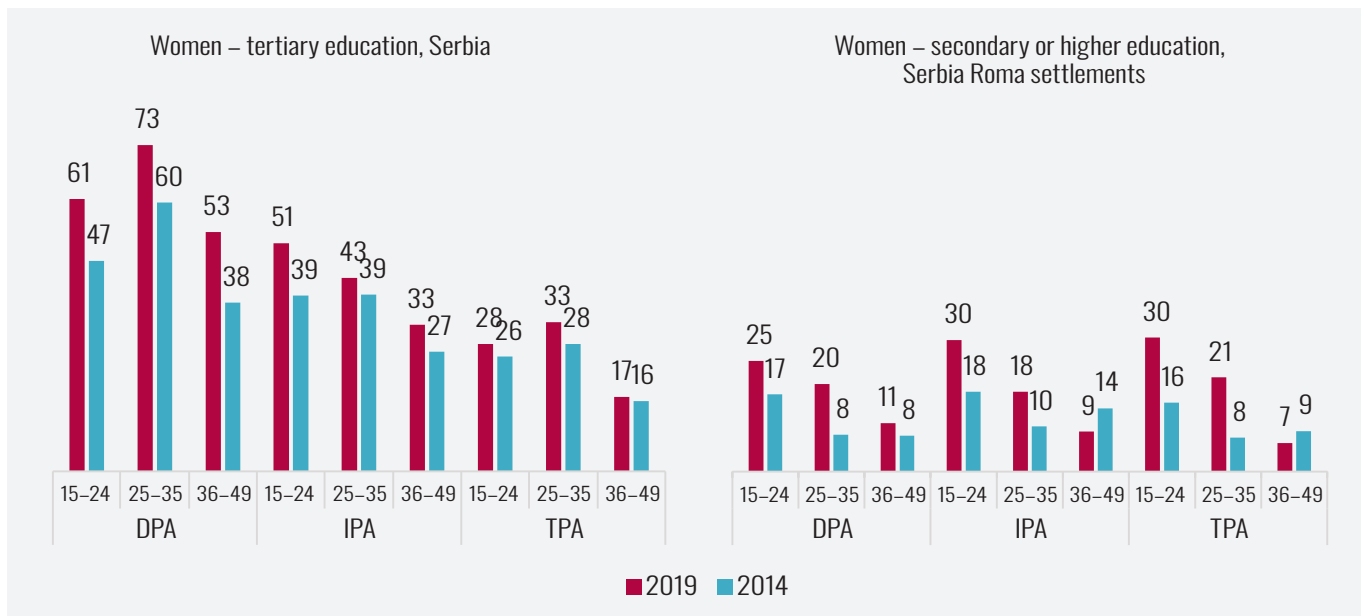
Per cent distribution of women 15–49 years old by educational status

Analysis of trends reveals that although women's education is improving, it is improving much faster in the urban than in the rural population. In all age groups in DPA and IPA there has been an increase in the share of highly educated women, while this increase in TPA is almost negligible. This points us to two potential explanations. First, expanding educational opportunities (through the commercialization of higher education and expanding capacity at colleges) was not equally accessible to all, and it actually widens the gap between rural and urban areas. Second, a significant number of women do not return to the countryside after graduating from college but stay in cities that offer more opportunities.

Trend analysis in the educational level of women living in Roma settlements reveals that in the meantime there has also been an improvement and that it is even more pronounced in TPA. Although the general educational level of this population is quite low, it is encouraging that improvements are taking place uniformly in regard to the size of the settlement.

Differences in educational transitions can be identified if we observe the share of women aged 15–24 who are currently in the education process. Regarding education up to the age of 18 — i.e., completion of high school — the differences in the life path are not large among the general population. The differences become more significant after high school — i.e., the beginning of tertiary education — where significantly fewer rural women (in TPA) continue their education.

Chart 64. Share of women who are currently in the education process
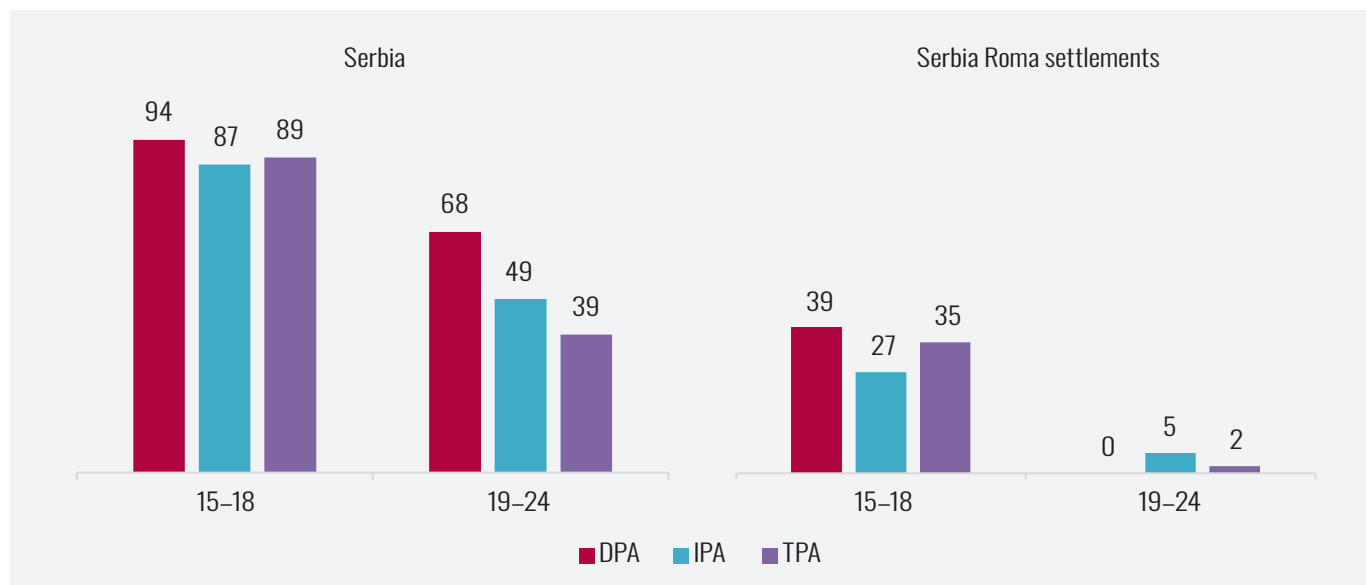
Percentage share of women aged 15–24 (age groups 15–18 and 19–24) who are currently in the process of education in three types of settlements

Among women living in Roma settlements, a significantly smaller number are in the education process, regardless of the size of the settlement. On average, only every third woman is in the education process by the age of 18, while women over the age of 18 have almost fully completed the educational transition.

In the youngest cohort (15–25 years) there is a similar position in the labour market; i.e., employment status in relation to the place of residence. There are no major differences in the employment, unemployment and inactivity rates. About 70 per cent of young women are inactive, a fifth are employed and one in ten are unemployed. However, already in the next age group (26–35 years) differences appear, so that with the increase of population density, the level of employment increases and the share of inactivity decreases. In the oldest cohort (36–49 years), the employment rate between groups decreases somewhat, as does the level of inactivity. This age difference most likely represents the effect of a number of women in the middle generation withdrawing from the labour market due to childbirth, and their gradual return as children grow up and move to kindergarten and school. On the other hand, the differences between the types of settlements indicate the extent of opportunities available in the labour market, making it harder to find a job in TPA than in DPA, but also the presence of a gender asymmetry value system that legitimizes more or less the woman's decision to withdraw from the market.

Chart 65. Employment status of women 15–49 years old, Serbia
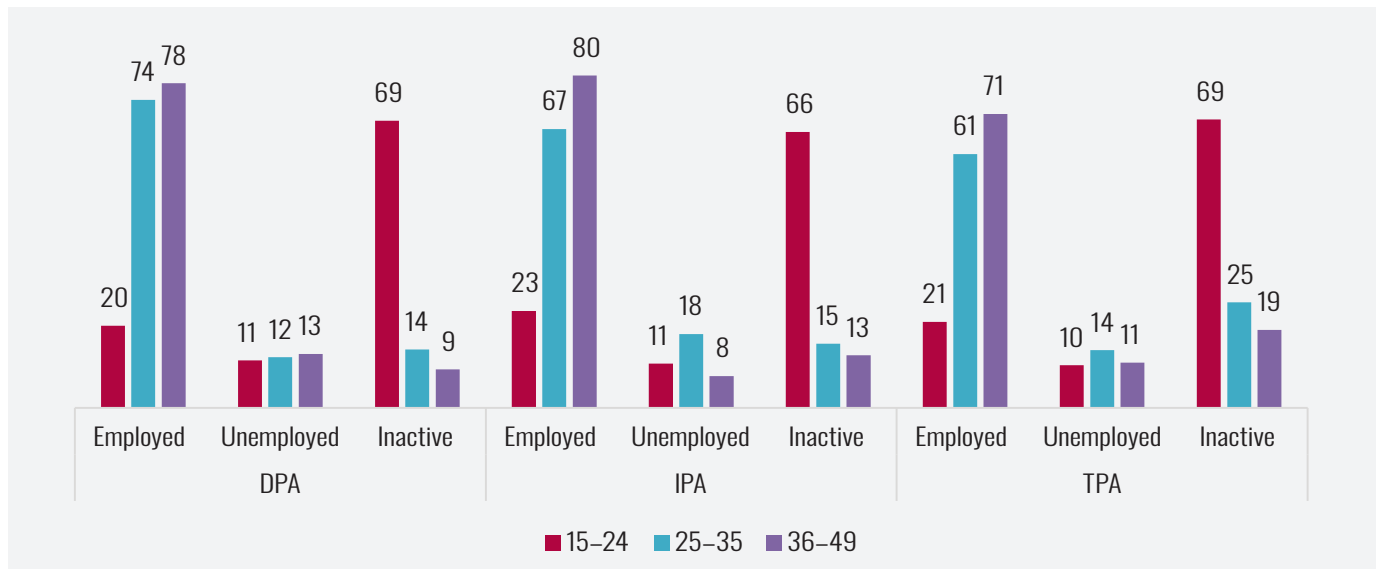
Per cent distribution of women 15–49 years old by activity status

Chart 66. Employment status of women 15–49 years old, Serbia Roma settlements
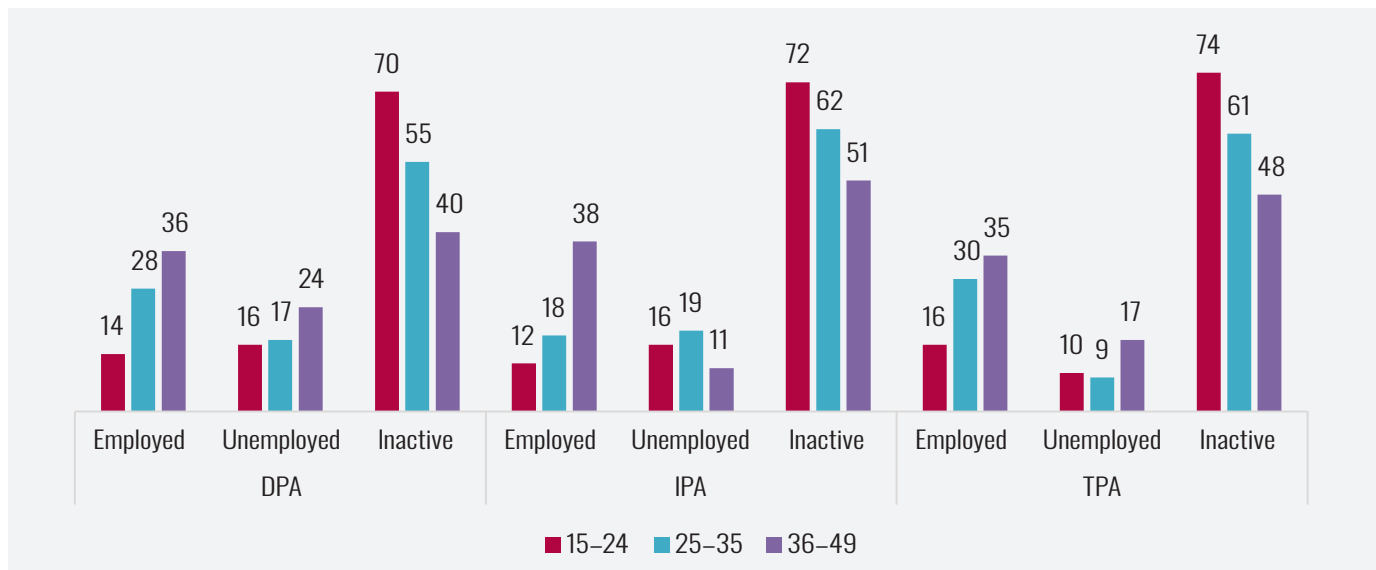
Per cent distribution of women 15–49 years old by activity status

When it comes to women living in Roma settlements, the situation is significantly different. Although in the youngest age group of women analysed (15–24 years) there are no significant differences in relation to the same age group in the general population, the structure of inactivity is significantly different. While the largest number of women of this age in the general population of women are inactive because they are in the education process, these young women are inactive because they do not work, but also do not look for work. In the older cohorts (26–35 and 36–49) it is clear that a relatively small number of women manage to find employment and that

the largest number of them remain in the status of inactivity or without success in finding a job, as unemployed. Analyses show that there are no differences in employment status among settlements according to density, indicating that even in those areas that provide more employment opportunities this female population fails to benefit from this context.

Marriage and union

In this part of the study, we will analyse practices related to the family field. We will focus on three topics: family planning, early marriage and the risks associated with early marriage, and the period after the birth of a child — motherhood.

MICS data show that the patterns of life partnership do not change and that, even in the younger generations, there is no significant alternative form of partnership — union. At the level of the entire sample of women aged 15–49, the share of women in cohabitation is 7 per cent, and, as we can see, this share is relatively evenly distributed among age cohorts. A comparison with the data from 2014 does not reveal significant differences, confirming previous research that recognizes the high value placed on marriage in the domestic population (Tomanović Ignjatović, 2004; Rašević, 2006; Bobić, 2006). The differences between the types of settlements are that in all age cohorts there are significantly fewer single women in the countryside, significantly fewer married women in DPA, while in the 15–25 and 26–35 age groups there are significantly fewer cohabitations in IPA. The first two findings indicate that the shift in the years of marriage is more pronounced in cities, due to prolonged education, but also that women in cities are more likely to opt for independent living (Rašević, 2015; Penev and Stanković, 2021; 2019). The third finding tells us that women in DPA and TPA have higher rates of unions compared with IPA and most likely have completely different ways of forming these unions. While in some villages the extramarital union also appears as a traditional cultural pattern, and in that sense is an expression of traditional logic, in the cities it is part of new tendencies of deinstitutionalization of marriage. But as already mentioned, this form has not gained much importance, and we can say that it has stabilized in one part of the urban population.

Chart 67. Marriage/partnership status of women 15–49 years old, Serbia
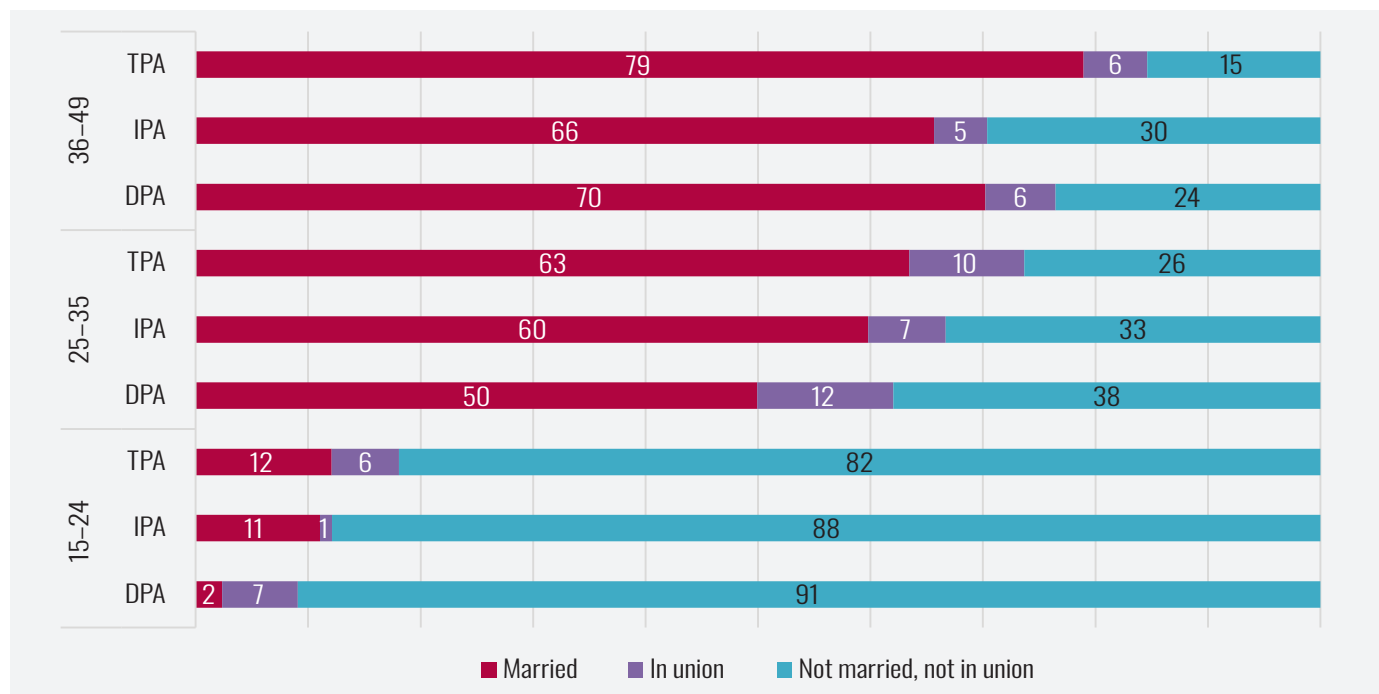
Per cent distribution of women 15–49 years old by marriage/partnership status

When it comes to women living in Roma settlements, the situation is as follows. Compared with the general population, we record significantly more women in all age categories who are in cohabitation and significantly fewer women who are single, which indicates that the marital and partner transition in this population is much faster. Among the youngest age cohort (15–25), over half of the women in all types of settlements are either married or living in a union. In the older two cohorts, the number of single women is at the same level, confirming once again that the largest number of women have already gone through a marital/partner transition. Compared with 2014, we do not record significant changes in terms of the share of single women, pointing out that there were no significant differences when it came to transitions.

Chart 68. Marriage/partnership status of women 15–49 years old, Serbia Roma settlements
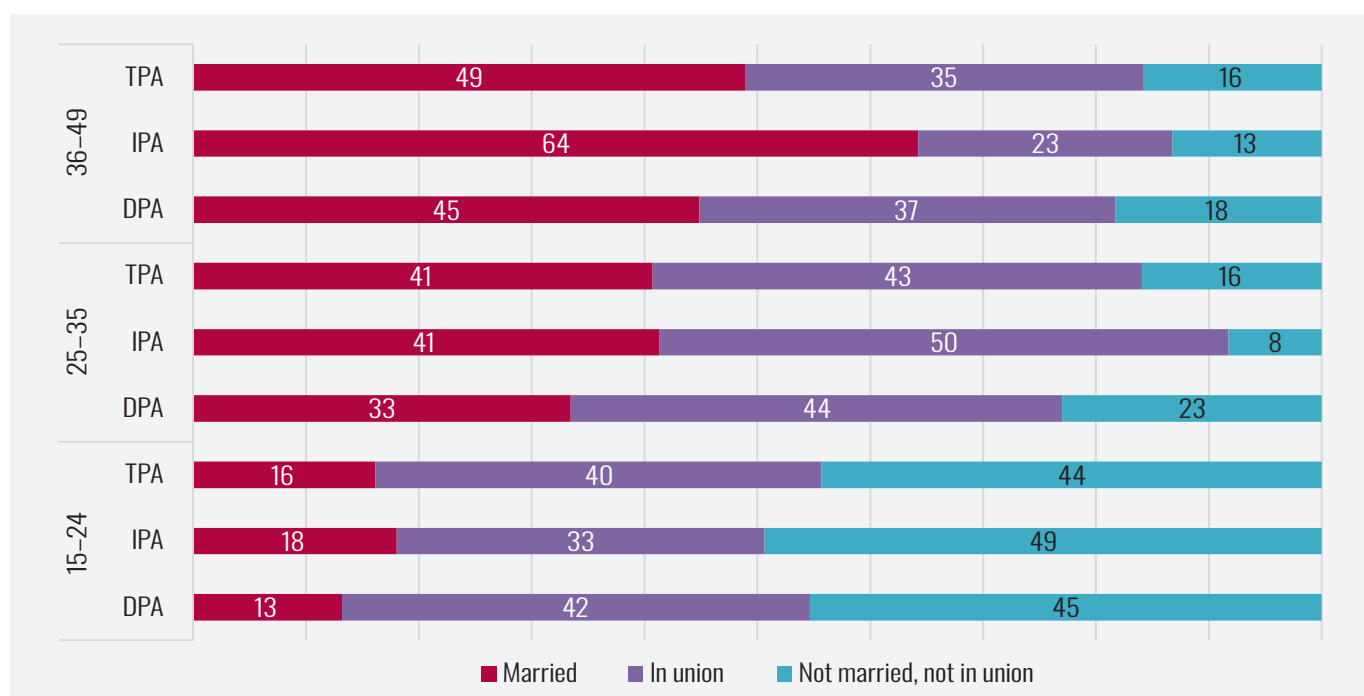
Per cent distribution of women 15–49 years old by marriage/partnership status

Poverty, lack of educational and work opportunities (especially for female children), as well as traditional norms are most often cited as the causes of early marriage. Poverty is associated with a lack of basic resources, food, clothing and housing, so early marriage becomes a survival strategy by marrying girls and optimizing available resources. In connection with family poverty, there is also a lack or insufficient availability of educational infrastructure, where the early exclusion of children from the education system often leads to early marriage. Keeping girls in the education system significantly reduces the chances of getting married and having a child. In addition to structural constraints, cultural patterns also affect the decision as to whether a child will marry. In traditional cultures, the education of boys is a higher priority than the education of girls, so boys are prepared through education for the instrumental role of breadwinner, while girls are prepared for the role of the mother for which education is not necessary (Malhotra, 2010). The effects of early marriage and early birth have multiple negative implications for the child. First, there are significantly higher risks of unwanted pregnancy, then direct health risks associated with childbirth in women who are not yet fully physically mature, such as "pregnancy-re-

lated complications, preterm delivery, delivery of low birth weight babies, fetal mortality" ([Santhya, 2011](): 334), and risks of gender or generation-based violence. By the fact that a woman got married early and had a child, she usually interrupted all other transitions and reduced her chances in other fields: education and the labour market. That is why it is crucial to find mechanisms to eradicate the practices of early marriage and early childbearing.

In the MICS methodology, early marriage is defined through the following thresholds: 1. share of women (age 20–24) who have entered into marriage before the age of 15; 2. share of women (age 20–49) who have entered into marriage before the age of 15; and 3. share of women (age 20–49) who have entered into marriage before the age of 18. The share of early marriage, before the age of 15, when we observe the population of women aged 20–49 (as well as the population aged 15–49), is at a fairly low level. However, there are significantly more women in TPA (expressed in all age groups; see Chart 69) who got married before turning 15 compared with women living in DPA and IPA. Analyses reveal even greater differences among the settlements where women who got married before the age of 18 live. With reduced population density, the chances of a young woman getting married increase.

Furthermore, observing only the younger cohort of women (20–24), we see that in DPA and IPA we do not record early marriage, while in TPA it is at almost the same level as in the entire population. This potentially indicates to us that this practice is disappearing among the younger generations in urban areas and that it still survives in the TPA. The situation is similar when we observe the participation in marriage before the age of 18: it slowly decreases in the youngest observed age group. That TPA are a framework for more frequent early marriages is also indicated by the latest data, which show that in the population of women aged 15–19 most marriages are in TPA.

Chart 69. Child marriage and early marriage, Serbia
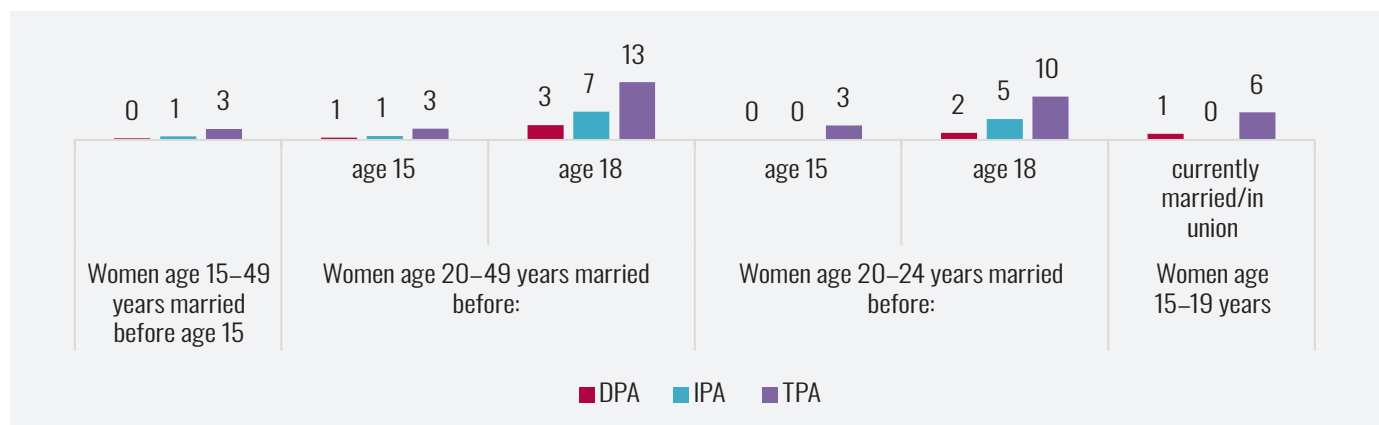
Percentage of women aged 15–49 years who first married or entered a marital union before age 15, percentages of women aged 20–49 and 20–24 years who first married or entered a marital union before age 15 and 18, and percentage of women aged 15–19 years currently married or in union

Women living in Roma settlements are significantly more likely to enter into early marriage than women in the general population. Every sixth girl gets married before the age of 15, and more than half of young women get married before the age of 18. Analyses show that there are no significant differences between types of settlements, indicating a general pattern that does not depend on the spatial context. A comparison with 2014, as well as a comparison of different age groups, shows us that this pattern does not change much over time.

Chart 70. Child marriage and early marriage, Serbia Roma settlements
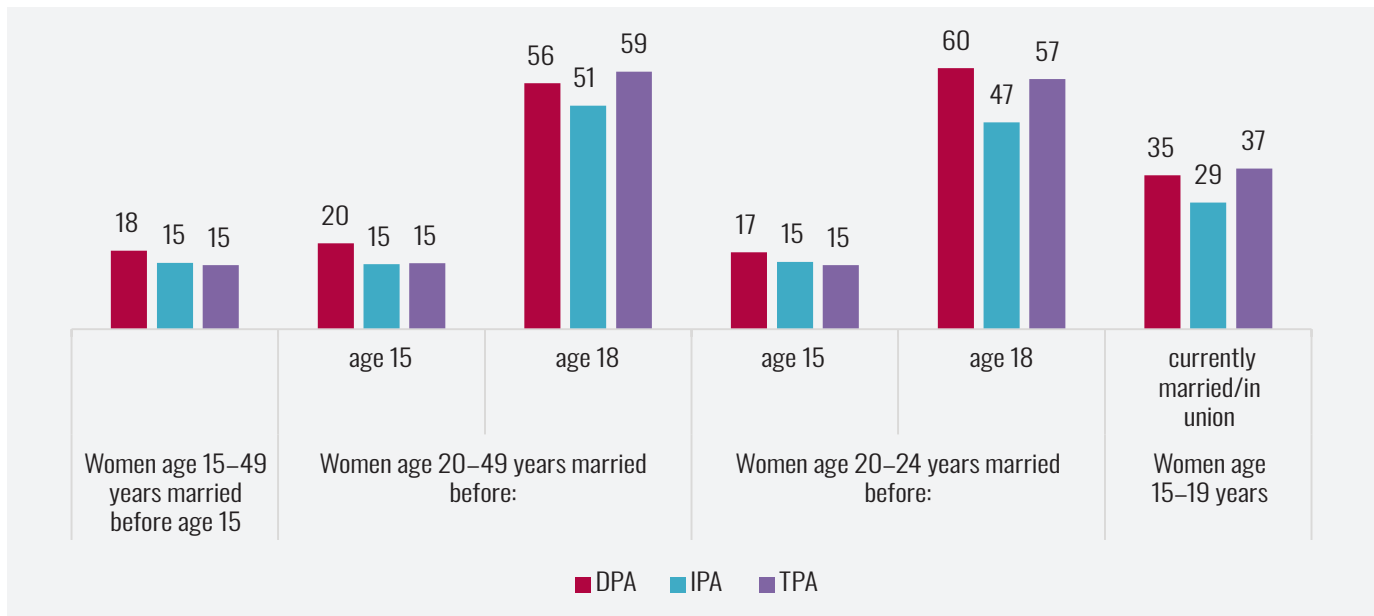
Percentage of women aged 15–49 years who first married or entered a marital union before age 15, percentages of women aged 20–49 and 20–24 years who first married or entered a marital union before age 15 and 18, and percentage of women aged 15–19 years currently married or in union

Early childbearing

Although in the MICS survey no type of settlement reports a case of a woman giving birth to a child before the age of 15, every twentieth young woman (20–24 years old) living in villages gave birth to a child before coming of age. Analyses show that young women in TPA give birth earlier than women in DPA and IPA. These data are in line with what has already been said about early marriage and points to significant risks to which women in the countryside are exposed. Data on women living in Roma settlements show that early childbearing is present to a considerable extent. Girls giving birth before the age of 15 are also present, and more than a third of young women gave birth to their first child before the age of 18. Regression analyses reveal that the context of settlements is not crucial in explaining the phenomenon of early birth, but that poverty and education are systemically related to this phenomenon in the general population of women and in the population of women living in Roma settlements. We assume that poverty is both a cause and a consequence of early childbearing and that the low educational level of women is a consequence of the interruption of the educational path due to having a child at an early age. That is why it is necessary to work on the education of girls, especially in lower-density areas.

Chart 71. Early childbearing, Serbia
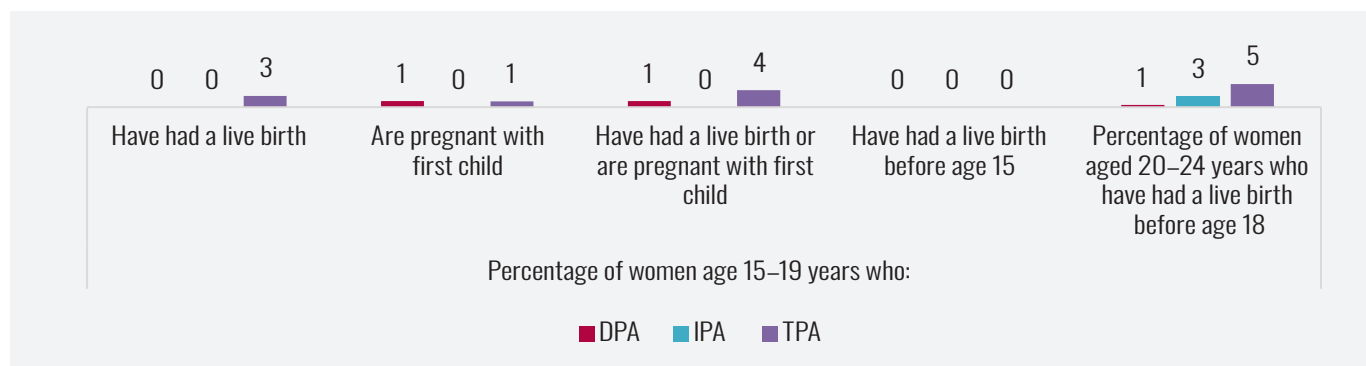
Percentage of women aged 15–19 years who have had a live birth, are pregnant with the first child, have had a live birth or are pregnant with first child, and who have had a live birth before age 15, and percentage of women aged 20–24 years who have had a live birth before age 18

Chart 72. Early childbearing, Serbia Roma settlements
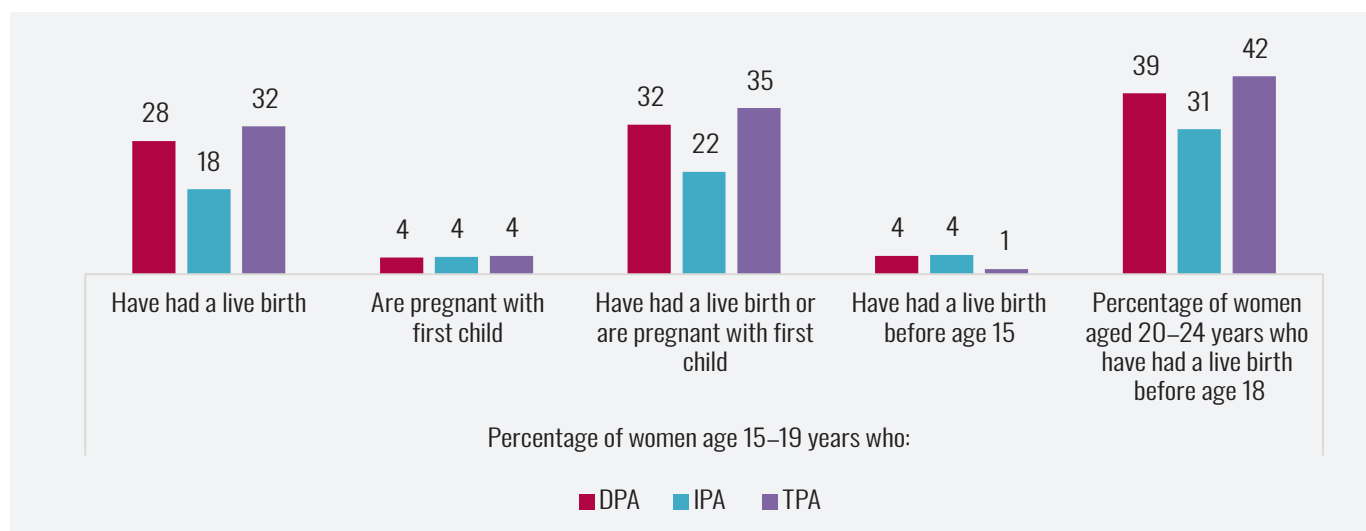
Percentage of women aged 15–19 years who have had a live birth, are pregnant with the first child, have had a live birth or are pregnant with first child, and who have had a live birth before age 15, and percentage of women aged 20–24 years who have had a live birth before age 18

Table 17. Regression model — associations of early childbearing and socio-demographic characteristics of women

Live birth before age 18, Serbia	
(Intercept)	–33.631***
Poorest 60%	1.357**
TPA	–0.069
IPA (ref. TPA)]	0.058
Primary or none	32.464***
Secondary (ref. Tertiary)	29.165***

***p < 0.001; **p < 0.01; *p < 0.05

Live birth before age 18, Serbia Roma settlements	
(Intercept)	–2.432***
Poorest 60%	0.635*
TPA	–0.081
IPA (ref. TPA)]	–0.369
No school	2.040**
Primary (ref. Secondary or Tertiary)	2.062***

***p < 0.001; **p < 0.01; *p < 0.05

Fertility and desire to have children

In the general population of women, the total fertility rate (TFR) is 1.6, with significant variations among different groups of women. Women in DPA and IPA have a TFR of 1.4, while in TPA it is higher at 1.9. The expected number of children decreases with the growth of women's education, so in those women with or without primary education, the number of children is 2.5, while in women with higher education it is 1.4. It is interesting that women who are inactive have the highest TFR, but also that working women are more likely to give birth to more children than unemployed women. This tells us that the decisions about having children in one part of the population are influenced by traditional models of reconciling work and parenthood, and in other parts of the population by modern ones. While the first implies the segregation of male and female, public and private spheres, where parenthood for women means temporary or permanent exclusion from the labour market, the second implies the harmonization of work and family spheres as a condition for parenthood. That is why we find relatively high TFR in women who are inactive, because the cultural (traditional) conditions for parenthood are met. For women who are active in the labour market, we assume that the modern pattern of harmonization of spheres dominates, so that those who are employed are more likely to achieve success both at work and in the private sphere, and therefore we record higher TFR in them. Unemployed women are less likely to decide on parenthood (or the next child), as they have not adequately achieved the work transition. Evidence of this process can also be found if we observe the distribution of TFR according to the wealth index, where we recognize a certain U-curve. The highest TFR is among the poorest, but it then immediately decreases, only to become higher among the better-off 40 per cent. This again indicates that there are most likely two patterns. The first is the traditional pattern, which is characteristic of the poorest social strata, where a relatively higher number of births occur regardless of material conditions. However, the next quintiles of the population already have different attitudes, and children are born in fewer numbers due to the inability to fulfil higher material expectations. The increase in TFR occurs only in the well-off, who in practice can afford what their norms and expectations are for their children and families.

Women living in Roma settlements have significantly higher TFR (3.5) compared to the general population. TFR declines with place of residence and is lowest in DPA. It is interesting that in this population we find the same patterns of differences between different groups of women, according to education, position in the labour market, and wealth index, pointing to a certain pattern of TFR.

