Advances in Methodology and Statistics, 2023, *20*(2), 173–186. https://doi.org/10.51936/10.51936/itvv1127

Analysis of the national structure of care provided to older people in Slovenia

Valentina Hlebec[a,*], Miriam Hurtado Monarres[a,b]

[a] *University of Ljubljana, Faculty of Social Work, Ljubljana, Slovenia*
[b] *University of Ljubljana, Faculty of Social Sciences, Ljubljana, Slovenia*

Abstract

Ageing in place has for many years been at the forefront of political goals for care provision for older people in Europe. The organization of care in terms of the national governing structure must therefore be continually observed to better understand the care actually offered and then used by older people. In this study, we examined the organization of social home care and institutional care across municipalities and administrative units in terms of what is offered to older people as formal care. Variation across municipalities and administrative units is observed with explorative cluster analysis and analysis of means of key dependent variables across clusters to better understand the variability in the care offered to older people in those municipalities and administrative units. The results show that while social home care is temporally available across several clusters of municipalities, and the affordability of social home care is also stable across clusters of municipalities, there are still municipalities where social home care has a limited time availability and municipalities where the out-of-pocket contribution to social home care delivery is nearly the twice the average of such contributions. In terms of institutional care, one can find administrative units with either a deficit or a surplus of placements of such care available.

Keywords: older people, ageing in place, care organization, home care, care policy

1. Introduction

How to provide support to people with increasing care needs in older age to enable them to continue to live in their own homes and close to their family members, friends, and neighbors? Do we involve family members and ask for more informal care and level out the ever smaller labor market participation of informal and family carers, or invest in formal services to support both older people (and the need and right to live independently) and family carers (and their long-term pension security, preservation of their multiple social roles and health) at the same time? Balancing such questions and providing the appropriate

*Corresponding author
Email addresses: valentina.hlebec@fdv.uni-lj.si (Valentina Hlebec), miriam.hurtado-monarres@fdv.uni-lj.si (Miriam Hurtado Monarres)
ORCID iDs: (Valentina Hlebec), (Miriam Hurtado Monarres)

governing structure in terms of the financing and organizing of services for older people and family and informal carers are at the forefront of aging societies in Europe.

Aging in place, also a popular policy term (Wiles et al., 2012), means remaining living in the community while aging, allowing various levels of independence, utilizing services offered in the community and most often delivered in the homes of older people. Apart from supporting informal carers, which deliver a huge amount of care, the development of universally accessible long-term services is among the express goals in policy development in Europe, which should prolong aging in place and avoid residential placing for as long as possible (Collovà & Pape, 2022). How the actual care delivery is financed and organized depends, of course, on historical foundations and current policy developments across countries.

Slovenia is a post-socialist transition country that offers older people and their family carers the following framework: children are legally obliged to pay for the costs of formal care for their aging parents, institutional care is relatively well developed and was developing after the 1960s, whereas services for people aging in place are a newer addition to the governing structure, developing gradually since the mid-1990s (e.g., Hlebec, 2013a, 2013b; Hlebec & Rakar, 2017; Hlebec et al., 2014). Social homecare is a more recent addition to care for older people. It is a social assistance service implemented on the national level following adoption of the Social Security Act in 1992. Its main objective is to improve the quality of life of those people living at home (aging in place) who are unable to care for themselves due to old age or illness, and whose family cannot provide them with sufficient care, or have no immediate family. Based on the characteristics of its users, the program is focused on maintaining the health of older people, thereby easing the burden on nursing homes and healthcare institutions for older people. Both institutional care and social home care are co-financed by public funding on the level of a municipality (social home care) or health insurance and taxation (institutional care, building costs) and with out-of-pocket contributions by users and their family members. In 2021, namely, the year of the data in our study, the average monthly out-of-pocket contribution of institutional care for both private and public homes was € 22.47 per day for Care 1; € 27.39 for Care 2; € 32.3 for Care 3a; € 36.57 for Care 3b, and € 35.57 for Care 4 (Ministry of Labour, Family, Social Affairs and Equal Opportunities of the Republic of Slovenia [MLRS], 2021). The average out-of-pocket contribution for social home care was € 5.96 per hour of care on weekdays, while on weekends and holidays it was € 6.22 (Kovač et al., 2022).

Social home care beneficiaries are people 65 years of age and older who are unable to live fully independently due to age or age-related conditions and people with a disability status under the Social Care of Mentally and Physically Handicapped Persons Act who are unable to live independently as determined by the competent commission, provided that their type and degree of disability allows them to receive occasional social home care. Other disabled people acknowledged as having the right to care for the majority of life's functions and assistance from formal services, as well as children who are gravely ill, have a severe physical disability or a severe mental disability and are ineligible for organized forms of care, are also beneficiaries of social home care. For up to a maximum of 20 hours per week, the service may be directly provided to the recipient in their home on any day of the week. The monthly hours may be increased by up to one-third if the beneficiary's circumstances necessitate that two direct social care professionals deliver the service (MLRS, 2023b). In 2010, the possibility of increasing the monthly supply of social home care was added to the social home care delivery governing structure (Official Gazette of the Republic of Slovenia [OGRS], 2010).

