1. Introduction

After the 1990’s, Romania’s population experienced numerous changes, both in terms of natural and migratory dynamics and structural changes, either in the structure by age and sex, or in other types of structures (professional structure or training level, for example). Although the changes that took place in the structure by age groups were not immediately registered after the 1990’s, they did not fail to appear, Romania entering the trend of Central and East-European countries through the increasing share of elderly people among the total of its population. Amid the drastic reduction in birth rate and in the context of increasing the average life expectancy, in Romania, the phenomenon of the demographic aging was intensified by a double process: aging through the base of the pyramid (generated by the decrease in birth rate and the percentage of young people under 15 years of age) and aging through the top of the pyramid (through the increase of life expectancy in birth, which in turn, generated a growth in the percentage of old people).

At the European level, Romania’s situation from the perspective of the demographic aging is deteriorating, under the circumstances that the percentage of nearly 17% of the population is over 65 years, our country being closer to the most aging European states (Italy – 21.7%, Germany 21%, Greece – 20.9%) that those in which the percentage of elderly is minimal (Albania...
– 12.5%, Macedonia – 12.7%, Island – 13.5%, Ireland – 13%). If we relate to the limits which indicate, in literature, the intensity of the demographic aging process, the threshold of 12% for the elderly population which indicates an aging population, was surpassed, at the level of Romania’s population, from the beginning of the 2000’s. And the medium and long term prospects are by no means optimistic, given that, over approximately 15 years, they will begin to fall within the category of the older generations, born during the period of the manifestation of the pro-natalist policy, promoted by the Romanian socialist state, and the birth rate shows no sign of recovery, against a backdrop of a still fragile socio-economic climate and a incoherent or absent demographic policy.

The consequences of the demographic aging are numerous and they can be felt both at the economic and social levels. The health system, the social assistance system and the local administrations are already confront themselves and they will continue to do so ever more frequently in the future, with the special needs of an ever growing segment of the elderly. In this context, the knowledge of the way demographic aging manifests itself at a territorial level, of the existing differences at an interregional level, as well as the factors that may increase the level of vulnerability of a territorial entity with regards to the aging population are essential aspects necessary for the substantiation of the public policies in the field.

At the same time, knowing the public perception (elderly or not) regarding this phenomenon, the identification of the problems created by an aging population and the solution that society can provide (either on a individual level or a collective one) can help better understand the national and regional particularities of the demographic aging phenomenon. This article aims to, alongside the identification of the particularities of demographic aging at a national level and the analysis of the way the state (through specialized institutions) and society (at the individual level, family level, but also at the collective level, of private actors) react in the face of this ongoing phenomenon.

A problem confronted by the Romanian society today and which will only worsen in the future is the care of the elderly. The demographic aging process began manifesting in Romania before the state could achieve the kind of level of economic prosperity needed to easily manage the process (Istrate et al., 2015, pp 1472), and at the level of the young and adult population, a large rate of departures abroad, both temporary and permanent are recored. In these conditions, the care of the elderly is emerging as a new problem, most often resolved within family circles. Sending the elderly to institutions, both public and private, is not a very widespread solution in Romania, nonetheless it will become one in the future. To what extent is the Romanian society – still quite traditional – able to accept and provide such a solution to resolve the problem of the elderly? Are there, at state level and private sector, institutions capable of responding to this need? And if there is a response from society from this point of view will it be properly correlated with the needs? Are there differences at the territorial level, regarding the presence of institutions for the elderly?

There already exist concerns regarding the analysis of an aging population, in various fields, both at the European level and at the national one. There are numerous studies published at the European level with regard to the demographic causes and consequences of an aging population (Dlugosz, 2011, Bloom et al., 2011, Käčerova et al., 2014), as are studies that are concerned with aspects of the institutionalization of the elderly (Pelletier, 1992, De Voss, 1999, Desesquelles, 2003). Regarding the aging of Romania’s population, there are significant contributions, with a general character (Muntele, 2010, Rotariu, 2009, Bărbulescu, 2010), and also concerns focused
on the consequences and the regional particularities of the demographic aging (Georgescu & Herman, 2010, Panait, 2011, Istrate et al., 2015). Useful and interesting information is also included in the official documents which addresses the problems of Romania’s elderly (CNPV, 2014, 2015).