Chart 73. Total fertility rate, Serbia
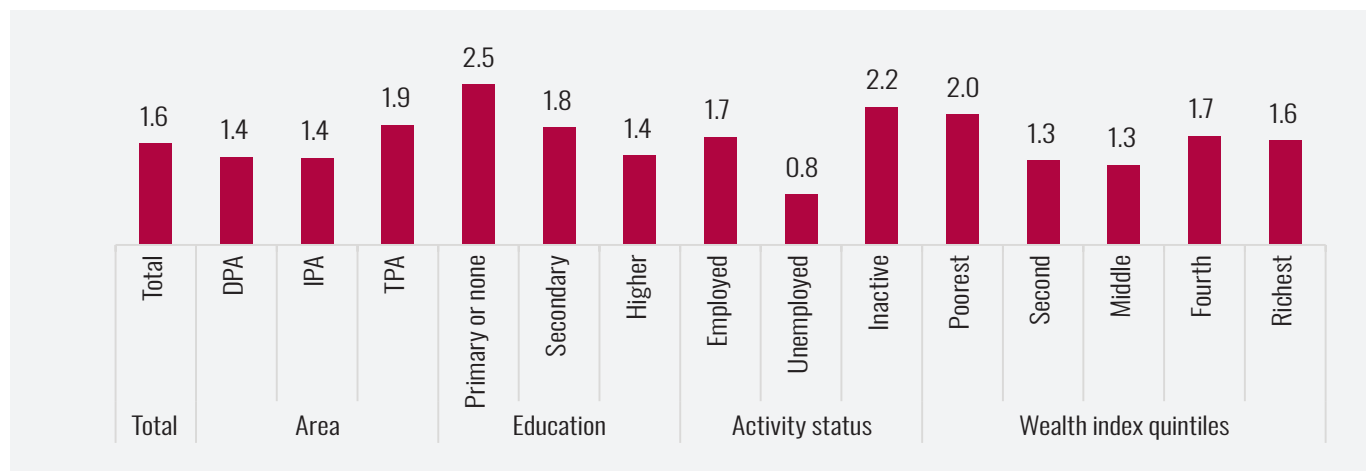
Chart 74. Total fertility rate, Serbia Roma settlements
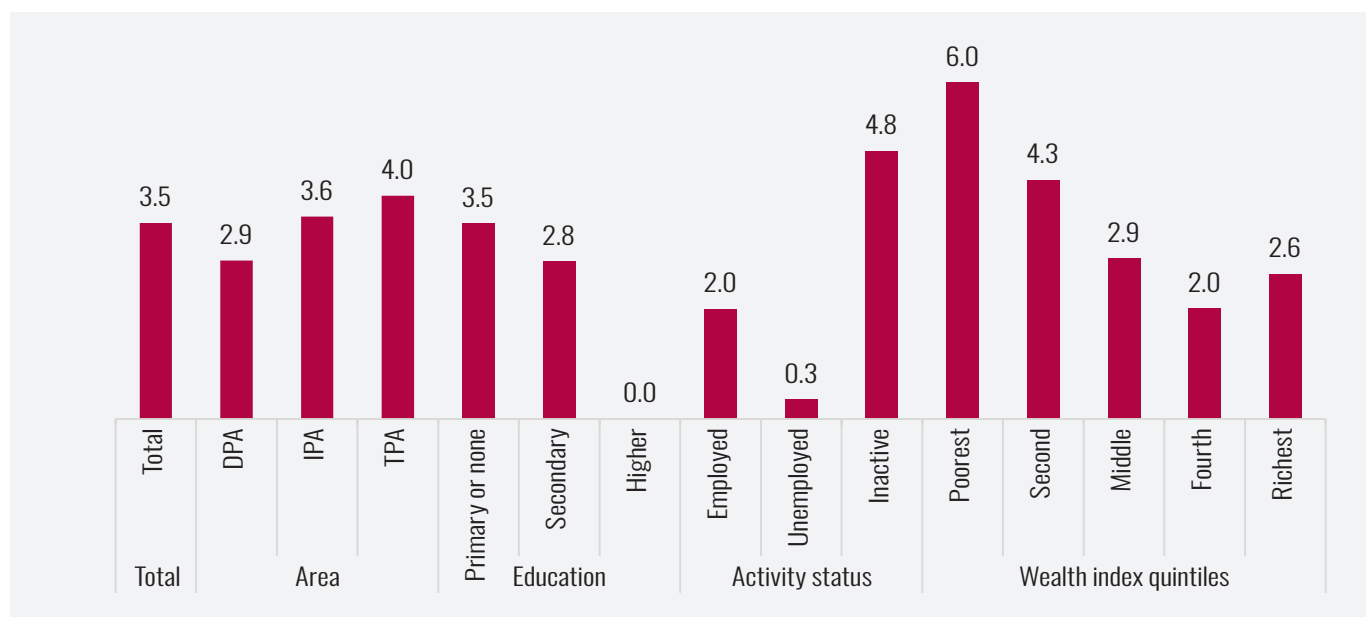
In the general population of women aged 25–49, it is evident that with the increase of the educational level, the share of women who gave birth decreases. Although some of the differences can be explained by the faster parental transition among women who complete their education earlier, other demographic surveys (Penev and Stanković, 2021; 2019) indicate that women with higher education have the lowest rates of cumulative fertility. It is interesting that when we look at the level of education and place of living of women, we see that there are no significant differences among women in patterns of births by place of residence, but differences are evident only by education. This leads us to the conclusion that the differences that exist between the type of settlement are in the demographic structure, because TPA are dominated by lower educated women, and not something that is inherent in the village itself.

Chart 75. The level of education of women who gave birth
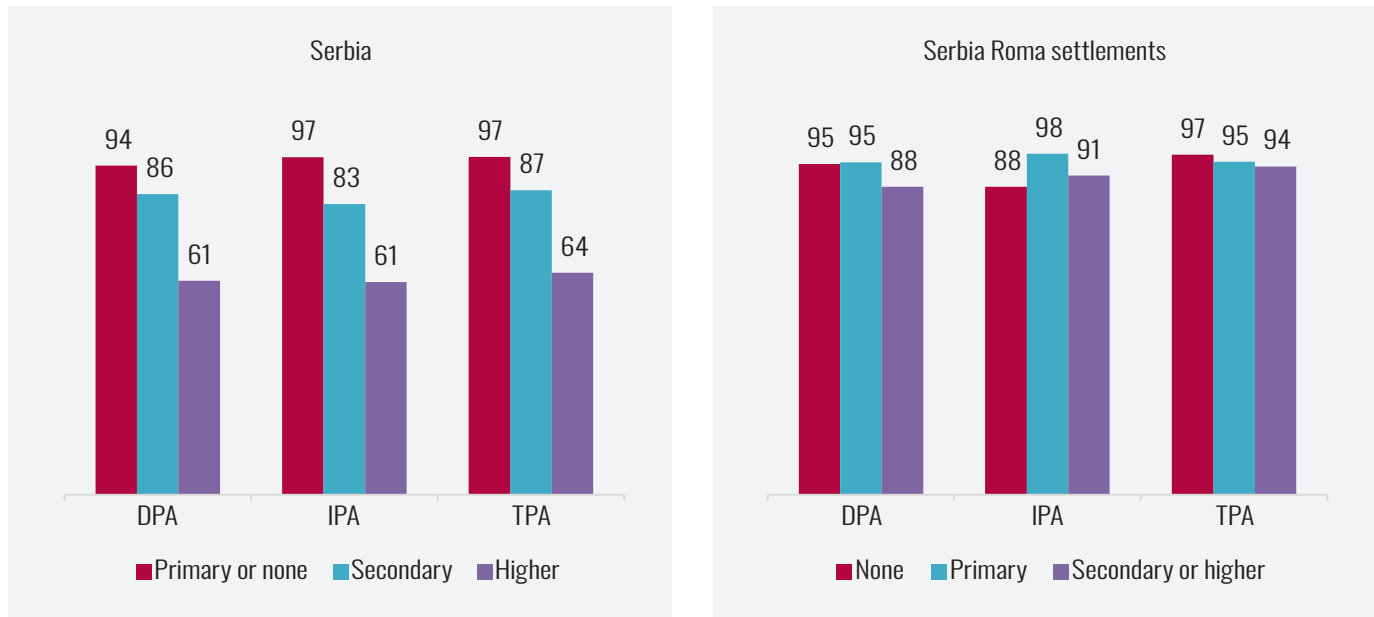
Percentage of women aged 25–49 years who have had a live birth

Given that the TFR is higher in TPA, but that there are no differences according to the educational level in the degree of childbearing according to the population density of the place of residence, we tried to examine whether there are differences in the way of deciding on giving birth. First, we analysed the ideal number of children among women in different areas. Although the differences in numbers are not large, they are statistically significant. The smaller the place, the ideal number of children is higher in the general population. In the regression model (Tables W1 and W2 in Appendix) the only factor associated with the ideal number of children is area, meaning that women in TPA consider more children to be ideal compared with in DPA. Among women living in Roma settlements, the situation is the opposite. The bigger the place, the ideal number of children is higher, and in addition to area, factors associated with the ideal number of children are poverty and low education.

Chart 76. Ideal number of children
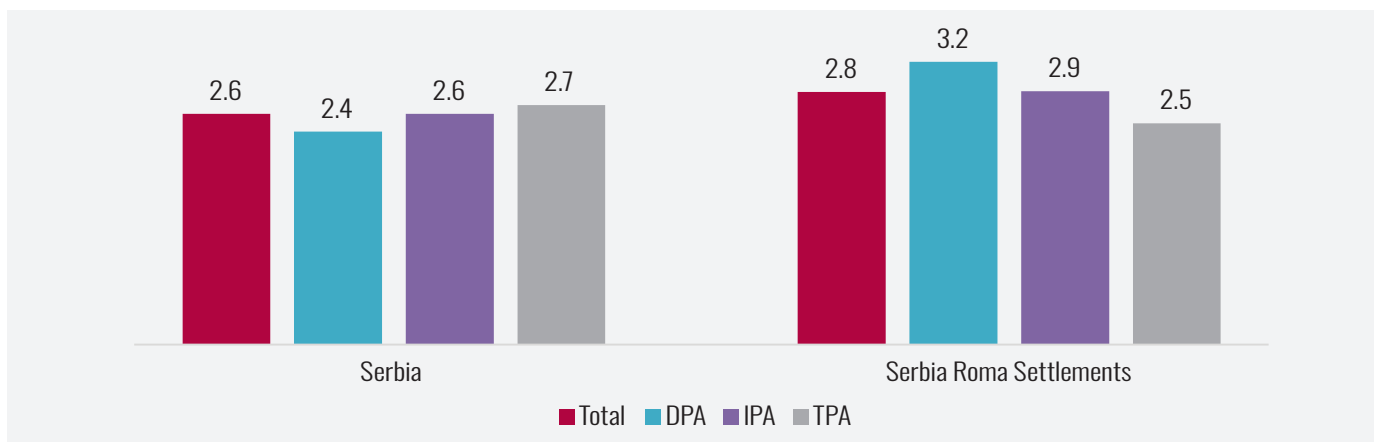
Percentage of women not currently pregnant aged 15–49 years

Secondly, we analysed the desire of having (another) a child. Only 5 per cent of women aged 15–49 have no children and do not want children, 4 per cent said they cannot have children, while other women want children soon (58 per cent) or later (23 per cent) or are unsure when (5 per cent), or not sure if they want children (6 per cent). Given that most women want at least one child, and that the key issue of depopulation is related to the transition toward another child, we singled out women who have already given birth and examined their desire for more children. We singled out women who have given birth to only one child so far, and women who have given birth to one or more children. Chart 77 shows that just over half of women who have one child have a desire for another, every tenth woman is undecided on average, while two out of five women state that they do not want to have more children. The analysis showed that there are no significant differences in the desire or absence of desire to have another child in women who have one child in relation to the place of residence (nor in women living in Roma settlements).

Chart 77. Desire to have more children in women who already have one child
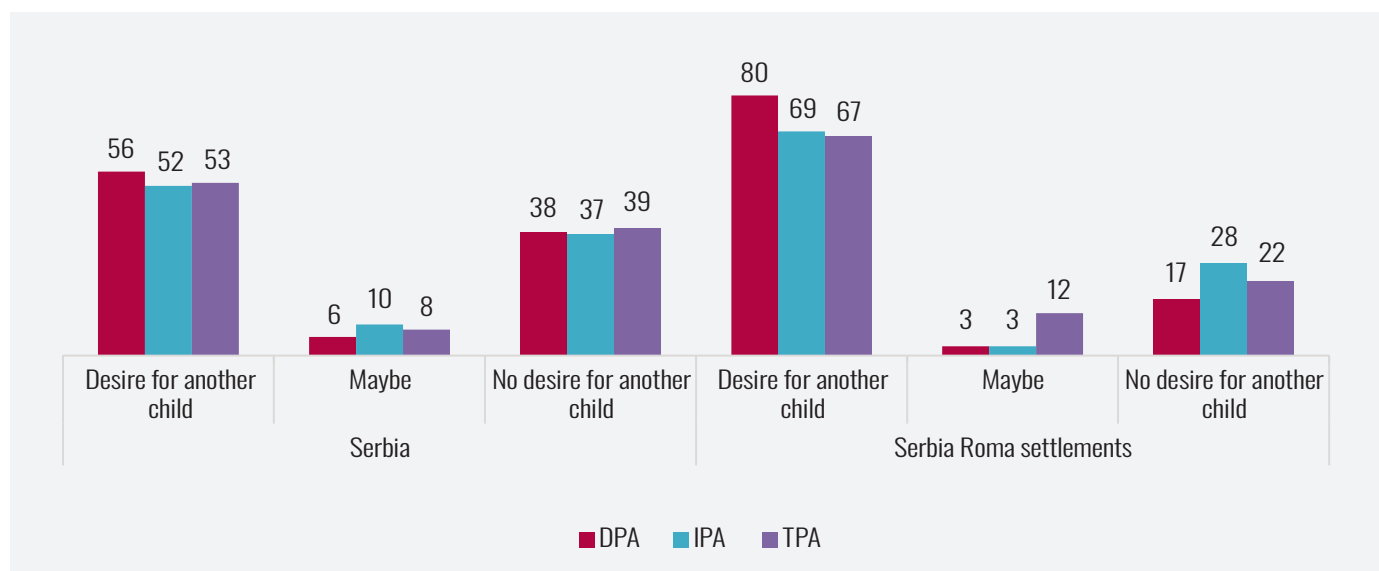
Percentage of women aged 15–49 years who already have one child

In order to recognize the relationship between the relevant characteristics of women and the (absence of) desire for another child, we conducted logistic regressions. As dependent variables we used a) desire for another child, b) outright refusal to have another child; and as independent variables we used a) wealth index, b) population by density, c) education of women and d) labour market status. Analyses have shown that there are no differences in the presence or absence of desire for the second and each subsequent child in married women in relation to the place of residence, but also in relation to the wealth index. The two characteristics that are systematically related to the desire for another child are education and status in the labour market. The general trend is that with the increase in education, the desire for another child grows, and vice versa; with the increase in education, the share of those women who say they do not want another child decreases, in both groups — those with only one child and those with one or more children. The position in the labour market is in the following way related to the desire to have another child. Employed women who have one child are less likely to say they want another child than women who are inactive. Mothers who have one or more children and are employed and those who are unemployed are less prepared for another child than inactive women. Those women with higher education would decide more often for the second and more children, but the effects of activities on the labour market are unfavourable for such a decision.

Table 18. Logistic regressions, factors associated with (absence of) desire for another child, Serbia

	Have one child				Have more than one child			
	Desire yes		Desire no		Desire yes		Desire no	
	B	Exp(B)	B	Exp(B)	B	Exp(B)	B	Exp(B)
(Intercept)	1.039**	2.826	–1.176**	0.308	–0.143	0.867	–0.066	0.936
Poorest 60%	–0.089	0.915	–0.027	0.974	–0.237	0.789	0.176	1.193
DPA	–0.09	0.914	0.228	1.256	0.031	1.031	0.106	1.111
IPA (ref. TPA)	–0.083	0.921	0.071	1.074	0.15	1.162	–0.038	0.962
Primary or none	–1.019*	0.361	1.096*	2.993	–1.214***	0.297	1.205***	3.337
Secondary (ref. Higher)	–0.625**	0.535	0.755**	2.127	–0.579***	0.561	0.566***	1.762
Employed	–0.617*	0.54	0.37	1.448	–0.745***	0.475	0.584**	1.793
Unemployed (ref. Inactive)	–0.202	0.817	–0.262	0.77	–0.552**	0.576	0.454**	1.575

***p < 0.001; **p < 0.01; *p < 0.05

Table 19. Logistic regressions, factors associated with (absence of) desire for another child among women living in TPA, Serbia

	Have one child				Have more than one child			
TPA	Desire yes		Desire no		Desire yes		Desire no	
	B	Exp(B)	B	Exp(B)	B	Exp(B)	B	Exp(B)
(Intercept)	1.356***	3.88	–1.533***	0.216	0.077	1.08	–0.271	0.763
Poorest 60%	–0.315	0.73	0.415	1.515	–0.162	0.85	0.242	1.273
Primary or none	–1.165**	0.312	1.017*	2.764	–1.231***	0.292	1.127***	3.086
Secondary (ref. Higher)	–0.984**	0.374	0.963**	2.619	–0.828***	0.437	0.803***	2.231
Employed	–0.492	0.611	0.288	1.334	–0.849***	0.428	0.573**	1.774
Unemployed (ref. Inactive)	–0.131	0.877	–0.559	0.572	–1.124**	0.325	0.738**	2.091

***p < 0.001; **p < 0.01; *p < 0.05

In the next step, we decided to examine the associations of socio-demographic characteristics of mothers with the desire to give birth in each type of settlement separately. We got the following results. In TPA, desire for another child increases with education, as does a refusal to give birth to another child. For women who have one or more children, the situation follows the same trend and logic as in the general population, education affects the birth of another child, and activity in the labour market does not. Mothers who are employed or unemployed to a lesser extent want and to a greater extent decidedly do not want another child.

In settlements with a medium population density, there are no pronounced differences between mothers when it comes to the desire to have another or more children. Somewhat less often, unemployed women do not want another child compared to inactive women. Among mothers who have one or more children, those with higher education want more children compared to those who only have primary school education.

Table 20. Logistic regressions, factors associated with (absence of) desire for another child among women living in IPA, Serbia

IPA	Have one child				Have more than one child			
	Desire yes		Desire no		Desire yes		Desire no	
	B	Exp(B)	B	Exp(B)	B	Exp(B)	B	Exp(B)
(Intercept)	0.358	1.43	–0.326	0.722	–0.358	0.699	0.078	1.082
Poorest 60%	0.105	1.111	–0.363	0.695	0.034	1.035	–0.115	0.891
Primary or none	–0.213	0.808	0.414	1.512	–1.26**	0.284	1.562**	4.768
Secondary (ref. Higher)	–0.199	0.819	0.4	1.492	–0.381	0.683	0.375	1.456
Employed	–0.402	0.669	0.016	1.016	–0.649	0.522	0.696	2.005
Unemployed (ref. Inactive)	0.449	1.566	–1.725*	0.178	–0.103	0.902	0.195	1.215

***p < 0.001; **p < 0.01; *p < 0.05

There are no differences in DPA regarding the explicit desire for another child, but those women with one child who have primary and secondary education are more likely to state that they do not want another child. For those women with more than one child, in addition to education, which is positive, and position in the labour market, which is negative, poverty is negatively correlated with the desire to have more children.

Table 21. Logistic regressions, factors associated with (absence of) desire for another child among women living in DPA, Serbia

DPA	Have one child				Have more than one child			
	Desire yes		Desire no		Desire yes		Desire no	
	B	Exp(B)	B	Exp(B)	B	Exp(B)	B	Exp(B)
(Intercept)	1.412	4.103	–1.444	0.236	–0.224	0.799	0.052	1.053
Poorest 60%	–0.081	0.923	–0.171	0.843	–0.582**	0.559	0.296	1.345
Primary or none	–1.612	0.199	2.062*	7.862	–1.848***	0.158	2.019***	7.531
Secondary (ref. Higher)	–0.562	0.57	0.76*	2.139	–0.391*	0.677	0.414**	1.514
Employed	–1.12	0.326	0.869	2.383	–0.625**	0.535	0.593*	1.81
Unemployed (ref. Inactive)	–0.822	0.439	0.581	1.788	–0.251	0.778	0.378	1,46

***p < 0.001; **p < 0.01; *p < 0.05

Analyses lead us to the following insights when it comes to intentions around fertility. Both women in the city and women in the countryside equally want or do not want more children (after the first one), but that is why a subsequent birth is more frequent in the countryside than in urban areas. 1. Higher fertility rates in rural areas can be explained in part by the lower educational structure of rural women; 2. Significantly greater pressure from the patriarchal context felt by rural women, which more often leads to childbearing even when it is not desired; 3. Inability to align professional, family and personal plans leads to the decision not to have another child when it is wanted in urban areas and among better-educated women; and 4. The fact that women who are less educated — although more likely to give birth — have less desire for another child is something that brings them closer to the better-educated women and potentially indicates that the perception of the conditions for the birth of children in all strata is getting closer; that is, that the tradi-

tional patriarchal matrix is being abandoned. The consequence of this is that, in the medium term, relatively high fertility rates in rural areas will become closer to those in the city.

Table 22. Logistic regressions, factors associated with (absence of) desire for another child, Serbia Roma settlements

	Have one child				Have more than one child			
	Desire yes		Desire no		Desire yes		Desire no	
		Exp(B)		Exp(B)		Exp(B)		Exp(B)
(Intercept)	1.526**	4.600	−2.544***	0.079	−0.286	0.751	0.036	1.036
Poorest 60%	−0.610	0.543	0.840*	2.317	0.177	1.194	−0.228	0.796
DPA	0.942**	2.566	−0.521	0.594	0.650***	1.916	−0.661***	0.516
IPA (ref. TPA)	0.043	1.044	0.486	1.625	0.337*	1.400	−0.311	0.733
None	−1.539	0.215	1.844*	6.320	−1.420***	0.242	1.247***	3.480
Primary (ref. Secondary or higher)	−0.050	0.951	0.151	1.163	−0.914***	0.401	0.963***	2.619
Employed	−1.979***	0.138	2.185***	8.893	−1.122***	0.326	0.968***	2.633
Unemployed (ref. Inactive)	−0.302	0.739	0.033	1.034	−0.926***	0.396	0.947***	2.578

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$

Women living in Roma settlements follow a similar pattern as in the general population, with the size of the place being significantly associated with the desire or absence of desire for a child. Those who have only one child in DPA are more likely to explicitly want more children. Those women who have one or more children will more often want another in DPA and IPA than in TPA, and those in DPA will be less likely to say decisively that they do not want more children than those in TPA. Their position in the labour market is also negatively associated with the desire for another child. In women who have more than one child, it is noticeable that with the increase in education, the desire for another child grows, which indicates to us that, overall, women without formal or completed primary school suffer more pressure to have more children.

Motherhood

Childbirth preparation

Adequate monitoring of pregnancy, regular visits to the doctor, as well as preparation for childbirth and parenthood are important practices and have positive health and developmental effects on pregnant women and mothers, as well as on the foetus and child. Consultations with experts and adequate literature in this period are important for adequate maintenance of pregnancy as well as the early development of the child. Also, the experience of intensive contact with the child after birth is very important for both the infant and the mother. To identify the practices of women during pregnancy, we singled out three indicators: 1. Share of mothers who have attended a childbirth preparation programme; 2. Share of mothers who were with children in the same room after childbirth; and 3. The frequency of visits to a specialist during pregnancy.

Chart 78. Counselling during childbirth preparation programme
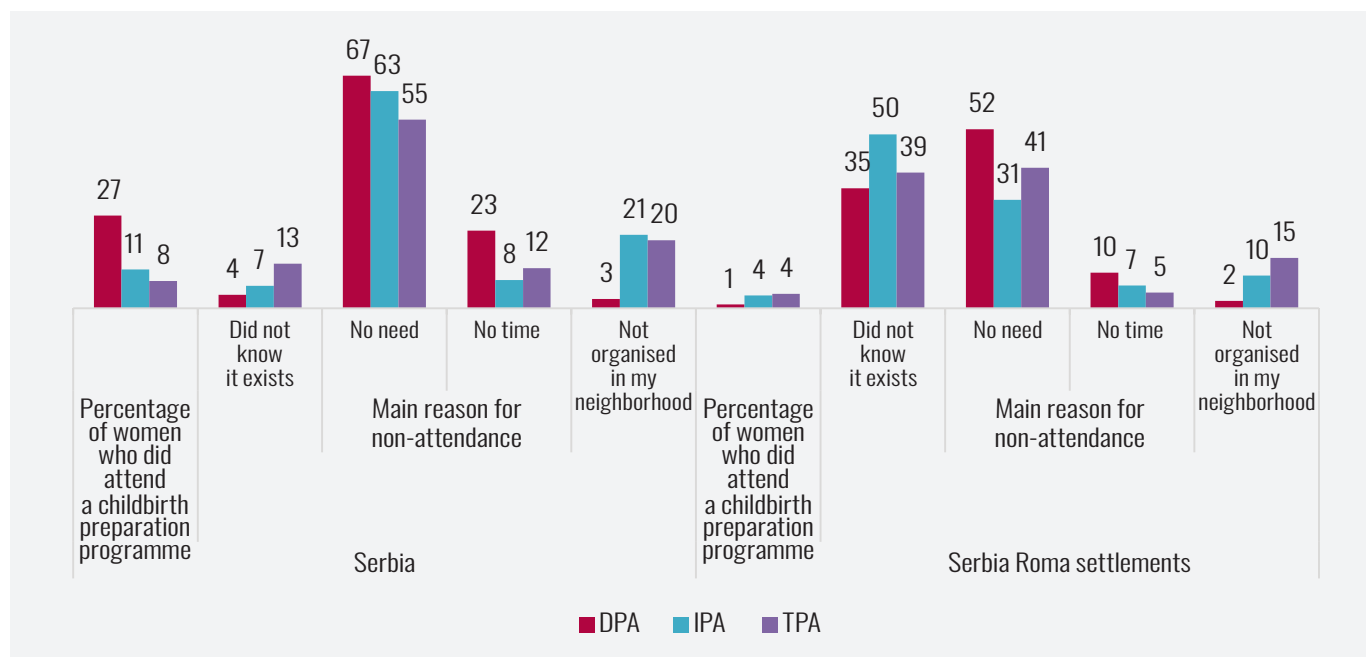
Percentage of women aged 15–49 years with a live birth in the last two years who attended a childbirth preparation programme during the pregnancy

The data show that TPA women were significantly less likely to attend preparatory courses than DPA women. In TPA, every eighth woman did not know that such programmes exist, and that is significantly more compared to women in other types of settlements. Significantly more women in TPA and IPA claim that such programmes do not exist in their environment compared to women in DPA. It is interesting that women in the countryside say to a lesser extent that they do not need something like that, indicating that the gap between the need for and availability of these services is greatest in TPA. Regression analysis (Table W3 in Appendix) indicates that the level of attendance of the preparatory programme is associated with the education of the mother, so the level of attendance increases with the level of education and with the place of residence, so it is more common in DPA than TPA. Therefore, in the countryside, women attend these programmes less because they are not available to them, and not due to different needs.

Among the women living in Roma settlements, a small number took preparation courses. A significant number of them are not aware that such programmes exist at all, especially in IPA. Women in IPA also feel to a lesser extent that they do not need such programmes compared to women in DPA. However, a larger number of women in TPA believe that such programmes are not organized in their community. Thus, women in less populated areas struggle more with the availability of the programme.

First contact with the baby

Significantly more women in IPA (72 per cent) were in the same room with children after childbirth compared to those in TPA (56 per cent). Of those who did not have the opportunity to be in the same room with their child, women from TPA significantly more often stated that there were no conditions for such a thing (84 per cent) compared to women from IPA (68 per cent) and DPA (52 per cent). Baby-friendly programmes in maternity hospitals to which women from the TPA have access are significantly rarer. The situation is somewhat different for women living in Roma settlements. Significantly more women in DPA (82 per cent) and TPA (75 per cent) were in the same room with children after childbirth compared to those in IPA (59 per cent). Of those who were not, 62 per cent from IPA report that there were no conditions for such a thing, unlike 36 per cent from DPA and 53 per cent from TPA. The results indicate that

women from Roma settlements are potentially discriminated against in IPA, given that the situation is significantly different in the general population.

Nurse visits

Interestingly, during pregnancy, nurse visits in TPA are significantly more frequent than in DPA, but after giving birth in the first week, there are fewer nurse visits in TPA than in DPA. Observed over the number of visits, IPA have the lowest number of nurse visits on average, which indicates relatively uneven practices of patronage nurse visiting services in different types of settlements.

Chart 79. Antenatal and postnatal home visits
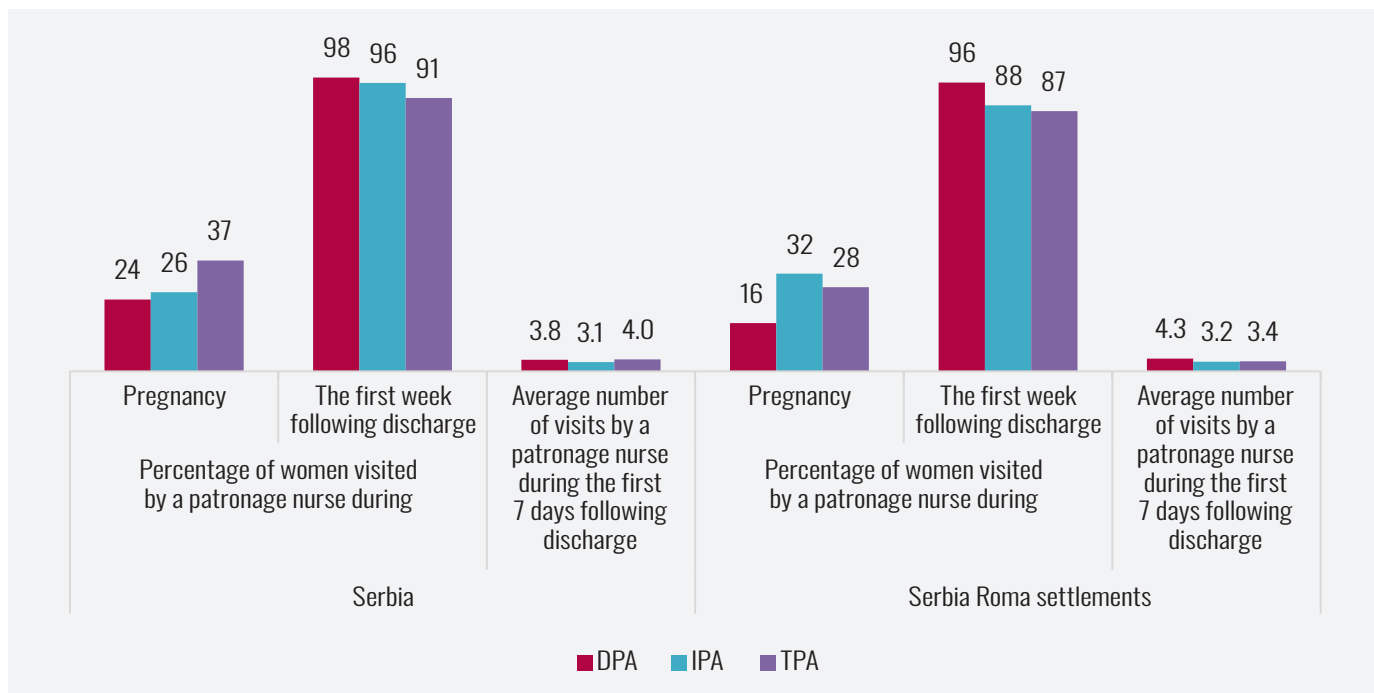
Percentage of women aged 15–49 years with a live birth in the last two years who were visited at home by a patronage nurse during the pregnancy of the most recent live birth and during the first week following discharge, and the average number of visits after birth

Looking at women living in Roma settlements, we see that slightly fewer women in DPA were visited during pregnancy compared to women in the general population. Looking only at women in Roma settlements, it is interesting that in IPA more women were visited by nurses during pregnancy than in DPA, but that the average number of nurse visits after childbirth in IPA is significantly lower than in DPA, which indicates that IPA coverage is adequate but potentially to the detriment of the frequency of visits.

Division of household and parental responsibilities

In the previous section, we identified the existence of gender differences in the degree of involvement of fathers in various responsibilities at home and around children. As can be seen from Chart 80, fathers are significantly less engaged in activities that promote learning and school readiness, and even less in household responsibilities for children aged 1–4. The data indicate that fathers in places with a higher population density are more willing to get involved in both parental and household responsibilities around children. At

the same time, the data show that almost all mothers are fully involved in all responsibilities around their children, and the degree of involvement does not vary in relation to the place of residence. The data confirm that women — regardless of the resources they have, their education and place of residence — perform domestic duties to a significant extent, while the pattern of even distribution of responsibilities is more present in urban centres and in better-educated fathers. Trend analysis reveals that there has been a significant increase in father involvement in DPA, where five years ago 37.5 per cent of fathers were involved in four or more activities that promote learning and school readiness, indicating that modernization trends, in addition to being present in urban centres, also lead to a certain gap between DPA and less-urban areas.

Chart 80. Division of household and parental responsibilities
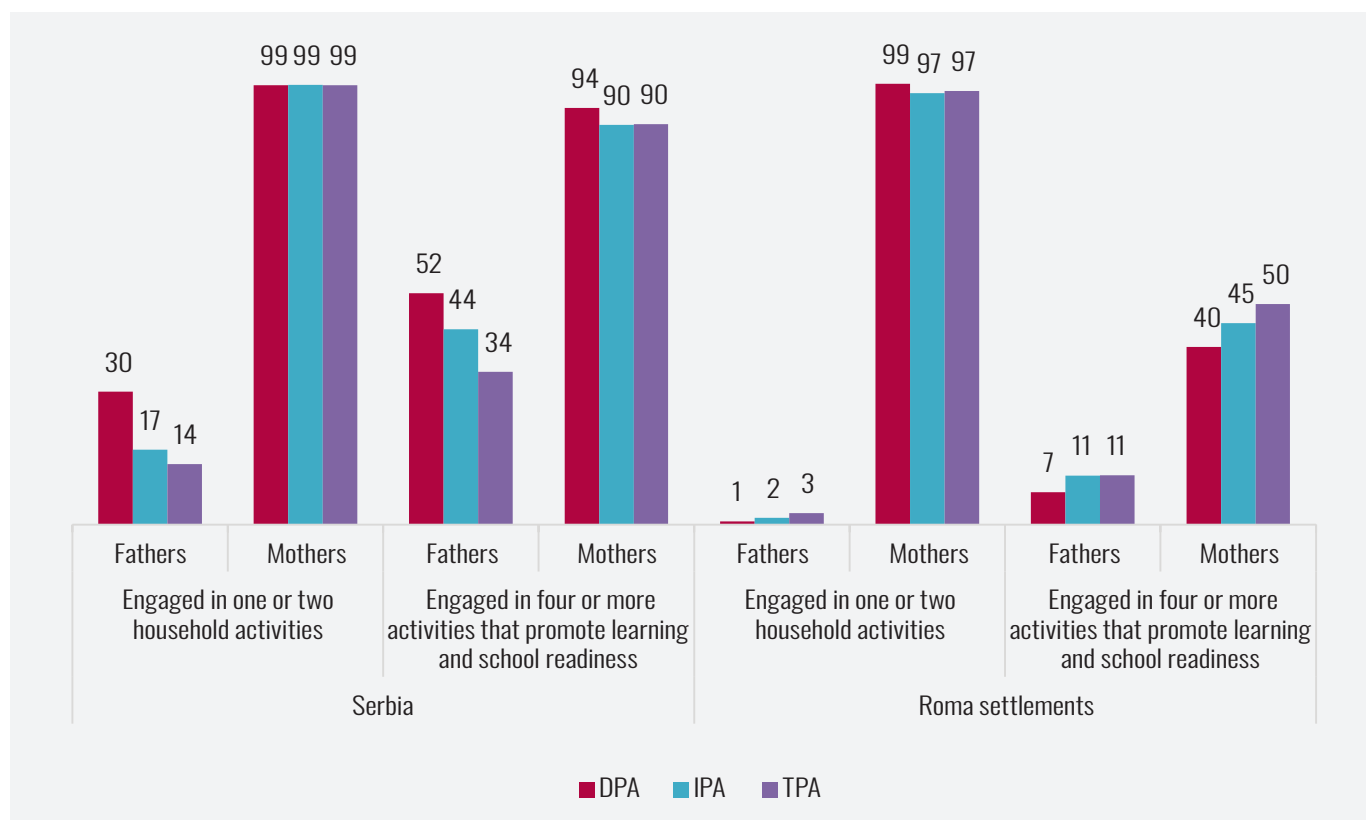
Percentage of children aged 1–4 years with whom mothers and fathers engaged in activities that promote learning and school readiness during the last three days, and engagement in such activities by fathers and mothers, and percentage of children aged 1–4 years with or for whom mothers and fathers engaged in one or two household activities during the last three days

Among parents living in Roma settlements, we observed that mothers are fully involved in daily household activities around their children, regardless of their place of residence. Fathers are at an especially low level of involvement in household activities related to children, in which only a few are involved. It is also evident that both mothers and fathers are significantly less involved in activities that promote learning and school readiness compared with parents in the general population. In this population of parents, there are no differences in the degree of involvement of either mothers or fathers in relation to the place of residence, indicating that the patriarchal pattern of distribution of responsibilities is reproduced regardless of the area.

Differences in the degree of involvement in responsibilities around children are also visible if we look at the involvement of mothers and fathers in helping with studying. In all types of settlements, mothers are more engaged than fathers. The differences between the settlements according to the degree of engagement of both mothers and fathers are not significant. In Roma settlements, parents are significantly less involved in school obligations around children, especially fathers, but there are no differences between the sizes of settlements.

Chart 81. Percentage of children who receive help with homework from mothers and fathers
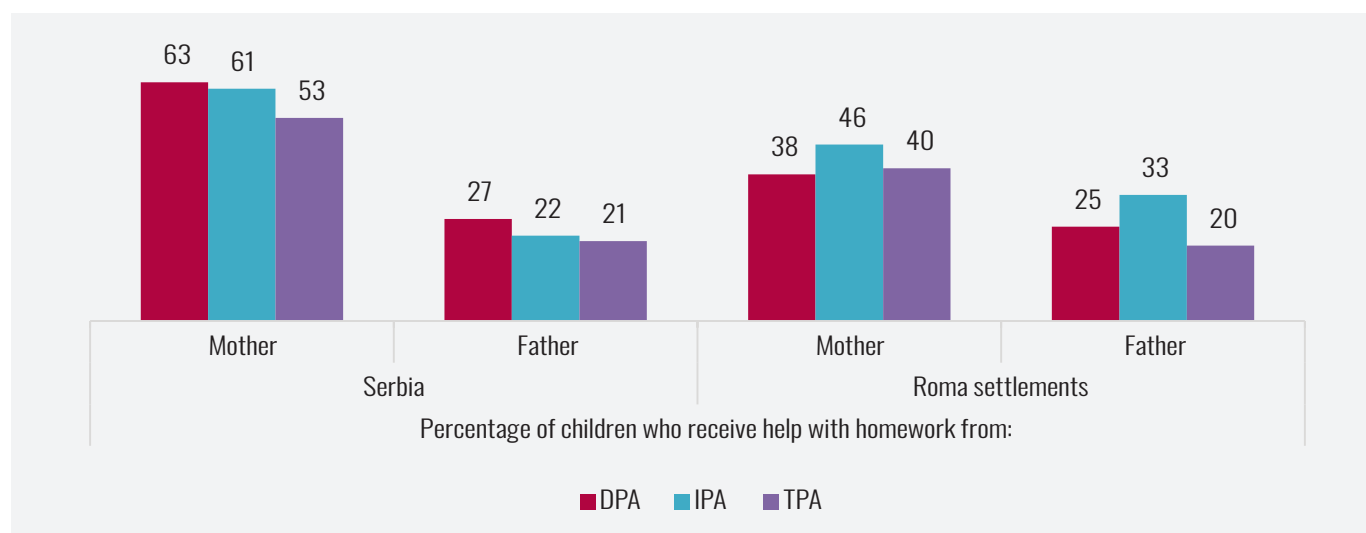
Percentage of children aged 7–14 years who have homework and percentage of children who receive help with homework, by person providing help, among those who have homework

Subjective well-being and attitudes

Women's autonomy

We checked the degree of women's autonomy with additional MICS indicators that measure: 1. a woman's independence in decision-making in various areas of her life; 2. justification of violence that men potentially commit against women; 3. familiarity with protection mechanisms if gender-based violence occurs; 4. degree of exposure to community violence; and 5. degree of exposure to community discrimination.

Although more than 80 per cent of women who are married or in a union make their own informed decisions regarding sexual relations, contraceptive use, and reproductive health care, a number of women still rely on the views of partners and there are significantly more of them in TPA than DPA. This finding indicates that urban zones are places of greater emancipation and independence for women. Among women in Roma settlements, there is less autonomy in this respect compared with women in the general population and there are no differences according to the place of settlement.