Citizens of the Republic of Slovenia who live in Slovenia are eligible for institutional care, and foreign nationals who hold a permanent residence permit in Slovenia may apply to be admitted to a nursing home. Such persons must be 65 years of age or older to be admitted. Other people who require therapy to replace or enhance the role of the home or their own family due to health issues, chronic disease, or other disorders also qualify. The cost of the care services is covered by the residents directly, or with assistance from the family and the community. Care costs must be determined using a specified approach and approved by the Ministry of Labor, Family, and Social Affairs in addition to the authorized home management agencies (MLRS, 2023a). The selection of an institutional care facility has historically been based on two criteria: availability at time of need, and closeness to the place of residence.

While institutional care was able to support up to 4.38 % of the population aged 65+ in 2022 (Community of Social Institutions of Slovenia [CSIS], 2022), social home care has developed very slowly, with just 1.8 % of the population aged 65+ being involved in social home care in 2022 (Kovač et al., 2022) while 3.5 % is the target percentage (Resolution on the national social protection programme for the period 2013–2020). Both types of service are monitored in terms of delivery and annual reports are publicly available for social home care at the Social Protection Institute of the Republic of Slovenia (SPIRS) and for institutional care at the CSIS.

How care is financed, organized, and offered to potential users is generally described as access to services (Penchansky & Thomas, 1981). Access to services is a broad concept that observes the degree of fit between the system and clients or users. Five dimensions are defined, namely, availability, accessibility, accommodation, affordability, and acceptability. Let us consider how these five dimensions of access would relate to social home care and institutional care. Availability of care suggests that care must be offered to possible users and refers more specifically to the relationship between the amount and type of care that exists in the community and the amount of resources the potential users possess, along with their needs and preferences. First, both social home care and institutional care should be offered in the community where old people reside. Already, we encounter issues with respect to whether what is actually offered is geographically close to older people in Slovenia. Social home care has developed as a community (municipal) offering, while institutional care has historically not developed in a community setting in terms of municipalities but in administrative units which are geographically quite larger. Further, when institutional care is chosen as the preferred type of care, this is frequently a consequence of a sudden, urgent need like a fall or acute illness. In these cases, the urgency of the placement prevails over the convenience of a geographically close unit and the fact a placement is possible is the main argument in selecting the specific location of institutional care. There can accordingly be a considerable distance to travel for family members, friends or neighbors to visit the older person, and they may not be use personal transport like cars but need to rely on public transport, which may take a longer time and is perhaps not available at convenient times. This links us directly to the second dimension of access, accessibility (Penchansky & Thomas, 1981), which refers to distance between the care recipient's location and the service itself, travel options, and the money and time needed to access the service. Social home care is indeed offered in older people's own homes and thus more accessible than institutional care. An older person is allowed to stay at home and receives the care required. Community nursing is also organized in similar ways such that the nurse actually travels to their clients and the other way around. Considering the accessibility dimensions, institutional care sometimes induces the social isolation and loneliness of residents if the institutions are

located outside the municipality in which they live. Accommodation (Penchansky & Thomas, 1981) refers to the relationship between the organization of service producers with regard to working and visiting ours, parking, phone facilities and so on and users' capacities to use the services in a way that they are offered. Taking the time dimension into account, social home care may or may not be offered during mornings and afternoons on weekdays, or it may also be offered on weekends and holidays. While the weekday delivery of social home care services may make a lot of sense to organizations that must optimize the preferred times of users and time availability of carers, as well as travel between locations. Family carers, on the other hand, may appreciate some respite and time to run necessary errands, allowing them to fully enjoy their weekends and holidays. Institutional care is offered around the clock, so this dimension might not be as important unless it is linked with long traveling hours for visits. If the travel time is longer, family members, friends and neighbors may be unable to visit every day or as often as they or the older people desire. Affordability (Penchansky & Thomas, 1981) refers to the relationship between the cost of services, insurance coverages, and out-of-pocket contributions of users, as well as satisfaction with such costs among users and their family members. In terms of financial requirements, both social home care and institutional care are co-financed. Municipalities financially support at least 50 % of the normative cost of services. Institutional care financing comprises health insurance contributions for health care and residential costs which are covered by users and their families. If the costs cannot be met by the user and the family, the municipality steps in and pays the remaining costs. A hierarchy of cost contributions is well established ever since the last financial crisis of 2008, although it has been in place for much longer. The costs of buildings and infrastructure are responsibility of the founder, in the past most often the state, however recent developments have been mostly privately owned (Hlebec & Rakar, 2017) and this has altered the composition of offerings to older people. Given the fact that urgency often induces a move to institutional care, older people are many times leaving their residential community to receive the care they need. This also explains why monitoring and matching the characteristics of older people, the characteristics of the municipalities they live in and the administrative units where institutional care is offered, is impossible and cannot be performed simply by looking at the characteristics of administrative units without monitoring and tracking individual personal data.