2. Methods

The creation of this study has its basis on the processing of data supplied by the National Institute of Statistics and the cartographic representation with the purpose of highlighting the particularities of the demographic aging at the territorial level. To illustrate the way in which the Romanian society can respond to the needs of its elderly population, a analysis of the territorial distribution of institutions for elderly persons was also realised.

An attempt has been made to establish the level of vulnerability of the administrative-territorial units towards the aging population, in correlation with the supplying of institutions for the elderly and the existence of some risk factors. For this purpose, a series of indicators were calculated (the demographic aging indicator, the parental support indicator, the percentage of people who are widowed, the average life expectancy, the percentage of persons who have been abroad for over 12 months) meant to convey the situation of the aging population. These indicators, to which were added the ones about the ratio between the number of elderly persons and the number of seats in the institutions were aggregated into a complex indicator, calculated to capture the correlation between the level of an aging population and the society’s response at a territorial level.

The analysis of the quantitative indicators is also supplemented by a qualitative analysis, based on the application of a questionnaire on a sample of 157 persons from Suceava county, during the period of January-March 2014. The questionnaire targeted the perception analysis of the members of the society (old or young) regarding the institutionalization of the elderly and of the services offered by the state and private entities from a quantitative and qualitative perspective. Without having claims of a sociological research, the analysis of the questionnaire responses try to capture the degree of awareness regarding the demographic aging at the population level as well as its willingness to appeal to the public or private services intended for the elderly.

3. Results

Romania’s population structure on age groups has been significantly modified after 1990, as a result of the changes suffered by the demographic behaviour and also by the increase in the life expectancy at birth. Thus, the percentage of elderly persons, over 65 years of age, increased from 11% in 1992 (below the threshold of demographic aging) to 14% in 2002 and a little bit over 16% in 2011. If between the first two censuses mentioned, the percentage of the elderly increased primarily on the account of the growth of the percentage of persons between 65 and 75 years of age, while at the same time the percentage of persons over 85 years changed insignificantly, between 2002 and 2011 things are completely different. The percentage of the elderly increased in this period, especially on account of the growth of the percentage of people over 85 years of age (from 4.90% to 7.24 %), all the while the percentage of those with ages between 65 and 75 years decreased slightly.

This situation indicates the fact that the Romanian society is already facing the pressure in growth exerted by a segment of the population with special needs, generated by the increase in the degree of dependence by age. One of the possible answers to these needs should be represented by institutions for the elderly, both public and private, even if Romanian society isn’t
very fond of this type of approach. Nevertheless, under the conditions of a rapidly modernizing society, at all levels, in which the average size of the family has been greatly reduced and the intergenerational help is questionable at best amid the high rate of external migration (especially in rural areas), the services offered by institutions for the elderly will become increasingly important. If in 2002 there still were 5 counties (Maramureș, Satu Mare, Iași, Brașov and Constanța) in which the percentage of the elderly was under 12%, in 2011 there was no longer any such administrative – territorial unity, the minimum value percentage of elderly being recorded in Ilfov county (12.8%). The number of counties in which the percentage of elderly goes beyond 18% also increased, from one in 2002 (Teleorman) to eight in 2011 (Teleorman, Giurgiu, Călărași, Brăila, Buzău, Vrancea, Olt, Vâlcea). It is obvious that the most affected regions are Southern-Muntenia and the South-East Region, regions with a high degree of ruralization and a lower level of development and economic attractiveness.