Chart 82. Informed decision on health care
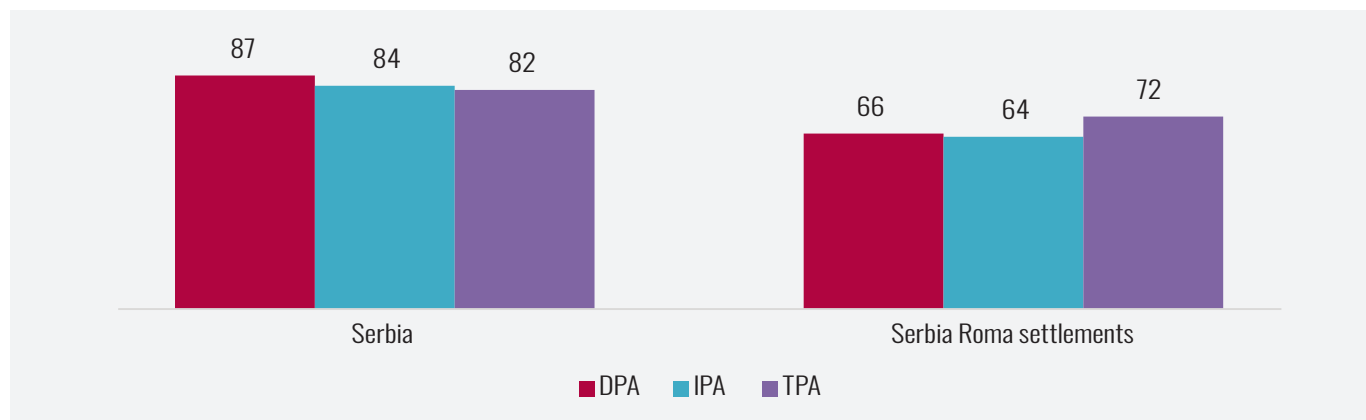
Percentage of women aged 15–49 years who are currently married or in union and make their own decisions regarding sexual relations, contraceptive use and health care

Violence against women

In the general population of women, the justification for physical violence against women is very low. In DPA and IPA, there is almost no agreement with any of the reasons why it is justified for a man to physically hit a woman, while there is only slightly more justification in TPA. Women living in Roma settlements are far more likely to justify violence against women, with almost one in four women believing that in certain circumstances a husband is allowed to physically punish his wife. There are no differences in the size of the settlement in this population either, but the already mentioned studies clearly recognize the vulnerability of the Roma population.

Chart 83. Attitudes towards domestic violence
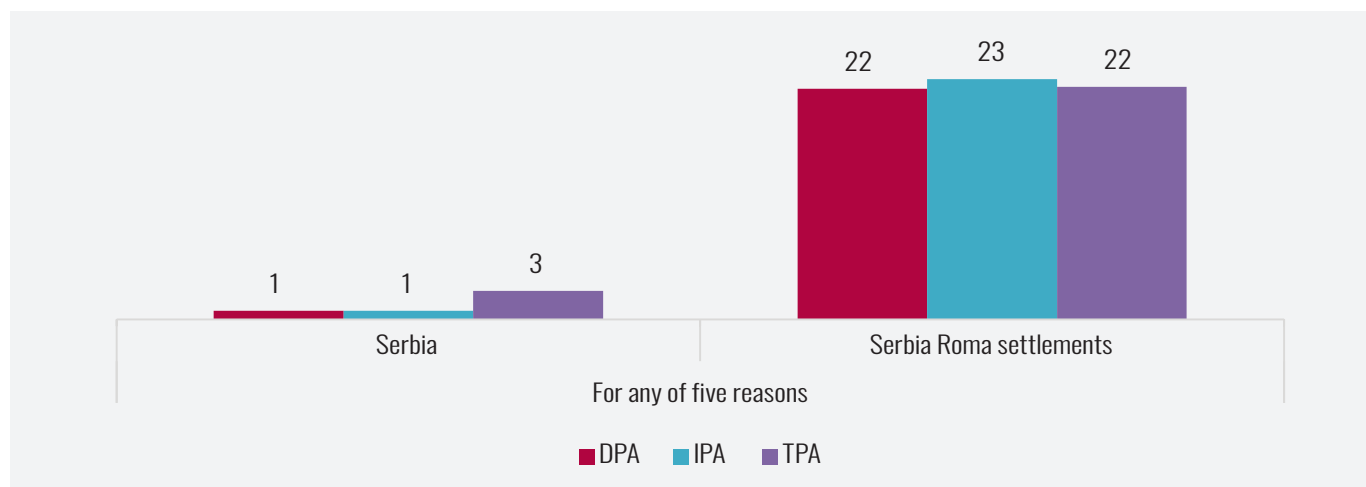
Percentage of women aged 15–49 years who believe a husband is justified in beating his wife in various circumstances

Most women in all types of settlements know that domestic violence can be reported, but there are slightly fewer such women in TPA compared to DPA. Most of them are aware that the police are the right address, but significantly fewer women are aware of other institutions that can help with domestic violence, and knowledge of these options varies among women depending on the place of residence,

so women living in TPA and IPA know less about safe houses and SOS phone line than women living in DPA. So, in the general population, women in smaller places are less aware of the support they can have if violence occurs and are less aware of the range of services they can access. Women living in Roma settlements know significantly less than the general population where to report domestic violence and are less aware of all the options available to them in the event of violence. In this population, there are no differences according to the place of settlement. One of the reasons rural women are less informed is the less accessible channels of communication, especially the internet and information about the opportunities that new media provide.

Chart 84. Awareness of institutions to which domestic violence can be reported, Serbia
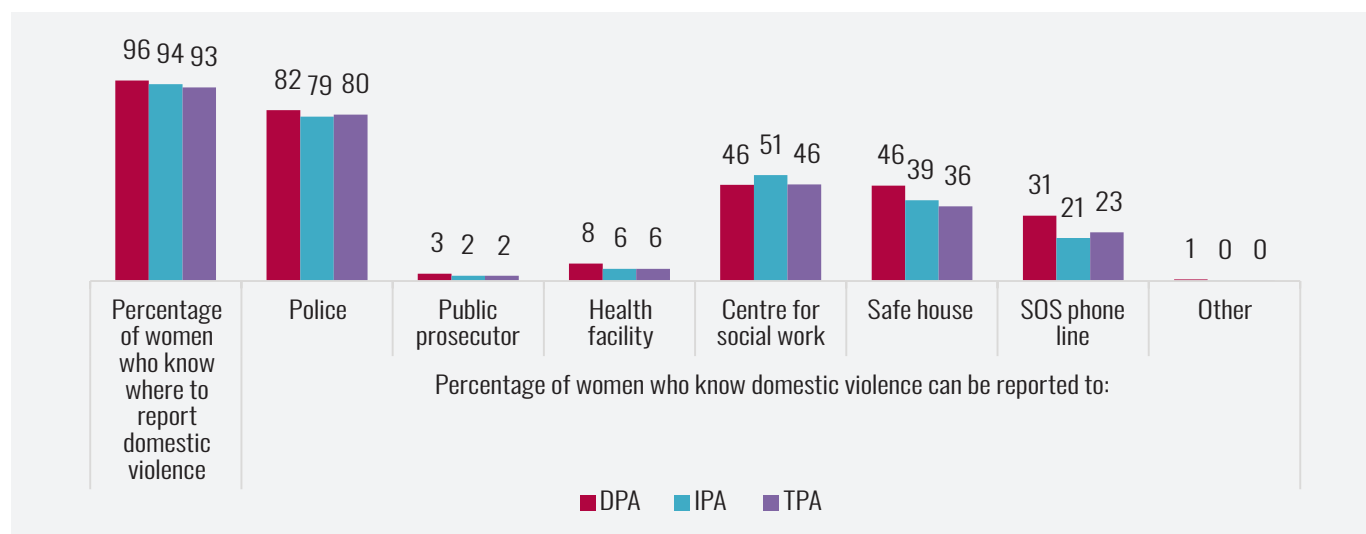
Percentage of women aged 15–49 years who know where to report domestic violence

Chart 85. Awareness of institutions to which domestic violence can be reported, Serbia Roma settlements
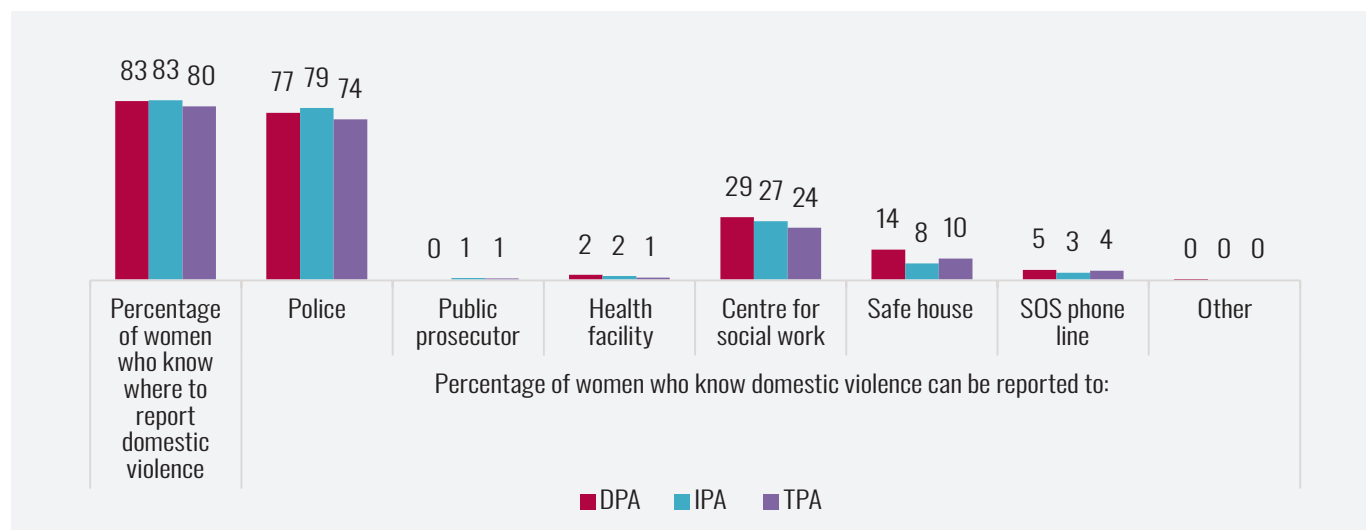
Percentage of women aged 15–49 years who know where to report domestic violence

MICS examined the level of security that women have in their environment by identifying the level of experience of physical violence, robbery or assault in the previous three years. Low-density settlements are also less risky for women, so women living in TPA are significantly less likely to be attacked than those living in DPA. This risk is somewhat higher for women living in Roma settlements, but we did not record statistically significant differences between types of settlements here either.

Chart 86. Victims of robbery and assault

Percentage of women age 15–49 years who experienced physical violence of robbery or assault in the last 3 years

■DPA ■IPA ■TPA
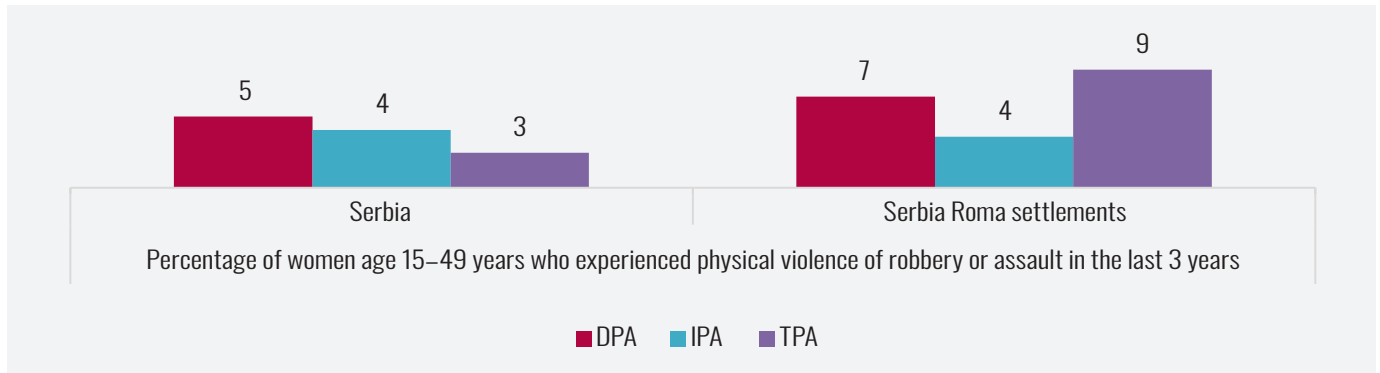
Discrimination and harassment

Cumulatively, every tenth woman in DPA and every twentieth in TPA feels discriminated against on some grounds, and this difference is statistically significant. From the above sources of discrimination, we see that women in DPA feel more discriminated against in all potential sources. Women living in Roma settlements are more likely to feel discriminated against than those in the general population, and women in DPA are more likely to feel discriminated against than those in IPA and TPA. As the most common source of discrimination, they cite ethnic origin followed by religious affiliation. Other forms of discrimination are recognized at a similar level as for women in the general population. These data tell us that women in urban centres are more exposed to various sources of discrimination and that urban areas generate higher risks of exclusion and potential violence.

Chart 87. Discrimination and harassment — women aged 15–49 years, Serbia

Percentage of women who in the last 12 months have felt discriminated against or harassed on the basis of:

■DPA ■IPA ■TPA
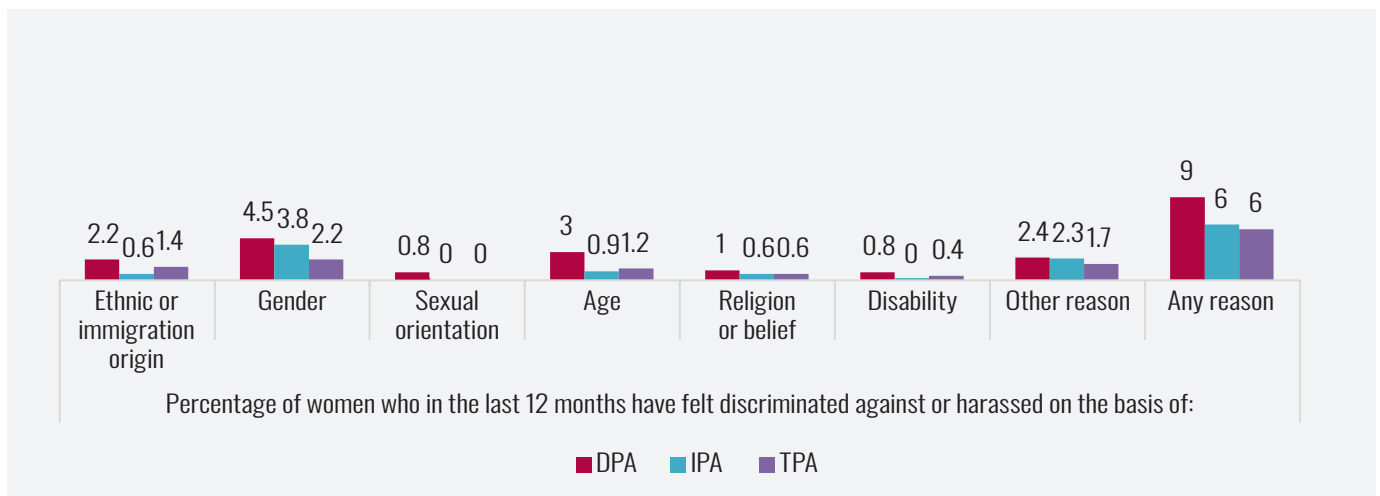
Chart 88. Discrimination and harassment — women aged 15–49 years, Serbia Roma settlements

Percentage of women who in the last 12 months have felt discriminated against or harassed on the basis of:

■ DPA   ■ IPA   ■ TPA

	DPA	IPA	TPA
Ethnic or immigration origin	16.6	9.6	8.4
Gender	2.5	0.4	1.6
Sexual orientation	0.2	0.2	0.2
Age	0.4	0.5	0.8
Religion or belief	3	1.2	1.7
Disability	0.7	0.2	0.4
Other reason	0.3	0.2	0.4
Any reason	17	11	10
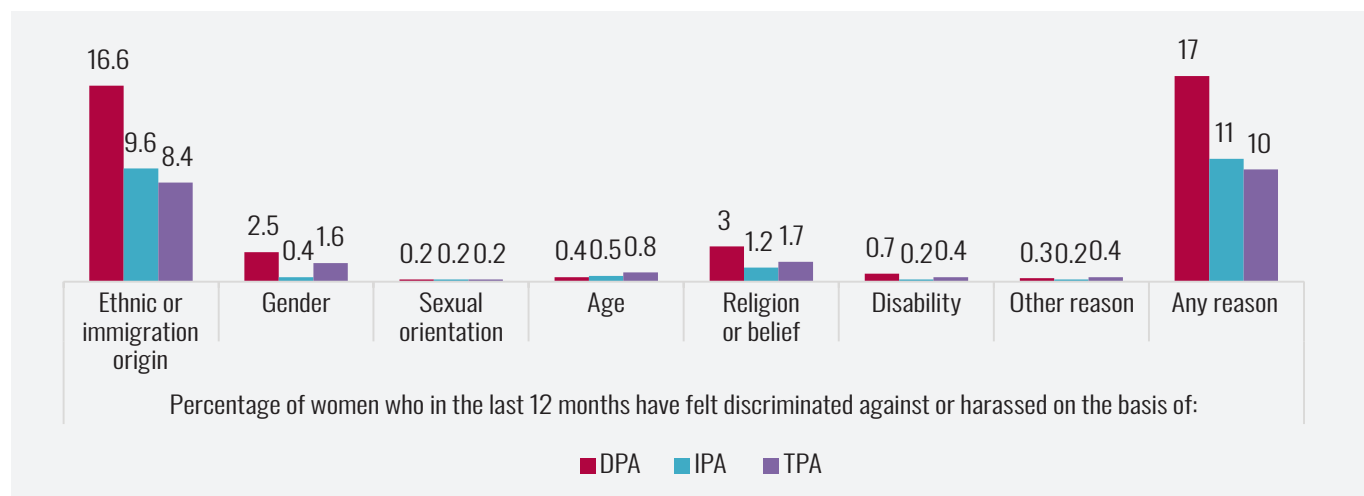
Internal migration of women

An important aspect of the problem of depopulation is population migration, especially among young people (women). As, at the level of the entire society, external migration leads to a decrease in the number of inhabitants but also to changes in the demographic structure of the remaining population, internal migration likewise leaves certain areas without a significant number of inhabitants and with an aging population. This process leads to challenges both in the areas of departure and in the places of destination. The former remain without labour, income, consumption, and with less developmental capacities, but also greater needs for social protection services, while the latter are under pressure to develop new and additional infrastructure.

Analysis of MICS data gives us a part of this picture. Migratory movements were analysed from the perspective of the current destination of women aged 15–49, where all women were asked if they had ever migrated within the country and what was their starting point. The data show us that women now living in DPA and TPA have a more frequent history of internal migration than women in IPA. Over half of women in all types of settlements live in their place of birth. Every eighth woman came from another city, a quarter came from towns, and only every twentieth woman from a village. In IPA, the largest number of women came from the countryside, followed by other cities of the same size, and the least from larger cities. In the countryside — i.e., in TPA — every fifth woman came from another village, a little less from the towns, and only every twentieth woman from the cities. Based on these data, we detect the pattern of 'cascades', where DPA have the largest inflow from towns, IPA from the countryside, while TPA have the largest inflow from other villages. The data also indicate that the most mobile part of the population consists of women from towns — i.e., IPA — and the smallest part of the population are women from DPA. The fact that there are currently more women in IPA who have not migrated than in other types of settlements indicates that medium-density sites also face lower inflows and that they are particularly affected by depopulation (women).[8]

---

[8]   We can see some confirmation of the above if we look at migration from the perspective of the place of origin (Chart A1 in the Appendix). We conducted the analysis by selecting women who have never migrated for each type of settlement and adding those who did (towards other destinations) from that settlement. So, we got the total number of women born in cities, towns, and rural areas, and this allowed us to see how big is the share of women that left their starting point, and to which destination they went. This approach is only a proxy migration from the place of origin because, 1. it does not include people who have left the country and is not completely accurate when we talk about the number of women in the place of origin, and 2. because the two operationalizations of the settlement type do not fully correspond. In the population of women aged 15–49, the most intensive migrations occur in women born in towns. More than half of the women from the towns leave their place of residence, and the most common destination is the DPA, followed by the TPA, while the least common are horizontal movements. As many as three quarters born in the city never left the place. The most common migration destination was the second largest city, then TPA, and only then IPA. Migration from cities to smaller places is a characteristic of every tenth woman. A significant percentage of women from the village remained living in the countryside, almost every fourth went to another settlement of similar size, every tenth migrated to IPA, and only every twentieth to DPA.

Chart 89. Migration within country, destination perspective, women aged 15–49 years
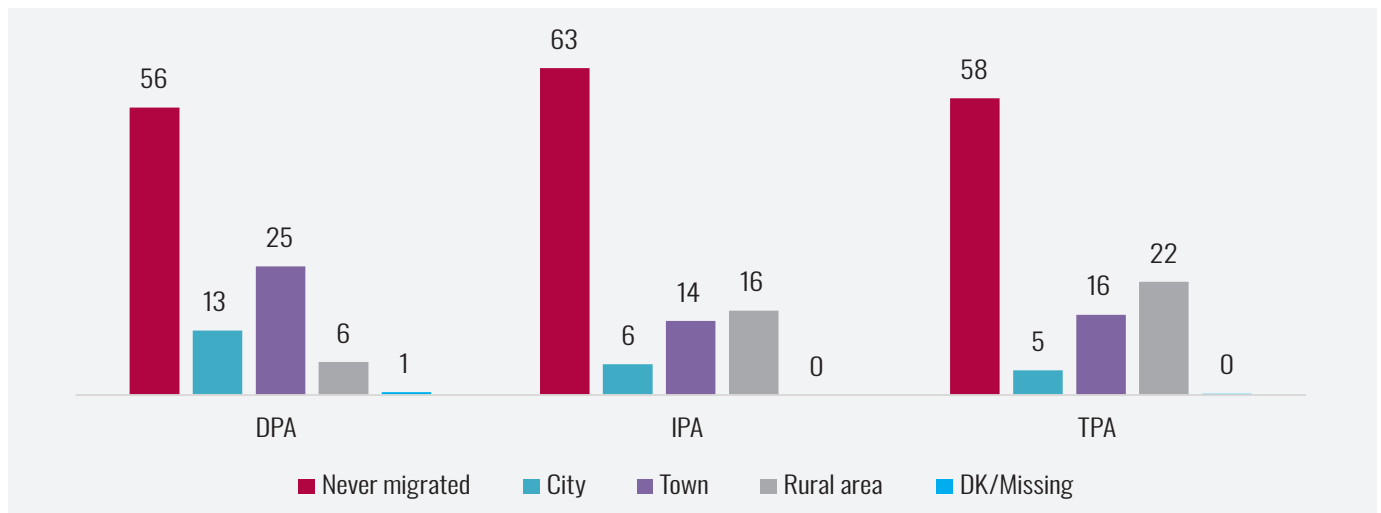
If we observe the migratory influx of women in relation to the region, we also notice a similar 'cascading' pattern of migration with small differences. The DPA and IPA of the Belgrade region stand out for the lowest share of women who have not migrated so far, pointing out that the urban zones of the capital are the most frequent destinations. It is also characteristic of the Belgrade region that in all types of settlements there is the largest share of migration from cities and relatively little migration from rural areas compared to other regions. Šumadija and Western Serbia, and Southern and Eastern Serbia have a higher share of persons in the DPA who did not migrate, and in this type of settlement there is more frequent migration from the TPA.

Table 23. Migration within country, destination perspective, women 15–49 years old by NUTS2 region

		Most recent migration was from:					
		Never migrated	City	Town	Rural area	Don't know/ missing	Total
DPA	Belgrade	44.1	42.1	48.4	8.6	1.0	100.0
	Vojvodina	51.4	0.0	79.2	18.4	2.4	100.0
	Sumadija and Western Serbia	71.1	15.3	56.4	28.0	0.3	100.0
	Southern and Eastern Serbia	69.2	6.2	70.4	20.7	2.7	100.0
IPA	Belgrade	37.4	23.5	47.7	28.8	0.0	100.0
	Vojvodina	70.7	25.3	28.7	45.9	0.0	100.0
	Sumadija and Western Serbia	76.5	14.9	45.1	39.9	0.0	100.0
	Southern and Eastern Serbia	57.4	2.1	39.5	58.4	0.0	100.0
TPA	Belgrade	55.0	30.2	33.2	36.5	0.0	100.0
	Vojvodina	59.0	13.1	37.7	48.5	0.7	100.0
	Sumadija and Western Serbia	61.8	8.9	38.5	52.1	0.5	100.0
	Southern and Eastern Serbia	50.1	4.2	33.9	61.2	0.6	100.0

Chart 90. Migration within country, destination perspective, women 15–49 years old by education
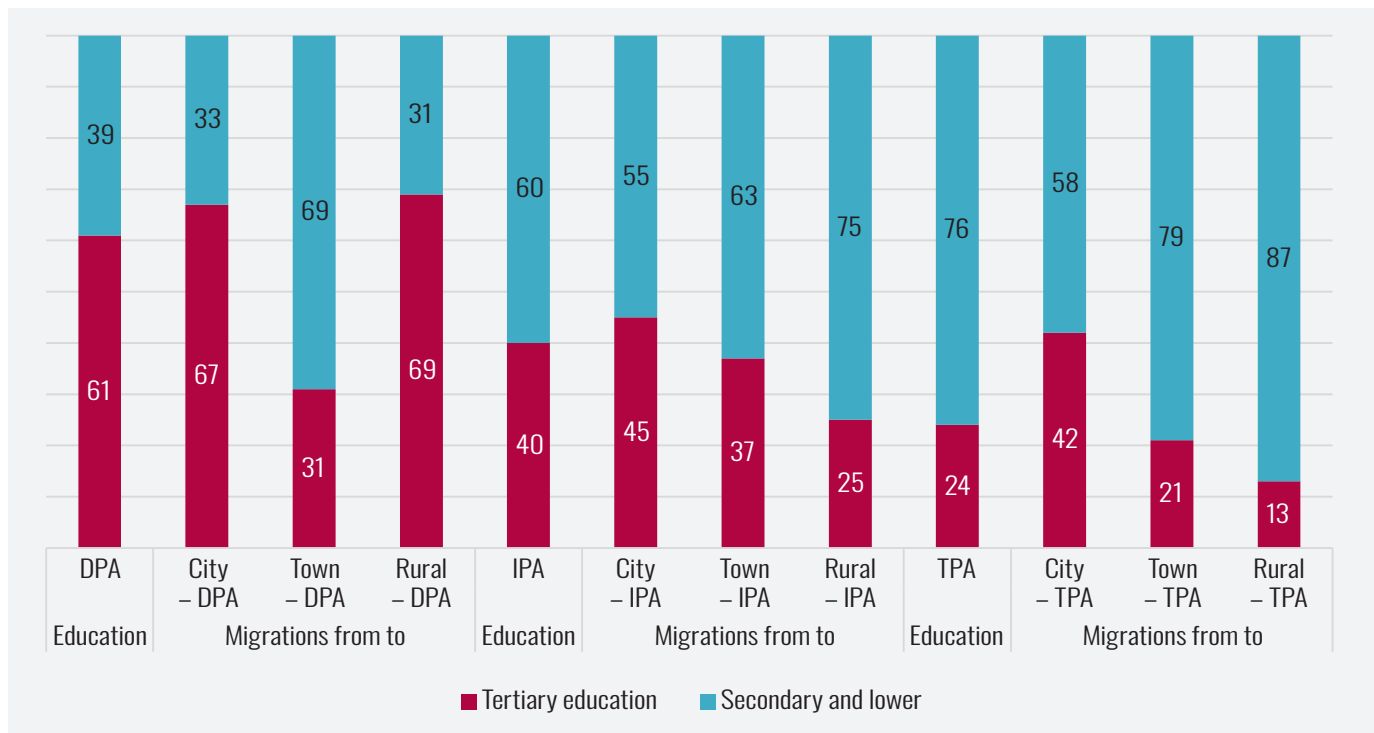
The relationship between education and migration reveals the reasons and/or consequences of migration for the demographic struc-ture of the population. Chart 90 shows the educational structure of women in the destination settlement type and the educational structure of women who migrated. Within densely populated urban areas, women who move are mostly of the same education in the city of origin and the place of destination (DPA). The migration of women from towns to DPA indicates a slightly higher educational structure in the destination, but also significantly better education than women who remain in medium-sized cities (IPA). This tells us that women from towns migrate to DPA for education and then stay in urban centres. Women who come from rural areas to DPA have a significantly lower educational structure than the average in DPA, but at the same time have a slightly better education compared with women in TPA. Specifically, a number of women from rural areas migrate due to education or as a consequence of education, but the largest number of them attracted by DPA have lower qualifications. Women living in IPA are more educated than average if they came from cities, have average education if they come from towns, and significantly lower education if they come from rural areas. The situation is the same with migrations to the countryside. Women who came from cities have a significantly better education than the average population in TPA, women from IPA are at the average level, while migration between rural areas occurs more often in less-educated women.

Perception of life and future

How young women see their lives and what they expect from the future depends on the social context on the one hand, but also on a personal equation that can be more or less optimistic. Women in TPA feel less that their lives have improved than women in DPA, and are somewhat less confident that this will happen next year. This indicates to us that women in DPA have both felt and experienced greater improvements and have somewhat higher expectations that life will be even better next year. The dynamics of larger cities provide more opportunities to change lives for the better but also more hope than the TPA context. With age, women have somewhat less experience in improving their lives and are somewhat more sceptical that improvement will occur. This is most likely an effect

related to life stages and situations, whereby younger women face much more dynamic and challenging periods of life than older women. Women living in Roma settlements share similar experiences as women in the general population and follow a similar pattern of optimism during their life course. Interestingly, women in IPA feel less that their lives have changed for the better in previous years, and women in TPA are less confident that this will happen over the next year.

Chart 91. Perception of a better life, Serbia

DPA IPA TPA
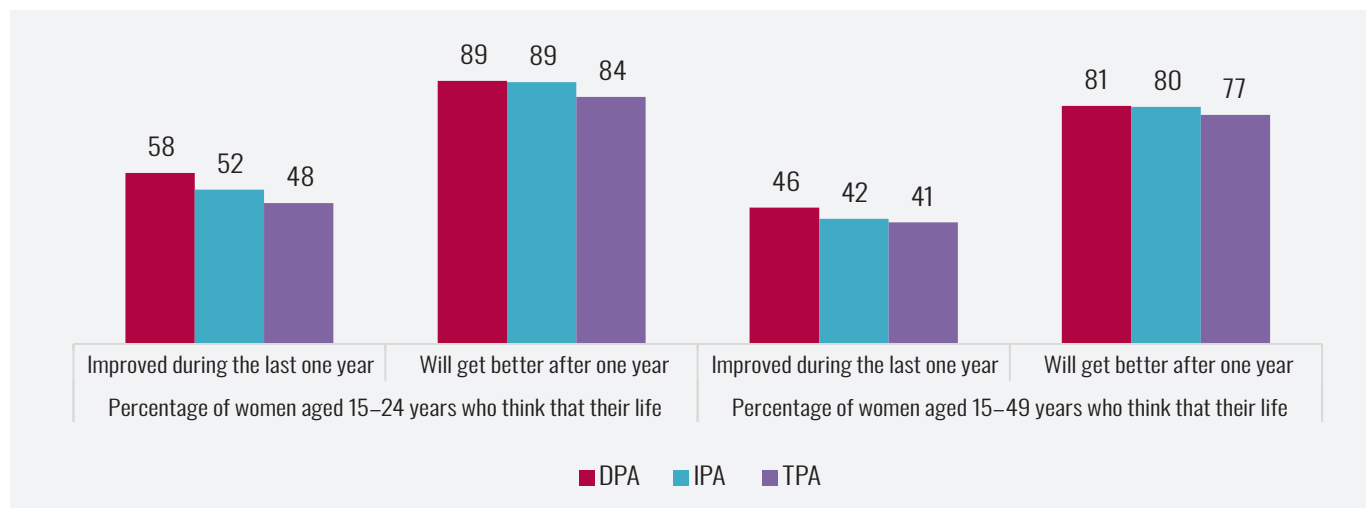
Chart 92. Perception of a better life, Serbia Roma settlements

DPA IPA TPA
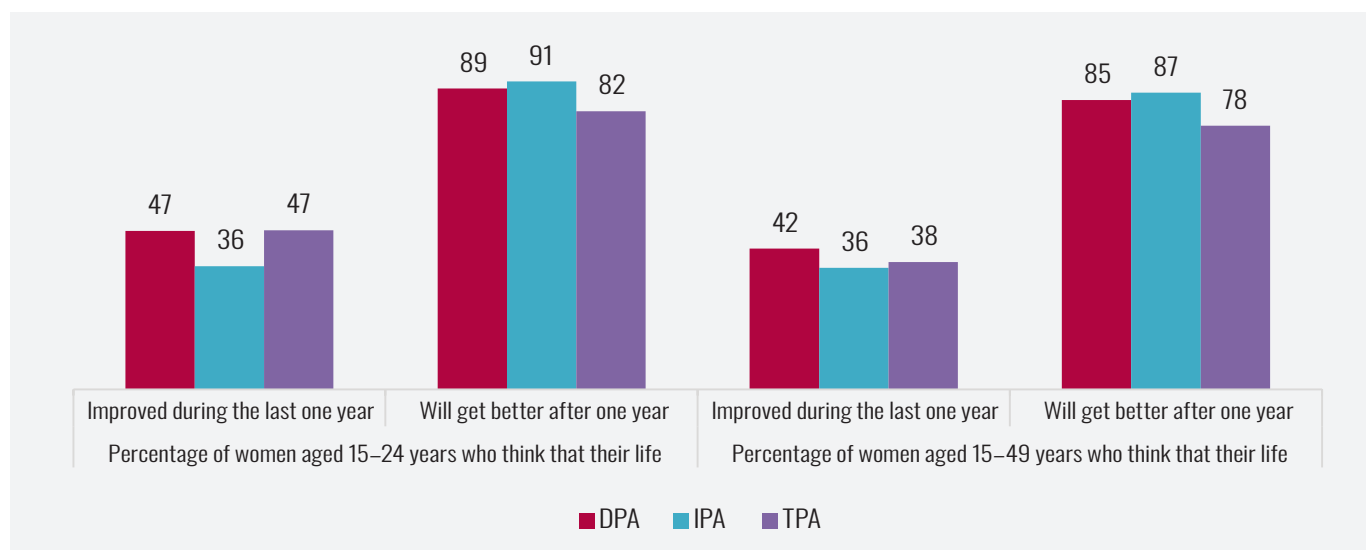
CONCLUSIONS

With this study, we tried to examine the spatial aspects of inequalities in the lives of two parts of the population — children and women — and therefore it is divided into two sections: 1. life of children, and 2. life of women. The analysis had two goals: descriptive and analytical. The first goal was to identify differences and inequalities between settlements of different densities, as well as to see whether over time there is improvement, stagnation or deterioration in different areas of the life of children and women. With the second goal, we tried to identify the factors that are associated with the recognized differences. A special aspect of the analysis referred to the constant comparison of the general population and the population living in Roma settlements. As we have seen, differences between places according to population density represent an important contextual framework that affects the developmental pathways of children and the life paths of women in a more or less stimulating or limiting way.

Children

Life conditions for children aged 0–17

The condition of housing units as well as access to basic infrastructure — sanitation, access to drinking water, and other clean technologies — is significantly worse in TPA compared to IPA and DPA. Houses in settlements with lower density are more often of lower quality, which carries with it both economic and health risks (from the fact that it is harder to keep the house adequately warm, to the mould that causes various diseases). Sanitary infrastructure is still underdeveloped, primarily in TPA, and the risks of a lack of a sewage system are more pronounced in rural areas where septic tanks dominate, which are often unsafe. Although almost all households use improved sources of water, households in IPA and TPA also use unimproved sources, and when drinking water is not available, they have to buy water. This problem is especially pronounced in Vojvodina. IPA stand out because they often do not have enough water, given that DPA have better infrastructure and TPA have more accessible traditional sources. In DPA and IPA, households have more frequent access to cleaner technologies for cooking, heating and lighting than in TPA. According to all the above indicators, children living in poorer households in TPA have worse conditions, which indicates that the risks multiply.

Children living in Roma settlements face more pronounced risks in this regard, given that compared to the general population they have poorer living conditions, houses are in poorer conditions, they have less accessible sanitary infrastructure, adequate drinking water in sufficient quantities, and they use clean technology far less at home.

It should be added that, although the spread of the internet is rapid, the possession of internet connections as well as digital equipment (laptop, desktop or tablet) has a clear spatial dimension. There are more internet connections in DPA as well as devices on which the internet is used. Children living in Roma settlements have even less digital equipment and internet access, but they do not differ according to the level of population density, indicating that they do not have benefits even from the advantages that exist in a particular context.

Wealth, as well as material deprivation, is unevenly distributed in relation to population density, so poverty decreases with increasing density. Trends even point to a widening gap between DPA and TPA, with poverty gradually declining in DPA while remaining at the same level in TPA. Children living in Roma settlements are at a disadvantage compared to the general urban population (DPA and IPA) while rural poverty (TPA) is systemically present regardless of ethnic background. Analysis of trends shows that the position of these children has not changed in the last ten years.

It should be added that the educational profiles of parents differ significantly and that there are significantly fewer children in the countryside whose mothers have higher education and more of those who have only basic education. These differences are also expressed as regional, given that DPA have disproportionately highly educated mothers in the Belgrade region, which indicates that, in addition to the

rural–urban divide, we also recognize inequalities between the capital and the rest of Serbia. Although the changes indicate a gradual increase in the educational level of mothers in all types of settlements, it is more pronounced in DPA, which leads to an increase in the gap between urban centres and the rest. Inequalities in education are directly related to activity in the labour market, so there are significantly more mothers who are inactive in TPA. The cultural capital of mothers of children living in Roma settlements is significantly lower than the average, but we do not recognize differences in the density of housing. The situation is similar with the position in the labour market, where a huge number of mothers are inactive and unemployed, regardless of their place of residence. These findings indicate that this population does not benefit from the opportunities offered in urban centres as is the case with the general population.

Children under 5

Immunization. In the general population of children, in IPA they are the best and in DPA the least covered by the vaccination plan. Among children living in Roma settlements, we recognize a trend of declining vaccine intake with increasing population density, so the most children receive vaccines in TPA and the least in DPA. In that sense, urban areas appear to be riskier for timely or any immunization of children.

Nutrition. There are no absolute differences in whether children are ever breastfed in relation to the size of the place of residence. Analyses point to two potential cultural models: the first, which is characteristic of the poorer part of the population that uses this practice due to lack of resources, and the second, which is characteristic of urban areas (DPA). Furthermore, children in TPA in the first six months are in a significantly lower percentage both exclusively and predominantly breastfed compared to urban centres. Trends indicate increases in this practice in DPA and TPA. With the cessation of breastfeeding, the probability increases that children in DPA and TPA will not have a minimum acceptable diet, indicating the risks of cessation of breastfeeding in these areas. Children living in Roma settlements are breastfed more often and for longer, but neither exclusively nor predominantly in relation to the general population, indicating that this is more often the practice of the poorer parts of the population who use breastfeeding as an additional source of nutrition. In any case, practical policies should specifically target the poorer sections of the population and mothers living in rural areas, and provide them with adequate advice and support, as well as adequate food for babies.

As a result of inadequate nutrition, problems in the height and weight of children can develop. The key problem is overweight in all types of settlements, and IPA are areas where there are more children who are underweight and wasted. Children from Roma settlements are more often underweight and stunted than general, but there are no differences according to the type of settlement.