Previous analyses on the level of municipalities (Hlebec, 2013a; Hlebec et al., 2014) uncovered several issues related to care delivery in Slovenia, as overviewed in the following paragraphs. Since the financing and organization of social home care has been the responsibility of municipalities, dramatic differences between municipalities could be observed in the early years of establishing the service in terms of a rural-urban division where rural municipalities were slower with developing social home care. Differences were also shown in terms of affordability as a municipality is legally obliged to co-finance at least 50 % of the cost of care delivery. This means there were municipalities where out-of-pocket contributions for social home care were reasonable and other ones where such contributions were very high. The number of users was higher in urban areas than in rural areas compared to the number of eligible users (Hlebec, 2012). Institutional care was developed differently in terms of where (which parts of the country) institutions were built (Hlebec, 2013b; Hlebec et al., 2014), while there were municipalities where there was an abundance of placements available and municipalities where residents were when institutional care was adopted, older persons were forced to leave the communities where they had been living to receive institutional care. Institutional care has transformed significantly over the decades and recently been transformed to community-oriented care centers (Hlebec & Mali, 2013) offering institutional

care, social home care, and day care for local residents.

The above-summarized disparities were, naturally, also observed by users themselves and their family carers. In-depth analysis of social home care users and their family carers revealed that when social home care was adopted, users were highly satisfied with services, albeit the access to care was quite challenging in terms of five dimensions of access (Hlebec, 2018, 2020; Hlebec & Filipovič Hrast, 2015). Highly satisfied users differed from unsatisfied users in terms of the affordability and temporal availability of social home care. The satisfaction decreased with care needs (and the number of care hours received from social home care).

The purpose of this study was to consider how social home care delivery is currently shaped across municipalities in Slovenia. Ideally, municipalities should converge in terms of the availability of social home care in all dimensions of access (Penchansky & Thomas, 1981; Thomas & Penchansky, 1984) so that users of social home care would be offered the same package of care options and would tailor the use of social home care to their needs. We also sought to observe how the institutional care is provided across administrative units, hoping to find only small differences.

2. Methods

Data from various public sources (Kovač et al., 2022; Statistical Office of the Republic of Slovenia [SURS], 2023a) were gathered to build a database of indicators of social home care, institutional care, and indicators of a municipality's development. The majority of data sources are associated with activities carried out in 2021, where the data were published in 2022. During the time of the data collection and analysis, the long-term care legislation had yet to be adopted and it is noted that no major changes were introduced and the data are thus still relevant.

The purpose of the analysis was to observe and uncover systemic variations in care available to individuals based on their place of residence in the case of social home care and proximity to place of residence for institutional care. As municipality and administrative unit (in the case of institutional care) were the units of analysis (and not individuals), no sampling was induced and population data were used for both sets of care for older people.

The dependent variables were indicators of social home care and indicators of institutional care. The independent variables were characteristics of municipalities that measure the development of municipalities and other characteristics like the income of the residents. The variables for social home care are presented in Table 1. The selection of dependent variables was based on the results of previous analyses of social home care (Kovač et al., 2022; SURS, 2023c) while the choice of variables used by SPIRS uses a two-stage data collection. The first step collects data relevant to the municipality (organization of the service, prices, etc.), followed by data relating to each user and each employee individually (anonymized micro-data) to monitor the delivery of care in Slovenia. The data used in this study were collected, verified, and analyzed between April 5, 2022 and September 27, 2022. We selected two indicators of usage (the number of eligible population aged 65+ and number of users aged 65+) and two indicators of availability, namely an indicator of affordability (out-of-pocket contribution of users for social home care per hour—price per user, valid on December 31, 2021, for weekdays) and temporal availability (the availability of social home care on weekdays, weekends, and public holidays—a cumulative indicator).

The independent variables for the analysis of social home care are presented in Table 2. Here we observed indicators of aging and the development of municipalities (Employment Service of Slovenia [ESS], 2023; Ministry of Finance of the Republic of Slovenia [MFRS], 2023;

Table 1. Indicators of social home care

Label	Variable name and description
Y_1	*Name*: Share of population aged 65 and more[a] *Description*: Population aged 65+ as a share of the total population for the second half of 2021.
Y_2	*Name*: Number of users aged 65 and more[b] *Description*: Number of all service users aged 65 and over in 2021.
Y_3	*Name*: Price per user (weekdays)[c] *Description*: Price of the service for the user on weekdays.
Y_4	*Name*: Temporal accessibility of social home care[d] *Description*: The variable indicates how many municipalities provide home help on weekdays, weekends and holidays. An index was calculated, ranging from 1 to 4 to indicate the temporal accessibility of social home care.