The aging of the population was and still remains, by far, much higher in rural areas than in the urban ones. The percentage of the elderly from the urban environment exceeded, in 2011, the threshold of 12%, all the while, in 2002 the medium value was still below 10%. At a territorial level, the number of counties in which the percentage of elderly in the urban areas was higher than 12% increased from 4 in 2002 to 29 in 2011, the most important increases being registered in the North-East Region, (the counties of Neamț, Bacău, Suceava), in the South-East Region and in the Central Region (Mureș, Harghita). At an insular level, significant increases of the percentage of the elderly in the urban areas were also recorded in Hunedoara and Maramureș counties. The more dramatic situation from the rural areas means an increase percentage of the elderly from 17.5% in 2002 to 18.9% in 2009 (consequently, a slower population aging speed that in an urban environment, because the rural environment was already old in 2002), but also the increase in the number of counties with a percentage of elderly over 20% from 15 to 20. The most significant increases in the percentage of the elderly in the rural areas were recorded in Neamț, Vaslui, Olt and Vâlcea counties. There are also 4 counties in which the percentage of people over 65 years of age from the rural areas decreased, but insignificantly, especially due to the increase of the percentage of adults (Bihor, Timiș, Mureș, Giurgiu).

The index of demographic aging, calculated as a ratio between the elderly population and the younger one, provides us, alongside information regarding the aging intensity of the population data regarding the relations between the elderly and the young, indicating the medium and long term perspectives of an aging population.
The values of this index still places Romania into a relatively comfortable position between the states of the European Union, but the demographic projections indicates that, towards 2060, Romania’s population will be one of the oldest at an European level, with a rate of 307 elderly people for every 100 young ones (Mureșan, C. et al. 2009, pp. 12).

Both the values of the demographic aging index from 2002 and the ones from 2011, indicate the fact that the most dramatic situation was and still remains the one from south and south-east of the country. The number of counties where the aging index surpassed 100 grew from 4 in 2002 to 21 in 2011, another 5 being very close to this limit. The overwhelming majority of those counties are situated in the southern and western half of the country (Figure 1). By area of residence, the situation remains even more critical in the rural area, where over half of the counties have recorded values of over 100, but has also seen a stronger deterioration in the urban area, which found itself into a much more favourable situation in 2002, when only at the population level of Bucharest municipality the value of 100 was surpassed (as opposed to the 18 counties in the rural area in the same year). The territorial repartition of the demographic aging index by area indicates an alarming situation in the central and western parts of the country in the urban area (in the most industrialized counties, with the highest standard of living and the earliest modernization of the demographic behaviour – Timiș, Cluj, Brașov etc.) and in the south and south-east of the country in the rural area (the counties of Giurgiu, Teleorman, Olt, Dolj, Brăila, Buzău etc.).

Another indicator analysed and integrated into the composite index is the parental support index, an indicator that shows the relation between the very elderly population (those over 80 years of age) and their direct descendents (those with ages between 55 - 64 years). This indicator is especially important in the Romanian context, in which the family is still the one primarily responsible for the caring of elderly people. From the perspective of this indicator, the situation of demographic aging becomes nuanced, in the sense in which higher values (the high load of very old individuals for the elderly adults) is being registered not only in the south and south-east (Călărași, Giurgiu, Teleorman, Vrancea, Buzău), but also in the North-Eastern Region (Suceava, Botoșani, Vaslui) (Figure 2).

![Figure 2 Index of parental support and institutions for the older people (2011)](image-url)
The economic potential support index is another indicator which exhibits the pressure that the elderly population, retired from an active economic life, is exerted upon the active population. By representing the number of active persons assigned to one inactive elderly person, the values of this indicator are the much lower the higher the degree of aging is. Against the background of an average value of 3.83 in 2011, the situation is favourable in the economically developed counties (Ilfov, Constanța, Timiș, Brașov, Sibiu, the București municipality) and dramatic in the southern counties (Teleorman – 2.4, Giurgiu, Călărași, Olt, Vâlcea) but also in the east, in the less economically attractive counties which are also marked by external migration (Botoșani, Neamț, Vaslui, Vrancea).