Early child development. Analyses indicate that there are still some differences in ECD between settlements of different densities, both in the general population and in children living in Roma settlements. These differences occur in literacy–numeracy, so that children in TPA are less on track, especially among the children of parents with lower education. In children living in Roma settlements, literacy–numeracy is associated with attending preschool, indicating the importance of preschool enrolment. Although the results of the last MICS wave indicated this connection in the general population, it is not significant here.

Support for learning. Children living in TPA have fewer books available at home, or a less stimulating environment for development. The analysis of trends shows an increase in the gap because there was a certain increase in urban areas, but not in rural areas. The involvement of mothers in activities that have a positive impact on development does not differ according to the place of residence, but the participation of fathers differs. With increasing population density, fathers are more involved in all aspects of the child's interaction, and DPA are emerging as areas within which fathers are more likely to be directly involved in caring for children but also in the daily chores around them. Research indicates that there are clear links between children's development and the involvement of both parents in everyday interaction with them, so this model should be promoted both in rural areas and among lower-educated men.

Children living in Roma settlements have a significantly less stimulating learning environment than the general population, and DPA appear as a place of multiple risks for children. In this population, we detect fewer books and homemade toys in urban areas (DPA and IPA) than in the previous wave, indicating negative trends. The relationship between settlement density and parental involvement (both mothers and fathers) is reversed relative to the general population, with parents less involved if living in higher density settlements, so DPA children have the least support at home.

Early education. Children living in TPA are less likely to attend preschool, but, at the same time, the gap between rural and urban areas is narrowing as rural infrastructure develops rapidly. Children living in Roma settlements attend preschool to a lesser extent and trends do not indicate an increase in participation. The preschool preparatory programme (PPP), although mandatory, still does not have full coverage, and there is a danger that there has even been some reduction in coverage in DPA and TPA. In the population of children living in Roma settlements, there are fewer children in PPP without current differences by type of settlement, where trends indicate that due to a significant increase in TPA and IPA, the gap that previously existed between urban and rural areas has been closed.

Child discipline. Disciplinary practices do not differ according to the place of residence, neither in general nor in the population of children living in Roma settlements, pointing to a parenting pattern that is widespread in all types of settlements.

Children aged 6–9

Education. Key differences by place of residence during primary education occur not in formal but in informal education. Parents are similarly familiar and involved in school activities around children, and children have similar learning conditions (measured by MICS indicators). But children living in TPA have fewer opportunities and attend fewer paid sports activities and learn foreign languages less compared to children in DPA. Among children living in the Roma settlements, who otherwise have less support compared to the general population of children, we do not record any differences according to the place of residence.

Child discipline. Even in the methods of disciplining children (in both samples) we do not recognize significant differences in the type of settlement, which indicates that at this age the models of discipline are similar in urban and rural areas.

Child labour. The key difference between the settlements, and probably one of the key factors associated with the opportunities in the lives of children, is child labour. Children in TPA, especially boys, are significantly more likely to be involved in economic activities above the age threshold and perform hazardous work more often. Although the data show that children living in Roma settlements are less involved in child labour, it becomes more common if they live in TPA.

Children aged 10–13

Education. When it comes to parity in upper secondary education, the gender parity index (GPI) is, on average, in balance. Support for parental learning is at a similar level in all three types of settlements, but differences in the home environment occur in this age cohort. Children in DPA have more books available than children in TPA, and more often their mothers help them with homework. As with the younger cohort, there is a difference in non-formal education, so children from DPA have better conditions to practise sports and attend extra classes. In the population of children living in Roma settlements, the GPI is skewed towards boys: there are fewer girls in the upper grades of primary school than boys, and there are also differences according to the types of settlement. Boys living in DPA have lower rates than other types of settlements, indicating to us that urban centres are risky for boys' education; but in less populated areas (IPA and TPA) boys dominate. Although they have fewer books available, and parents are less involved in homework help than the general population, there are no differences according to the type of settlement.

Child discipline. In the methods of disciplining children of the general population, we do not recognize significant differences according to the type of settlement, which indicates that at this age the models of discipline are similar in urban and rural areas. Among children living in Roma settlements, we recognize that there is slightly more corporal punishment in DPA than in TPA, and that boys experience it more often in DPA. In DPA, mothers more often believe that it is sometimes necessary to physically punish a child compared to mothers in other settlements.

Child labour. TPA are areas where economic activities are more pronounced, indicating that agricultural production significantly engages the work of children of these ages. In TPA, child labour is performed by every fifth adolescent, while in DPA and IPA this participation is significantly lower. Work under hazardous conditions is also more frequent in TPA, pointing to the risks to which these children are continuously exposed. Children living in Roma settlements are less likely to be involved in economic activities than the general population. But they also experience child labour and work under hazardous conditions, more often among children living in TPA and among boys.

Children aged 14–17

Education. There are certain gender disparities in the general population of children, so there are slightly more girls in high school in DPA, while there are significantly more boys in IPA. Children who live in TPA are more often out of school, indicating that both boys and girls are more likely to be excluded from the education system than their peers in urban areas. Among children living in Roma settlements, the differences in relation to GPI decreased over a period of five years and led towards a greater balance between boys and girls in DPA and TPA, but we still record significantly more boys in IPA and slightly more in DPA. Although there are significantly more children out of school than in the general population, there are no differences according to the place of residence.

Child labour. Children in TPA and IPA are more likely to engage in economic activities above the age threshold and are more likely to perform hazardous work than their peers in DPA. Most of this work is done by boys. The fact that, for this age group, only DPA stand out as an area with low participation in child labour shows that children in DPA have fewer barriers to education and other transitions, compared to children from smaller and rural areas who are included earlier in those forms of work that are harmful. Children, especially boys, living in Roma settlements are more involved in child labour and work under hazardous conditions than the general population, but there are no differences in terms of place of residence. While in younger cohorts these forms of work are less represented and dominate in the countryside, there is a 'rapid growth' in this age group and inclusion in the sphere of work under very risky conditions for many.

Women

We approached the analysis of the position of women through two frameworks: the life course perspective, and the challenge of de-population. Through the first one, we were able to see the challenges faced by women in relation to age. And through the second one, to see the quality of life, quality of social relations, attitudes towards marriage, fertility and intentions, and migratory trends associated with demographic trends.

The material position of women. Rural (TPA) women are in a far less desirable material position than urban women from DPA. The condition of housing units as well as access to clean technologies is significantly worse in TPA compared to IPA and DPA. Houses in lower-density settlements are more often of lower quality, which carries with it both economic and health risks. In DPA and IPA, households have more frequent access to cleaner technologies for cooking, heating, and lighting than in TPA. According to all the above indicators, women living in poorer households in TPA have worse conditions, which indicates that poor women in the countryside are a particularly vulnerable category. Poor material conditions are accompanied by lower wealth status and more frequent life in households characterized by material deprivation. Women living in Roma settlements face more pronounced risks, given that they have poorer living conditions than the general population, with houses in poorer condition, and use far less clean technologies at home. As with the population of children, we detect the rapid spread of the internet but, at the same time, the digital divide according to the type of settlement.

Women's education and their position in the labour market reveal key differences in rural and urban structures. There are significantly fewer highly educated women in TPA and more of those with primary education alone. In addition to fewer employment opportunities, this also leads to lower capacities in the countryside, so women in the countryside are more often outside the labour market. For women living in Roma settlements, the situation is less favourable both in terms of education and the labour market, without large differences between urban and rural areas.

Marriage, union and childbearing. Marriage patterns do not change and still reflect the dominant family matrix within which marriage dominates as a form, and the goal of marriage is to have children. That is why unions are relatively rare and we do not see their increase over the years. We see key differences between settlements in the fact that women in TPA are more often married, while women in DPA are more often single, as well as in the fact that unions in the city are an expression of postmodern lifestyles and in rural areas an expression of a traditional way to legitimize partnerships. Marriage or union is for most women around the age of 30, but marital transitions in the countryside are faster than in the cities. For women living in Roma settlements, we are record-ing faster transitions and we do not notice differences according to the types of settlements. Early marriage and early childbirth are

a consequence of poverty in the general population of women, and lack of educational and work opportunities for female children, and are especially present in TPA. Early marriage and early childbirth in the population of women living in Roma settlements is far more prevalent, it does not vary significantly according to the place of residence and can be primarily explained by poverty and lack of opportunities for female children.

Fertility and the desire to bear children. Fertility rates in rural areas are significantly higher than in urban areas. Rates vary according to the educational level of women (lower among highly educated women), labour market status (higher among inactive women), and wealth status (higher among poorer classes). Differences in birth rates between rural and urban areas can be partly explained by differences in demographic structure between settlements, as TPA have fewer highly educated women, more inactive (housewives), and more poorer households. Another framework of explanation is the traditional attitudes towards marriage and childbirth, which are more preserved in the countryside than in urban areas. Confirmation of the above can be found in the planning/desire for the second and each subsequent child. The desire to have a child grows with the mother's education and is greater if the mother is employed. The place of residence is not systematically connected with this decision; i.e., women want or do not want another child to the same extent. Yet women in the countryside give birth to their next child, which indicates two things. First, the patriarchal pressure in the countryside is greater, so women who do not want more children still give birth. Secondly, the demands of parenthood in the city and among better-educated women imply conditions (harmonization of work and parenthood and more equal partner dynamics) that are difficult to provide, and less often decide on another child, even though the desire is high.

Among women living in Roma settlements, we record significantly higher fertility rates, which are higher in settlements with lower population densities. Socio-demographic characteristics of women are related to fertility in the same way as in the general population. There is more desire for another child in DPA and there is a greater desire for another child in women who have secondary or higher education, indicating the same regularity as in the general population.

Motherhood. The availability of training for mothers, as well as the services of institutions, are not uniform with regard to the place of residence. Courses that would prepare mothers for childbirth and parenthood are less available to women from TPA, so they attend them less often. After giving birth, fewer TPA women had the opportunity to be in the room with the baby. While in TPA slightly more women had a nurse visit before giving birth, fewer had after the birth. Among women living in Roma settlements, even fewer went to preparatory programmes, and women in IPA and TPA either do not know about them or feel that they do not exist in their environment. IPA women reported that they were less likely to be in the same room with the baby after giving birth, and nurse visits are very uneven in places of different sizes.

Household chores. In the private sphere, there are still clear gender differences related to the division of household chores and parental care. Almost all mothers, regardless of their place of residence, are involved in activities that promote learning and school readiness in their children. Differences in the degree of involvement occur among fathers, where we identify that fathers living in DPA who are highly educated are involved somewhat more often. The situation is similar with the involvement in the chores related to children, which is more common among fathers in DPA. Trends point to the rapid spread of this practice, but primarily in DPA, widening the gap between urban centres and the rest. In the population of parents living in Roma settlements, we note a marked gender asymmetry that does not vary in relation to the place of residence, indicating that the patriarchal pattern is equally distributed everywhere.

Subjective well-being and attitudes. The degree of women's autonomy to make informed decisions regarding sexual relations, contraceptive use and reproductive health care is somewhat lower in TPA than in DPA and IPA. There are also a larger number of women in the countryside who justify domestic violence in certain circumstances, and a smaller number of those who would know to whom to report it. Although women inside the home in TPA are potentially at greater risk, women in DPA are less safe outside the home. A significantly larger number of them report that they do not feel safe and that in the previous period they were discriminated against on some grounds. Women in TPA testify to a lesser extent that their life has improved, and to a lesser extent they expect it to improve, compared to women in DPA. With age, the experience of improving living conditions and optimism for the future is declining.

Internal migration. Based on the analyses, we can conclude the following: 1. DPA are the most common migration destinations from all types of settlements. 2. Belgrade region is the most desirable destination. 3. Women from medium density settlements (towns, IPA) migrate significantly more often than women who are born in other types of settlements, and those who migrate are in significant part (more highly) educated. Further, these areas prove to be under the biggest pressure to preserve their population (of women). 4. Women from cities migrating to smaller places have a better-than-average educational structure in these types of settlements, indicating that cities are a reservoir of better-educated women for the labour market of smaller settlements. 5. Migration from rural areas implies lower education of women as the population density decreases, so migrating between two rural areas (rural to TPA) is most frequent among women with less than tertiary education.

REFERENCES

Aschbrenner, Kimberly and Cornish, Disa Lubker, 'Barriers to Breastfeeding among Rural Women in the United States', *UNIversitas: Journal of Research, Scholarship, and Creative Activity*, vol. 12, no. 1, article 12, 2017.

Babović, M, et al., *Socijalna uključenost starijih osoba (65+) u Srbiji*, Crveni krst Srbije, 2018.

Babović, M., 'Radne strategije i odnosi u domaćinstvu: Srbija 2003–2007', In: A. Milić and S. Tomanović, eds., Porodice u Srbiji danas u komaparativnoj perspektivi, Institut za sociološka istraživanja Filozofskog fakulteta (ISIFF), Belgrade, 2009.

Babović, M., ed., *Social Inclusion: Concepts, Conditions, Policies*, SeConS, ISIFF, Belgrade, 2011.

Babović, M., and Vuković, O., *Žene na selu kao pomažući članovi poljoprivrednog domaćinstva: Položaj, uloge i socijalna prava*, UNDP, Belgrade, 2008.

Babovic, M., Ginic, K., and Vukovic, O., *Mapiranje porodicnog nasilja prema zenama u Centralnoj Sribji*, [*Mapping domestic violence against women in central Serbia*], Gender Equality Directorate, Belgrade, 2010.

Bobić, M., 'Blokirana transformacija bračnosti u Srbiji — kašnjenje ili izostanak Druge demografske tranzicije?', u: S. Tomanović (ur.): *Društvo u previranju*, Institut za sociološka istraživanja Filozofskog fakulteta, Belgrade, 2006, pp. 121–139.

Dokmanović, P, Stevanović, Z., Milanović, S., Hajdin, B., Ristić-Vakanjac, V., Marinović, V., "Projekcija razvoja osmatračke mreže podzemnih voda u Republici Srbiji" y *Vodoprivreda*, 48, 2016, 279–281.

Elder, Jr., G.H., Kirkpatrick Johnson, M., and Crosnoe, R., 'The emergence and development of Life Course Theory', In: J.T. Mortimer & M.J. Shanahan, eds., *Handbook of the Life Course*, Kluwer Academic Publishers, New York, NY, 2002, pp. 3–23.

Ferraro, K.F., Shippee, T.P., and Schafer, M.H., 'Cumulative inequality theory for research on aging and the life course', In: V.L. Bengtson, D. Gans, N.M. Putney, M. Silverstein, eds., *Handbook of theories of Aging,* Springer, New York, NY, 2009, pp. 413–434.

Field, J., and Leicester, M., *Lifelong learning: Education across the Lifespan*. Routledge, London, 2000.

George L., and Ferraro, K., 'Aging and the Social Sciences: Progress and Prospects', In: George L., Ferraro, K, eds., *Handbook of Aging and the Social Sciences*, Eighth Edition, Elsevier, Oxford, 2016.

Irwin, L.G., Siddiqui, A., and Hertzman, C., *Early Child Development: A powerful equalizer*, World Health Organization, Geneva, 2007.

Jakšić, B., and Bašić, G., *Romska naselja, uslovi života i mogućnosti integracije Roma u Srbiji — Rezultati socijalnog istraživanja*, Centar za Istraživanje Etniciteta, Belgrade, 2002.

Jakobi, T., Stanojević, D., and Marković D., *Elderly Roma between transitional and social justice*, Roma Forum of Serbia, Belgrade, 2021.

Malhotra, A., *The Causes, Consequences and Solutions to Forced Child Marriage in the Developing World*, International Center for Research on Women, Washington, D.C., 2010.

Mayer, K.U., 'The sociology of the life course and life span psychology: Diverging or converging pathways?', In: U.M. Staudinger and U. Lindenberger, eds., *Understanding Human Development: Lifespan psychology in exchange with other disciplines*, Kluwer Academic Publishers, Dordrecht, 2002.

Papadopoulos, Fotis and Tsakloglou, Panos, 'Chronic material deprivation and long-term poverty in Europe in the pre-crisis period,' No. 15/16, ImPRovE Working Papers, Herman Deleeck Centre for Social Policy, University of Antwerp, 2015.

Penev, G., and Stanković, B., 'Nerađanje dece: nastavak dosadašnjih ili pojava novih tendencija?', *Demografski Pregled*, 73, 2019.

Penev, G., and Stanković, B., 'Bezdetnost fertilnih žena u Srbiji iz demografske perspektive', *Stanovništvo*, vol. 59, no. 2, 2021, pp. 1–22.

Petrović Pantić, T., Mandić, M., I Samolov, K. „Hidrogeologija i vodoprivredna problematika na području Kosmaja, Mladenovca, Smedereva I Smederevske Palanke", *Vodoprivreda* 0350–0519, Vol. 48 No. 282–284, 2016, p. 267–275.

Rajković, M. B., Milojković, S., Marjanović, T., Antić, M., Nikšić, M., and Stojanović, M., „Fizičko-hemijska i mikrobiološka ispravnost vode za piće u seoskim naseljima na teritoriji opštine Požarevac," *Hrana i ishrana*, vol. 55, no. 1, 2014, p. 19–24.

Rašević, M., 'Fertilitet ženskog stanovništva', u: Penev G., ed., *Stanovništvo i domaćinstva Srbije prema popisu 2002*, godine, Republički zavod za statistiku/ Institut društvenih nauka/Društvo demografa Srbije, Belgrade, 2006.

Rašević, M., 'Fertilitet ženskog stanovništva', U V. Nikitović (Ur.), *Populacija Srbije početkom 21. veka, Popis stanovništva, domaćinstava i stanova 2011.* u Republici Srbiji (str. 74–95). Republički zavod za statistiku, Beograd, 2015.

Santhya, K.G., 'Early marriage and sexual and reproductive health vulnerabilities of young women: a synthesis of recent evidence from developing countries', *Current Opinion in Obstetrics & Gynecology*, vol. 23, no. 5, 2011, pp. 334–339, https://doi.org/10.1097/GCO.0b013e32834a93d2

Savić, S., et al., *Romkinje — biografije starih Romkinja u Vojvodini*, Futura publikacije, 2001.

Shea, O.R., and Kiersten, J., *The DHS Wealth Index, DHS Comparative Reports No. 6,* ORC Macro, Calverton, Maryland, 2004.

Statistical Office of the Republic of Serbia, *Use of Information and Communication Technologies,* Statistical Office of the Republic of Serbia, Belgrade, 2021.

Statistical Office of the Republic of Serbia and UNICEF, *Serbia Multiple Indicator Cluster Survey and Serbia Roma Settlements Multiple Indicator Cluster Survey, 2019, Survey Findings Report.* Statistical Office of the Republic of Serbia and UNICEF, Belgrade, 2020.

Thu, H.N., et al., 'Breastfeeding practices in urban and rural Vietnam', *BMC Public Health*, vol. 12, 2012, p. 964, https://doi.org/10.1186/1471-2458-12-964

Tomanović, S., and Ignjatović, S., 'Transition of Young People in a Transitional Society: The case of Serbia', *Journal of Youth Studies*, vol. 9, no. 3, 2006, pp. 269–285.

UNICEF, *Rural/Urban Disparities in the Situation of Children and Women*, *The analysis of Multiple Indicator Cluster Survey data*, UNICEF, Belgrade, 2015.

APPENDIX

Table A1: Emptying and removal of excreta from on-site sanitation facilities

Percent distribution of household members in households with septic tanks and improved latrines by method of emptying and removal

		Serbia			Serbia Roma Settlements, 2019		
		Safe disposal in situ of excreta from on-site sanitation facilities	Unsafe disposal of excreta from on-site sanitation facilities	Removal of excreta for treatment from on-site sanitation facilities	Safe disposal in situ of excreta from on-site sanitation facilities	Unsafe disposal of excreta from on-site sanitation facilities	Removal of excreta for treatment from on-site sanitation facilities
under 5	DPA	4	0	2	15	2	13
	IPA	7	2	12	10	7	16
	TPA	35	10	28	34	16	24
5–17	DPA	3	0	5	13	2	13
	IPA	8	1	11	9	4	13
	TPA	34	14	30	32	11	29

Table A2: Use of improved and unimproved water sources

Percent distribution of children under 5 by main source of drinking water and percentage of household population using improved drinking water sources, Serbia

| | | Main source of drinking water | | | | | | | | | | Total | Percentage using improved sources of drinking water [1] | Number of children | Number of children |
| | | Improved sources [A] | | | | | | | Bottled water [C] | Unimproved sources [B] | Missing | | | | |
		Piped water – Into dwelling	Piped water – Into yard/plot	Piped water – Piped to neighbour	Piped water – Public tap/standpipe	Tube-well/borehole	Protected well	Protected spring							
Degree of urbanization	DPA Total	91	0	0	0	0	0	0	9	0	0	100	100	294	802
	IPA Total	78	0	0	0	1	2	1	18	0	0	100	100	143	393
	TPA Total	64	1	0	2	3	10	3	17	0	0	100	100	359	772
DPA Region	Belgrade	87	0	0	0	0	0	0	13	0	0	100	100	145	367
	Vojvodina	85	0	0	0	0	0	0	15	0	0	100	100	35	62
	Sumadija and Western Serbia	97	0	0	1	0	0	1	2	0	0	100	100	70	213
	Southern and Eastern Serbia	98	0	0	0	0	0	0	1	0	0	100	100	44	160
IPA Region	Belgrade	83	1	0	0	0	0	0	16	0	0	100	100	26	74
	Vojvodina	42	0	0	0	4	0	1	54	0	0	100	100	32	69
	Sumadija and Western Serbia	91	0	0	0	0	6	1	2	0	0	100	100	34	81
	Southern and Eastern Serbia	90	0	0	0	0	1	3	7	0	0	100	100	52	169
TPA Region	Belgrade	58	2	0	0	3	12	3	22	0	0	100	100	37	85
	Vojvodina	61	0	0	4	1	0	2	31	0	0	100	100	146	296
	Sumadija and Western Serbia	73	1	0	2	2	18	1	3	0	0	100	100	102	180
	Southern and Eastern Serbia	61	2	0	2	6	18	5	6	1	0	100	100	74	211

Table A3: Use of improved and unimproved water sources

Percent distribution of children age 5–17 years old by main source of drinking water and percentage of household population using improved drinking water sources, Serbia

			Main source of drinking water										Total	Percent-age using improved sources of drink-ing water [1]	Num-ber of children	Num-ber of children
			Improved sources [A]								Unim-proved sources [B]					
			Piped wa-ter – Into dwelling	Piped water – Into yard/plot	Piped water – Piped to neighbour	Piped water – Public tap/standpipe	Tube-well/borehole	Protected well	Protected spring	Bottled water [C]					
Degree of urbaniza-tion	DPA	Total	93	0	0	0	0	0	0	6	0	100	100	784	985
	IPA	Total	78	0	0	0	1	0	2	18	1	100	100	477	603
	TPA	Total	67	2	0	4	2	8	1	16	0	100	100	982	1186
DPA	Region	Belgrade	89	0	0	0	0	0	0	11	0	100	100	329	433
		Vojvodina	86	0	0	0	0	0	0	14	0	100	100	68	60
		Sumadija and western serbia	97	0	0	0	0	1	0	2	0	100	100	242	301
		Southern and eastern serbia	100	0	0	0	0	0	0	0	0	100	100	145	191
Degree of urbaniza-tion	IPA	Belgrade	82	1	0	0	0	0	7	10	0	100	100	62	94
		Vojvodina	53	0	0	0	4	0	0	42	1	100	99	162	155
		Sumadija and western serbia	97	0	0	0	0	1	0	1	0	100	100	109	134
	Region	Southern and eastern serbia	89	0	0	0	0	0	3	9	0	100	100	143	220
	TPA	Belgrade	64	0	0	4	4	17	0	11	0	100	100	92	110
		Vojvodina	61	1	0	6	2	0	1	29	0	100	100	415	446
	Region	Sumadija and western serbia	78	1	0	3	2	10	1	5	1	100	99	282	332
		Southern and eastern serbia	67	4	1	2	4	16	3	4	1	100	99	194	298

Percent distribution of children age 5–17 years old by main source of drinking water and percentage of household population using improved drinking water sources, Serbia
[1] MICS indicator WS.1 — Use of improved drinking water sources
[A] The category 'Rainwater' for 'Improved sources' is not shown because no cases were found.
[B] Unimproved sources include unprotected dug wells, unprotected springs and other. There are no cases of 'Surface water (river, dam, lake, pond, stream, canal, irrigation channel)'.
[C] Delivered and packaged water considered improved sources of drinking water based on new SDG definition.

Table A4: Use of improved and unimproved water sources

Percent distribution of children under 5 by main source of drinking water and percentage of household population using improved drinking water sources, Serbia Roma Settlements, 2019

			Main source of drinking water											Total	Percentage using improved sources of drinking water [1]	Number of children	Number of children
			Improved sources [A]									Unimproved sources [B]					
			Piped water – Into dwelling	Piped water – Into yard/plot	Piped water – Piped to neighbour	Piped water – Public tap/standpipe	Tube-well/borehole	Protected well	Protected spring	Tanker-truck	Bottled water [C]						
Degree of urbanization	DPA	Total	85	6	2	5	0	0	0	0	0	1	100	99	373	418
	IPA	Total	87	9	1	1	0	0	1	0	2	0	100	100	300	309
	TPA	Total	54	9	2	6	10	5	3	1	8	3	100	97	413	369
DPA	Region	Belgrade	76	10	3	11	0	0	0	0	0	0	100	100	146	168
		Vojvodina	84	8	5	0	0	3	0	0	0	0	100	100	49	52
		Šumadija and Western Serbia	97	3	0	0	0	0	0	0	0	0	100	100	30	24
		Southern and Eastern Serbia	93	2	1	2	0	0	0	0	0	2	100	99	147	174
Degree of urbanization	IPA	Region	Belgrade	88	12	0	0	0	0	0	0	0	0	100	100	28	43
		Vojvodina	74	0	0	5	0	0	0	0	21	0	100	100	18	19
		Šumadija and Western Serbia	100	0	0	0	0	0	0	0	0	0	100	100	3	4
		Southern and Eastern Serbia	88	9	1	0	0	0	1	0	1	0	100	100	251	243
TPA	Region	Belgrade	50	2	12	5	0	11	2	0	7	11	100	89	51	46
		Vojvodina	60	14	2	9	0	0	2	0	13	1	100	99	179	138
		Šumadija and Western Serbia	48	6	1	3	7	17	2	7	4	5	100	95	58	63
		Southern and Eastern Serbia	49	6	0	3	29	3	3	0	4	3	100	97	126	122

[1] MICS indicator WS.1 – Use of improved drinking water sources
[A] The category 'Rainwater' for 'Improved sources' is not shown because no cases were found.
[B] Unimproved sources include unprotected dug wells, unprotected springs and other. There are no cases of 'Surface water (river, dam, lake, pond, stream, canal, irrigation channel)'.
[C] Delivered and packaged water considered improved sources of drinking water based on new SDG definition.

Table A5: Use of improved and unimproved water sources

Percent distribution of children 5–17 years old by main source of drinking water and percentage of household population using improved drinking water sources, Serbia Roma Settlements, 2019

			Piped water – Into dwelling	Piped water – Into yard/plot	Piped water – Piped to neighbour	Piped water – Public tap/standpipe	Tube-well/borehole	Protected well	Protected spring	Tanker-truck	Bottled water [C]	Unimproved sources [B]	Total	Percentage using improved sources of drinking water [1]	Number of children	Number of children
Degree of urbanization	DPA	Total	87	9	1	3	0	0	0	0	0	0	100	100	736	827
	IPA	Total	90	5	1	1	0	0	1	0	2	1	100	99	582	600
	TPA	Total	56	9	2	6	9	4	3	1	8	2	100	98	804	747
DPA	Region	Belgrade	83	8	2	7	0	0	0	1	0	0	100	100	270	318
		Vojvodina	81	16	0	0	0	3	0	0	0	0	100	100	72	80
		Sumadija And Western Serbia	83	17	0	0	0	0	0	0	0	0	100	100	96	84
		Southern And Eastern Serbia	94	5	1	0	0	0	0	0	0	1	100	99	298	345
Degree of urbanization	IPA	Region	Belgrade	94	6	0	0	0	0	0	0	0	0	100	100	48	74
		Vojvodina	81	0	0	10	0	0	0	0	10	0	100	100	20	21
		Sumadija And Western Serbia	92	0	8	0	0	0	0	0	0	0	100	100	10	12
		Southern And Eastern Serbia	90	5	1	0	0	0	1	0	2	1	100	99	505	493
TPA	Region	Belgrade	68	6	7	7	0	2	0	0	5	5	100	95	97	89
		Vojvodina	60	12	3	8	1	0	3	0	12	1	100	99	348	284
		Sumadija And Western Serbia	52	9	1	4	1	16	1	9	6	2	100	98	117	133
		Southern And Eastern Serbia	48	7	0	5	29	4	3	0	3	1	100	97	242	241

[1] MICS indicator WS.1 — Use of improved drinking water sources
[A] The category 'Rainwater' for 'Improved sources' is not shown because no cases were found.
[B] Unimproved sources include unprotected dug wells, unprotected springs and other. There are no cases of 'Surface water (river, dam, lake, pond, stream, canal, irrigation channel)'.
[C] Delivered and packaged water considered improved sources of drinking water based on new SDG definition.

Table A6: Primary reliance on clean fuels and technologies for cooking, space heating and lighting

Percent distribution of household members (0–17 years old) in households

			Serbia	Serbia Roma settlements
Degree of urbanization	DPA	poorest 60%	31	26
		richest 40%	77	22
	IPA	poorest 60%	16	5
		richest 40%	78	28
	TPA	poorest 60%	16	1
		richest 40%	32	12

Table A7: Internet access at home — 2014

Percent distribution of children (age 0–17 years old) by selected housing characteristics

	Serbia			Serbia Roma settlements		
	DPA	IPA	TPA	DPA	IPA	TPA
under 5	84	80	63	54	39	20
5–17	92	88	66	44	30	13

Table A8: Mother education — 2014

Percent distribution of children (age 0–17 years old) in three areas, Serbia

	2014 Serbia	Mother's education					Total
		None	Primary	Secondary	Higher	Cannot be determined	
under 5	DPA	2	8	34	56	0	100
	IPA	1	7	59	33	0	100
	TPA	1	19	66	15	0	100
5–17	DPA	2	8	55	33	2	100
	IPA	0	11	61	23	5	100
	TPA	1	22	63	12	3	100

Table A9: Mother education — 2014

Percent distribution of children (age 0–17 years old) in three areas, Serbia Roma settlements

		None	Primary	Secondary or higher	Cannot be determined	Total
under 5	DPA	28	64	8	0	100
	IPA	19	70	11	0	100
	TPA	23	72	6	0	100
5–17	DPA	30	62	3	5	100
	IPA	23	64	9	4	100
	TPA	25	65	4	6	100

Table A10: Wealth status of children and activity status of mother

Percent distribution of children 0–17 years old, Serbia, 2019

	DPA		IPA		TPA	
	poorest 60%	richest 40%	poorest 60%	richest 40%	poorest 60%	richest 40%
Employed	54	82	65	75	57	78
Unemployed	18	9	15	7	12	4
Inactive	27	8	19	18	30	18

Table A11: Coverage of social transfers and benefits: Children in all households

Percentage of children under age 18 living in households that received social transfers or benefits in the last 3 months, by type of transfers or benefits, Serbia Roma Settlements, 2019

		Percentage of children living in households receiving specific types of support in the last 3 months:								
		Financial social assistance — FSA	Child allowance	One-off social assistance	Allowance for care and assistance of another person	Any other external assistance program	Subsidy (kindergarten), scholarship, school tuition or other school related support for any household member age 5–24 years attending primary school or higher	Any social transfers or benefits [1]	No social transfers or benefits	Number of children under age 18
	DPA	60	79	9	4	0	34	86	14	373
	IPA	49	79	2	2	1	30	84	16	300
Degree of urbanization	TPA	57	75	6	7	2	36	84	16	413
	DPA	55	63	9	6	0	36	78	22	2,782
	IPA	46	64	3	4	0	36	76	24	2,255
	TPA	48	58	5	6	1	36	76	24	3,207

Table A12: Coverage of social transfers and benefits: Children in all households

Percentage of children under age 18 living in households that received social transfers or benefits in the last 3 months, by type of transfers or benefits, Serbia, 2019

		Percentage of children living in households receiving specific types of support in the last 3 months:					Subsidy (kindergarten), scholarship, school tuition or other school related support for any household member age 5–24 years attending primary school or higher	Any social transfers or benefits [1]	No social transfers or benefits	Number of children under age 18
		Financial social assistance — FSA	Child allowance	One-off social assistance	Allowance for care and assistance of another person	Any other external assistance program				
	DPA	1	13	0	1	1	6	19	81	294
	IPA	2	14	1	2	3	4	20	80	143
Degree of urbanization	TPA	6	23	1	3	0	8	31	69	359
	DPA	2	7	2	4	1	5	16	84	6,438
	IPA	2	7	2	2	1	8	16	84	3,542
	TPA	4	12	1	5	0	10	23	77	8,125

Table A13: Infant and young child feeding (IYCF) practices

Percentage of children aged 6–23 months who received appropriate liquids and solid, semi-solid, or soft foods the minimum number of times or more during the previous day, by breastfeeding status, Serbia, 2019

| | | Currently breastfeeding | | | Currently not breastfeeding | | | All | | |
| | | Percent of children who do not received: | | | Percent of children who do not received: | | | Percent of children who do not received: | | |
		Minimum dietary diversity	Minimum meal frequency	Minimum acceptable diet	Minimum dietary diversity	Minimum meal frequency	Minimum acceptable diet	Minimum dietary diversity	Minimum meal frequency	Minimum acceptable diet
Serbia	DPA	6	7	11	16	2	31	13	3	26
	IPA	22	3	25	12	2	28	15	2	27
	TPA	12	9	14	16	3	26	15	5	23

Table A14: Infant and young child feeding (IYCF) practices

Percentage of children aged 6–23 months who received appropriate liquids and solid, semi-solid, or soft foods the minimum number of times or more during the previous day, by breastfeeding status, Serbia Roma settlements 2019

| | Currently breastfeeding | | | Currently not breastfeeding | | | All | | |
| | Percent of children who do not received: | | | Percent of children who do not received: | | | Percent of children who do not received: | | |
	Minimum dietary diversity	Minimum meal frequency	Minimum acceptable diet	Minimum dietary diversity	Minimum meal frequency	Minimum acceptable diet	Minimum dietary diversity	Minimum meal frequency	Minimum acceptable diet
DPA	32	11	37	64	7	72	49	9	55
IPA	54	15	64	63	5	68	59	9	66
TPA	38	11	41	62	4	75	51	7	59

Table A15: Support for child learning at school

Percentage of children age 6–9 years attending school and. among those. percentage of children for whom an adult member of the household received a report card for the child. and adults' awareness of school management and involvement in school activities in the last year, Serbia. 2019

| | | Percentage of children for whom an adult household member in the last year received a report card for the child | Awareness of school management | | | Involvement by adult in school activities in last year | | |
			School has a governing body open to representatives of parents (Parents' Council)	Familiar with decisions made by the Parents' Council	Parents' Council discussed key education issues/school performance reports	Attended school celebration or a sport event	Met with teachers to discuss child's progress	Attended parent teacher meeting
6–9	DPA	72	76	68	61	67	74	76
	IPA	59	62	58	52	59	62	67
	TPA	62	66	54	47	62	66	69

Table A16: Support for child learning at school

Percentage of children age 6–9 years attending school and. among those. percentage of children for whom an adult member of the household received a report card for the child. and adults' awareness of school management and involvement in school activities in the last year, Serbia Roma Settlements, 2019

| | | Percentage of children for whom an adult household member in the last year received a report card for the child | Awareness of school management | | | Involvement by adult in school activities in last year | | |
			School has a governing body open to representatives of parents (Parents' Council)	Familiar with decisions made by the Parents' Council	Parents' Council discussed key education issues/school performance reports	Attended school celebration or a sport event	Met with teachers to discuss child's progress	Attended parent teacher meeting
6–9	DPA	65	52	36	34	43	61	72
	IPA	59	65	51	44	30	61	71
	TPA	65	54	41	32	50	67	70

Table A17: Participation in school-related activities

Percentage of children age 6–9 years attending school who are participating in school-related activities paid for by the household. and the percentage who are participating in school-related activities that are free of charge, Serbia, 2019

		Percentage of children participating in school-related activities paid for by the household						Percentage of children participating in school-related activities that are free of charge					
		Private lessons for classes	Extended school stay	Sports	Foreign language lessons	Music class	Other	Extended school stay (for children in grades 1–4)	Full-day classes (for children in grades 1–4)	Remedial classes	Extra classes	School sections and clubs	Individual education plan
	DPA	3	5	44	13	2	3	11	3	8	15	20	0
6–9	IPA	2	3	30	7	3	1	5	7	15	20	13	0
	TPA	4	1	21	4	2	1	9	8	13	15	15	1

Table A18: Participation in school-related activities

Percentage of children age 6–9 years attending school who are participating in school-related activities paid for by the household. and the percentage who are participating in school-related activities that are free of charge, Serbia Roma Settlements, 2019

		Percentage of children participating in school-related activities paid for by the household						Percentage of children participating in school-related activities that are free of charge					
		Private lessons for classes	Extended school stay	Sports	Foreign language lessons	Music class	Other	Extended school stay (for children in grades 1–4)	Full-day classes (for children in grades 1–4)	Remedial classes	Extra classes	School sections and clubs	Individual education plan
	DPA	0	0	1	0	0	0	14	6	31	4	9	1
6–9	IPA	0	2	2	0	6	0	3	10	28	8	8	0
	TPA	0	0	1	0	0	0	5	15	28	7	15	0

Table A19: School-related reasons for inability to attend class

Percentage of children aged 6–9 not able to attend class due to school closure. by reason for inability, Serbia 2019

		Percentage of children who in the last year could not attend class due to school closure	Percentage of children unable to attend class in the last year due to a school-related reason:			
			Natural disasters	Man-made disasters	Teacher strike	Other
	DPA	10	99	0	1	0
6–9	IPA	12	81	0	20	0
	TPA	29	89	2	4	11

Table A20: School-related reasons for inability to attend class

Percentage of children aged 6–9 not able to attend class due to school closure. by reason for inability, Serbia Roma Settlements, 2019

		Percentage of children who in the last year could not attend class due to school closure	Percentage of children unable to attend class in the last year due to a school-related reason:			
			Natural disasters	Man-made disasters	Teacher strike	Other
	DPA	17	91	13	32	0
6–9	IPA	13	54	18	41	12
	TPA	21	80	10	27	6

Table A21: Support for child learning at school

Percentage of children aged 10–13 years attending school and. among those. percentage of children for whom an adult member of the household received a report card for the child. and adults' awareness of school management and involvement in school activities in the last year, Serbia, 2019

		Percentage of children for whom an adult household member in the last year received a report card for the child	Awareness of school management			Involvement by adult in school activities in last year		
			School has a governing body open to representatives of parents (Parents' Council)	Familiar with decisions made by the Parents' Council	Parents' Council discussed key education issues/school performance reports	Attended school celebration or a sport event	Met with teachers to discuss child's progress	Attended parent teacher meeting
10–13	DPA	100	100	90	82	89	89	100
	IPA	99	99	81	78	85	94	98
	TPA	96	98	82	77	84	95	100

Table A22: Support for child learning at school

Percentage of children aged 10–13 years attending school and. among those. percentage of children for whom an adult member of the household received a report card for the child. and adults' awareness of school management and involvement in school activities in the last year, Serbia Roma Settlements, 2019

		Percentage of children for whom an adult household member in the last year received a report card for the child	Awareness of school management			Involvement by adult in school activities in last year		
			School has a governing body open to representatives of parents (Parents' Council)	Familiar with decisions made by the Parents' Council	Parents' Council discussed key education issues/school performance reports	Attended school celebration or a sport event	Met with teachers to discuss child's progress	Attended parent teacher meeting
10–13	DPA	97	83	69	68	49	89	99
	IPA	94	80	63	58	40	93	96
	TPA	95	76	63	60	62	83	97

Table A23: Participation in school-related activities

Percentage of children aged 10–13 years attending school who are participating in school-related activities paid for by the household. and the percentage who are participating in school-related activities that are free of charge, Serbia, 2019

		Percentage of children participating in school-related activities paid for by the household								Percentage of children participating in school-related activities that are free of charge			
		Private lessons for classes	Extended school stay	Sports	Foreign language lessons	Music class	Other	Extended school stay (for children in grades 1–4)	Full-day classes (for children in grades 1–4)	Remedial classes	Extra classes	School sections and clubs	Individual education plan
10–13	DPA	23	1	61	24	4	7	1	0	19	52	56	2
	IPA	19	0	47	14	5	1	0	1	29	40	59	5
	TPA	17	0	31	18	3	4	1	1	28	31	50	2

Table A24: Participation in school-related activities

Percentage of children aged 10–13 years attending school who are participating in school-related activities paid for by the household. and the percentage who are participating in school-related activities that are free of charge, Serbia Roma Settlements, 2019

		Percentage of children participating in school-related activities paid for by the household								Percentage of children participating in school-related activities that are free of charge			
		Private lessons for classes	Extended school stay	Sports	Foreign language lessons	Music class	Other	Extended school stay (for children in grades 1–4)	Full-day classes (for children in grades 1–4)	Remedial classes	Extra classes	School sections and clubs	Individual education plan
10–13	DPA	3	0	4	0	3	0	4	5	37	8	34	1
	IPA	3	0	6	1	1	0	1	0	41	13	26	2
	TPA	0	0	9	0	1	0	0	0	38	11	23	1

Table A25: School-related reasons for inability to attend class

Percentage of children aged 10–13 not able to attend class due to school closure. by reason for inability, Serbia, 2019

		Percentage of children who in the last year could not attend class due to school closure	Percentage of children unable to attend class in the last year due to a school-related reason:			
			Natural disasters	Man-made disasters	Teacher strike	Other
10–13	DPA	30	84	0	19	0
	IPA	26	84	8	29	4
	TPA	42	90	1	8	6

Table A26: School-related reasons for inability to attend class

Percentage of children aged 7–14 not able to attend class due to school closure. by reason for inability, Serbia Roma Settlements, 2019

		Percentage of children who in the last year could not attend class due to school closure	Percentage of children unable to attend class in the last year due to a school-related reason:			
			Natural disasters	Man-made disasters	Teacher strike	Other
10–13	DPA	22	75	0	27	0
	IPA	32	94	0	6	0
	TPA	26	72	5	40	0

Table A27: Regression model — associations of socio-demographic background of children aged 10–13 years old with Only non-violent discipline — Serbia

Parameter	Estimate
(Intercept)	−0.187
Poorest 60%	0.440
DPA	−0.096
IPA (ref. TPA)	0.000
Primary or none	−0.984*
Secondary (ref. Higher)	−0.098

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$.