[a] Data on the share of population aged 65 and older, collected in municipality in the second part of the year 2021 (SURS, 2021).
[b] Number of users aged 65 and more, collected in the year 2021 in municipality.
[c] Data on the price per user collected in the municipality, valid on December 31, 2021.
[d] Social home care in a municipality, accessible on weekdays, weekends and public holidays. Municipalities are allowed to present the price of social home care per hour only if the social home care is actually offered during a specific time period (e.g., if the price per hour is presented for social home care on weekday mornings only, this indicates that social home care is actually offered only on weekday mornings, but not also on weekday afternoons, weekends, and holidays. The price was recoded in such a way that if the price is presented, this is labeled as 1, and if the price is not presented, the label is 0. All four price variables (e.g., on weekdays mornings, on weekday afternoons, on weekends, during holidays) are recorded in this manner, the index is calculated as the sum of four recoded variables.
Sources: Y_1 = SURS (2021); Y_2–Y_4 = Kovač et al. (2022).

SURS, 2023a, 2023c) such as an aging index, mean age in persons, registered unemployment rate, average monthly net earnings, and municipal development index. All data were matched as closely as possible to social home care data in terms of the time of the data collection.

The variables assessing institutional care are measured at different aggregation levels than social home care. Thus, instead of municipalities, we discuss administrative units (Ministry of Public Administration of the Republic of Slovenia [MPARS], 2023) and institutional care provided across those units. To the best of our knowledge, data describing the characteristics of administrative units in terms of development and other characteristics, like aging of the population, are not available in a form that would actually link the residents' characteristics to the municipalities they previously resided in, and to larger administrative units. The matching of the characteristics of administrative units to actual residents' recipients of institutional care does not make much sense since very often urgency, an onset of illness, precedes the placement in institutional care outside of the municipality or administrative unit the user is residing in. The dependent variables used in the analysis of institutional care are presented in Table 3.

The method of analysis was hierarchical cluster analysis based on a search for the similarities and dissimilarities of units (municipality and administrative units). Hierarchical cluster analysis was selected since the number of clusters was not known in advance for either social home care or institutional care facilities. This is an exploratory analysis, and the number of clusters is a result of the analysis as well as the composition of the clusters.

Table 2. Characteristics of municipalities and residents in a municipality

Label	Variable name and description
X_1	*Name*: Aging index[a] *Description*: The aging index is the ratio between the old population (aged 65 years and over) and the young population (aged 0–14 years), multiplied by 100.
X_2	*Name*: Mean age of persons[b] *Description*: The mean age of persons at given events or time cross-sections is a weighted arithmetic mean of the age of a given group of the population. We calculate it from absolute data. In the calculation, we consider the means of age classes as weights.
X_3	*Name*: Registered unemployment rate[c] *Description*: Is defined as the number of unemployed as a percentage of the active population where the active population consists of the number of people in employment and the number of unemployed.
X_4	*Name*: Average monthly net earnings[d] *Description*: Average monthly net earnings are average monthly amounts in euros paid out to persons in paid employment by legal persons for working full time, part-time, overtime and non-refunded wage compensation from employer resources, less social security contributions and advance on income tax.
X_5	*Name*: Municipal development coefficients[e] *Description*: A municipality's development coefficient is the ratio of the arithmetic mean of the standardized values of the indicators in the municipality to the arithmetic mean of the standardized values of the indicators in the country, where the average development coefficient of municipalities in the country is 1.00. The municipality's development coefficient is rounded up to two decimal places.

[a] Ageing index, calculated on Januar 1, 2023.
[b] Mean age of persons, written in years and calculated on January 1, 2023.
[c] Calculated average of the registered unemployment rate for the year 2023.
[d] Average monthly net earnings, calculated for the year 2022.
[e] Municipal development coefficients, calculated for the years 2022 and 2023.
Sources: X_1 = SURS (2023a); X_2 = SURS (2023c); X_3 = ESS (2023); X_4 = SURS (2023b); X_5 = MFRS (2023).

Table 3. Assessing institutional care

Label	Variable name and description
X_1	*Name*: The number of old people's homes *Description*: Number of all homes in the administrative area with places for the care of older people (parent and branch offices).
X_2	*Name*: The number of places in old people's homes *Description*: Number of older people care places; only older people care places are included in "combined".
X_3	*Name*: Places are sufficient for percentage of the group *Description*: Share (%) of the population aged 65+ for which the existing number of older people care places is sufficient.
X_4	*Name*: Difference in the number of places *Description*: Difference between the target and actual number of places (4.8 % coverage of the target group).

Source: SURS (2023a).

The squared Euclidean distance was used as the dissimilarity metric with *z*-standardized variables, followed by the application of Ward's clustering algorithm (Ferligoj, 1989). A dendrogram was used to determine the number of clusters. A simple analysis of means was used to observe differences in clusters with regard to cluster variables and independent variables. Ljubljana and Maribor were excluded from the social home care analysis as they differ significantly from the other municipalities. Analysis across administrative units for institutional care was performed separately from social home care across municipalities as the data were measured across different geographical units, as explained above.