Table A28: Regression model — associations of socio-demographic background of children aged 10–13 years old with Only non-violent discipline — Serbia Roma Settlements

Parameter	Estimate
(Intercept)	–0.499
Poorest 60%	–0.413
DPA	–0.768*
IPA (ref. TPA)	–0.156
None	–0.017
Primary (ref. Secondary/higher)	0.480

***p < 0.001; **p < 0.01; *p < 0.05.

Table W1: Regression model — associations of socio-demographic background of women with her ideal number of children — Serbia

Parameter	Estimate
(Intercept)	2.632***
Poorest 60%	0.019
DPA	–0.265**
IPA (ref. TPA)	–0.078
Primary or none	0.117
Secondary (ref. Higher)	0.113

***p < 0.001; **p < 0.01; *p < 0.05.

Table W2: Regression model — associations of socio-demographic background of women with her ideal number of children, Serbia Roma Settlements

Parameter	Estimate
(Intercept)	2.074***
Poorest 60%	0.416**
DPA	0.732**
IPA (ref. TPA)	0.420*
None	0.814***
Primary (ref. Secondary/higher)	0.115

***p < 0.001; **p < 0.01; *p < 0.05.

Table W3: Regression model — socio-demographic background of women who attended a childbirth preparation programme, Serbia

	B	Exp(B)
(Intercept)	–1.353***	0.259
Poorest 60%	–0.657	0.519
DPA	0.75*	2.116
IPA (ref. TPA)	0.022	1.022
Primary or none	–2.759*	0.063
Secondary (ref. Higher)	–1.046*	0.351

***p < 0.001; **p < 0.01; *p < 0.05.

Chart A1. Origin and destination of the migration within country — per cent of women aged 15–49 years, Serbia

	City	Town	Rural area
Destianation	16	29	6
Destianation	4	10	9
Destianation	7	20	23
Destianation	73	42	61
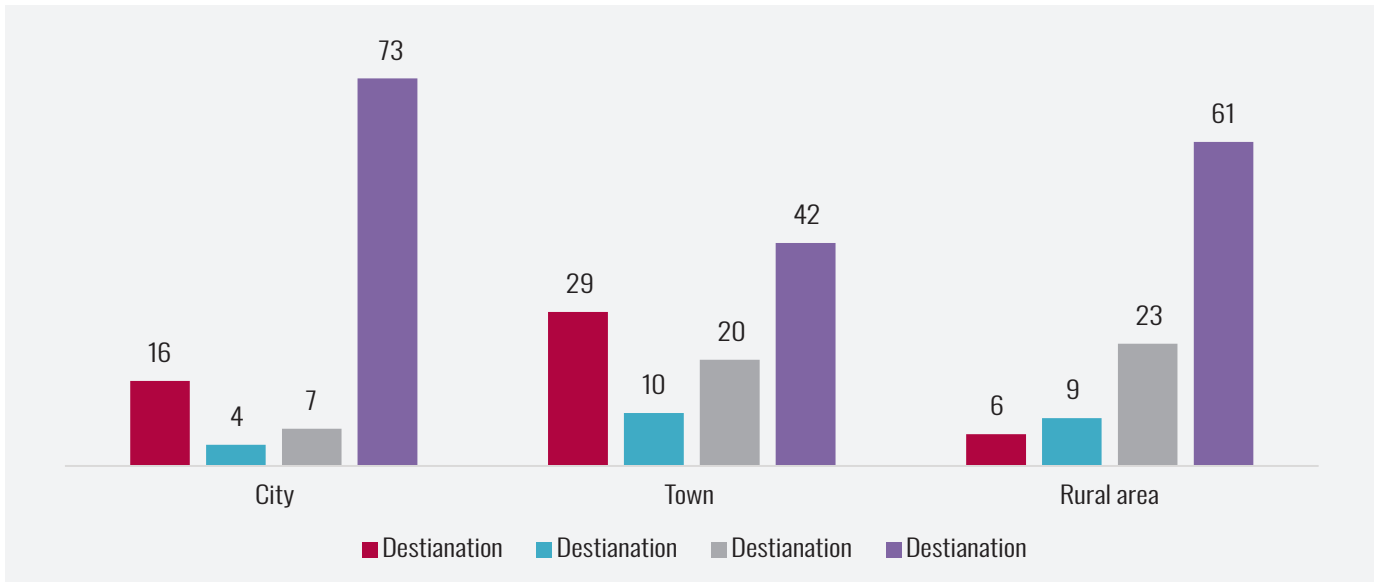
Table SE 1 Housing characteristics — percent of children 0–17 years old — Serbia.1: Sampling errors

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia, 2019

0–4 years old	MICS Indi-cator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	leaking roof	0.113	0.023	0.201	3.530	1.879	745	0.068	0.159
IPA	leaking roof	0.092	0.018	0.192	1.227	1.108	359	0.057	0.127
TPA	leaking roof	0.158	0.023	0.147	3.322	1.823	734	0.112	0.204
DPA	dampness	0.126	0.021	0.168	2.810	1.676	745	0.084	0.169
IPA	dampness	0.208	0.030	0.145	1.818	1.348	359	0.147	0.268
TPA	dampness	0.273	0.027	0.099	3.053	1.747	734	0.219	0.327
DPA	rot	0.056	0.018	0.326	4.301	2.074	745	0.019	0.092
IPA	rot	0.088	0.019	0.220	1.523	1.234	359	0.049	0.126
TPA	rot	0.180	0.025	0.141	3.567	1.889	734	0.129	0.230
DPA	laptop	0.711	0.028	0.040	2.683	1.638	745	0.654	0.768
IPA	laptop	0.523	0.041	0.078	2.181	1.477	359	0.442	0.605
TPA	laptop	0.467	0.032	0.069	3.459	1.860	734	0.402	0.531
DPA	PC	0.541	0.023	0.042	1.446	1.203	745	0.496	0.587
IPA	PC	0.507	0.030	0.060	1.212	1.101	359	0.446	0.568
TPA	PC	0.499	0.030	0.060	2.920	1.709	734	0.439	0.559
DPA	tablet	0.484	0.028	0.059	2.214	1.488	745	0.427	0.541
IPA	tablet	0.354	0.038	0.109	2.117	1.455	359	0.277	0.431
TPA	tablet	0.278	0.029	0.105	3.507	1.873	734	0.219	0.336
DPA	internet	0.983	0.006	0.006	1.263	1.124	745	0.972	0.994
IPA	internet	0.947	0.016	0.016	1.573	1.254	359	0.916	0.978
TPA	internet	0.919	0.014	0.015	2.135	1.461	734	0.891	0.947
5–17 years old									
DPA	roof	0.106	0.018	0.171	2.106	1.451	619	0.069	0.142
IPA	roof	0.110	0.021	0.190	1.655	1.287	389	0.069	0.152
TPA	roof	0.180	0.023	0.129	2.766	1.663	726	0.133	0.226
DPA	dampness	0.176	0.025	0.141	2.571	1.603	619	0.127	0.226
IPA	dampness	0.178	0.029	0.164	2.159	1.469	389	0.119	0.236
TPA	dampness	0.285	0.022	0.078	1.836	1.355	726	0.241	0.330
DPA	rot	0.068	0.013	0.188	1.556	1.247	619	0.042	0.093
IPA	rot	0.105	0.025	0.236	2.430	1.559	389	0.055	0.155
TPA	rot	0.222	0.023	0.103	2.266	1.505	726	0.176	0.267
DPA	laptop	0.620	0.032	0.051	2.584	1.608	619	0.557	0.684
IPA	laptop	0.513	0.038	0.073	2.093	1.447	389	0.438	0.588
TPA	laptop	0.463	0.030	0.065	2.778	1.667	726	0.402	0.523
DPA	PC	0.639	0.026	0.041	1.812	1.346	619	0.587	0.692
IPA	PC	0.604	0.041	0.068	2.586	1.608	389	0.523	0.686
TPA	PC	0.596	0.026	0.044	2.168	1.472	726	0.544	0.649
DPA	tablet	0.455	0.027	0.060	1.818	1.348	619	0.400	0.509
IPA	tablet	0.385	0.032	0.082	1.561	1.249	389	0.322	0.448
TPA	tablet	0.357	0.024	0.068	1.904	1.380	726	0.308	0.405
DPA	internet	0.968	0.011	0.011	2.247	1.499	619	0.947	0.990
IPA	internet	0.951	0.022	0.023	3.885	1.971	389	0.907	0.995
TPA	internet	0.914	0.016	0.018	2.534	1.592	726	0.882	0.947
0–4 years old									
DPA	Percentage using improved sanitation	0.987	0.010	0.010	5.297	2.302	802	0.968	1.000
IPA	Percentage using improved sanitation	1.000	0.000	0.000	5.281	2.298	393	1.000	1.000

TPA	Percentage using improved sanitation	0.979	0.005	0.005	1.259	1.122	772	0.969	0.990
DPA	sewage	0.918	0.019	0.020	3.400	1.844	802	0.881	0.956
IPA	sewage	0.791	0.044	0.056	4.200	2.049	393	0.702	0.880
TPA	sewage	0.237	0.028	0.119	3.890	1.972	772	0.180	0.293
poorest 60%	sewage	0.460	0.037	0.081	1.921	1.386	337	0.385	0.534
richest 40%	sewage	0.871	0.034	0.039	1.974	1.405	203	0.803	0.938
5–17 years old									
DPA	Percentage using improved sanitation	0.994	0.005	0.005	4.450	2.110	985	0.983	1.000
IPA	Percentage using improved sanitation	1.000	0.000	0.000	9.453	3.075	603	1.000	1.000
TPA	Percentage using improved sanitation	0.974	0.007	0.008	2.646	1.627	1186	0.959	0.989
DPA	sewage	0.917	0.024	0.027	7.592	2.755	985	0.868	0.966
IPA	sewage	0.800	0.040	0.049	5.773	2.403	603	0.721	0.879
TPA	sewage	0.199	0.024	0.119	4.246	2.061	1186	0.152	0.247
poorest 60%	sewage	0.479	0.041	0.086	3.211	1.792	488	0.397	0.561
richest 40%	sewage	0.846	0.037	0.044	2.483	1.576	221	0.771	0.920
0–17 years old									
Belgrade									
DPA	Percentage using improved sanitation	0.985	0.015	0.015	11.704	3.421	800	0.956	1.000
IPA	Percentage using improved sanitation	1.000	0.000	0.000	12.541	3.541	168	1.000	1.000
TPA	Percentage using improved sanitation	0.990	0.011	0.011	2.521	1.588	195	0.969	1.000
DPA	sewage	0.876	0.043	0.049	13.314	3.649	800	0.790	0.961
IPA	sewage	0.479	0.085	0.178	4.333	2.081	168	0.308	0.649
TPA	sewage	0.191	0.086	0.449	10.252	3.202	195	0.020	0.362
Vojvodina									
DPA	Percentage using improved sanitation	1.000	0.000	0.000	3.736	1.933	122	1.000	1.000
IPA	Percentage using improved sanitation	1.000	0.000	0.000	5.273	2.296	224	1.000	1.000
TPA	Percentage using improved sanitation	1.000	0.000	0.000	5.284	2.299	742	1.000	1.000
DPA	sewage	0.990	0.010	0.010	1.226	1.107	122	0.970	1.000
IPA	sewage	0.888	0.056	0.064	7.830	2.798	224	0.775	1.000
TPA	sewage	0.271	0.045	0.165	7.241	2.691	742	0.182	0.361
Sumadija and Western Serbia									
DPA	Percentage using improved sanitation	0.997	0.003	0.003	1.295	1.138	514	0.992	1.000
IPA	Percentage using improved sanitation	1.000	0.000	0.000	14.901	3.860	215	1.000	1.000
TPA	Percentage using improved sanitation	0.953	0.017	0.017	3.512	1.874	512	0.920	0.986
DPA	sewage	0.931	0.038	0.041	10.423	3.229	514	0.855	1.000

IPA	sewage	0.787	0.105	0.133	13.806	3.716	215	0.578	0.996
TPA	sewage	0.161	0.023	0.140	2.133	1.461	512	0.116	0.206
Southern and Eastern Serbia								
DPA	Percentage using improved sanitation	0.995	0.004	0.004	1.257	1.121	351	0.987	1.000
IPA	Percentage using improved sanitation	1.000	0.000	0.000	9.184	3.030	389	1.000	1.000
TPA	Percentage using improved sanitation	0.947	0.017	0.018	3.101	1.761	509	0.913	0.982
DPA	sewage	0.961	0.032	0.033	10.020	3.165	351	0.897	1.000
IPA	sewage	0.861	0.052	0.060	8.355	2.891	389	0.758	0.965
TPA	sewage	0.157	0.034	0.214	4.378	2.092	509	0.090	0.224
0–4 years old								
DPA	septic tank	0.068	0.046	0.681	4.697	2.167	160	0.000	0.160
IPA	septic tank	0.059	0.034	0.576	3.415	1.848	169	0.000	0.127
TPA	septic tank	0.673	0.054	0.081	3.166	1.779	211	0.564	0.782
poorest 60%	septic tank	0.442	0.042	0.094	2.428	1.558	337	0.358	0.525
richest 40%	septic tank	0.129	0.034	0.261	1.974	1.405	203	0.062	0.197
5–17 years old								
DPA	septic tank	0.024	0.024	0.991	5.128	2.264	191	0.000	0.071
IPA	septic tank	0.149	0.054	0.364	4.861	2.205	220	0.041	0.257
TPA	septic tank	0.666	0.045	0.068	2.625	1.620	298	0.575	0.756
poorest 60%	septic tank	0.399	0.038	0.095	2.838	1.685	488	0.323	0.474
richest 40%	septic tank	0.154	0.037	0.242	2.483	1.576	221	0.080	0.229
0–4 years old								
DPA	children population with drinking water available in sufficient quantities	0.931	0.017	0.018	3.210	1.792	802	0.897	0.965
IPA	children population with drinking water available in sufficient quantities	0.912	0.024	0.026	2.439	1.562	393	0.865	0.959
TPA	children population with drinking water available in sufficient quantities	0.871	0.020	0.023	3.253	1.804	772	0.830	0.912
5–17 years old								
DPA	children population with drinking water available in sufficient quantities	0.922	0.020	0.022	5.625	2.372	985	0.881	0.963
IPA	children population with drinking water available in sufficient quantities	0.855	0.036	0.042	6.057	2.461	603	0.784	0.926

TPA	children population with drinking water available in sufficient quantities	0.928	0.013	0.014	3.049	1.746	1186	0.903	0.954
0–4 years old									
DPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.838	0.024	0.029	3.111	1.764	802	0.790	0.887
IPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.657	0.036	0.054	1.984	1.409	393	0.586	0.729
TPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.393	0.031	0.079	3.620	1.903	772	0.331	0.456
poorest 60%	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.266	0.024	0.089	2.737	1.655	937		
richest 40%	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.930	0.010	0.010	1.429	1.196	1030	0.911	0.949
5–17 years old									
DPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.742	0.030	0.040	4.538	2.130	985	0.682	0.802
IPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.616	0.037	0.060	3.424	1.850	603	0.541	0.690
TPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.370	0.027	0.074	3.853	1.963	1186	0.316	0.424
poorest 60%	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.254	0.019	0.075	2.867	1.693	1521	0.215	0.292
richest 40%	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.901	0.013	0.015	2.510	1.584	1253	0.875	0.928

0–17 years old

Belgrade

DPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.872	0.037	0.042	9.766	3.125	800	0.798	0.946
IPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.683	0.078	0.114	4.127	2.031	168	0.527	0.838
TPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.455	0.079	0.174	5.443	2.333	195	0.297	0.613

Vojvodina

DPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.948	0.049	0.052	6.399	2.530	122	0.850	1.000
IPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.827	0.047	0.057	3.836	1.958	224	0.732	0.921
TPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.549	0.040	0.072	4.511	2.124	742	0.470	0.628

Sumadija and Western Serbia

DPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.669	0.052	0.077	5.573	2.361	514	0.565	0.772
IPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.591	0.072	0.122	4.524	2.127	215	0.448	0.735
TPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.239	0.041	0.171	5.237	2.289	512	0.157	0.321

Southern and Eastern Serbia

DPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.574	0.076	0.132	8.481	2.912	351	0.422	0.725

IPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.424	0.052	0.123	4.124	2.031	389	0.320	0.528
TPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.173	0.036	0.207	4.597	2.144	509	0.101	0.245
0–4 years old								
DPA	Poorest 60%	0.218	0.026	0.118	2.801	1.674	802	0.167	0.269
IPA	Poorest 60%	0.455	0.039	0.086	2.182	1.477	393	0.377	0.533
TPA	Poorest 60%	0.726	0.026	0.036	3.002	1.733	772	0.674	0.778
5–17 years old								
DPA	Poorest 60%	0.331	0.031	0.095	4.284	2.070	985	0.268	0.394
IPA	Poorest 60%	0.489	0.043	0.088	4.381	2.093	603	0.403	0.575
TPA	Poorest 60%	0.728	0.025	0.035	3.965	1.991	1186	0.677	0.779

Table SE.2: Sampling errors: Housing characteristics — percent of children 0–17 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

0–4 years old	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	leaking roof	0.513	0.052	0.102	3.995	1.999	399	0.408	0.618
IPA	leaking roof	0.548	0.030	0.055	1.041	1.020	290	0.488	0.608
TPA	leaking roof	0.551	0.039	0.070	2.438	1.561	360	0.473	0.628
DPA	dampness	0.670	0.035	0.053	2.052	1.433	399	0.600	0.741
IPA	dampness	0.699	0.036	0.051	1.730	1.315	290	0.628	0.771
TPA	dampness	0.792	0.027	0.034	1.785	1.336	360	0.738	0.846
DPA	rot	0.441	0.035	0.079	1.785	1.336	399	0.371	0.511
IPA	rot	0.408	0.037	0.090	1.595	1.263	290	0.334	0.481
TPA	rot	0.485	0.050	0.104	4.107	2.026	360	0.384	0.586
DPA	laptop	0.114	0.027	0.241	2.705	1.645	399	0.059	0.169
IPA	laptop	0.092	0.021	0.229	1.508	1.228	290	0.050	0.135
TPA	laptop	0.103	0.034	0.325	4.889	2.211	360	0.036	0.170
DPA	PC	0.176	0.033	0.188	2.725	1.651	399	0.110	0.242
IPA	PC	0.153	0.020	0.132	0.887	0.942	290	0.113	0.194
TPA	PC	0.108	0.026	0.243	2.857	1.690	360	0.055	0.160
DPA	tablet	0.106	0.027	0.255	2.812	1.677	399	0.052	0.161
IPA	tablet	0.130	0.019	0.148	0.930	0.964	290	0.092	0.169
TPA	tablet	0.037	0.016	0.448	3.073	1.753	360	0.004	0.069
DPA	internet	0.742	0.035	0.047	2.340	1.530	399	0.671	0.812
IPA	internet	0.751	0.032	0.043	1.565	1.251	290	0.687	0.815
TPA	internet	0.684	0.040	0.058	2.914	1.707	360	0.605	0.763
5–17 years old									
DPA	roof	0.106	0.018	0.171	2.106	1.451	619	0.069	0.142
IPA	roof	0.110	0.021	0.190	1.655	1.287	389	0.069	0.152
TPA	roof	0.180	0.023	0.129	2.766	1.663	726	0.133	0.226
DPA	dampness	0.176	0.025	0.141	2.571	1.603	619	0.127	0.226
IPA	dampness	0.178	0.029	0.164	2.159	1.469	389	0.119	0.236
TPA	dampness	0.285	0.022	0.078	1.836	1.355	726	0.241	0.330
DPA	rot	0.068	0.013	0.188	1.556	1.247	619	0.042	0.093
IPA	rot	0.105	0.025	0.236	2.430	1.559	389	0.055	0.155
TPA	rot	0.222	0.023	0.103	2.266	1.505	726	0.176	0.267

DPA	laptop	0.620	0.032	0.051	2.584	1.608	619	0.557	0.684
IPA	laptop	0.513	0.038	0.073	2.093	1.447	389	0.438	0.588
TPA	laptop	0.463	0.030	0.065	2.778	1.667	726	0.402	0.523
DPA		0.639	0.026	0.041	1.812	1.346	619	0.587	0.692
IPA	PC	0.604	0.041	0.068	2.586	1.608	389	0.523	0.686
TPA	PC	0.596	0.026	0.044	2.168	1.472	726	0.544	0.649
DPA	tablet	0.455	0.027	0.060	1.818	1.348	619	0.400	0.509
IPA	tablet	0.385	0.032	0.082	1.561	1.249	389	0.322	0.448
TPA	tablet	0.357	0.024	0.068	1.904	1.380	726	0.308	0.405
DPA	internet	0.968	0.011	0.011	2.247	1.499	619	0.947	0.990
IPA	internet	0.951	0.022	0.023	3.885	1.971	389	0.907	0.995
TPA	internet	0.914	0.016	0.018	2.534	1.592	726	0.882	0.947
0–4 years old									
DPA	Percentage using improved sanitation	0.951	0.016	0.017	2.178	1.476	418	0.918	0.984
IPA	Percentage using improved sanitation	0.925	0.024	0.025	2.422	1.556	309	0.878	0.972
TPA	Percentage using improved sanitation	0.877	0.028	0.032	3.019	1.737	369	0.821	0.933
DPA	sewage	0.650	0.060	0.092	5.916	2.432	418	0.530	0.769
IPA	sewage	0.566	0.036	0.063	1.556	1.248	309	0.495	0.637
TPA	sewage	0.139	0.035	0.250	4.216	2.053	369	0.069	0.208
poorest 60%	sewage	0.328	0.042	0.129	5.994	2.448	742	0.243	0.412
richest 40%	sewage	0.651	0.047	0.072	3.422	1.850	354	0.557	0.744
5–17 years old									
DPA	Percentage using improved sanitation	0.958	0.021	0.022	8.323	2.885	827	0.915	1.000
IPA	Percentage using improved sanitation	0.936	0.016	0.017	2.603	1.613	600	0.904	0.969
TPA	Percentage using improved sanitation	0.872	0.028	0.032	5.761	2.400	747	0.816	0.928
DPA	sewage	0.674	0.058	0.086	11.549	3.398	827	0.558	0.790
IPA	sewage	0.669	0.050	0.074	6.625	2.574	600	0.570	0.768
TPA	sewage	0.139	0.037	0.270	9.685	3.112	747	0.064	0.214
poorest 60%	sewage	0.342	0.038	0.110	9.000	3.000	1420	0.267	0.417
richest 40%	sewage	0.718	0.049	0.068	8.655	2.942	754	0.620	0.815
0–4 years old									
DPA	septic tank	0.186	0.031	0.169	2.440	1.562	418	0.123	0.249
IPA	septic tank	0.135	0.038	0.280	3.717	1.928	309	0.059	0.211
TPA	septic tank	0.327	0.056	0.172	6.030	2.456	369	0.215	0.440
poorest 60%	septic tank	0.187	0.032	0.173	5.096	2.257	742	0.122	0.252
richest 40%	septic tank	0.307	0.044	0.143	3.226	1.796	354	0.219	0.395
5–17 years old									
DPA	septic tank	0.161	0.032	0.202	5.885	2.426	827	0.096	0.226
IPA	septic tank	0.141	0.057	0.403	15.955	3.994	600	0.027	0.255
TPA	septic tank	0.326	0.051	0.155	9.578	3.095	747	0.225	0.427
poorest 60%	septic tank	0.208	0.031	0.147	8.170	2.858	1420	0.147	0.270
richest 40%	septic tank	0.237	0.043	0.183	7.714	2.777	754	0.150	0.324

0–4 years old									
DPA	Percentage of household population with drinking water available in sufficient quantities	0.707	0.051	0.072	4.666	2.160	418	0.605	0.808
IPA	Percentage of household population with drinking water available in sufficient quantities	0.712	0.050	0.070	3.659	1.913	309	0.613	0.812
TPA	Percentage of household population with drinking water available in sufficient quantities	0.552	0.061	0.110	6.196	2.489	369	0.431	0.673
5–17 years old									
DPA	Percentage of household population with drinking water available in sufficient quantities	0.725	0.049	0.067	8.895	2.982	827	0.628	0.822
IPA	Percentage of household population with drinking water available in sufficient quantities	0.715	0.037	0.052	4.079	2.020	600	0.640	0.790
TPA	Percentage of household population with drinking water available in sufficient quantities	0.647	0.041	0.063	6.070	2.464	747	0.564	0.729
0–4 years old									
DPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.261	0.078	0.298	11.750	3.428	418	0.106	0.416
IPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.096	0.019	0.193	1.202	1.096	309	0.059	0.133
TPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.044	0.013	0.308	1.802	1.342	369	0.017	0.071

5–17 years old

DPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.230	0.058	0.254	14.498	3.808	827	0.114	0.347
IPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.166	0.036	0.216	5.523	2.350	600	0.094	0.237
TPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.028	0.011	0.377	3.384	1.840	747	0.007	0.049

0–4 years old

DPA	Poorest 60%	0.568	0.047	0.082	3.344	1.829	418	0.475	0.662
IPA	Poorest 60%	0.651	0.046	0.071	2.825	1.681	309	0.558	0.743
TPA	Poorest 60%	0.793	0.037	0.047	3.504	1.872	369	0.718	0.867

5–17 years old

DPA	Poorest 60%	0.574	0.041	0.072	5.253	2.292	827	0.491	0.656
IPA	Poorest 60%	0.584	0.047	0.080	5.421	2.328	600	0.490	0.678
TPA	Poorest 60%	0.791	0.033	0.042	5.489	2.343	747	0.724	0.857

Table SE.3: Education of mother and father and activity status of mother — children 0–17 years old, in three areas

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia, 2019

0–4 years old	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	with mother with higher education	0.658	0.032	0.049	3.285	1.813	802	0.594	0.722
IPA	with mother with higher education	0.460	0.045	0.098	2.907	1.705	393	0.370	0.551
TPA	with mother with higher education	0.263	0.029	0.110	3.854	1.963	772	0.205	0.321
Belgrade	with mother with higher education	0.640	0.041	0.064	3.688	1.921	526	0.558	0.721
Vojvodina	with mother with higher education	0.414	0.047	0.114	4.806	2.192	427	0.319	0.508
Sumadija and Western Serbia	with mother with higher education	0.350	0.041	0.117	3.736	1.933	474	0.268	0.432
Southern and Eastern Serbia	with mother with higher education	0.356	0.039	0.108	2.726	1.651	540	0.279	0.434
DPA	with father with higher education	0.500	0.034	0.068	3.399	1.844	802	0.431	0.568
IPA	with father with higher education	0.353	0.040	0.114	2.518	1.587	393	0.272	0.434
TPA	with father with higher education	0.192	0.020	0.105	2.302	1.517	772	0.152	0.232

Belgrade	with father with higher education	0.494	0.040	0.080	3.222	1.795	526	0.415	0.573
Vojvodina	with father with higher education	0.322	0.047	0.147	5.395	2.323	427	0.227	0.416
Sumadija and Western Serbia	with father with higher education	0.248	0.026	0.106	1.880	1.371	474	0.196	0.301
Southern and Eastern Serbia	with father with higher education	0.259	0.027	0.104	1.565	1.251	540	0.205	0.312
5–17 years old								0.000	0.000
DPA	with mother with higher education	0.502	0.033	0.066	4.311	2.076	985	0.435	0.568
IPA	with mother with higher education	0.268	0.027	0.100	2.178	1.476	603	0.214	0.322
TPA	with mother with higher education	0.169	0.018	0.108	2.854	1.690	1186	0.132	0.205
Belgrade	with mother with higher education	0.530	0.040	0.076	3.893	1.973	637	0.449	0.611
Vojvodina	with mother with higher education	0.251	0.026	0.105	2.938	1.714	661	0.199	0.304
Sumadija and Western Serbia	with mother with higher education	0.229	0.033	0.146	4.956	2.226	767	0.162	0.296
Southern and Eastern Serbia	with mother with higher education	0.257	0.022	0.087	1.564	1.251	709	0.212	0.301
DPA	with father with higher education	0.375	0.027	0.073	3.080	1.755	985	0.320	0.429
IPA	with father with higher education	0.219	0.035	0.159	4.165	2.041	603	0.150	0.289
TPA	with father with higher education	0.119	0.014	0.121	2.385	1.544	1186	0.090	0.147
Belgrade	with father with higher education	0.379	0.034	0.089	2.877	1.696	637	0.312	0.446
Vojvodina	with father with higher education	0.223	0.029	0.131	3.943	1.986	661	0.164	0.281
Sumadija and Western Serbia	with father with higher education	0.170	0.023	0.134	2.890	1.700	767	0.125	0.216
Southern and Eastern Serbia	with father with higher education	0.166	0.023	0.136	2.204	1.484	709	0.121	0.212
0–4 years old								0.000	0.000
DPA	Mother unemployed	0.093	0.012	0.131	1.276	1.130	802	0.069	0.117
IPA	Mother unemployed	0.128	0.019	0.152	1.203	1.097	393	0.089	0.167
TPA	Mother unemployed	0.082	0.012	0.150	1.772	1.331	772	0.057	0.106
DPA	Mother employed	0.754	0.029	0.038	3.227	1.796	802	0.696	0.811

IPA	Mother employed	0.676	0.036	0.054	2.151	1.467	393	0.603	0.749
TPA	Mother employed	0.549	0.024	0.043	2.023	1.422	772	0.501	0.596
DPA	Mother inactive	0.153	0.025	0.165	3.576	1.891	802	0.103	0.204
IPA	Mother inactive	0.196	0.033	0.170	2.479	1.574	393	0.129	0.262
TPA	Mother inactive	0.370	0.023	0.063	2.064	1.437	772	0.323	0.416
5–17 years old									
DPA	Mother unemployed	0.129	0.022	0.167	4.030	2.008	985	0.086	0.172
IPA	Mother unemployed	0.105	0.022	0.212	3.114	1.765	603	0.061	0.150
TPA	Mother unemployed	0.107	0.014	0.128	2.362	1.537	1186	0.080	0.134
DPA	Mother employed	0.733	0.028	0.039	4.008	2.002	985	0.676	0.790
IPA	Mother employed	0.711	0.034	0.048	3.329	1.824	603	0.643	0.779
TPA	Mother employed	0.654	0.024	0.036	3.026	1.739	1186	0.607	0.702
DPA	Mother inactive	0.135	0.023	0.167	4.239	2.059	985	0.090	0.180
IPA	Mother inactive	0.181	0.030	0.164	3.492	1.869	603	0.122	0.240
TPA	Mother inactive	0.233	0.022	0.095	3.338	1.827	1186	0.189	0.278

Table SE.4: Education of mother and father and activity status of mother — children 0–17 years old, in three areas

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

0–4 years old	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count Lower bound r − 2se	Confidence limits	
								Upper bound r + 2se	
DPA	with mother with secondary or higher education	0.137	0.019	0.140	1.173	1.083	418	0.099	0.176
IPA	with mother with secondary or higher education	0.172	0.026	0.149	1.393	1.180	309	0.121	0.224
TPA	with mother with secondary or higher education	0.211	0.032	0.152	2.578	1.606	369	0.147	0.275
Belgrade	with mother with secondary or higher education	0.149	0.031	0.205	1.666	1.291	257	0.088	0.210
Vojvodina	with mother with secondary or higher education	0.195	0.038	0.197	2.329	1.526	209	0.118	0.272
Sumadija and Western Serbia	with mother with secondary or higher education	0.286	0.051	0.180	1.194	1.093	91	0.183	0.388
Southern and Eastern Serbia	with mother with secondary or higher education	0.158	0.021	0.133	1.744	1.321	539	0.116	0.199
DPA	with father with secondary or higher education	0.157	0.023	0.148	1.530	1.237	418	0.111	0.204

IPA	with father with secondary or higher education	0.194	0.027	0.140	1.435	1.198	309	0.140	0.249
TPA	with father with secondary or higher education	0.182	0.031	0.172	2.736	1.654	369	0.119	0.244
Belgrade	with father with secondary or higher education	0.099	0.029	0.290	2.099	1.449	257	0.042	0.156
Vojvodina	with father with secondary or higher education	0.181	0.027	0.148	1.201	1.096	209	0.127	0.235
Sumadija and Western Serbia	with father with secondary or higher education	0.234	0.070	0.299	2.514	1.586	91	0.094	0.373
Southern and Eastern Serbia	with father with secondary or higher education	0.198	0.024	0.119	1.863	1.365	539	0.151	0.246
5–17									
DPA	with mother with secondary or higher education	0.127	0.019	0.151	2.478	1.574	827	0.089	0.165
IPA	with mother with secondary or higher education	0.109	0.022	0.204	3.043	1.744	600	0.065	0.154
TPA	with mother with secondary or higher education	0.095	0.016	0.166	2.385	1.544	747	0.063	0.126
Belgrade	with mother with secondary or higher education	0.125	0.033	0.265	4.258	2.064	481	0.059	0.191
Vojvodina	with mother with secondary or higher education	0.102	0.019	0.191	1.858	1.363	385	0.063	0.141
Sumadija and Western Serbia	with mother with secondary or higher education	0.203	0.037	0.184	1.962	1.401	229	0.128	0.277
Southern and Eastern Serbia	with mother with secondary or higher education	0.087	0.013	0.151	2.321	1.524	1079	0.061	0.113
DPA	with father with secondary or higher education	0.127	0.023	0.182	3.624	1.904	827	0.081	0.174
IPA	with father with secondary or higher education	0.165	0.031	0.186	4.055	2.014	600	0.103	0.226
TPA	with father with secondary or higher education	0.125	0.023	0.184	3.960	1.990	747	0.079	0.170

		Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Unweighted count	Lower bound r − 2se	Upper bound r + 2se
Belgrade	with father with secondary or higher education	0.103	0.033	0.319	4.960	2.227	481	0.037	0.169
Vojvodina	with father with secondary or higher education	0.113	0.031	0.270	4.175	2.043	385	0.052	0.174
Sumadija and Western Serbia	with father with secondary or higher education	0.163	0.042	0.259	2.995	1.731	229	0.079	0.248
Southern and Eastern Serbia	with father with secondary or higher education	0.154	0.020	0.129	3.211	1.792	1079	0.114	0.193
0–4 years old									
DPA	Mother unemployed	0.100	0.019	0.187	1.461	1.209	418	0.062	0.137
IPA	Mother unemployed	0.104	0.018	0.173	1.044	1.022	309	0.068	0.139
TPA	Mother unemployed	0.054	0.015	0.285	1.923	1.387	369	0.023	0.084
DPA	Mother employed	0.134	0.030	0.221	2.830	1.682	418	0.075	0.193
IPA	Mother employed	0.101	0.016	0.156	0.830	0.911	309	0.069	0.132
TPA	Mother employed	0.134	0.014	0.108	0.751	0.867	369	0.105	0.163
DPA	Mother inactive	0.767	0.034	0.044	2.436	1.561	418	0.699	0.835
IPA	Mother inactive	0.796	0.026	0.032	1.223	1.106	309	0.744	0.847
TPA	Mother inactive	0.812	0.019	0.024	1.031	1.015	369	0.773	0.851
5–17 years old									
DPA	Mother unemployed	0.169	0.031	0.181	5.005	2.237	827	0.108	0.230
IPA	Mother unemployed	0.164	0.019	0.116	1.564	1.250	600	0.126	0.202
TPA	Mother unemployed	0.093	0.020	0.214	3.868	1.967	747	0.053	0.133
DPA	Mother employed	0.312	0.033	0.105	3.758	1.938	827	0.246	0.377
IPA	Mother employed	0.278	0.041	0.148	5.022	2.241	600	0.195	0.360
TPA	Mother employed	0.358	0.034	0.094	4.069	2.017	747	0.290	0.425
DPA	Mother inactive	0.504	0.035	0.069	3.657	1.912	827	0.435	0.574
IPA	Mother inactive	0.538	0.042	0.078	4.220	2.054	600	0.454	0.622
TPA	Mother inactive	0.534	0.032	0.059	3.289	1.814	747	0.471	0.597

Table SE.5: Coverage of social transfers and benefits — any social transfers or benefits