3. Results

The first series of analysis was performed for social home care across municipalities, with Ljubljana and Maribor excluded from cluster analysis as their data are extreme outliers in terms of the number of users and other parameters. The two municipalities excluded are presented on the last row in the results as separate analysis was conducted for those two municipalities. Several solutions (three- and four-cluster) were examined, although four-cluster solutions gave insight into various quality parameters of social home care. The results are presented in Table 4.

Table 4. Results of cluster analysis on the social home care indicators

Cluster	*n*	Sum.	Y_1	Y_2	Y_3	Y_4
#1	19	M	6097.26	192.74	5.92	3.84
		SD	2509.93	92.89	1.44	0.69
#2	102	M	1513.91	39.11	5.28	4.00
		SD	1134.10	28.69	0.92	0.00
#3	46	M	1154.24	30.37	5.51	1.11
		SD	913.03	24.52	1.39	0.38
#4	38	M	721.82	18.45	8.44	4.00
		SD	431.84	20.20	0.88	0.00
Total	205	M	1711.18	47.56	5.97	3.34
		SD	1863.82	59.99	1.61	1.23
Excluded	2	M	42 274.00	981.50	4.86	4.00
		SD	22 583.58	470.23	0.64	0.00

Legend: Cluster = cluster ID; *n* = cluster size; Sum. = summary statistics. For variable names see Table 1.

The clusters of municipalities are ordered by the number of inhabitants aged 65+ and the number of social home care users aged 65+. The first two clusters differ mostly in terms of affordability. The out-of-pocket contribution for social home care is € 5.9 per hour in the first cluster and € 5.3 in the second one, allowing us to say that affordability is better in the second cluster than in the first. These two clusters do not vary significantly in terms of temporal availability because in both clusters social home care is available at most times (weekdays, weekends, holidays). The third cluster has a smaller number of residents aged 65+ and users of social home care aged 65+ than the first two clusters, the affordability is good (€ 5.5), yet the temporal availability is poor. Namely, social home care is only available on weekdays. The fourth cluster has the smallest number of residents aged 65+ and smallest

number of social home care users aged 65+ with full temporal availability. However, the affordability is poor as the average out-of-pocket contribution per hour is as high as € 8.4.

Regarding independent variables (Table 5) measuring the development of municipalities and the material well-being of inhabitants, the first cluster is on average the richest. Namely, the highest average net income (€ 1272.51) is coupled with the highest development coefficient (1088), but also with the second-highest unemployment rate and an aging index showing an average age of 44.3 years. The second cluster of municipalities has very favorable parameters in the social home care analysis yet is less developed in terms of the parameters in Table 5. Namely, the average net income is somewhat lower than in cluster 1 (€ 1180.05) but the rate of unemployment is a little lower than in cluster 1 (4.56), the value of the development coefficient is above 1, but lower than for cluster 1 (1.01). The average age is similar to cluster 1. Cluster 3, which had the lowest temporal availability of social home care, is in most parameters very similar to cluster 2, except in a lower unemployment rate (4.18) and development index, which is below 1 yet very similar to cluster 2. Cluster 4 has the highest average out-of-pocket contribution for social home care, as well as the highest average unemployment rate (5.58), lowest net income (€ 1167.98), the highest population aging index (160.79), the highest average age (44.74), and the lowest development index (0.94).

Table 5. Measuring the development of municipalities and material well-being of inhabitants across the clusters

Cluster	*n*	Sum.	X_1	X_2	X_3	X_4	X_5
#1	17–19	M	5.25	1272.51	149.51	44.28	1.09
		SD	1.80	82.36	32.47	1.64	0.10
#2	87–102	M	4.56	1180.05	146.93	44.38	1.01
		SD	1.79	90.09	29.95	1.72	0.12
#3	39–46	M	4.18	1180.87	145.10	43.91	1.00
		SD	1.74	91.71	60.36	2.73	0.19
#4	38	M	5.58	1167.98	160.79	44.74	0.94
		SD	2.06	111.31	48.84	2.08	0.17
Total	181–205	M	4.76	1186.60	149.33	44.33	1.00
		SD	1.89	97.49	42.48	2.05	0.15
Excluded	2	M	6.65	1376.98	163.85	44.05	1.10
		SD	1.77	170.54	31.89	1.63	0.16

Legend: Cluster = cluster ID; *n* = cluster size; Sum. = summary statistics. For variable names see Table 2.

The second series of analysis was performed for institutional care facilities across administrative units. Several solutions (three- and four-cluster) were examined in the dendrogram, although the three-cluster solution seems the most informative. The results are presented in Table 6. There are two clusters (1 and 2) where the number of placements is around 4 % of the population aged 65+. The first cluster comprises eight administrative units where there are 10 institutional facilities on average and the number of available placements is very high (1509.25 on average). Nevertheless, given the difference in the number of placements, there is still a lack of placements where residents of these administrative units

are concerned. The second cluster contains 39 administrative units where one finds about 1.7 institutional facilities and a lack of placements remains evident (235.54 on average). The third cluster comprises 10 administrative units with 1.7 facilities on average, however, they are sufficient for 7.6 % of the eligible population and there is a surplus of available placements (238.70 on average).

Table 6. Results of hierarchical cluster analysis across institutional care facilities

Cluster	*n*	Sum.	X_1	X_2	X_3	X_4
#1	8	M	10.00	1509.25	4.01	−186.13
		SD	2.83	663.66	0.31	147.75
#2	39	M	1.67	235.54	3.99	−29.95
		SD	1.01	132.10	1.02	48.50
#3	10	M	1.70	238.70	7.62	89.20
		SD	0.48	45.99	2.12	37.63
Total	57	M	2.84	414.86	4.63	−30.96
		SD	3.20	516.02	1.84	102.82

Notes: Cluster = cluster ID; *n* = cluster size; Sum. = summary statistics. For variable names see Table 3.

4. Discussion and conclusions

The purpose of this study was to re-examine the consequences held by the governing structure for care delivery in Slovenia. More specifically, we were interested in establishing whether the results of previous studies on social home care (Hlebec, 2013a; Hlebec et al., 2014) and institutional care (Hlebec, 2013b; Hlebec et al., 2014) delivery are still relevant in Slovenia. Significant disparities were observed in the accessibility of social home care and institutional care. There are arguments in favor of ensuring that the organization and financing of social home care and institutional care are linked to the place of residence of an older person given that geographical proximity reduces the costs of social home care delivery and allows older people to remain living in the community of their residence, making this in itself very beneficial. Nonetheless, the organization and financing of care "by post code" is inevitably the cause of inequality among older people and their families in terms of out-of-pocket contributions for social home care, the temporal availability of social home care, and the closeness of institutional care facilities to the place of residence of an older person.

Analysis of social home care delivery was performed on the level of municipalities. The results suggest that although nearly 80 % of municipalities (clusters 1, 2, and 3) are today offering reasonably priced social home care (ranging between € 5.3 and € 5.9), 20 % of municipalities still offer social home care that is far more expensive (€ 8.4). One wonders if these are especially affluent municipalities and residents can afford expensive social home care. After inspecting the aging and development coefficients (Table 5), we observe that, in fact, this is quite the opposite. Cluster 4 represents, on average, the poorest cluster of municipalities with the highest population aging (160.8) and average age (44.7) as well as the lowest average net income (€ 1167.9), and highest unemployment rate (5.6). Thus, the highest average out-of-pocket contributions for social home care are on average required

in the poorest municipalities and where the need for support for people aging in place would be the highest according to the aging index. In the absence of any guidelines (apart from at least 50 %) on how to determine the exact sum of out-of-pocket contribution for social home care, the decision on this is left to current municipality officials. And this is how the "post code" organization of social home care translates to actual care provision and care usage. One wonders whether old people should and would move houses to seek residency in municipalities where the out-of-pocket contribution for social home care is more reasonable, or not? In Slovenia, this is highly unlikely because it is a country where homeownership of the property one is living in is a cultural norm and a reality and the costs of moving would easily exceed the benefits obtained by the money saved with social home care use (Hlebec et al., 2010). Comparing the results of this study to previous analyses (Hlebec, 2012, 2013a; Hlebec et al., 2014) reveals progress has been made in terms of levelling up the variability in the pricing of social home care. Unfortunately, the core issue with the "post code" organization of care is still relevant and in fact unchangeable unless a structural change is made by the governing bodies responsible for decision-making on long-term care.

The second issue is the temporal availability of social home care across the whole week as it is reasonably good for only three-quarters of municipalities (Table 4). The remaining 46 municipalities in cluster 3 on average offer social home care only on weekdays. These municipalities have reasonably priced social home care (€ 5.5 on average on weekdays) and a relatively small number of users (30.4 on average). The cluster 3 municipalities (Table 5) on average have the lowest aging index (145.10), average age (43.9) and lowest unemployment index. The mean net income is close to the average net income of the cluster 2 municipalities (€ 1180.05) and development coefficient (1.01). It is very difficult to ascertain why social home care is not offered across the whole week. One could guess that this is due to organizational issues as these municipalities would have 39 social home care users on average. Comparing the results of this study to earlier analyses of social home care (Hlebec, 2012, 2013a; Hlebec et al., 2014) again reveals progress in terms of the temporal availability of social home care. Overall, while progress has been made, this refers to the users of social home care in those 46 municipalities.

The gap between the care needed and the care offered—unmet needs—is observed in SPIRS reports as well. In 2021, at least 536 eligible people wanted social home care and did not receive it, and 230 current users of social home care who would need an extra 5.9 hours of social home care per week on average (Kovač et al., 2022). SPIRS also declares that those unmet needs are not only current but have been an issue for several years. The reasons for the unmet care are fairly complex, ranging from the affordability (users would need more care but cannot afford it) to the temporal availability of social home care (social home care is needed at times when it is not offered), and organizational (the number of formal carers is insufficient for present needs). The most challenging is the temporal component of how much care is offered at a maximum—up to 40 hours per week and there are users of social home care who require more hours than this. The unmet needs are substantial according to a recent SHARE study (Hlebec et al., 2016) and among other sources of unmet needs are related to the characteristics of the community setting. The affordability and temporal availability of social home care are just as relevant as key issues concerning social home care accessibility as in the past (Hlebec, 2018, 2020; Hlebec & Filipovič Hrast, 2015).