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia, 2019

0–4 years old	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Any social transfers or benefits	0.191	0.023	0.121	2.515	1.586	802	0.144	0.237
IPA	Any social transfers or benefits	0.196	0.034	0.174	2.612	1.616	393	0.128	0.265

TPA	Any social transfers or benefits	0.310	0.028	0.090	3.208	1.791	772	0.255	0.366
5–17 years old								
DPA	Any social transfers or benefits	0.158	0.012	0.076	7.994	2.827	7230	0.134	0.182
IPA	Any social transfers or benefits	0.162	0.017	0.106	8.679	2.946	4116	0.127	0.196
TPA	Any social transfers or benefits	0.228	0.013	0.058	9.178	3.030	9171	0.201	0.254

Table SE.6: Coverage of social transfers and benefits — any social transfers or benefits

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

0–4 years old	MICS Indi-cator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Any social transfers or benefits	0.861	0.031	0.036	3.070	1.752	418	0.799	0.924
IPA	Any social transfers or benefits	0.839	0.030	0.035	1.964	1.401	309	0.780	0.898
TPA	Any social transfers or benefits	0.842	0.030	0.036	2.910	1.706	369	0.782	0.903
5–17 years old									
DPA	Any social transfers or benefits	0.783	0.029	0.038	14.259	3.776	3027	0.724	0.841
IPA	Any social transfers or benefits	0.762	0.024	0.031	7.210	2.685	2368	0.714	0.810
TPA	Any social transfers or benefits	0.761	0.032	0.042	18.227	4.269	2934	0.697	0.825

Table SE.7: Sampling errors: Immunization coverage of children aged 24–35 months

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia, 2019

	MICS Indi-cator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Basic antigens	0.742	0.037	0.050	1.056	1.028	166	0.667	0.817
IPA	Basic antigens	0.877	0.023	0.026	0.351	0.592	83	0.832	0.922
TPA	Basic antigens	0.834	0.027	0.032	1.024	1.012	163	0.780	0.888
DPA	All antigens: excluding PCV	0.549	0.043	0.078	1.072	1.036	166	0.463	0.635
IPA	All antigens: excluding PCV	0.750	0.036	0.048	0.504	0.710	83	0.678	0.821
TPA	All antigens: excluding PCV	0.705	0.031	0.043	0.871	0.933	163	0.644	0.767
DPA	All antigens: excluding PCV and revaccines	0.709	0.040	0.056	1.104	1.051	166	0.629	0.788
IPA	All antigens: excluding PCV and revaccines	0.869	0.024	0.028	0.374	0.611	83	0.821	0.917
TPA	All antigens: excluding PCV and revaccines	0.831	0.027	0.033	1.006	1.003	163	0.777	0.885

Table SE.8: Sampling errors: Immunization coverage of children aged 24–35 months

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*), and confidence intervals for selected SDG and MICS indicators, Serbia, 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Basic antigens	0.531	0.051	0.096	0.816	0.903	87	0.428	0.633
IPA	Basic antigens	0.681	0.068	0.100	1.246	1.116	63	0.545	0.817
TPA	Basic antigens	0.762	0.069	0.091	2.427	1.558	79	0.623	0.901
DPA	All antigens: excluding PCV	0.405	0.051	0.126	0.839	0.916	87	0.303	0.506
IPA	All antigens: excluding PCV	0.444	0.065	0.147	1.010	1.005	63	0.313	0.574
TPA	All antigens: excluding PCV	0.497	0.043	0.087	0.688	0.829	79	0.410	0.584
DPA	All antigens: excluding PCV and revaccines	0.522	0.051	0.098	0.811	0.901	87	0.420	0.624
IPA	All antigens: excluding PCV and revaccines	0.636	0.069	0.108	1.187	1.090	63	0.499	0.773
TPA	All antigens: excluding PCV and revaccines	0.722	0.071	0.098	2.284	1.511	79	0.580	0.863

Table SE.9: Sampling errors: Infant feeding practices, in three areas — children aged 0–5 months

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*), and confidence intervals for selected SDG and MICS indicators, Serbia, 2019

0–5 months old	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Exclusive breastfeeding	(0.360)	(0.049)	(0.137)	(0.422)	(0.649)	42	(0.262)	(0.459)
IPA	Exclusive breastfeeding	(*)	(*)	(*)	(*)	(*)	14	(*)	(*)
TPA	Exclusive breastfeeding	(0.145)	(0.052)	(0.358)	(0.818)	(0.904)	38	(0.041)	(0.248)
DPA	Predominant breastfeeding	(0.624)	(0.041)	(0.066)	(0.289)	(0.538)	42	(0.542)	(0.706)
IPA	Predominant breastfeeding	(*)	(*)	(*)	(*)	(*)	14	(*)	(*)
TPA	Predominant breastfeeding	(0.392)	(0.054)	(0.138)	(0.466)	(0.683)	38	(0.283)	(0.500)

Table SE.10: Sampling errors: Infant feeding practices, in three areas — children aged 0–5 months

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deff*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

0–5 months old	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Exclusive breastfeeding	(0.027)	(0.018)	(0.665)	(0.406)	(0.637)	38	(0.000)	(0.062)
IPA	Exclusive breastfeeding	(0.125)	(0.079)	(0.633)	(1.687)	(1.299)	31	(0.000)	(0.282)
TPA	Exclusive breastfeeding	(0.097)	(0.057)	(0.586)	(1.830)	(1.353)	45	(0.000)	(0.210)
DPA	Predominant breastfeeding	(0.455)	(0.059)	(0.130)	(0.475)	(0.689)	38	(0.337)	(0.573)
IPA	Predominant breastfeeding	(0.282)	(0.068)	(0.241)	(0.673)	(0.821)	31	(0.146)	(0.418)
TPA	Predominant breastfeeding	(0.442)	(0.076)	(0.172)	(1.163)	(1.078)	45	(0.290)	(0.594)

Table SE.11: Sampling errors: Infant and young child feeding practices Percentage of children aged 6–23 months who received appropriate liquids and solid, semi-solid, or soft foods the minimum number of times or more during the previous day

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia, 2019

	MICS Indi-cator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Minimum Dietary Diversity	(0.938)	(0.016)	(0.017)	(0.210)	(0.458)	53	(0.906)	(0.970)
IPA	Minimum Dietary Diversity	(*)	(*)	(*)	(*)	(*)	25	(*)	(*)
TPA	Minimum Dietary Diversity	(0.877)	(0.037)	(0.042)	(0.799)	(0.894)	57	(0.804)	(0.951)
DPA	Minimum Meal Frequency	(0.929)	(0.010)	(0.011)	(0.071)	(0.266)	53	(0.909)	(0.948)
IPA	Minimum Meal Frequency	(*)	(*)	(*)	(*)	(*)	25	(*)	(*)
TPA	Minimum Meal Frequency	(0.913)	(0.035)	(0.038)	(0.976)	(0.988)	57	(0.843)	(0.983)
DPA	Minimum Acceptable Diet	(0.889)	(0.016)	(0.018)	(0.121)	(0.347)	53	(0.858)	(0.921)
IPA	Minimum Acceptable Diet	(*)	(*)	(*)	(*)	(*)	25	(*)	(*)
TPA	Minimum Acceptable Diet	(0.858)	(0.037)	(0.043)	(0.705)	(0.840)	57	(0.784)	(0.931)

Table SE.12: Sampling errors: Infant and young child feeding practices Percentage of children aged 6–23 months who received appropriate liquids and solid, semi-solid, or soft foods the minimum number of times or more during the previous day

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

	MICS Indi-cator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Minimum Dietary Diversity	0.513	0.059	0.115	1.384	1.176	109	0.395	0.630
IPA	Minimum Dietary Diversity	0.408	0.058	0.143	1.051	1.025	76	0.291	0.524
TPA	Minimum Dietary Diversity	0.492	0.049	0.099	1.074	1.036	103	0.395	0.590
DPA	Minimum Meal Frequency	0.912	0.023	0.025	0.639	0.800	109	0.867	0.957
IPA	Minimum Meal Frequency	0.913	0.031	0.034	0.890	0.943	76	0.852	0.975
TPA	Minimum Meal Frequency	0.930	0.023	0.025	0.902	0.950	103	0.884	0.975
DPA	Minimum Acceptable Diet	0.448	0.061	0.136	1.500	1.225	109	0.326	0.570
IPA	Minimum Acceptable Diet	0.338	0.058	0.171	1.108	1.053	76	0.223	0.453
TPA	Minimum Acceptable Diet	0.409	0.044	0.107	0.893	0.945	103	0.321	0.497

Table SE.13: Sampling errors: Nutritional status of children Percentage of children under age 5 by nutritional status according to three anthropometric indices: weight for age, height for age, and weight for height

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Underweight – 2 SD	0.004	0.003	0.701	0.706	0.840	445	0.000	0.009
IPA	Underweight – 2 SD	0.038	0.024	0.641	3.561	1.887	251	0.000	0.087
TPA	Underweight – 2 SD	0.005	0.002	0.462	0.751	0.867	572	0.000	0.010
DPA	Stunted – 2 SD	0.060	0.014	0.241	1.369	1.170	421	0.031	0.089
IPA	Stunted – 2 SD	0.065	0.029	0.441	2.669	1.634	229	0.008	0.122
TPA	Stunted – 2 SD	0.047	0.008	0.172	0.911	0.955	540	0.031	0.064
DPA	Wasted – 2 SD	0.026	0.005	0.196	0.373	0.611	419	0.016	0.036
IPA	Wasted – 2 SD	0.064	0.028	0.437	2.586	1.608	228	0.008	0.121
TPA	Wasted – 2 SD	0.014	0.007	0.515	2.322	1.524	531	0.000	0.029
DPA	Overweight + 2 SD	0.125	0.020	0.161	1.370	1.170	419	0.085	0.166
IPA	Overweight + 2 SD	0.100	0.028	0.276	1.668	1.292	228	0.045	0.155
TPA	Overweight + 2 SD	0.103	0.015	0.149	1.555	1.247	531	0.072	0.134

Table SE.14: Sampling errors: Nutritional status of children Percentage of children under age 5 by nutritional status according to three anthropometric indices: weight for age, height for age, and weight for height

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count Lower bound r − 2se	Confidence limits	
								Upper bound r + 2se	
DPA	Underweight – 2 SD	0.055	0.009	0.169	0.565	0.751	373	0.036	0.073
IPA	Underweight – 2 SD	0.094	0.019	0.203	1.155	1.075	276	0.056	0.132
TPA	Underweight – 2 SD	0.054	0.014	0.264	1.483	1.218	335	0.026	0.083
DPA	Stunted – 2 SD	0.142	0.025	0.173	1.604	1.267	355	0.093	0.191
IPA	Stunted – 2 SD	0.187	0.027	0.143	1.230	1.109	268	0.134	0.240
TPA	Stunted – 2 SD	0.180	0.034	0.191	2.686	1.639	302	0.111	0.248
DPA	Wasted – 2 SD	0.027	0.008	0.310	0.860	0.927	352	0.010	0.044
IPA	Wasted – 2 SD	0.034	0.012	0.344	1.092	1.045	266	0.011	0.058
TPA	Wasted – 2 SD	0.024	0.009	0.354	1.047	1.023	303	0.007	0.041
DPA	Overweight + 2 SD	0.065	0.016	0.240	1.300	1.140	352	0.034	0.096
IPA	Overweight + 2 SD	0.078	0.023	0.295	1.931	1.389	266	0.032	0.125
TPA	Overweight + 2 SD	0.065	0.018	0.285	1.887	1.374	303	0.028	0.102

Table SE.15: Sampling errors: Percentage of children aged 36–59 months who are developmentally on track in literacy-numeracy, physical, social-emotional, and learning domains, and the early child development index score

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Literacy–numeracy	0.395	0.031	0.079	1.140	1.068	298	0.333	0.457
IPA	Literacy–numeracy	0.403	0.046	0.115	1.324	1.151	158	0.310	0.495
TPA	Literacy–numeracy	0.289	0.028	0.098	1.279	1.131	306	0.233	0.346
DPA	Attending early childhood education and literacy-numeracy on track	0.408	0.047	0.115	1.884	1.373	227	0.314	0.501
IPA	Attending early childhood education and literacy-numeracy on track	0.438	0.048	0.109	1.070	1.034	112	0.342	0.533
TPA	Attending early childhood education and literacy-numeracy on track	0.367	0.040	0.110	1.081	1.040	140	0.286	0.447
DPA	Not attending early childhood education and literacy-numeracy on track	0.362	0.023	0.063	0.174	0.417	71	0.317	0.408
IPA	Not attending early childhood education and literacy-numeracy on track	0.294	0.033	0.113	0.183	0.428	46	0.228	0.361
TPA	Not attending early childhood education and literacy-numeracy on track	0.224	0.028	0.125	0.773	0.879	166	0.168	0.280
DPA	Physical	1.000	0.000	0.000	2.509	1.584	298	1.000	1.000
IPA	Physical	0.994	0.001	0.001	0.011	0.103	158	0.992	0.995
TPA	Physical	0.998	0.000	0.000	0.002	0.045	306	0.998	0.998
DPA	Social–emotional	0.980	0.012	0.012	1.876	1.370	298	0.957	1.000
IPA	Social–emotional	0.980	0.009	0.009	0.612	0.782	158	0.962	0.998
TPA	Social–emotional	0.955	0.011	0.012	0.988	0.994	306	0.932	0.978
DPA	Learning	1.000	0.000	0.000	2.509	1.584	298	1.000	1.000
IPA	Learning	1.000	0.000	0.000	1.695	1.302	158	1.000	1.000
TPA	Learning	1.000	0.000	0.000	1.151	1.073	306	1.000	1.000
DPA	Early child development index score	0.984	0.011	0.012	2.403	1.550	298	0.962	1.000
IPA	Early child development index score	0.973	0.009	0.009	0.486	0.697	158	0.955	0.992
TPA	Early child development index score	0.960	0.011	0.012	1.046	1.023	306	0.938	0.982

Table SE.16: Sampling errors: Percentage of children aged 36–59 months who are developmentally on track in literacy-numeracy, physical, social-emotional, and learning domains, and the early child development index score

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Literacy–numeracy	0.169	0.046	0.269	2.206	1.485	165	0.078	0.260
IPA	Literacy–numeracy	0.123	0.027	0.223	0.834	0.913	120	0.068	0.178
TPA	Literacy–numeracy	0.090	0.026	0.289	1.230	1.109	133	0.038	0.142
DPA	Physical	0.995	0.005	0.005	0.811	0.901	165	0.984	1.000
IPA	Physical	1.000	0.000	0.000	3.694	1.922	120	1.000	1.000
TPA	Physical	0.993	0.007	0.007	0.964	0.982	133	0.980	1.000
DPA	Social–emotional	0.899	0.021	0.023	0.725	0.852	165	0.857	0.941
IPA	Social–emotional	0.865	0.029	0.034	0.880	0.938	120	0.806	0.924
TPA	Social–emotional	0.886	0.027	0.031	1.105	1.051	133	0.831	0.941
DPA	Learning	0.998	0.002	0.002	0.348	0.590	165	0.993	1.000
IPA	Learning	1.000	0.000	0.000	3.694	1.922	120	1.000	1.000
TPA	Learning	0.981	0.011	0.012	1.002	1.001	133	0.958	1.000
DPA	Early child development index score	0.905	0.019	0.021	0.653	0.808	165	0.866	0.943
IPA	Early child development index score	0.887	0.027	0.031	0.897	0.947	120	0.832	0.942
TPA	Early child development index score	0.885	0.027	0.031	1.068	1.034	133	0.830	0.939

Table SE.17: Sampling errors: Percentage of children aged 36–59 months who attend early childhood education

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of children age 36–59 months attending early childhood education	0.708	0.033	0.046	1.468	1.212	298	0.642	0.773
IPA	Percentage of children age 36–59 months attending early childhood education	0.756	0.042	0.056	1.423	1.193	158	0.672	0.840
TPA	Percentage of children age 36–59 months attending early childhood education	0.450	0.038	0.084	1.906	1.380	306	0.374	0.526

Table SE.18: Sampling errors: Percentage of children aged 36–59 months who attend early childhood education

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of children age 36–59 months attending early childhood education	0.110	0.023	0.206	0.778	0.882	165	0.065	0.155
IPA	Percentage of children age 36–59 months attending early childhood education	0.037	0.017	0.454	0.956	0.978	120	0.003	0.071
TPA	Percentage of children age 36–59 months attending early childhood education	0.069	0.019	0.270	0.795	0.892	133	0.032	0.106

Table SE.19: Sampling errors: Percentage of children aged 36–59 months who attend early childhood education

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of children attending/ having attended PPP	0.920	0.029	0.031	1.017	1.008	98	0.862	0.977
IPA	Percentage of children attending/ having attended PPP	0.983	0.006	0.006	0.099	0.315	69	0.972	0.994
TPA	Percentage of children attending/ having attended PPP	0.918	0.007	0.007	0.078	0.280	114	0.904	0.931
DPA	Public facility	0.857	0.036	0.042	0.859	0.927	91	0.786	0.928
IPA	Public facility	0.960	0.020	0.021	0.590	0.768	67	0.919	1.000
TPA	Public facility	0.849	0.018	0.021	0.312	0.559	105	0.813	0.885
DPA	Private facility	0.082	0.034	0.413	1.264	1.124	91	0.014	0.150
IPA	Private facility	0.006	0.007	1.020	0.366	0.605	67	0.000	0.020
TPA	Private facility	0.000	0.000	.	.	.	105	0.000	0.000

Table SE.20: Sampling errors: Percentage of children aged 36–59 months who attend early childhood education

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of children attending/ having attended PPP	0.765	0.030	0.040	0.378	0.615	78	0.704	0.826
IPA	Percentage of children attending/ having attended PPP	0.746	0.036	0.048	0.419	0.647	62	0.675	0.818
TPA	Percentage of children attending/ having attended PPP	0.793	0.041	0.051	0.653	0.808	62	0.712	0.874
DPA	Public facility	0.960	0.027	0.028	1.044	1.022	58	0.906	1.000
IPA	Public facility	(0.894)	(0.037)	(0.042)	(0.674)	(0.821)	47	(0.820)	(0.969)
TPA	Public facility	(0.984)	(0.015)	(0.015)	(0.745)	(0.863)	47	(0.954)	(1.000)
DPA	Private facility	0.020	0.019	0.979	1.062	1.031	58	0.000	0.058
IPA	Private facility	(0.000)	(0.000)	.	.	.	47	(0.000)	(0.000)
TPA	Private facility	(0.000)	(0.000)	.	.	.	47	(0.000)	(0.000)

Table SE.21: Sampling errors: Percentage of children with whom adult household members engaged in activities that promote learning and school readiness during the last three days, and engagement in such activities

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

1–2 years	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of children with whom fathers have engaged in four or more activities	0.594	0.031	0.052	1.179	1.086	334	0.532	0.655
IPA	Percentage of children with whom fathers have engaged in four or more activities	0.487	0.052	0.106	1.357	1.165	144	0.383	0.591
TPA	Percentage of children with whom fathers have engaged in four or more activities	0.385	0.037	0.095	2.077	1.441	318	0.312	0.458
DPA	Father read books	0.620	0.031	0.050	1.206	1.098	334	0.559	0.682
IPA	Father read books	0.464	0.047	0.101	1.117	1.057	144	0.370	0.558
TPA	Father read books	0.336	0.037	0.110	2.252	1.501	318	0.262	0.410
DPA	Father told stories	0.568	0.034	0.059	1.396	1.181	334	0.501	0.636
IPA	Father told stories	0.487	0.051	0.105	1.322	1.150	144	0.384	0.589

TPA	Father told stories	0.400	0.043	0.107	2.791	1.670	318	0.315	0.485
DPA	Father sang songs	0.543	0.036	0.067	1.588	1.260	334	0.471	0.616
IPA	Father sang songs	0.425	0.059	0.138	1.771	1.331	144	0.308	0.542
TPA	Father sang songs	0.367	0.029	0.080	1.366	1.169	318	0.308	0.425
DPA	Father took outside	0.796	0.028	0.035	1.425	1.194	334	0.740	0.851
IPA	Father took outside	0.818	0.035	0.043	1.067	1.033	144	0.747	0.889
TPA	Father took outside	0.666	0.037	0.055	2.224	1.491	318	0.592	0.739
DPA	Father played with	0.794	0.026	0.033	1.256	1.121	334	0.742	0.847
IPA	Father played with	0.810	0.038	0.047	1.201	1.096	144	0.733	0.886
TPA	Father played with	0.679	0.027	0.039	1.209	1.100	318	0.626	0.733
DPA	Father named, counted, or drew things	0.491	0.034	0.070	1.425	1.194	334	0.422	0.560
IPA	Father named, counted, or drew things	0.371	0.055	0.147	1.618	1.272	144	0.261	0.480
TPA	Father named, counted, or drew things	0.250	0.033	0.133	2.178	1.476	318	0.183	0.317
DPA	Percentage of children with whom mothers have engaged in four or more activities	0.946	0.012	0.012	0.817	0.904	334	0.923	0.970
IPA	Percentage of children with whom mothers have engaged in four or more activities	0.926	0.028	0.030	1.443	1.201	144	0.870	0.982
TPA	Percentage of children with whom mothers have engaged in four or more activities	0.913	0.018	0.020	1.583	1.258	318	0.876	0.950
3–4 years									
DPA	Percentage of children with whom fathers have engaged in four or more activities	0.442	0.044	0.100	2.238	1.496	298	0.354	0.530
IPA	Percentage of children with whom fathers have engaged in four or more activities	0.398	0.044	0.112	1.219	1.104	158	0.309	0.487

TPA	Percentage of children with whom fathers have engaged in four or more activities	0.299	0.026	0.087	1.059	1.029	306	0.247	0.351
DPA	Father read books	0.447	0.046	0.103	2.423	1.557	298	0.355	0.539
IPA	Father read books	0.412	0.043	0.105	1.142	1.069	158	0.326	0.499
TPA	Father read books	0.298	0.028	0.094	1.233	1.111	306	0.242	0.353
DPA	Father told stories	0.427	0.042	0.097	2.007	1.417	298	0.344	0.510
IPA	Father told stories	0.371	0.044	0.119	1.230	1.109	158	0.283	0.459
TPA	Father told stories	0.348	0.032	0.091	1.460	1.208	306	0.285	0.412
DPA	Father sang songs	0.383	0.043	0.111	2.180	1.476	298	0.298	0.468
IPA	Father sang songs	0.326	0.038	0.116	0.960	0.980	158	0.250	0.401
TPA	Father sang songs	0.269	0.028	0.104	1.299	1.140	306	0.213	0.324
DPA	Father took outside	0.702	0.060	0.085	4.799	2.191	298	0.583	0.821
IPA	Father took outside	0.707	0.046	0.065	1.509	1.228	158	0.615	0.799
TPA	Father took outside	0.626	0.030	0.048	1.283	1.133	306	0.566	0.686
DPA	Father played with	0.677	0.054	0.079	3.749	1.936	298	0.569	0.784
IPA	Father played with	0.692	0.048	0.069	1.576	1.255	158	0.597	0.787
TPA	Father played with	0.616	0.032	0.051	1.387	1.178	306	0.553	0.679
DPA	Father named, counted, or drew things	0.362	0.039	0.108	1.860	1.364	298	0.284	0.439
IPA	Father named, counted, or drew things	0.374	0.041	0.110	1.070	1.035	158	0.292	0.457
TPA	Father named, counted, or drew things	0.268	0.022	0.083	0.833	0.913	306	0.223	0.313
DPA	Percentage of children with whom mothers have engaged in four or more activities	0.923	0.020	0.021	1.525	1.235	298	0.884	0.962
IPA	Percentage of children with whom mothers have engaged in four or more activities	0.873	0.025	0.029	0.833	0.912	158	0.823	0.923
TPA	Percentage of children with whom mothers have engaged in four or more activities	0.884	0.021	0.024	1.471	1.213	306	0.842	0.927

	1–4 years								
DPA	Father prepared food for or with the child	0.225	0.031	0.136	3.165	1.779	632	0.164	0.287
IPA	Father prepared food for or with the child	0.134	0.032	0.238	2.404	1.551	302	0.070	0.198
TPA	Father prepared food for or with the child	0.115	0.013	0.112	1.144	1.069	624	0.090	0.141
DPA	Father cleaned the room for or with the child	0.216	0.025	0.117	2.221	1.490	632	0.165	0.267
IPA	Father cleaned the room for or with the child	0.113	0.033	0.295	3.064	1.750	302	0.046	0.180
TPA	Father cleaned the room for or with the child	0.056	0.011	0.194	1.546	1.244	624	0.034	0.077
DPA	Father engaged in one or two household activities	0.298	0.030	0.102	2.588	1.609	632	0.237	0.359
IPA	Father engaged in one or two household activities	0.168	0.034	0.200	2.224	1.491	302	0.100	0.235
TPA	Father engaged in one or two household activities	0.136	0.015	0.110	1.322	1.150	624	0.107	0.166
DPA	Mother prepared food for or with the child	0.971	0.007	0.007	1.091	1.044	632	0.956	0.985
IPA	Mother prepared food for or with the child	0.962	0.012	0.012	1.067	1.033	302	0.938	0.986
TPA	Mother prepared food for or with the child	0.969	0.007	0.008	1.244	1.115	624	0.955	0.984
DPA	Mother cleaned the room for or with the child	0.960	0.010	0.010	1.384	1.176	632	0.941	0.979
IPA	Mother cleaned the room for or with the child	0.960	0.016	0.017	1.852	1.361	302	0.928	0.992
TPA	Mother cleaned the room for or with the child	0.971	0.006	0.006	0.902	0.950	624	0.959	0.983
DPA	Mother engaged in one or two household activities	0.986	0.005	0.005	0.942	0.970	632	0.976	0.995
IPA	Mother engaged in one or two household activities	0.987	0.007	0.007	0.962	0.981	302	0.974	1.000
TPA	Mother engaged in one or two household activities	0.986	0.004	0.004	0.893	0.945	624	0.978	0.995

Table SE.22: Sampling errors: Percentage of children with whom adult household members engaged in activities that promote learning and school readiness during the last three days, and engagement in such activities

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

1–2 years	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits Lower bound r − 2se	Confidence limits Upper bound r + 2se
DPA	Percentage of children with whom fathers have engaged in four or more activities	0.039	0.015	0.392	0.928	0.963	164	0.008	0.070
IPA	Percentage of children with whom fathers have engaged in four or more activities	0.122	0.034	0.277	1.154	1.074	115	0.054	0.189
TPA	Percentage of children with whom fathers have engaged in four or more activities	0.116	0.032	0.275	1.607	1.268	141	0.052	0.180
DPA	Father read books	0.036	0.015	0.414	0.961	0.980	164	0.006	0.067
IPA	Father read books	0.061	0.023	0.376	0.995	0.997	115	0.015	0.107
TPA	Father read books	0.088	0.033	0.374	2.194	1.481	141	0.022	0.155
DPA	Father told stories	0.062	0.019	0.302	0.891	0.944	164	0.024	0.099
IPA	Father told stories	0.141	0.036	0.252	1.134	1.065	115	0.070	0.213
TPA	Father told stories	0.221	0.030	0.133	0.820	0.905	141	0.162	0.280
DPA	Father sang songs	0.128	0.031	0.245	1.305	1.142	164	0.065	0.190
IPA	Father sang songs	0.143	0.045	0.312	1.761	1.327	115	0.054	0.232
TPA	Father sang songs	0.199	0.032	0.160	1.030	1.015	141	0.135	0.263
DPA	Father took outside	0.511	0.038	0.075	0.880	0.938	164	0.434	0.588
IPA	Father took outside	0.722	0.029	0.040	0.452	0.672	115	0.664	0.780
TPA	Father took outside	0.545	0.053	0.097	1.842	1.357	141	0.439	0.651
DPA	Father played with	0.581	0.049	0.085	1.471	1.213	164	0.482	0.679
IPA	Father played with	0.674	0.035	0.052	0.604	0.777	115	0.604	0.744
TPA	Father played with	0.649	0.032	0.050	0.746	0.864	141	0.584	0.713
DPA	Father named, counted, or drew things	0.019	0.010	0.539	0.847	0.920	164	0.000	0.040
IPA	Father named, counted, or drew things	0.069	0.015	0.222	0.397	0.630	115	0.038	0.099
TPA	Father named, counted, or drew things	0.135	0.029	0.212	1.131	1.064	141	0.078	0.192

DPA	Percentage of children with whom mothers have engaged in four or more activities	0.406	0.046	0.113	1.296	1.138	164	0.314	0.498
IPA	Percentage of children with whom mothers have engaged in four or more activities	0.483	0.047	0.098	0.974	0.987	115	0.389	0.578
TPA	Percentage of children with whom mothers have engaged in four or more activities	0.525	0.057	0.108	2.077	1.441	141	0.412	0.638
3–4 years									
DPA	Percentage of children with whom fathers have engaged in four or more activities	0.107	0.019	0.177	0.559	0.748	165	0.069	0.145
IPA	Percentage of children with whom fathers have engaged in four or more activities	0.100	0.018	0.177	0.416	0.645	120	0.064	0.135
TPA	Percentage of children with whom fathers have engaged in four or more activities	0.105	0.031	0.300	1.565	1.251	133	0.042	0.168
DPA	Father read books	0.068	0.013	0.194	0.410	0.641	165	0.042	0.095
IPA	Father read books	0.045	0.014	0.299	0.506	0.711	120	0.018	0.072
TPA	Father read books	0.087	0.019	0.218	0.669	0.818	133	0.049	0.125
DPA	Father told stories	0.196	0.030	0.154	0.861	0.928	165	0.136	0.256
IPA	Father told stories	0.162	0.030	0.184	0.779	0.882	120	0.102	0.221
TPA	Father told stories	0.166	0.027	0.161	0.763	0.873	133	0.112	0.219
DPA	Father sang songs	0.114	0.018	0.156	0.466	0.683	165	0.078	0.149
IPA	Father sang songs	0.066	0.011	0.161	0.218	0.467	120	0.045	0.087
TPA	Father sang songs	0.126	0.026	0.210	0.940	0.970	133	0.073	0.178
DPA	Father took outside	0.640	0.033	0.051	0.699	0.836	165	0.575	0.706
IPA	Father took outside	0.710	0.038	0.054	0.839	0.916	120	0.634	0.786
TPA	Father took outside	0.582	0.037	0.064	0.854	0.924	133	0.507	0.657
DPA	Father played with	0.471	0.052	0.110	1.626	1.275	165	0.367	0.576
IPA	Father played with	0.692	0.037	0.053	0.755	0.869	120	0.618	0.765

TPA	Father played with	0.587	0.042	0.072	1.101	1.049	133	0.503	0.672
DPA	Father named, counted, or drew things	0.093	0.019	0.203	0.629	0.793	165	0.055	0.131
IPA	Father named, counted, or drew things	0.193	0.029	0.153	0.667	0.816	120	0.134	0.252
TPA	Father named, counted, or drew things	0.108	0.028	0.263	1.233	1.110	133	0.051	0.164
DPA	Percentage of children with whom mothers have engaged in four or more activities	0.391	0.038	0.098	0.914	0.956	165	0.315	0.468
IPA	Percentage of children with whom mothers have engaged in four or more activities	0.424	0.040	0.093	0.766	0.875	120	0.345	0.503
TPA	Percentage of children with whom mothers have engaged in four or more activities	0.462	0.049	0.105	1.414	1.189	133	0.365	0.559
1–4 years								
DPA	Father prepared food for or with the child	0.007	0.004	0.572	0.652	0.807	329	0.000	0.014
IPA	Father prepared food for or with the child	0.011	0.009	0.750	1.489	1.220	235	0.000	0.029
TPA	Father prepared food for or with the child	0.026	0.013	0.516	2.183	1.477	274	0.000	0.052
DPA	Father cleaned the room for or with the child	0.002	0.002	1.020	0.716	0.846	329	0.000	0.007
IPA	Father cleaned the room for or with the child	0.007	0.005	0.659	0.710	0.843	235	0.000	0.016
TPA	Father cleaned the room for or with the child	0.006	0.005	0.808	1.152	1.073	274	0.000	0.015
DPA	Father engaged in one or two household activities	0.007	0.004	0.572	0.652	0.807	329	0.000	0.014
IPA	Father engaged in one or two household activities	0.015	0.009	0.616	1.283	1.133	235	0.000	0.033
TPA	Father engaged in one or two household activities	0.026	0.013	0.516	2.183	1.477	274	0.000	0.052
DPA	Mother prepared food for or with the child	0.981	0.009	0.009	1.186	1.089	329	0.964	0.998

		Value	SE	se/r	deff	deft	Count	Lower	Upper
IPA	Mother prepared food for or with the child	0.954	0.017	0.018	1.472	1.213	235	0.920	0.988
TPA	Mother prepared food for or with the child	0.973	0.008	0.008	0.793	0.891	274	0.956	0.989
DPA	Mother cleaned the room for or with the child	0.989	0.006	0.006	0.972	0.986	329	0.977	1.000
IPA	Mother cleaned the room for or with the child	0.964	0.013	0.014	1.145	1.070	235	0.938	0.991
TPA	Mother cleaned the room for or with the child	0.966	0.011	0.011	1.064	1.031	274	0.945	0.987
DPA	Mother engaged in one or two household activities	0.989	0.006	0.006	0.972	0.986	329	0.977	1.000
IPA	Mother engaged in one or two household activities	0.968	0.012	0.013	1.092	1.045	235	0.944	0.992
TPA	Mother engaged in one or two household activities	0.973	0.008	0.008	0.793	0.891	274	0.956	0.989

Table SE.23: Sampling errors: Percentage of children under age 5 by the number of children's books present in the household, and by the type and number of playthings that child plays with

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	3 or more children's books	0.851	0.021	0.025	2.464	1.570	745	0.808	0.893
IPA	3 or more children's books	0.821	0.032	0.039	2.274	1.508	359	0.757	0.885
TPA	3 or more children's books	0.708	0.023	0.033	2.120	1.456	734	0.662	0.754
DPA	10 or more children's books	0.669	0.024	0.036	1.770	1.330	745	0.621	0.717
IPA	10 or more children's books	0.534	0.034	0.064	1.549	1.245	359	0.466	0.603
TPA	10 or more children's books	0.451	0.022	0.049	1.629	1.276	734	0.407	0.495
DPA	Homemade toys	0.267	0.023	0.087	1.872	1.368	745	0.220	0.313
IPA	Homemade toys	0.241	0.027	0.112	1.300	1.140	359	0.187	0.295
DPA	Toys from a shop/manufactured toys	0.969	0.010	0.010	2.177	1.475	745	0.950	0.989
IPA	Toys from a shop/manufactured toys	0.972	0.015	0.015	2.554	1.598	359	0.942	1.000
TPA	Toys from a shop/manufactured toys	0.959	0.010	0.010	2.003	1.415	734	0.939	0.979
DPA	Household objects/objects found outside	0.818	0.022	0.027	2.168	1.473	745	0.775	0.862
IPA	Household objects/objects found outside	0.816	0.027	0.033	1.569	1.253	359	0.762	0.869

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Unweighted count	Lower bound r − 2se	Upper bound r + 2se
TPA	Household objects/objects found outside	0.799	0.021	0.026	2.280	1.510	734	0.757	0.841
DPA	Two or more types of playthings	0.832	0.021	0.025	2.144	1.464	745	0.791	0.874
IPA	Two or more types of playthings	0.859	0.028	0.033	2.150	1.466	359	0.802	0.915
TPA	Two or more types of playthings	0.809	0.021	0.026	2.367	1.538	734	0.767	0.851

Table SE.24: Sampling errors: Percentage of children under age 5 by the number of children's books present in the household, and by the type and number of playthings that child plays with

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Unweighted count	Lower bound r − 2se	Upper bound r + 2se
DPA	3 or more children's books	0.066	0.013	0.206	1.076	1.037	399	0.039	0.093
IPA	3 or more children's books	0.056	0.017	0.307	1.567	1.252	290	0.022	0.090
TPA	3 or more children's books	0.111	0.023	0.204	2.102	1.450	360	0.066	0.156
DPA	10 or more children's books	0.013	0.006	0.474	1.081	1.040	399	0.001	0.026
IPA	10 or more children's books	0.005	0.005	0.952	1.272	1.128	290	0.000	0.014
TPA	10 or more children's books	0.042	0.018	0.441	3.428	1.851	360	0.005	0.079
DPA	Homemade toys	0.064	0.018	0.287	2.023	1.422	399	0.027	0.100
IPA	Homemade toys	0.082	0.016	0.199	1.003	1.002	290	0.049	0.115
TPA	Homemade toys	0.122	0.020	0.160	1.433	1.197	360	0.083	0.161
DPA	Toys from a shop/manufactured toys	0.894	0.018	0.021	1.302	1.141	399	0.857	0.931
IPA	Toys from a shop/manufactured toys	0.862	0.043	0.049	4.288	2.071	290	0.776	0.947
TPA	Toys from a shop/manufactured toys	0.867	0.019	0.022	1.234	1.111	360	0.829	0.904
DPA	Household objects/objects found outside	0.673	0.023	0.034	0.847	0.920	399	0.628	0.719
IPA	Household objects/objects found outside	0.713	0.032	0.044	1.391	1.179	290	0.649	0.776
TPA	Household objects/objects found outside	0.663	0.021	0.031	0.760	0.872	360	0.622	0.704
DPA	Two or more types of playthings	0.654	0.024	0.037	0.945	0.972	399	0.605	0.702
IPA	Two or more types of playthings	0.697	0.037	0.053	1.856	1.362	290	0.622	0.771
TPA	Two or more types of playthings	0.650	0.022	0.034	0.852	0.923	360	0.606	0.694

Table SE.25: Sampling errors: Child discipline – Percentage of children by child disciplining methods experienced during the last one month

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

1–4 years	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits Lower bound r − 2se	Confidence limits Upper bound r + 2se
DPA	Psychological aggression	0.403	0.035	0.086	2.919	1.708	632	0.333	0.472
IPA	Psychological aggression	0.298	0.038	0.128	1.905	1.380	302	0.222	0.374
TPA	Psychological aggression	0.372	0.026	0.070	2.025	1.423	624	0.319	0.424
DPA	Any	0.242	0.027	0.114	2.409	1.552	632	0.187	0.297
IPA	Any	0.247	0.032	0.130	1.528	1.236	302	0.182	0.311
TPA	Any	0.232	0.019	0.082	1.424	1.193	624	0.194	0.270
DPA	Severe	0.004	0.004	0.982	2.043	1.429	632	0.000	0.011
IPA	Severe	0.000	0.000	.	.	.	302	0.000	0.000
TPA	Severe	0.001	0.001	1.006	0.787	0.887	624	0.000	0.003
DPA	Any violent discipline method	0.455	0.034	0.074	2.666	1.633	632	0.388	0.523
IPA	Any violent discipline method	0.397	0.038	0.096	1.668	1.291	302	0.321	0.473
TPA	Any violent discipline method	0.434	0.027	0.062	2.076	1.441	624	0.380	0.488
6–9 years									
DPA	Psychological aggression	0.362	0.045	0.123	1.988	1.410	235	0.273	0.452
IPA	Psychological aggression	0.486	0.045	0.093	1.080	1.039	139	0.396	0.577
TPA	Psychological aggression	0.427	0.045	0.104	2.055	1.433	243	0.338	0.516
DPA	Any	0.195	0.039	0.201	2.242	1.497	235	0.117	0.273
IPA	Any	0.205	0.054	0.264	2.368	1.539	139	0.097	0.313
TPA	Any	0.219	0.035	0.161	1.835	1.355	243	0.149	0.290
DPA	Severe	0.001	0.000	0.090	0.002	0.045	235	0.001	0.001
IPA	Severe	0.000	0.000	.	.	.	139	0.000	0.000
TPA	Severe	0.000	0.000	.	.	.	243	0.000	0.000
DPA	Any violent discipline method	0.412	0.044	0.108	1.862	1.365	235	0.323	0.500
IPA	Any violent discipline method	0.538	0.045	0.083	1.071	1.035	139	0.449	0.628
TPA	Any violent discipline method	0.490	0.044	0.089	1.924	1.387	243	0.403	0.577
10–13 years									
DPA	Psychological aggression	0.444	0.040	0.091	1.172	1.083	161	0.363	0.525
IPA	Psychological aggression	0.425	0.053	0.125	1.202	1.096	116	0.319	0.531
TPA	Psychological aggression	0.421	0.044	0.105	1.403	1.185	180	0.333	0.510
DPA	Any	0.110	0.031	0.279	1.704	1.305	161	0.049	0.172
IPA	Any	0.110	0.018	0.167	0.360	0.600	116	0.074	0.147
TPA	Any	0.121	0.026	0.211	1.071	1.035	180	0.070	0.172
DPA	Severe	0.024	0.016	0.650	1.833	1.354	161	0.000	0.055
IPA	Severe	0.000	0.000	.	.	.	116	0.000	0.000