The institutional care facilities are regulated on the level of administrative units that are not congruent with municipalities. Therefore, the analysis of institutional care facilities was separated from the analysis of social home care, and hierarchical clustering was performed on the level of administrative units that are not supported with other indicators like a

development index. This led to only the data analysis about institutional care facilities being conducted. We uncovered three clusters, which differ with regard to the numbers of institutional facilities, percentages of population covered, and lack of placements. In terms of differences across clusters, there seem to be variations mostly in the number of placements needed for the target percentage of the population to be secured with institutional care and the number of institutional care facilities. There are three clusters, one with a smaller number of institutional care facilities, and the second one with a larger number of institutional care facilities with a lack of placements, while there is a third cluster with a smaller number of institutional care facilities and a surplus of placements. It is very hard to determine how meaningful these results are in terms of what they impose on older people and their families. Compared with previous studies (Hlebec, 2013b; Hlebec et al., 2014) where information linking individual residents to their original municipality of origin was available, we can say that the current study lacks precise information that would allow us to make detailed and more precise analyses. We thus cannot say much about the distribution of institutional care and the consequences this holds for both people using institutional care and their loved ones.

This study offers interesting new information about how social home care is evolving and confirms that the two most important shortcomings—affordability and temporal availability—are still relevant issues will continue to be so unless the structure of governing is changed to prevent variability in the out-of-pocket contributions of users and with respect to when the care is actually offered to users. There is still the question of current users who would need more care, but this is not available either due to insufficient supply owing to a lack of social home care workers or by the time limits imposed because of the legislation in place. In terms of institutional care, we are aware that the present study is less than perfect, but this is caused by the lack of available data and the missing ability to link both types of care to municipality settings. Assessing types of care offered on different levels of evaluation prevents us from monitoring both types of care at once.

Funding

This work was supported by the Slovenian Research and Innovation Agency as part of the research project Long-Term Care for People with Dementia in Social Work Theory and Practice (Grant No. J5-2567).

References

Collovà, C., & Pape, M. (2022). *European care strategy: Pre-legislative synthesis of national, regional and local positions on the European Commission's initiative*. https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2022)733626

Community of Social Institutions of Slovenia. (2022). *Pokritost potreb domskega varstva starejših* [Meeting the needs in institutional elderly care]. Retrieved October 14, 2023, from https://www.gov.si/assets/ministrstva/MSP/Direktorat-za-starejse-in-deinstitucionalizacijo/JR-Zagotavljanje-varnega-okolja-bivanja/Priloga-st.-4_Preglednica-Pokritost-potreb-domskega-varstva-30.6.2022.pdf

Employment Service of Slovenia. (2023, October 14). *Stopnja registrirane brezposelnosti* [Registered unemployment rate] [Data Set]. https://www.ess.gov.si/partnerji/trg-dela/trg-dela-v-stevilkah/stopnja-registrirane-brezposelnosti

Ferligoj, A. (1989). *Razvrščanje v skupine: teorija in uporaba v družboslovju* [Cluster analysis: Theory and examples in social sciences]. Univerza v Ljubljani, Fakulteta za družbene vede.

Hlebec, V. (2012). Kontekstualni dejavniki uporabe oskrbe na domu v Sloveniji [Contextual factors of home care utilization in Slovenia]. *Slovenian Journal of Public Health*, *51*(2), 120–127.

Hlebec, V. (2013a). Razvoj in spremembe v tipologiji socialne oskrbe na domu [Development and changes in the typology of social home care]. *Socialno delo*, *52*(1), 3–14.

Hlebec, V. (2013b). Tipologija razvoja institucionalne oskrbe starejših ljudi v Sloveniji [Tipology of institutional care for older people in Slovenia from development perspective]. *Socialno delo*, *52*(1), 29–41.

Hlebec, V. (2018). Evaluation of access to long-term care services for old people ageing in place in Slovenia. *Slovenian Journal of Public Health*, *57*(3), 116–123. https://doi.org/10.2478/sjph-2018-0015

Hlebec, V. (2020). Individualne in skupnostne determinante subjektivne percepcije dostopa do socialne oskrbe na domu [Individual and community determinants of subjective perceptions of access to social care at home]. In M. Filipovič Hrast & V. Hlebec (Eds.), *Blaginja v skupnosti: razvojni vidiki in inovacije* [Community Prosperity: Development aspects and innovation] (pp. 121–141). Univerza v Ljubljani, Fakulteta za družbene vede.

Hlebec, V., & Filipovič Hrast, M. (2015). Ovrednotenje dostopa do socialne oskrbe na domu z vidika uporabnikov [Evaluating access to social care at home from the users' perspective]. *Teorija in praksa*, *52*, 48–66.