TPA	Severe	0.024	0.017	0.710	2.203	1.484	180	0.000	0.059
DPA	Any violent discipline method	0.458	0.040	0.088	1.150	1.072	161	0.377	0.538
IPA	Any violent discipline method	0.425	0.053	0.125	1.202	1.096	116	0.319	0.531
TPA	Any violent discipline method	0.438	0.044	0.101	1.394	1.180	180	0.350	0.527
DPA	Percentage of mothers/ caretakers who believe that a child needs to be physically punished	0.086	0.014	0.159	1.954	1.398	853	0.059	0.113
IPA	Percentage of mothers/ caretakers who believe that a child needs to be physically punished	0.098	0.014	0.145	1.008	1.004	457	0.070	0.127
TPA	Percentage of mothers/ caretakers who believe that a child needs to be physically punished	0.109	0.011	0.102	1.104	1.051	820	0.087	0.131

Table SE.26: Sampling errors: Child discipline – Percentage of children by child disciplining methods experienced during the last one month

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

1–4 years	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Psychological aggression	0.607	0.038	0.062	1.776	1.333	329	0.532	0.683
IPA	Psychological aggression	0.569	0.028	0.050	0.752	0.867	235	0.512	0.626
TPA	Psychological aggression	0.520	0.034	0.065	1.433	1.197	274	0.452	0.587
DPA	Any	0.482	0.033	0.069	1.317	1.147	329	0.416	0.549
IPA	Any	0.500	0.055	0.110	2.778	1.667	235	0.389	0.610
TPA	Any	0.393	0.029	0.074	1.092	1.045	274	0.335	0.451
DPA	Severe	0.019	0.011	0.591	1.994	1.412	329	0.000	0.041
IPA	Severe	0.015	0.008	0.535	0.966	0.983	235	0.000	0.030
TPA	Severe	0.006	0.004	0.686	0.878	0.937	274	0.000	0.014
DPA	Any violent discipline method	0.688	0.035	0.051	1.697	1.303	329	0.619	0.758
IPA	Any violent discipline method	0.646	0.047	0.072	2.174	1.474	235	0.553	0.739
TPA	Any violent discipline method	0.612	0.036	0.058	1.666	1.291	274	0.541	0.683
6–9 years									
DPA	Psychological aggression	0.731	0.044	0.060	1.021	1.010	112	0.643	0.818

IPA	Psychological aggression	0.752	0.048	0.063	1.106	1.052	92	0.657	0.847
TPA	Psychological aggression	0.584	0.055	0.094	1.536	1.239	117	0.474	0.693
DPA	Any	0.484	0.063	0.131	1.675	1.294	112	0.357	0.610
IPA	Any	0.505	0.063	0.124	1.420	1.192	92	0.380	0.630
TPA	Any	0.413	0.036	0.087	0.657	0.811	117	0.342	0.485
DPA	Severe	0.030	0.011	0.368	0.435	0.660	112	0.008	0.052
IPA	Severe	0.007	0.007	1.002	0.636	0.797	92	0.000	0.021
TPA	Severe	0.025	0.013	0.506	0.807	0.898	117	0.000	0.050
DPA	Any violent discipline method	0.743	0.041	0.055	0.924	0.961	112	0.661	0.825
IPA	Any violent discipline method	0.792	0.060	0.076	1.969	1.403	92	0.672	0.911
TPA	Any violent discipline method	0.663	0.042	0.063	0.979	0.990	117	0.579	0.746
10–13 years									
DPA	Psychological aggression	0.704	0.062	0.087	1.603	1.266	93	0.581	0.827
IPA	Psychological aggression	0.596	0.063	0.105	1.109	1.053	67	0.470	0.722
TPA	Psychological aggression	0.651	0.064	0.098	1.686	1.298	90	0.523	0.779
DPA	Any	0.346	0.050	0.144	0.971	0.985	93	0.246	0.446
IPA	Any	0.250	0.048	0.193	0.841	0.917	67	0.154	0.347
TPA	Any	0.176	0.042	0.239	1.142	1.069	90	0.092	0.261
DPA	Severe	0.057	0.028	0.501	1.334	1.155	93	0.000	0.114
IPA	Severe	0.000	0.000	.	.	.	67	0.000	0.000
TPA	Severe	0.000	0.000	.	.	.	90	0.000	0.000
DPA	Any violent discipline method	0.732	0.051	0.069	1.161	1.078	93	0.630	0.834
IPA	Any violent discipline method	0.604	0.060	0.100	1.023	1.012	67	0.483	0.724
TPA	Any violent discipline method	0.657	0.065	0.099	1.758	1.326	90	0.527	0.787
DPA	Percentage of mothers/caretakers who believe that a child needs to be physically punished	0.121	0.017	0.139	0.305	0.552	126	0.088	0.155
IPA	Percentage of mothers/caretakers who believe that a child needs to be physically punished	0.080	0.038	0.473	1.735	1.317	93	0.004	0.155
TPA	Percentage of mothers/caretakers who believe that a child needs to be physically punished	0.055	0.023	0.422	1.512	1.230	131	0.009	0.102

Table SE.27: Sampling errors: Primary school age – attendance

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

6–9 years	MICS Indi-cator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Net attendance ratio (adjusted)	0.993	0.006	0.006	2.041	1.429	357	0.980	1.000
IPA	Net attendance ratio (adjusted)	0.907	0.074	0.081	12.476	3.532	197	0.760	1.000
TPA	Net attendance ratio (adjusted)	0.986	0.009	0.009	2.304	1.518	367	0.968	1.000
DPA	Out-of-school children	0.007	0.006	0.901	2.041	1.429	357	0.000	0.020
IPA	Out-of-school children	0.012	0.012	0.996	2.270	1.507	197	0.000	0.035
TPA	Out-of-school children	0.001	0.001	0.995	0.491	0.701	367	0.000	0.004
DPA	Percentage of children who in the last year could not attend class due to school closure	0.097	0.023	0.238	1.386	1.177	234	0.051	0.143
IPA	Percentage of children who in the last year could not attend class due to school closure	0.117	0.026	0.223	0.848	0.921	138	0.065	0.169
TPA	Percentage of children who in the last year could not attend class due to school closure	0.285	0.041	0.144	2.107	1.452	240	0.203	0.367

Table SE.28: Sampling errors: Primary school age – attendance

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

6–9 years	MICS Indi-cator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Net attendance ratio (adjusted)	0.922	0.017	0.018	1.029	1.015	279	0.888	0.956
IPA	Net attendance ratio (adjusted)	0.932	0.020	0.021	1.178	1.085	193	0.893	0.972
TPA	Net attendance ratio (adjusted)	0.937	0.021	0.022	1.938	1.392	241	0.896	0.979
DPA	Out-of-school children	0.071	0.017	0.236	1.107	1.052	279	0.038	0.105
IPA	Out-of-school children	0.064	0.020	0.308	1.214	1.102	193	0.024	0.103
TPA	Out-of-school children	0.055	0.018	0.322	1.606	1.267	241	0.020	0.091
DPA	Percentage of children who in the last year could not attend class due to school closure	0.173	0.026	0.151	0.430	0.656	94	0.121	0.226

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Unweighted count	Lower bound r − 2se	Upper bound r + 2se
IPA	Percentage of children who in the last year could not attend class due to school closure	0.126	0.043	0.338	1.376	1.173	84	0.041	0.212
TPA	Percentage of children who in the last year could not attend class due to school closure	0.213	0.035	0.163	0.813	0.902	110	0.144	0.282

Table SE.29: Sampling errors: Percentage of children 6–9 years old by the number of children's books present in the household, and by the type and number of playthings that child plays with

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of children with 3 or more books to read at home	0.703	0.042	0.060	1.973	1.405	235	0.619	0.788
IPA	Percentage of children with 3 or more books to read at home	0.594	0.044	0.075	1.078	1.038	139	0.506	0.683
TPA	Percentage of children with 3 or more books to read at home	0.602	0.044	0.073	2.034	1.426	243	0.514	0.690
DPA	Percentage of children who receive help with homework	0.884	0.032	0.036	1.675	1.294	160	0.821	0.948
IPA	Percentage of children who receive help with homework	0.932	0.024	0.025	0.716	0.846	93	0.885	0.979
TPA	Percentage of children who receive help with homework	0.866	0.034	0.039	1.679	1.296	169	0.798	0.933
DPA	Percentage of children who receive help with homework from mother	0.838	0.034	0.040	1.409	1.187	160	0.771	0.906
IPA	Percentage of children who receive help with homework from mother	0.896	0.033	0.037	0.970	0.985	93	0.829	0.962
TPA	Percentage of children who receive help with homework from father	0.738	0.040	0.054	1.376	1.173	169	0.659	0.817
DPA	Percentage of children who receive help with homework from mother	0.391	0.047	0.121	1.598	1.264	160	0.296	0.486

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Unweighted count	Lower bound r − 2se	Upper bound r + 2se
IPA	Percentage of children who receive help with homework from mother	0.402	0.063	0.156	1.344	1.159	93	0.277	0.528
TPA	Percentage of children who receive help with homework from mother	0.263	0.036	0.137	1.136	1.066	169	0.191	0.334

Table SE.30: Sampling errors: Percentage of children 6–9 years old by the number of children's books present in the household, and by the type and number of playthings that child plays with

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of children with 3 or more books to read at home	0.120	0.036	0.304	1.318	1.148	112	0.047	0.193
IPA	Percentage of children with 3 or more books to read at home	0.104	0.054	0.520	2.839	1.685	92	0.000	0.212
TPA	Percentage of children with 3 or more books to read at home	0.148	0.027	0.186	0.743	0.862	117	0.093	0.203
DPA	Percentage of children who receive help with homework	0.852	0.035	0.041	0.613	0.783	68	0.783	0.921
IPA	Percentage of children who receive help with homework	0.927	0.039	0.042	1.264	1.124	55	0.849	1.000
TPA	Percentage of children who receive help with homework	0.802	0.039	0.049	0.768	0.876	77	0.724	0.881
DPA	Percentage of children who receive help with homework from mother	0.550	0.041	0.074	0.429	0.655	68	0.469	0.631
IPA	Percentage of children who receive help with homework from mother	0.645	0.047	0.073	0.543	0.737	55	0.550	0.740
TPA	Percentage of children who receive help with homework from father	0.652	0.067	0.103	1.568	1.252	77	0.518	0.787
DPA	Percentage of children who receive help with homework from mother	0.388	0.050	0.129	0.679	0.824	68	0.288	0.488

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Unweighted count	Lower bound r − 2se	Upper bound r + 2se
IPA	Percentage of children who receive help with homework from mother	0.423	0.101	0.238	2.315	1.522	55	0.222	0.625
TPA	Percentage of children who receive help with homework from mother	0.290	0.068	0.235	1.770	1.330	77	0.154	0.426

Table SE.31: Sampling errors: Lower secondary school age — attendance: 10–13 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

	MICS Indi-cator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of children who in the last year could not attend class due to school closure	0.304	0.044	0.145	1.611	1.269	161	0.216	0.392
IPA	Percentage of children who in the last year could not attend class due to school closure	0.257	0.058	0.226	1.853	1.361	116	0.141	0.374
TPA	Percentage of children who in the last year could not attend class due to school closure	0.420	0.045	0.106	1.432	1.197	180	0.331	0.509

Table SE.32: Sampling errors: Lower secondary school age — attendance: 10–13 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

	MICS Indi-cator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of children who in the last year could not attend class due to school closure	0.218	0.033	0.150	0.497	0.705	83	0.153	0.284
IPA	Percentage of children who in the last year could not attend class due to school closure	0.315	0.077	0.245	1.537	1.240	57	0.161	0.469
TPA	Percentage of children who in the last year could not attend class due to school closure	0.257	0.056	0.218	1.516	1.231	88	0.145	0.369

Table SE.33: Sampling errors: Child labour: 6–9 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

All	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits Lower bound r − 2se	Confidence limits Upper bound r + 2se
DPA	Economic activities above age specific threshold	0.059	0.021	0.362	1.899	1.378	235	0.016	0.102
IPA	Economic activities above age specific threshold	0.142	0.040	0.285	1.779	1.334	139	0.061	0.223
TPA	Economic activities above age specific threshold	0.284	0.036	0.128	1.649	1.284	243	0.212	0.357
DPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	235	0.000	0.000
IPA	Exposed to dust, fumes or gas	0.001	0.000	0.114	0.002	0.048	139	0.001	0.002
TPA	Exposed to dust, fumes or gas	0.022	0.017	0.739	3.171	1.781	243	0.000	0.055
DPA	Total hazardous work	0.004	0.004	1.013	1.017	1.008	235	0.000	0.013
IPA	Total hazardous work	0.002	0.001	0.482	0.076	0.276	139	0.000	0.005
TPA	Total hazardous work	0.022	0.017	0.739	3.171	1.781	243	0.000	0.055
Male									
DPA	Economic activities above age specific threshold	0.062	0.030	0.485	1.879	1.371	119	0.002	0.123
IPA	Economic activities above age specific threshold	0.151	0.028	0.187	0.436	0.660	76	0.094	0.207
TPA	Economic activities above age specific threshold	0.319	0.038	0.120	0.902	0.950	130	0.242	0.395
DPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	119	0.000	0.000
IPA	Exposed to dust, fumes or gas	0.002	0.000	0.090	0.001	0.037	76	0.002	0.003
TPA	Exposed to dust, fumes or gas	0.004	0.004	1.012	0.612	0.782	130	0.000	0.013
DPA	Total hazardous work	0.008	0.008	1.029	1.029	1.015	119	0.000	0.025
IPA	Total hazardous work	0.005	0.002	0.471	0.071	0.267	76	0.000	0.009
TPA	Total hazardous work	0.004	0.004	1.012	0.612	0.782	130	0.000	0.013
Female									
DPA	Economic activities above age specific threshold	0.056	0.024	0.425	1.170	1.082	116	0.008	0.103
IPA	Economic activities above age specific threshold	0.132	0.053	0.403	1.530	1.237	63	0.025	0.238

TPA	Economic activities above age specific threshold	0.244	0.050	0.207	1.641	1.281	113	0.143	0.345
DPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	116	0.000	0.000
IPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	63	0.000	0.000
TPA	Exposed to dust, fumes or gas	0.044	0.035	0.814	3.595	1.896	113	0.000	0.115
DPA	Total hazardous work	0.000	0.000	.	.	.	116	0.000	0.000
IPA	Total hazardous work	0.000	0.000	.	.	.	63	0.000	0.000
TPA	Total hazardous work	0.044	0.035	0.814	3.595	1.896	113	0.000	0.115

Table SE.34: Sampling errors: Child labour: 6–9 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

All	MICS Indi-cator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Economic activities above age specific threshold	0.089	0.033	0.373	1.425	1.194	112	0.023	0.155
IPA	Economic activities above age specific threshold	0.014	0.014	0.996	1.309	1.144	92	0.000	0.043
TPA	Economic activities above age specific threshold	0.087	0.039	0.454	2.442	1.563	117	0.008	0.166
DPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	112	0.000	0.000
IPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	92	0.000	0.000
TPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	117	0.000	0.000
DPA	Total hazardous work	0.014	0.013	0.960	1.362	1.167	112	0.000	0.041
IPA	Total hazardous work	0.000	0.000	.	.	.	92	0.000	0.000
TPA	Total hazardous work	0.000	0.000	.	.	.	117	0.000	0.000
Male									
DPA	Economic activities above age specific threshold	0.129	0.060	0.463	1.817	1.348	61	0.010	0.248
IPA	Economic activities above age specific threshold	0.024	0.022	0.946	1.181	1.087	54	0.000	0.068
TPA	Economic activities above age specific threshold	(0.123)	(0.043)	(0.353)	(0.899)	(0.948)	49	(0.036)	(0.210)
DPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	61	0.000	0.000

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Unweighted count	Lower bound r − 2se	Upper bound r + 2se
IPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	54	0.000	0.000
TPA	Exposed to dust, fumes or gas	(0.000)	(0.000)	.	.	.	49	(0.000)	(0.000)
DPA	Total hazardous work	0.025	0.024	0.956	1.351	1.163	61	0.000	0.073
IPA	Total hazardous work	0.000	0.000	.	.	.	54	0.000	0.000
TPA	Total hazardous work	(0.000)	(0.000)	.	.	.	49	(0.000)	(0.000)
Female									
DPA	Economic activities above age specific threshold	0.040	0.004	0.106	0.022	0.148	51	0.031	0.048
IPA	Economic activities above age specific threshold	(0.000)	(0.000)	.	.	.	38	(0.000)	(0.000)
TPA	Economic activities above age specific threshold	0.061	0.030	0.493	1.152	1.073	68	0.001	0.121
DPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	51	0.000	0.000
IPA	Exposed to dust, fumes or gas	(0.000)	(0.000)	.	.	.	38	(0.000)	(0.000)
TPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	68	0.000	0.000
DPA	Total hazardous work	0.000	0.000	.	.	.	51	0.000	0.000
IPA	Total hazardous work	(0.000)	(0.000)	.	.	.	38	(0.000)	(0.000)
TPA	Total hazardous work	0.000	0.000	.	.	.	68	0.000	0.000

Table SE.35: Sampling errors: Child labour: 10–13 years old

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

All	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Economic activities above age specific threshold	0.070	0.025	0.350	1.635	1.279	161	0.021	0.119
IPA	Economic activities above age specific threshold	0.058	0.025	0.421	1.150	1.072	116	0.009	0.108
TPA	Economic activities above age specific threshold	0.172	0.028	0.163	0.963	0.981	180	0.116	0.228
DPA	Exposed to dust, fumes or gas	0.008	0.008	1.004	1.464	1.210	161	0.000	0.025
IPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	116	0.000	0.000
TPA	Exposed to dust, fumes or gas	0.029	0.012	0.415	0.901	0.949	180	0.005	0.053
DPA	Total hazardous work	0.010	0.008	0.861	1.277	1.130	161	0.000	0.026

IPA	Total hazardous work	0.000	0.000	.	.	.	116	0.000	0.000
TPA	Total hazardous work	0.030	0.012	0.404	0.874	0.935	180	0.006	0.054
Male									
DPA	Economic activities above age specific threshold	0.100	0.036	0.362	1.365	1.168	91	0.028	0.172
IPA	Economic activities above age specific threshold	0.067	0.039	0.584	1.373	1.172	58	0.000	0.146
TPA	Economic activities above age specific threshold	0.266	0.046	0.171	0.946	0.973	91	0.175	0.358
DPA	Exposed to dust, fumes or gas	0.015	0.015	1.000	1.407	1.186	91	0.000	0.044
IPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	58	0.000	0.000
TPA	Exposed to dust, fumes or gas	0.041	0.022	0.545	1.121	1.059	91	0.000	0.085
DPA	Total hazardous work	0.018	0.015	0.855	1.225	1.107	91	0.000	0.047
IPA	Total hazardous work	0.000	0.000	.	.	.	58	0.000	0.000
TPA	Total hazardous work	0.042	0.022	0.527	1.085	1.042	91		
Female									
DPA	Economic activities above age specific threshold	0.034	0.028	0.827	1.945	1.395	70	0.000	0.089
IPA	Economic activities above age specific threshold	0.047	0.005	0.115	0.032	0.178	58	0.037	0.058
TPA	Economic activities above age specific threshold	0.066	0.012	0.180	0.197	0.444	89	0.042	0.090
DPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	70	0.000	0.000
IPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	58	0.000	0.000
TPA	Exposed to dust, fumes or gas	0.016	0.001	0.090	0.011	0.106	89	0.013	0.019
DPA	Total hazardous work	0.000	0.000	.	.	.	70	0.000	0.000
IPA	Total hazardous work	0.000	0.000	.	.	.	58	0.000	0.000
TPA	Total hazardous work	0.016	0.001	0.090	0.011	0.106	89	0.013	0.019

Table SE.36: Sampling errors: Child labour: 10–13 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

All	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Economic activities above age specific threshold	0.024	0.018	0.760	1.245	1.116	93	0.000	0.060
IPA	Economic activities above age specific threshold	0.003	0.003	1.026	0.197	0.444	67	0.000	0.008
TPA	Economic activities above age specific threshold	0.062	0.026	0.421	1.083	1.041	90	0.010	0.113
DPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	93	0.000	0.000
IPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	67	0.000	0.000
TPA	Exposed to dust, fumes or gas	0.026	0.020	0.748	1.403	1.184	90	0.000	0.065
DPA	Total hazardous work	0.002	0.002	0.989	0.153	0.391	93	0.000	0.005
IPA	Total hazardous work	0.000	0.000	.	.	.	67	0.000	0.000
TPA	Total hazardous work	0.033	0.021	0.660	1.369	1.170	90	0.000	0.076
Male									
DPA	Economic activities above age specific threshold	(0.046)	(0.037)	(0.790)	(1.366)	(1.169)	46	(0.000)	(0.119)
IPA	Economic activities above age specific threshold	(0.006)	(0.006)	(1.049)	(0.205)	(0.453)	38	(0.000)	(0.018)
TPA	Economic activities above age specific threshold	0.097	0.024	0.252	0.399	0.632	53	0.048	0.145
DPA	Exposed to dust, fumes or gas	(0.000)	(0.000)	.	.	.	46	(0.000)	(0.000)
IPA	Exposed to dust, fumes or gas	(0.000)	(0.000)	.	.	.	38	(0.000)	(0.000)
TPA	Exposed to dust, fumes or gas	0.041	0.021	0.507	0.649	0.806	53	0.000	0.083
DPA	Total hazardous work	(0.003)	(0.003)	(0.974)	(0.147)	(0.384)	46	(0.000)	(0.010)
IPA	Total hazardous work	(0.000)	(0.000)	.	.	.	38	(0.000)	(0.000)
TPA	Total hazardous work	0.041	0.021	0.507	0.649	0.806	53	0.000	0.083
Female									
DPA	Economic activities above age specific threshold	(0.000)	(0.000)	.	.	.	47	(0.000)	(0.000)
IPA	Economic activities above age specific threshold	(0.000)	(0.000)	.	.	.	29	(0.000)	(0.000)

TPA	Economic activities above age specific threshold	(0.000)	(0.000)	.	.	.	37	(0.000)	(0.000)
DPA	Exposed to dust, fumes or gas	(0.000)	(0.000)	.	.	.	47	(0.000)	(0.000)
IPA	Exposed to dust, fumes or gas	(0.000)	(0.000)	.	.	.	29	(0.000)	(0.000)
TPA	Exposed to dust, fumes or gas	(0.000)	(0.000)	.	.	.	37	(0.000)	(0.000)
DPA	Total hazardous work	(0.000)	(0.000)	.	.	.	47	(0.000)	(0.000)
IPA	Total hazardous work	(0.000)	(0.000)	.	.	.	29	(0.000)	(0.000)
TPA	Total hazardous work	(0.018)	(0.019)	(1.097)	(0.737)	(0.859)	37	(0.000)	(0.057)

Table SE.37: Sampling errors: Lower secondary school age — attendance: 10–13 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

All	MICS Indi-cator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Out-of-school children	0.001	0.001	0.986	0.375	0.612	270		
IPA	Out-of-school children	0.004	0.004	0.982	0.781	0.884	183	0.000	0.013
TPA	Out-of-school children	0.001	0.001	0.996	0.335	0.579	350	0.000	0.003
Male									
DPA	Out-of-school children	0.000	0.000	.	.	.	152	0.000	0.000
IPA	Out-of-school children	0.000	0.000	.	.	.	87	0.000	0.000
TPA	Out-of-school children	0.000	0.000	.	.	.	186	0.000	0.000
Female									
DPA	Out-of-school children	0.003	0.003	0.988	0.402	0.634	118	0.000	0.010
IPA	Out-of-school children	0.009	0.009	0.983	0.837	0.915	96	0.000	0.026
TPA	Out-of-school children	0.002	0.000	0.054	0.001	0.032	164	0.002	0.002

Table SE.38: Sampling errors: Lower secondary school age — attendance: 10–13 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

All	MICS Indi-cator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Out-of-school children	0.101	0.027	0.269	1.708	1.307	236	0.046	0.155
IPA	Out-of-school children	0.137	0.037	0.269	1.900	1.379	166	0.063	0.210
TPA	Out-of-school children	0.037	0.017	0.469	2.120	1.456	227	0.002	0.072
Male									
DPA	Out-of-school children	0.109	0.038	0.347	1.453	1.205	114	0.033	0.184
IPA	Out-of-school children	0.103	0.027	0.265	0.638	0.799	80	0.049	0.158
TPA	Out-of-school children	0.035	0.021	0.599	1.663	1.290	112	0.000	0.077

Female									
DPA	Out-of-school children	0.093	0.026	0.283	0.926	0.962	122	0.040	0.146
IPA	Out-of-school children	0.167	0.050	0.298	1.552	1.246	86	0.067	0.267
TPA	Out-of-school children	0.039	0.018	0.472	1.109	1.053	115	0.002	0.076

Table SE.39: Sampling errors: Percentage of children who receive help with homework: 10–13 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

All	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of children with 3 or more books to read at home	0.924	0.023	0.025	1.311	1.145	161	0.878	0.970
IPA	Percentage of children with 3 or more books to read at home	0.843	0.041	0.049	1.333	1.155	116	0.761	0.925
TPA	Percentage of children with 3 or more books to read at home	0.800	0.036	0.045	1.430	1.196	180	0.727	0.872
DPA	Percentage of children who receive help with homework	0.622	0.033	0.052	0.794	0.891	160	0.557	0.687
IPA	Percentage of children who receive help with homework	0.569	0.053	0.093	1.176	1.084	115	0.462	0.675
TPA	Percentage of children who receive help with homework	0.552	0.042	0.076	1.261	1.123	180	0.467	0.636
DPA	Percentage of children who receive help with homework from mother	0.551	0.036	0.064	0.900	0.949	160	0.480	0.622
IPA	Percentage of children who receive help with homework from mother	0.501	0.052	0.103	1.098	1.048	115	0.397	0.604
TPA	Percentage of children who receive help with homework from mother	0.432	0.041	0.096	1.226	1.107	180	0.349	0.515
DPA	Percentage of children who receive help with homework from father	0.220	0.022	0.099	0.486	0.697	160	0.177	0.264
IPA	Percentage of children who receive help with homework from father	0.184	0.030	0.163	0.611	0.781	115	0.124	0.244
TPA	Percentage of children who receive help with homework from father	0.181	0.023	0.128	0.635	0.797	180	0.135	0.228

Table SE.40: Sampling errors: Percentage of children who receive help with homework: 10–13 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

All	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of children with 3 or more books to read at home	0.156	0.047	0.300	1.459	1.208	93	0.062	0.249
IPA	Percentage of children with 3 or more books to read at home	0.082	0.046	0.555	1.861	1.364	67	0.000	0.174
TPA	Percentage of children with 3 or more books to read at home	0.121	0.038	0.313	1.264	1.124	90	0.045	0.197
DPA	Percentage of children who receive help with homework	0.580	0.063	0.109	1.274	1.129	82	0.454	0.706
IPA	Percentage of children who receive help with homework	0.499	0.088	0.176	1.703	1.305	56	0.323	0.675
TPA	Percentage of children who receive help with homework	0.426	0.076	0.179	2.195	1.481	88	0.273	0.579
DPA	Percentage of children who receive help with homework from mother	0.331	0.050	0.152	0.894	0.945	82	0.230	0.432
IPA	Percentage of children who receive help with homework from mother	0.367	0.078	0.213	1.454	1.206	56	0.210	0.524
TPA	Percentage of children who receive help with homework from mother	0.273	0.049	0.181	1.127	1.062	88	0.174	0.372
DPA	Percentage of children who receive help with homework from father	0.185	0.050	0.270	1.286	1.134	82	0.085	0.284
IPA	Percentage of children who receive help with homework from father	0.286	0.076	0.265	1.546	1.243	56	0.135	0.437
TPA	Percentage of children who receive help with homework from father	0.155	0.034	0.218	0.802	0.896	88	0.088	0.223

Table SE.41: Sampling errors: Upper secondary school age — attendance: 14–18 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

All	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Out-of-school children	0.008	0.000	0.062	0.006	0.079	202	0.007	0.009
IPA	Out-of-school children	0.025	0.009	0.372	0.411	0.641	114	0.006	0.043
TPA	Out-of-school children	0.063	0.017	0.269	1.507	1.228	318	0.029	0.097
Male									
DPA	Out-of-school children	0.015	0.001	0.068	0.007	0.086	106	0.013	0.017
IPA	Out-of-school children	0.027	0.015	0.531	0.563	0.750	70	0.000	0.057
TPA	Out-of-school children	0.055	0.018	0.330	0.983	0.992	158	0.019	0.091
Female									
DPA	Out-of-school children	0.000	0.000	.	.	.	96	0.000	0.000
IPA	Out-of-school children	(0.020)	(0.002)	(0.080)	(0.006)	(0.078)	44	(0.017)	(0.024)
TPA	Out-of-school children	0.072	0.024	0.327	1.283	1.132	160	0.025	0.120

Table SE.42: Sampling errors: Upper secondary school age – attendance: 14–18 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

All	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Out-of-school children	0.530	0.051	0.097	1.992	1.411	210	0.427	0.633
IPA	Out-of-school children	0.648	0.050	0.077	1.782	1.335	164	0.548	0.748
TPA	Out-of-school children	0.549	0.047	0.086	2.071	1.439	205	0.455	0.644
Male									
DPA	Out-of-school children	0.540	0.066	0.122	1.660	1.288	108	0.408	0.672
IPA	Out-of-school children	0.577	0.085	0.147	2.424	1.557	85	0.407	0.747
TPA	Out-of-school children	0.500	0.069	0.139	2.283	1.511	103	0.361	0.639
Female									
DPA	Out-of-school children	0.519	0.050	0.097	0.937	0.968	102	0.418	0.620
IPA	Out-of-school children	0.721	0.047	0.066	0.887	0.942	79	0.627	0.816
TPA	Out-of-school children	0.602	0.059	0.097	1.585	1.259	102	0.485	0.719

Table SE.43: Sampling errors: Percentage of children aged 14–17 years by involvement in economic activities or household chores during the last week and percentage engaged in child labour during the previous week

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

All	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits Lower bound r − 2se	Confidence limits Upper bound r + 2se
DPA	Economic activities above age specific threshold	0.000	0.000	.	.	.	127	0.000	0.000
IPA	Economic activities above age specific threshold	0.022	0.021	0.967	1.743	1.320	80	0.000	0.064
TPA	Economic activities above age specific threshold	0.018	0.009	0.520	1.095	1.046	220	0.000	0.037
DPA	Exposed to dust, fumes or gas	0.004	0.004	1.000	0.539	0.734	127	0.000	0.013
IPA	Exposed to dust, fumes or gas	0.033	0.021	0.640	1.150	1.072	80	0.000	0.075
TPA	Exposed to dust, fumes or gas	0.048	0.014	0.292	0.938	0.968	220	0.020	0.076
DPA	Total hazardous work	0.011	0.004	0.413	0.226	0.476	127	0.002	0.019
IPA	Total hazardous work	0.071	0.021	0.301	0.579	0.761	80	0.028	0.114
TPA	Total hazardous work	0.073	0.017	0.233	0.929	0.964	220	0.039	0.107
Male									
DPA	Economic activities above age specific threshold	0.000	0.000	.	.	.	66	0.000	0.000
IPA	Economic activities above age specific threshold	0.000	0.000	.	.	.	46	0.000	0.000
TPA	Economic activities above age specific threshold	0.024	0.009	0.363	0.362	0.602	112	0.007	0.041
DPA	Exposed to dust, fumes or gas	0.008	0.008	0.995	0.519	0.721	66	0.000	0.024
IPA	Exposed to dust, fumes or gas	(0.019)	(0.002)	(0.101)	(0.009)	(0.095)	46	(0.015)	(0.023)
TPA	Exposed to dust, fumes or gas	0.069	0.016	0.238	0.471	0.686	112	0.036	0.101
DPA	Total hazardous work	0.019	0.008	0.406	0.214	0.463	66	0.004	0.035
IPA	Total hazardous work	(0.088)	(0.016)	(0.176)	(0.134)	(0.366)	46	(0.057)	(0.119)
TPA	Total hazardous work	0.109	0.024	0.219	0.661	0.813	112	0.061	0.157
Female									
DPA	Economic activities above age specific threshold	0.000	0.000	.	.	.	61	0.000	0.000
IPA	Economic activities above age specific threshold	(0.050)	(0.047)	(0.946)	(1.770)	(1.331)	34	(0.000)	(0.144)

	MICS Indicator	Value	SE	CV	deff	deft	Count	Lower	Upper
TPA	Economic activities above age specific threshold	0.012	0.001	0.048	0.003	0.054	108	0.011	0.013
DPA	Exposed to dust, fumes or gas	0.000	0.000	.	.	.	61	0.000	0.000
IPA	Exposed to dust, fumes or gas	(0.050)	(0.047)	(0.946)	(1.770)	(1.331)	34	(0.000)	(0.144)
TPA	Exposed to dust, fumes or gas	0.024	0.001	0.048	0.006	0.078	108	0.022	0.027
DPA	Total hazardous work	0.000	0.000	.	.	.	61	0.000	0.000
IPA	Total hazardous work	(0.050)	(0.047)	(0.946)	(1.770)	(1.331)	34	(0.000)	(0.144)
TPA	Total hazardous work	0.032	0.007	0.235	0.191	0.437	108	0.017	0.047

Table SE.44: Sampling errors: Percentage of children aged 14–17 years by involvement in economic activities or household chores during the last week and percentage engaged in child labour during the previous week

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

All	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Economic activities above age specific threshold	0.034	0.015	0.453	0.761	0.873	106	0.003	0.065
IPA	Economic activities above age specific threshold	0.031	0.025	0.797	1.574	1.255	81	0.000	0.081
TPA	Economic activities above age specific threshold	0.063	0.045	0.713	4.081	2.020	115	0.000	0.153
DPA	Exposed to dust, fumes or gas	0.073	0.027	0.372	1.144	1.070	106	0.019	0.128
IPA	Exposed to dust, fumes or gas	0.063	0.036	0.574	1.690	1.300	81	0.000	0.135
TPA	Exposed to dust, fumes or gas	0.119	0.054	0.455	3.333	1.826	115	0.011	0.227
DPA	Total hazardous work	0.115	0.036	0.313	1.343	1.159	106	0.043	0.188
IPA	Total hazardous work	0.126	0.050	0.396	1.740	1.319	81	0.026	0.227
TPA	Total hazardous work	0.195	0.093	0.476	6.536	2.557	115	0.010	0.380
Male									
DPA	Economic activities above age specific threshold	0.042	0.017	0.407	0.402	0.634	55	0.008	0.077
IPA	Economic activities above age specific threshold	(0.013)	(0.013)	(1.004)	(0.456)	(0.675)	43	(0.000)	(0.038)
TPA	Economic activities above age specific threshold	0.110	0.074	0.673	3.720	1.929	60	0.000	0.257
DPA	Exposed to dust, fumes or gas	0.094	0.028	0.294	0.492	0.702	55	0.039	0.149

IPA	Exposed to dust, fumes or gas	(0.079)	(0.056)	(0.709)	(1.518)	(1.232)	43	(0.000)	(0.191)
TPA	Exposed to dust, fumes or gas	0.168	0.073	0.433	2.520	1.587	60	0.022	0.313
DPA	Total hazardous work	0.172	0.048	0.278	0.880	0.938	55	0.076	0.267
IPA	Total hazardous work	(0.214)	(0.091)	(0.426)	(1.737)	(1.318)	43	(0.032)	(0.396)
TPA	Total hazardous work	0.277	0.136	0.492	6.164	2.483	60	0.005	0.549
Female									
DPA	Economic activities above age specific threshold	0.024	0.005	0.191	0.045	0.212	51	0.015	0.034
IPA	Economic activities above age specific threshold	(0.048)	(0.048)	(1.000)	(2.091)	(1.446)	38	(0.000)	(0.144)
TPA	Economic activities above age specific threshold	0.000	0.000	.	.	.	55	0.000	0.000
DPA	Exposed to dust, fumes or gas	0.049	0.024	0.492	0.615	0.784	51	0.001	0.097
IPA	Exposed to dust, fumes or gas	(0.048)	(0.048)	(1.000)	(2.091)	(1.446)	38	(0.000)	(0.144)
TPA	Exposed to dust, fumes or gas	0.053	0.027	0.506	0.743	0.862	55	0.000	0.106
DPA	Total hazardous work	0.049	0.024	0.492	0.615	0.784	51	0.001	0.097
IPA	Total hazardous work	(0.048)	(0.048)	(1.000)	(2.091)	(1.446)	38	(0.000)	(0.144)
TPA	Total hazardous work	0.084	0.037	0.440	0.923	0.961	55	0.010	0.158

Table SE 45: Sampling errors: Housing characteristics — percent of women 15–49 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

15–49	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	leaking roof	0.089	0.013	0.143	2.783	1.668	1399	0.063	0.114
IPA	leaking roof	0.107	0.019	0.179	3.080	1.755	780	0.069	0.146
TPA	leaking roof	0.143	0.012	0.085	1.862	1.365	1561	0.119	0.167
DPA	dampness	0.136	0.016	0.115	2.897	1.702	1399	0.104	0.167
IPA	dampness	0.166	0.020	0.119	2.267	1.506	780	0.126	0.205
TPA	dampness	0.252	0.016	0.065	2.201	1.484	1561	0.219	0.285
DPA	rot	0.058	0.010	0.181	2.791	1.671	1399	0.037	0.079
IPA	rot	0.092	0.018	0.191	2.959	1.720	780	0.057	0.127
TPA	rot	0.169	0.015	0.087	2.384	1.544	1561	0.140	0.199
DPA	laptop	0.706	0.023	0.032	3.481	1.866	1399	0.661	0.752
IPA	laptop	0.549	0.029	0.052	2.681	1.637	780	0.491	0.606
TPA	laptop	0.509	0.020	0.040	2.545	1.595	1561	0.469	0.550
DPA	PC	0.576	0.019	0.033	2.061	1.436	1399	0.538	0.615
IPA	PC	0.585	0.026	0.045	2.250	1.500	780	0.533	0.637
TPA	PC	0.610	0.021	0.035	2.934	1.713	1561	0.567	0.652
DPA	tablet	0.389	0.018	0.047	1.984	1.409	1399	0.352	0.426
IPA	tablet	0.319	0.022	0.068	1.741	1.319	780	0.276	0.363
TPA	tablet	0.299	0.016	0.052	1.791	1.338	1561	0.268	0.331
DPA	internet	0.976	0.006	0.006	2.201	1.483	1399	0.964	0.988

IPA	internet	0.962	0.010	0.011	2.252	1.501	780	0.941	0.982
TPA	internet	0.933	0.009	0.009	1.836	1.355	1561	0.916	0.951
DPA	Clean fuels and technologies	0.963	0.009	0.009	3.406	1.846	1600	0.945	0.980
IPA	Clean fuels and technologies	0.924	0.016	0.017	3.268	1.808	868	0.892	0.956
TPA	Clean fuels and technologies	0.716	0.019	0.027	3.210	1.792	1751	0.677	0.755
DPA	Solid fuels and technology for cooking	0.034	0.007	0.217	2.644	1.626	1600	0.019	0.048
IPA	Solid fuels and technology for cooking	0.076	0.016	0.212	3.268	1.808	868	0.044	0.108
TPA	Solid fuels and technology for cooking	0.283	0.019	0.069	3.226	1.796	1751	0.244	0.322
DPA	Central heating	0.638	0.026	0.041	4.692	2.166	1600	0.586	0.690
IPA	Central heating	0.507	0.045	0.089	7.212	2.685	868	0.416	0.597
TPA	Central heating	0.360	0.020	0.056	3.088	1.757	1751	0.320	0.401
DPA	Electric heater	0.145	0.017	0.118	3.773	1.943	1600	0.111	0.179
IPA	Electric heater	0.063	0.016	0.261	4.055	2.014	868	0.030	0.096
TPA	Electric heater	0.019	0.005	0.264	2.388	1.545	1751	0.009	0.030
DPA	with chimney	0.036	0.009	0.239	3.467	1.862	1600	0.019	0.054
IPA	with chimney	0.153	0.029	0.186	5.531	2.352	868	0.096	0.210
TPA	with chimney	0.183	0.015	0.085	2.774	1.665	1751	0.152	0.214
DPA	without chimney	0.014	0.005	0.329	2.530	1.591	1600	0.005	0.024
IPA	without chimney	0.009	0.003	0.366	1.025	1.013	868	0.002	0.015
TPA	without chimney	0.002	0.001	0.476	0.813	0.902	1751	0.000	0.004
DPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.799	0.024	0.030	5.799	2.408	1600	0.751	0.847
IPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.614	0.042	0.068	6.489	2.547	868	0.531	0.698
TPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting	0.375	0.021	0.055	3.149	1.774	1751	0.334	0.416
DPA	Poorest 60%	0.218	0.026	0.118	2.801	1.674	802	0.167	0.269
IPA	Poorest 60%	0.455	0.039	0.086	2.182	1.477	393	0.377	0.533
TPA	Poorest 60%	0.726	0.026	0.036	3.002	1.733	772	0.674	0.778

Table SE 46: Sampling errors: Housing characteristics — percent of women 15–49 years old

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

15–49	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	leaking roof	0.478	0.040	0.083	3.818	1.954	641	0.399	0.558
IPA	leaking roof	0.542	0.035	0.065	2.461	1.569	516	0.471	0.612
TPA	leaking roof	0.534	0.025	0.046	1.705	1.306	633	0.484	0.583
DPA	dampness	0.651	0.031	0.048	2.533	1.592	641	0.589	0.713
IPA	dampness	0.699	0.032	0.046	2.354	1.534	516	0.635	0.762
TPA	dampness	0.757	0.032	0.042	3.936	1.984	633	0.693	0.822
DPA	rot	0.403	0.031	0.078	2.444	1.563	641	0.340	0.466
IPA	rot	0.392	0.043	0.111	3.869	1.967	516	0.305	0.479
TPA	rot	0.465	0.031	0.066	2.642	1.626	633	0.403	0.526
DPA	laptop	0.163	0.023	0.141	2.322	1.524	641	0.117	0.209
IPA	laptop	0.115	0.025	0.214	2.920	1.709	516	0.066	0.164
TPA	laptop	0.105	0.026	0.247	5.021	2.241	633	0.053	0.157
DPA	PC	0.226	0.035	0.154	4.175	2.043	641	0.156	0.296
IPA	PC	0.194	0.029	0.149	2.616	1.617	516	0.136	0.252
TPA	PC	0.151	0.030	0.197	4.821	2.196	633	0.092	0.210
DPA	tablet	0.127	0.018	0.140	1.723	1.313	641	0.092	0.163
IPA	tablet	0.127	0.019	0.152	1.639	1.280	516	0.088	0.166
TPA	tablet	0.069	0.019	0.277	4.000	2.000	633	0.031	0.108
DPA	internet	0.803	0.025	0.032	2.443	1.563	641	0.752	0.853
IPA	internet	0.791	0.031	0.039	2.860	1.691	516	0.729	0.853
TPA	internet	0.727	0.030	0.041	3.120	1.766	633	0.667	0.786
DPA	Clean fuels and technologies	0.618	0.037	0.059	3.786	1.946	706	0.544	0.691
IPA	Clean fuels and technologies	0.414	0.037	0.090	2.913	1.707	544	0.340	0.488
TPA	Clean fuels and technologies	0.275	0.033	0.118	3.888	1.972	662	0.210	0.340
DPA	Solid fuels and technology for cooking	0.373	0.036	0.097	3.697	1.923	706	0.301	0.445
IPA	Solid fuels and technology for cooking	0.579	0.040	0.069	3.349	1.830	544	0.500	0.659
TPA	Solid fuels and technology for cooking	0.718	0.031	0.043	3.419	1.849	662	0.657	0.780
DPA	Central heating	0.107	0.062	0.579	26.547	5.152	706	0.000	0.230
IPA	Central heating	0.150	0.020	0.133	1.608	1.268	544	0.110	0.190
TPA	Central heating	0.031	0.013	0.418	4.091	2.023	662	0.005	0.057
DPA	Electric heater [D]	0.083	0.020	0.244	3.600	1.897	706	0.043	0.124
IPA	Electric heater [D]	0.009	0.005	0.523	1.278	1.131	544	0.000	0.018
TPA	Electric heater [D]	0.005	0.004	0.720	1.863	1.365	662	0.000	0.012
DPA	with chimney	0.017	0.006	0.340	1.357	1.165	706	0.006	0.029
IPA	with chimney	0.014	0.006	0.393	1.136	1.066	544	0.003	0.025
TPA	with chimney	0.027	0.012	0.459	4.275	2.068	662	0.002	0.052
DPA	without chimney	0.026	0.011	0.435	3.313	1.820	706	0.003	0.048
IPA	without chimney	0.005	0.004	0.687	1.282	1.132	544	0.000	0.012

TPA	without chimney	0.001	0.001	0.993	0.847	0.920	662	0.000	0.003
DPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting [A]	0.214	0.060	0.282	14.336	3.786	706	0.093	0.334
IPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting [A]	0.147	0.017	0.115	1.162	1.078	544	0.113	0.180
TPA	Primary reliance on clean fuels and technologies for cooking, space heating and lighting [A]	0.038	0.013	0.330	3.148	1.774	662	0.013	0.063
DPA	Poorest 60%	0.448	0.040	0.089	4.279	2.069	706	0.368	0.528
IPA	Poorest 60%	0.508	0.050	0.098	5.097	2.258	544	0.409	0.608
TPA	Poorest 60%	0.739	0.035	0.048	4.767	2.183	662	0.668	0.810

Table SE.47: Sampling errors: Percent distribution of women 15–49 years old by marriage/partnership status

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

15–24	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of married women	0.023	0.007	0.305	0.537	0.733	209	0.009	0.038
IPA	Percentage of married women	0.111	0.021	0.191	0.633	0.796	132	0.068	0.153
TPA	Percentage of married women	0.121	0.013	0.111	0.520	0.721	345	0.094	0.148
DPA	Percentage of women in union	0.067	0.019	0.279	1.349	1.161	209	0.030	0.105
IPA	Percentage of women in union	0.011	0.002	0.191	0.054	0.233	132	0.007	0.015
TPA	Percentage of women in union	0.060	0.013	0.210	0.856	0.925	345	0.035	0.085
DPA	Percentage of single women	0.909	0.020	0.022	1.188	1.090	209	0.869	0.950
IPA	Percentage of single women	0.879	0.021	0.024	0.602	0.776	132	0.836	0.922
TPA	Percentage of single women	0.819	0.018	0.023	0.706	0.840	345	0.782	0.856
25–35									
DPA	Percentage of married women	0.499	0.029	0.058	2.070	1.439	588	0.442	0.557
IPA	Percentage of married women	0.598	0.038	0.063	1.784	1.336	302	0.522	0.674
TPA	Percentage of married women	0.634	0.028	0.044	1.810	1.346	581	0.579	0.689
DPA	Percentage of women in union	0.121	0.021	0.174	2.584	1.607	588	0.079	0.163
IPA	Percentage of women in union	0.069	0.015	0.217	1.036	1.018	302	0.039	0.099
TPA	Percentage of women in union	0.102	0.013	0.127	1.006	1.003	581	0.076	0.128

		Value	se	se/r	deff	deft	count	Lower	Upper
DPA	Percentage of single women	0.380	0.028	0.072	1.994	1.412	588	0.325	0.435
IPA	Percentage of single women	0.333	0.038	0.113	1.908	1.381	302	0.258	0.408
TPA	Percentage of single women	0.263	0.027	0.101	2.001	1.414	581	0.210	0.316
36–49									
DPA	Percentage of married women	0.702	0.028	0.040	2.218	1.489	602	0.645	0.759
IPA	Percentage of married women	0.656	0.044	0.067	3.044	1.745	346	0.569	0.744
TPA	Percentage of married women	0.789	0.022	0.028	1.955	1.398	635	0.744	0.833
DPA	Percentage of women in union	0.062	0.013	0.206	1.620	1.273	602	0.037	0.088
IPA	Percentage of women in union	0.047	0.012	0.248	1.078	1.038	346	0.024	0.071
TPA	Percentage of women in union	0.057	0.011	0.190	1.409	1.187	635	0.035	0.078
DPA	Percentage of single women	0.236	0.023	0.098	1.710	1.307	602	0.189	0.282
IPA	Percentage of single women	0.296	0.044	0.150	3.364	1.834	346	0.207	0.385
TPA	Percentage of single women	0.154	0.020	0.128	1.919	1.385	635	0.115	0.193

Table SE.48: Sampling errors: Percent distribution of women 15–49 years old by marriage/partnership status

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

15–24	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of married women	0.132	0.030	0.228	1.978	1.406	260	0.072	0.192
IPA	Percentage of married women	0.181	0.042	0.234	1.943	1.394	166	0.096	0.265
TPA	Percentage of married women	0.162	0.028	0.170	1.370	1.170	230	0.107	0.217
DPA	Percentage of women in union	0.415	0.037	0.090	1.442	1.201	260	0.340	0.490
IPA	Percentage of women in union	0.326	0.034	0.106	0.871	0.933	166	0.257	0.395
TPA	Percentage of women in union	0.395	0.044	0.111	1.964	1.401	230	0.308	0.483
DPA	Percentage of single women	0.453	0.026	0.058	0.690	0.831	260	0.401	0.506
IPA	Percentage of single women	0.494	0.048	0.096	1.460	1.208	166	0.398	0.589
TPA	Percentage of single women	0.443	0.038	0.087	1.466	1.211	230	0.366	0.520
25–35									
DPA	Percentage of married women	0.334	0.035	0.104	0.903	0.950	175	0.265	0.404
IPA	Percentage of married women	0.413	0.040	0.097	1.017	1.008	168	0.333	0.493
TPA	Percentage of married women	0.406	0.041	0.101	1.526	1.235	200	0.324	0.487
DPA	Percentage of women in union	0.436	0.032	0.073	0.685	0.828	175	0.372	0.499
IPA	Percentage of women in union	0.504	0.036	0.072	0.807	0.899	168	0.432	0.577

TPA	Percentage of women in union	0.432	0.041	0.096	1.537	1.240	200	0.349	0.514
DPA	Percentage of single women	0.230	0.033	0.143	1.018	1.009	175	0.164	0.296
IPA	Percentage of single women	0.083	0.023	0.278	1.075	1.037	168	0.037	0.129
TPA	Percentage of single women	0.159	0.038	0.242	2.439	1.562	200	0.082	0.235
36–49									
DPA	Percentage of married women	0.449	0.037	0.082	1.090	1.044	206	0.375	0.522
IPA	Percentage of married women	0.643	0.041	0.065	1.244	1.115	182	0.560	0.725
TPA	Percentage of married women	0.489	0.027	0.055	0.657	0.811	203	0.435	0.543
DPA	Percentage of women in union	0.369	0.030	0.081	0.775	0.880	206	0.309	0.429
IPA	Percentage of women in union	0.225	0.037	0.165	1.316	1.147	182	0.151	0.300
TPA	Percentage of women in union	0.353	0.037	0.104	1.319	1.149	203	0.279	0.426
DPA	Percentage of single women	0.183	0.035	0.190	1.621	1.273	206	0.113	0.252
IPA	Percentage of single women	0.132	0.029	0.220	1.230	1.109	182	0.074	0.190
TPA	Percentage of single women	0.158	0.029	0.185	1.434	1.198	203	0.100	0.217

Table SE.49: Sampling errors: Share of women who are currently in the process of education

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

15–18	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Attended school during current school year	0.940	0.022	0.023	0.573	0.757	65	0.896	0.984
IPA	Attended school during current school year	(0.870)	(0.022)	(0.025)	(0.155)	(0.394)	36	(0.826)	(0.914)
TPA	Attended school during current school year	0.887	0.029	0.033	1.080	1.039	128	0.828	0.946
19–24									
DPA	Attended school during current school year	0.677	0.032	0.047	0.789	0.888	144	0.614	0.741
IPA	Attended school during current school year	0.488	0.054	0.111	1.205	1.098	95	0.380	0.596
TPA	Attended school during current school year	0.389	0.032	0.083	0.777	0.881	215	0.324	0.453

Table SE.50: Sampling errors: Share of women who are currently in the process of education

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

15–18	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Attended school during current school year	0.390	0.018	0.047	0.117	0.342	88	0.354	0.427
IPA	Attended school during current school year	0.271	0.061	0.226	1.199	1.095	64	0.148	0.393
TPA	Attended school during current school year	0.350	0.052	0.149	1.160	1.077	91	0.246	0.455
19–24		0.000							
DPA	Attended school during current school year	0.000	0.000	.	.	.	152	0.000	0.000
IPA	Attended school during current school year	0.054	0.017	0.307	0.487	0.698	94	0.021	0.088
TPA	Attended school during current school year	0.018	0.011	0.599	0.940	0.969	133	0.000	0.040

Table SE.51: Sampling errors: Child marriage, early marriage, and early childbearing

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

15–49	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage married before age 15 – Women age 15–49 years	0.004	0.003	0.676	2.699	1.643	1399	0.000	0.010
IPA	Percentage married before age 15 – Women age 15–49 years	0.008	0.004	0.466	1.443	1.201	780	0.001	0.016
TPA	Percentage married before age 15 – Women age 15–49 years	0.025	0.005	0.203	1.601	1.265	1561	0.015	0.035
DPA	Percentage married before age 15 – Women age 20–49 years	0.005	0.003	0.676	2.775	1.666	1313	0.000	0.011
IPA	Percentage married before age 15 – Women age 20–49 years	0.009	0.004	0.469	1.497	1.223	738	0.001	0.017
TPA	Percentage married before age 15 – Women age 20–49 years	0.026	0.005	0.202	1.442	1.201	1393	0.015	0.036
DPA	Percentage married before age 18 – Women age 20–49 years	0.034	0.006	0.178	1.460	1.208	1313	0.022	0.046

IPA	Percentage married before age 18 – Women age 20–49 years	0.065	0.012	0.188	1.862	1.364	738	0.040	0.089
TPA	Percentage married before age 18 – Women age 20–49 years	0.132	0.010	0.075	1.147	1.071	1393	0.113	0.152
DPA	Percentage married before age 15 – Women age 20–24 years	0.000	0.000	.	.	.	123	0.000	0.000
IPA	Percentage married before age 15 – Women age 20–24 years	0.000	0.000	.	.	.	90	0.000	0.000
TPA	Percentage married before age 15 – Women age 20–24 years	0.033	0.015	0.448	0.976	0.988	177	0.003	0.062
DPA	Percentage married before age 18 – Women age 20–24 years	0.016	0.004	0.263	0.168	0.410	123	0.008	0.025
IPA	Percentage married before age 18 – Women age 20–24 years	0.048	0.010	0.213	0.225	0.475	90	0.028	0.068
TPA	Percentage married before age 18 – Women age 20–24 years	0.099	0.020	0.204	0.658	0.811	177	0.059	0.140
DPA	Percentage currently married/in union – Women age 15–19 years	0.014	0.001	0.078	0.008	0.091	86	0.012	0.016
IPA	Percentage currently married/in union – Women age 15–19 years	(0.000)	(0.000)	.	.	.	42	(0.000)	(0.000)
TPA	Percentage currently married/in union – Women age 15–19 years	0.063	0.018	0.285	0.863	0.929	168	0.027	0.099
DPA	Percentage of women age 15–19 years who have had a live birth	0.000	0.000	0.000	0.000	0.000	86	0.000	0.000
IPA	Percentage of women age 15–19 years who have had a live birth	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	42	(0.000)	(0.000)

TPA	Percentage of women age 15–19 years who have had a live birth	0.026	0.010	0.401	0.671	0.819	168	0.005	0.046
DPA	Percentage of women age 15–19 years who are pregnant with first child	0.014	0.001	0.078	0.008	0.091	86	0.012	0.016
IPA	Percentage of women age 15–19 years who are pregnant with first child	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	42	(0.000)	(0.000)
TPA	Percentage of women age 15–19 years who are pregnant with first child	0.013	0.009	0.707	1.047	1.023	168	0.000	0.032
DPA	Percentage of women age 15–19 years who have had a live birth or are pregnant with first child	0.014	0.001	0.078	0.008	0.091	86	0.012	0.016
IPA	Percentage of women age 15–19 years who have had a live birth or are pregnant with first child	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	42	(0.000)	(0.000)
TPA	Percentage of women age 15–19 years who have had a live birth or are pregnant with first child	0.039	0.015	0.378	0.909	0.953	168	0.009	0.068
DPA	Percentage of women age 20–24 years who have had a live birth before age 18	0.005	0.003	0.554	0.246	0.496	123	0.000	0.011
IPA	Percentage of women age 20–24 years who have had a live birth before age 18	0.025	0.009	0.359	0.322	0.568	90	0.007	0.042
TPA	Percentage of women age 20–24 years who have had a live birth before age 18	0.053	0.018	0.341	0.939	0.969	177	0.017	0.090
DPA	Ever given birth – primary education	(0.942)	(0.006)	(0.006)	(0.029)	(0.171)	50	(0.931)	(0.954)

IPA	Ever given birth – primary education	(0.966)	(0.004)	(0.004)	(0.022)	(0.148)	47	(0.958)	(0.974)
TPA	Ever given birth – primary education	0.967	0.010	0.010	0.614	0.784	187	0.947	0.988
DPA	Ever given birth – secondary education	0.860	0.022	0.025	1.559	1.249	397	0.816	0.903
IPA	Ever given birth – secondary education	0.832	0.028	0.034	2.097	1.448	347	0.775	0.889
TPA	Ever given birth – secondary education	0.871	0.018	0.021	2.153	1.467	739	0.835	0.908
DPA	Ever given birth – tertiary education	0.612	0.026	0.043	2.165	1.471	743	0.560	0.665
IPA	Ever given birth – tertiary education	0.609	0.034	0.056	1.232	1.110	254	0.540	0.678
TPA	Ever given birth – tertiary education	0.635	0.033	0.052	1.338	1.157	290	0.569	0.701
DPA	Percentage of women who attended a childbirth preparation programme	0.268	0.050	0.187	3.379	1.838	288	0.168	0.367
IPA	Percentage of women who attended a childbirth preparation programme	0.112	0.035	0.311	1.266	1.125	114	0.042	0.181
TPA	Percentage of women who attended a childbirth preparation programme	0.079	0.019	0.240	1.437	1.199	258	0.041	0.117
DPA	Main reasons for no attendance – No need	0.673	0.044	0.066	1.798	1.341	229	0.584	0.761
IPA	Main reasons for no attendance – No need	0.628	0.057	0.091	1.323	1.150	102	0.514	0.742
TPA	Main reasons for no attendance – No need	0.546	0.037	0.068	1.521	1.233	241	0.472	0.620
DPA	Main reasons for no attendance – Did not know it exists	0.039	0.010	0.254	0.530	0.728	229	0.019	0.059
IPA	Main reasons for no attendance – Did not know it exists	0.065	0.015	0.226	0.337	0.581	102	0.036	0.094
TPA	Main reasons for no attendance – Did not know it exists	0.129	0.029	0.222	2.005	1.416	241	0.072	0.187

Table SE.52: Sampling errors: Child marriage, early marriage, and early childbearing

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

15–49	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage married before age 15 – Women age 15–49 years	0.178	0.018	0.101	1.371	1.171	641	0.142	0.215
IPA	Percentage married before age 15 – Women age 15–49 years	0.150	0.022	0.147	1.841	1.357	516	0.106	0.195
TPA	Percentage married before age 15 – Women age 15–49 years	0.145	0.014	0.098	1.118	1.058	633	0.116	0.173
DPA	Percentage married before age 15 – Women age 20–49 years	0.195	0.021	0.109	1.460	1.208	520	0.152	0.237
IPA	Percentage married before age 15 – Women age 20–49 years	0.147	0.021	0.142	1.396	1.181	434	0.106	0.189
TPA	Percentage married before age 15 – Women age 20–49 years	0.149	0.016	0.105	1.087	1.043	513	0.118	0.181
DPA	Percentage married before age 18 – Women age 20–49 years	0.562	0.032	0.056	2.055	1.434	520	0.498	0.625
IPA	Percentage married before age 18 – Women age 20–49 years	0.510	0.030	0.059	1.461	1.209	434	0.450	0.570
TPA	Percentage married before age 18 – Women age 20–49 years	0.588	0.036	0.062	3.065	1.751	513	0.515	0.661
DPA	Percentage married before age 15 – Women age 20–24 years	0.174	0.022	0.125	0.457	0.676	139	0.131	0.218
IPA	Percentage married before age 15 – Women age 20–24 years	0.152	0.028	0.185	0.496	0.704	84	0.095	0.208
TPA	Percentage married before age 15 – Women age 20–24 years	0.145	0.029	0.200	0.771	0.878	110	0.087	0.203

DPA	Percentage married before age 18 – Women age 20–24 years	0.596	0.047	0.079	1.284	1.133	139	0.502	0.691
IPA	Percentage married before age 18 – Women age 20–24 years	0.472	0.060	0.128	1.181	1.087	84	0.352	0.593
TPA	Percentage married before age 18 – Women age 20–24 years	0.571	0.059	0.103	1.609	1.268	110	0.453	0.689
DPA	Percentage currently married/in union – Women age 15–19 years	0.351	0.031	0.089	0.477	0.690	121	0.289	0.413
IPA	Percentage currently married/in union – Women age 15–19 years	0.288	0.064	0.223	1.607	1.268	82	0.160	0.416
TPA	Percentage currently married/in union – Women age 15–19 years	0.366	0.042	0.115	0.996	0.998	120	0.281	0.450
DPA	Percentage of women age 15–19 years who have had a live birth	0.284	0.036	0.127	0.719	0.848	121	0.212	0.357
IPA	Percentage of women age 15–19 years who have had a live birth	0.181	0.042	0.233	0.959	0.980	82	0.097	0.265
TPA	Percentage of women age 15–19 years who have had a live birth	0.315	0.045	0.142	1.199	1.095	120	0.226	0.404
DPA	Percentage of women age 15–19 years who are pregnant with first child	0.035	0.018	0.512	1.048	1.024	121	0.000	0.070
IPA	Percentage of women age 15–19 years who are pregnant with first child	0.037	0.026	0.703	1.521	1.233	82	0.000	0.089
TPA	Percentage of women age 15–19 years who are pregnant with first child	0.039	0.021	0.530	1.485	1.218	120	0.000	0.080

DPA	Percentage of women age 15–19 years who have had a live birth before age 15	0.319	0.030	0.093	0.453	0.673	121	0.260	0.378
IPA	Percentage of women age 15–19 years who have had a live birth before age 15	0.218	0.042	0.191	0.817	0.904	82	0.135	0.302
TPA	Percentage of women age 15–19 years who have had a live birth before age 15	0.354	0.044	0.125	1.116	1.056	120	0.265	0.442
DPA	Percentage of women age 15–19 years who have had a live birth or are pregnant with first child	0.039	0.023	0.581	1.538	1.240	121	0.000	0.085
IPA	Percentage of women age 15–19 years who have had a live birth or are pregnant with first child	0.041	0.021	0.516	0.908	0.953	82	0.000	0.083
TPA	Percentage of women age 15–19 years who have had a live birth or are pregnant with first child	0.011	0.007	0.690	0.662	0.813	120	0.000	0.025
DPA	Percentage of women age 20–24 years who have had a live birth before age 18	0.386	0.034	0.088	0.667	0.817	139	0.318	0.454
IPA	Percentage of women age 20–24 years who have had a live birth before age 18	0.309	0.028	0.090	0.294	0.542	84	0.253	0.365
TPA	Percentage of women age 20–24 years who have had a live birth before age 18	0.422	0.062	0.146	1.776	1.333	110	0.298	0.545
DPA	Ever given birth – no education	0.946	0.012	0.012	0.213	0.462	84	0.923	0.969
IPA	Ever given birth – no education	0.917	0.035	0.038	1.249	1.118	78	0.847	0.988
TPA	Ever given birth – no education	(0.973)	(0.027)	(0.028)	(1.163)	(1.079)	38	(0.919)	(1.000)
DPA	Ever given birth – primary education	0.951	0.017	0.018	1.453	1.205	249	0.918	0.985

IPA	Ever given birth – primary education	0.976	0.014	0.014	1.615	1.271	226	0.949	1.000
TPA	Ever given birth – primary education	0.953	0.010	0.011	0.847	0.920	318	0.932	0.974
DPA	Ever given birth – secondary or higher	(0.881)	(0.041)	(0.047)	(0.782)	(0.884)	48	(0.798)	(0.964)
IPA	Ever given birth – secondary or higher	(0.913)	(0.036)	(0.040)	(0.632)	(0.795)	46	(0.840)	(0.986)
TPA	Ever given birth – secondary or higher	(0.939)	(0.034)	(0.037)	(1.119)	(1.058)	47	(0.871)	(1.000)
DPA	Percentage of women who attended a childbirth preparation programme	0.011	0.009	0.763	0.847	0.920	138	0.000	0.028
IPA	Percentage of women who attended a childbirth preparation programme	0.037	0.024	0.639	1.560	1.249	103	0.000	0.084
TPA	Percentage of women who attended a childbirth preparation programme	0.042	0.016	0.377	0.962	0.981	142	0.010	0.073
DPA	Main reasons for no attendance – No need	0.518	0.035	0.068	0.630	0.794	136	0.447	0.589
IPA	Main reasons for no attendance – No need	0.314	0.057	0.183	1.462	1.209	99	0.199	0.429
TPA	Main reasons for no attendance – No need	0.406	0.055	0.134	1.823	1.350	135	0.297	0.515
DPA	Main reasons for no attendance – Did not know it exists	0.347	0.028	0.082	0.450	0.671	136	0.290	0.404
IPA	Main reasons for no attendance – Did not know it exists	0.503	0.048	0.095	0.878	0.937	99	0.407	0.599
TPA	Main reasons for no attendance – Did not know it exists	0.393	0.060	0.154	2.267	1.506	135	0.272	0.514

Table SE.53: Sampling errors: Antenatal and postnatal home visits during … (women age 15–49)

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

| | MICS Indicator | Value (*r*) | Standard error (*se*) | Coefficient of variation (*se/r*) | Design effect (*deff*) | Square root of design effect (*deft*) | Unweighted count | Confidence limits | |
								Lower bound r − 2se	Upper bound r + 2se
DPA	Pregnancy	0.239	0.042	0.174	2.538	1.593	288	0.155	0.322
IPA	Pregnancy	0.263	0.042	0.161	0.963	0.981	114	0.178	0.348
TPA	Pregnancy	0.368	0.033	0.090	1.371	1.171	258	0.302	0.435
DPA	The first week following discharge	0.976	0.012	0.012	1.541	1.241	288	0.953	0.999
IPA	The first week following discharge	0.958	0.029	0.030	2.149	1.466	114	0.900	1.000
TPA	The first week following discharge	0.908	0.020	0.022	1.398	1.183	258	0.867	0.948

Table SE.54: Sampling errors: Antenatal and postnatal home visits during … (women age 15–49)

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

| | MICS Indicator | Value (*r*) | Standard error (*se*) | Coefficient of variation (*se/r*) | Design effect (*deff*) | Square root of design effect (*deft*) | Unweighted count | Confidence limits | |
								Lower bound r − 2se	Upper bound r + 2se
DPA	Pregnancy	0.161	0.050	0.311	2.376	1.542	138	0.061	0.262
IPA	Pregnancy	0.324	0.041	0.128	0.779	0.883	103	0.241	0.407
TPA	Pregnancy	0.280	0.045	0.162	1.579	1.256	142	0.189	0.370
DPA	The first week following discharge	0.960	0.015	0.016	0.752	0.867	138	0.929	0.990
IPA	The first week following discharge	0.884	0.033	0.037	1.051	1.025	103	0.818	0.950
TPA	The first week following discharge	0.865	0.037	0.043	1.847	1.359	142	0.791	0.940

Table SE.55: Sampling errors: Informed decision on health care and Awareness of institutions to which domestic violence can be reported – women age 15–49

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

| | MICS Indicator | Value (*r*) | Standard error (*se*) | Coefficient of variation (*se/r*) | Design effect (*deff*) | Square root of design effect (*deft*) | Unweighted count | Confidence limits | |
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of women who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care	0.873	0.013	0.015	1.515	1.231	987	0.847	0.900
IPA	Percentage of women who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care	0.835	0.021	0.026	1.768	1.330	550	0.792	0.878

TPA	Percentage of women who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care	0.819	0.014	0.017	1.574	1.255	1135	0.791	0.848
DPA	Percentage of women who know where to report domestic violence	0.960	0.007	0.007	1.666	1.291	1399	0.947	0.974
IPA	Percentage of women who know where to report domestic violence	0.943	0.012	0.013	2.228	1.493	780	0.919	0.968
TPA	Percentage of women who know where to report domestic violence	0.928	0.008	0.008	1.317	1.148	1561	0.913	0.943
DPA	Percentage of women who know domestic violence can be reported to: Safe House	0.457	0.019	0.041	1.988	1.410	1399	0.420	0.494
IPA	Percentage of women who know domestic violence can be reported to: Safe House	0.386	0.019	0.048	1.163	1.078	780	0.349	0.423
TPA	Percentage of women who know domestic violence can be reported to: Safe House	0.358	0.017	0.046	1.816	1.348	1561	0.325	0.391
DPA	Percentage of women who know domestic violence can be reported to: SOS phone line	0.312	0.017	0.054	1.909	1.382	1399	0.278	0.346
IPA	Percentage of women who know domestic violence can be reported to: SOS phone line	0.206	0.019	0.092	1.741	1.319	780	0.168	0.244
TPA	Percentage of women who know domestic violence can be reported to: SOS phone line	0.232	0.015	0.066	1.990	1.410	1561	0.202	0.263

Table SE.56: Sampling errors: Informed decision on health care and Awareness of institutions to which domestic violence can be reported – women age 15–49

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Percentage of women who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care	0.656	0.022	0.033	0.899	0.948	451	0.612	0.699
IPA	Percentage of women who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care	0.644	0.024	0.037	0.901	0.949	393	0.597	0.691
TPA	Percentage of women who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care	0.720	0.026	0.037	1.761	1.327	469	0.667	0.772
DPA	Percentage of women who know where to report domestic violence	0.826	0.027	0.032	3.022	1.738	641	0.773	0.879
IPA	Percentage of women who know where to report domestic violence	0.830	0.014	0.017	0.713	0.844	516	0.801	0.859
TPA	Percentage of women who know where to report domestic violence	0.803	0.021	0.026	1.961	1.400	633	0.760	0.845
DPA	Percentage of women who know domestic violence can be reported to: Safe House	0.138	0.022	0.162	2.582	1.607	641	0.093	0.183
IPA	Percentage of women who know domestic violence can be reported to: Safe House	0.075	0.014	0.182	1.295	1.138	516	0.048	0.102

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Unweighted count	Lower bound r − 2se	Upper bound r + 2se
TPA	Percentage of women who know domestic violence can be reported to: Safe House	0.097	0.014	0.142	1.490	1.220	633	0.070	0.125
DPA	Percentage of women who know domestic violence can be reported to: SOS phone line	0.045	0.010	0.214	1.327	1.152	641	0.026	0.064
IPA	Percentage of women who know domestic violence can be reported to: SOS phone line	0.031	0.008	0.245	0.935	0.967	516	0.016	0.047
TPA	Percentage of women who know domestic violence can be reported to: SOS phone line	0.040	0.010	0.250	1.808	1.345	633	0.020	0.061

Table SE.57: Percentage of women age 15–49 years who were victims of robbery, assault and either robbery or assault in the last 3 years, last 1 year and multiple times in the last year

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	In the last 3 years	0.025	0.005	0.191	1.342	1.158	1399	0.016	0.035
IPA	In the last 3 years	0.027	0.007	0.264	1.534	1.239	780	0.013	0.041
TPA	In the last 3 years	0.012	0.003	0.258	1.275	1.129	1561	0.006	0.019
DPA	In the last 3 years	0.032	0.007	0.234	2.563	1.601	1399	0.017	0.047
IPA	In the last 3 years	0.020	0.007	0.334	1.825	1.351	780	0.007	0.034
TPA	In the last 3 years	0.015	0.003	0.200	0.941	0.970	1561	0.009	0.021
DPA	In the last 3 years	0.053	0.009	0.172	2.367	1.538	1399	0.035	0.072
IPA	In the last 3 years	0.043	0.010	0.232	1.942	1.394	780	0.023	0.063
TPA	In the last 3 years	0.026	0.004	0.134	0.738	0.859	1561	0.019	0.033

Table SE.58: Percentage of women age 15–49 years who were victims of robbery, assault and either robbery or assault in the last 3 years, last 1 year and multiple times in the last year

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

	MICS Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deft)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	In the last 3 years	0.038	0.008	0.206	1.026	1.013	641	0.022	0.053
IPA	In the last 3 years	0.018	0.006	0.354	1.086	1.042	516	0.005	0.030
TPA	In the last 3 years	0.034	0.010	0.281	1.907	1.381	633	0.015	0.053

DPA	In the last 3 years	0.040	0.008	0.208	1.115	1.056	641	0.023	0.057
IPA	In the last 3 years	0.029	0.009	0.318	1.462	1.209	516	0.011	0.048
TPA	In the last 3 years	0.064	0.015	0.230	2.504	1.582	633	0.035	0.094
DPA	In the last 3 years	0.068	0.011	0.160	1.163	1.078	641	0.046	0.090
IPA	In the last 3 years	0.038	0.010	0.276	1.440	1.200	516	0.017	0.058
TPA	In the last 3 years	0.088	0.018	0.200	2.668	1.633	633	0.053	0.123

Table SE.59: Percentage of women age 15–49 years who in the past 12 months have felt discriminated against or harassed and those who have not felt discriminated against or harassed

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Any reason	0.090	0.011	0.127	2.258	1.503	1399	0.067	0.112
IPA	Any reason	0.060	0.010	0.175	1.556	1.247	780	0.039	0.081
TPA	Any reason	0.055	0.006	0.117	1.209	1.100	1561	0.042	0.068

Table SE.60: Percentage of women age 15–49 years who in the past 12 months have felt discriminated against or harassed and those who have not felt discriminated against or harassed

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
DPA	Any reason	0.174	0.020	0.113	1.649	1.284	641	0.135	0.214
IPA	Any reason	0.104	0.017	0.167	1.548	1.244	516	0.069	0.138
TPA	Any reason	0.095	0.016	0.168	2.058	1.435	633	0.063	0.128

Table SE.61: Sampling errors: Perception of a better life

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia 2019

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
Perception of a better life among women age 15–24									
DPA	Improved during the last one year	0.578	0.031	0.054	0.962	0.981	209	0.515	0.640
IPA	Improved during the last one year	0.522	0.050	0.095	1.375	1.173	132	0.423	0.621
TPA	Improved during the last one year	0.476	0.031	0.066	1.209	1.099	345	0.413	0.539
DPA	Will get better after one year	0.889	0.017	0.019	0.716	0.846	209	0.854	0.923
IPA	Will get better after one year	0.885	0.035	0.040	1.703	1.305	132	0.814	0.955
TPA	Will get better after one year	0.835	0.021	0.026	1.022	1.011	345	0.792	0.878
Perception of a better life among women age 15–49									
DPA	Improved during the last one year	0.461	0.020	0.042	2.181	1.477	1399	0.422	0.500

IPA	Improved during the last one year	0.423	0.022	0.053	1.635	1.279	780	0.378	0.468
TPA	Improved during the last one year	0.411	0.017	0.041	1.811	1.346	1561	0.377	0.445
DPA	Will get better after one year	0.805	0.015	0.018	1.911	1.382	1399	0.776	0.835
IPA	Will get better after one year	0.801	0.017	0.021	1.450	1.204	780	0.767	0.835
TPA	Will get better after one year	0.774	0.015	0.019	1.894	1.376	1561	0.744	0.803

Table SE.62: Sampling errors: Perception of a better life

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*), and confidence intervals for selected SDG and MICS indicators, Serbia Roma settlements 2019

MICS Indicator		Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Unweighted count	Confidence limits	
								Lower bound r − 2se	Upper bound r + 2se
Perception of a better life among women age 15–24									
DPA	Improved during the last one year	0.467	0.030	0.065	0.923	0.961	260	0.406	0.527
IPA	Improved during the last one year	0.363	0.037	0.102	0.947	0.973	166	0.289	0.436
TPA	Improved during the last one year	0.469	0.040	0.086	1.587	1.260	230	0.388	0.549
DPA	Will get better after one year	0.886	0.015	0.017	0.566	0.753	260	0.856	0.916
IPA	Will get better after one year	0.907	0.021	0.023	0.820	0.906	166	0.866	0.948
TPA	Will get better after one year	0.819	0.026	0.032	1.109	1.053	230	0.767	0.870
Perception of a better life among women age 15–49									
DPA	Improved during the last one year	0.415	0.023	0.055	1.330	1.153	641	0.369	0.461
IPA	Improved during the last one year	0.358	0.019	0.052	0.730	0.854	516	0.321	0.395
TPA	Improved during the last one year	0.375	0.030	0.079	2.570	1.603	633	0.316	0.434
DPA	Will get better after one year	0.852	0.013	0.016	0.879	0.938	641	0.826	0.879
IPA	Will get better after one year	0.874	0.021	0.024	1.933	1.390	516	0.832	0.916
TPA	Will get better after one year	0.777	0.019	0.024	1.374	1.172	633	0.739	0.814

RURAL/URBAN DISPARITIES IN THE SITUATION OF CHILDREN AND WOMEN IN SERBIA