Hlebec, V., Kavčič, M., Filipovič Hrast, M., Vezovnik, A., & Trbanc, M. (2010). *Samo da bo denar in zdravje: življenje starih revnih ljudi* [If only there were money and health: The lives of the elderly poor]. Univerza v Ljubljani, Fakulteta za družbene vede.

Hlebec, V., & Mali, J. (2013). Social work in institutional care for older adults: Transforming medically oriented homes for the older people into community-oriented care centres. In M. Nóżka & M. Smagacz-Poziemska (Eds.), *Starzenie się: Problemat społeczno-socjalny i praktyka działań* [Aging: As the social question and the social practice] (pp. 219–231). Jagiellonian University Press.

Hlebec, V., Mali, J., & Filipovič Hrast, M. (2014). Community care for older people in Slovenia. *Anthropological Notebooks*, *20*(1), 5–20.

Hlebec, V., & Rakar, T. (2017). Ageing policies in Slovenia: Before and after austerity. In Ł. Tomczyk & A. Klimczuk (Eds.), *Selected contemporary challenges of ageing policy* (pp. 27–51). Uniwersytet Pedagogiczny w Krakowie.

Hlebec, V., Srakar, A., & Majcen, B. (2016). Determinants of unmet needs among Slovenian old population. *Slovenian Journal of Public Health*, *55*(1), 78–85. https://doi.org/10.1515/sjph-2016-0011

Kovač, N., Istenič, A., & Petrič, M. (2022). *Spremljanje izvajanja storitve pomoči za družino: Končno poročilo* [Monitoring the implementation of the family support service: Final report]. Inštitut Republike Slovenije za socialno varstvo.

Ministry of Finance of the Republic of Slovenia. (2023). *Koeficienti razvitosti občin in odstotek sofinanciranja za leti 2022 in 2023* [Municipal development coefficients for 2022 and 2023] [Data Set]. Retrieved October 14, 2023, from https://www.gov.si/teme/financiranje-obcin

Ministry of Labour, Family, Social Affairs and Equal Opportunities of the Republic of Slovenia. (2021). *Povprečne cene oskrbe na dan 1. marec 2021* [Average cost of care on March 1, 2021]. Retrieved October 14, 2023, from https://www.ssz-slo.si/wp-content/uploads/Povpre%C4%8Dne-cene-oskrbe-1.3.2021.pdf

Ministry of Labour, Family, Social Affairs and Equal Opportunities of the Republic of Slovenia. (2023a). *Domovi za starejše* [Retirement homes]. Retrieved October 14, 2023, from https://e-uprava.gov.si/si/podrocja/delo-upokojitev/upokojitev/domovi-za-ostarele.html

Ministry of Labour, Family, Social Affairs and Equal Opportunities of the Republic of Slovenia. (2023b). *Socialna oskrba na domu* [Social care at home]. Retrieved October 14, 2023, from https://spot.gov.si/sl/dejavnosti-in-poklici/dejavnosti/socialna-oskrba-na-domu

Ministry of Public Administration of the Republic of Slovenia. (2023). *Upravne enote* [Administrative units] [Data Set]. Retrieved October 14, 2023, from https://www.gov.si/en/state-authorities/administrative-units

Official Gazette of the Republic of Slovenia. (2010). *Pravilnik o standardih in normativih socialnovarstvenih storitev* (No. 45/10) [Rules on standards and norms for social protection services]. https://www.uradni-list.si/1/objava.jsp?sop=2010-01-2321

Penchansky, R., & Thomas, J. W. (1981). The concept of access: Definition and relationship to consumer satisfaction. *Medical Care*, *19*(2), 127–140.

Statistical Office of the Republic of Slovenia. (2021). *Share of population aged 65 and more in a municipality* [Data Set]. Retrieved October 14, 2023, from https://pxweb.stat.si/SiStatData/pxweb/sl/Data/-/05C5006S.px

Statistical Office of the Republic of Slovenia. (2023a). *Aging index* [Data Set]. Retrieved October 14, 2023, from https://www.stat.si/obcine/sl/Theme/Index/PrebivalstvoIndeks

Statistical Office of the Republic of Slovenia. (2023b). *Average monthly net earnings* [Data Set]. Retrieved October 14, 2023, from https://pxweb.stat.si/SiStatData/pxweb/sl/Data/-/0772615S.px

Statistical Office of the Republic of Slovenia. (2023c). *Population aged 65 and more* [Data Set]. Retrieved October 14, 2023, from https://pxweb.stat.si/SiStatData/pxweb/sl/Data/-/05C1006S.px

Thomas, J. W., & Penchansky, R. (1984). Relating satisfaction with access to utilization of services. *Medical Care*, *22*(6), 553–568.

Wiles, J. L., Leibing, A., Guberman, N., Reeve, J., & Allen, R. E. (2012). The meaning of "aging in place" to older people. *The Gerontologist*, *52*(3), 357–366. https://doi.org/10.1093/geront/gnr098