The dynamic index of economic aging of productive population represents an indicator which shows the speed of the aging process and it can be calculated with the following formula: $I_{dea} = \left[ P(0-14)t - P(0-14)t+n + P(65+)t+n - P(65+)t \right]$ (Istrate et al. 2015, pp. 1474). The higher values indicate an acceleration of the aging process and the lower values, negative ones, indicate an eventual rejuvenation of the population. In the Romanian space, the only negative value is recorded at the level of Ilfov county, which actually includes the metropolitan area of the capital, economically dynamic and attractive for the adult, active population. At the opposite end, stands Hunedoara county, distinguished by the fastest speed of the aging process, to which we can add the counties of Neamț, Bacău, Gorj, Galați, Tulcea, Maramureș; the majority are counties that had undergone, before 1990 a development of mining and heavy industry in general, economic fields marked by the strongest decline which became a repellent for the adult population.

For the calculation of the final, composite index, the average life expectancy was also analysed, considering that prolonging life, often means prolonging a life of dependency and of a greater need of assistance for the elderly. In this context, the counties characterized by the highest values should be preoccupied to a greater extent of the development of services for the elderly. Although the differences concerning this indicator are not very important (they vary between 73.2 and 77.8 years), they can still bring some nuance on the general situation. The higher values are characteristic of the counties with the highest degree of urbanization and the highest level of economic development (Timiș, Brașov, Sibiu, Argeș).

The percentage of persons absent from the country for an extended period of time represents a risk factor in appreciating the extent to which the local communities are prepared to respond to the needs of a growing elderly population. Generally, those who have been abroad for a long period of time are active adult persons, who left behind older family members, persons who no longer qualify for inter-generational support, unless, in a best case scenario, only from a financial point of view. It can be assumed that that the elderly population from the counties with the highest percentage of those who work abroad will have a greater degree of addressability towards institutions for the elderly than those from the counties in which the inter-generational support is, in theory, more widely available. The counties most affected by long-time departures are those from the east of the country (Neamț, Bacău, Suceava, Vrancea, Vaslui, Galați, Tulcea), and those less affected also known as the counties possessing the oldest population (Giurgiu, Călărași, Olt) to which we can add Bucharest and the Ilfov sector.

The likelihood of using the services of an elderly institution is greater in the case of single persons, considered more vulnerable and less capable of taking care of themselves. A more detailed analysis shows that, in the case of the persons located in elderly institutions, single men are more numerous than women (Désesquelles et al. 2003, pp. 204). In view of these considerations, I considered it appropriate to include, in the calculation of the composite index, a percentage of widowed persons from every county. The highest values are registered in the
south, south-east and south-west of the country (Călărași, Giurgiu, Teleorman, Dolj, Olt, Mehedinți, Caraș-Severin, Brăila), and the lowest in the Bucharest municipality and in Ilfov, Timiș, Constanța, Iași and Brașov counties.

In Romania, the caring of the elderly is regulated, among other things, by Law 17/2000, according to which the elderly persons who meet certain criteria (no family, no income or insufficient income, need of special care etc.) can benefit from the following services: social services regarding the care of the person, the prevention of social marginalization and supporting the social reintegration, legal and administrative advice, support for the payment of services and current obligations, care for the house and household, for housekeeping, food preparation; social and medical services concerning primarily on achieving personal hygiene, rehabilitation of physical and mental capacities, housing adaptations to suit the needs of the elderly person and the involvement in economic, social and cultural activities, as well as temporary care in day centres, night shelters or other specialized centres and medical services, in the form of consultations and medical care either at home or in health institutions, the administration of drugs, providing sanitary materials and medical devices\(^1\).

The care of the elderly in retirement homes is seen as an exceptional measure, intended just for the elderly and only for those that meet certain criteria, generally referring to the absence of family and degree of dependency. In accordance with the percentage of persons over 65 years of age with a severe degree of dependency at the European Union level (cca 3-5%) (Mureșan et al. 2009), in Romania the number of the elderly persons in situations of severe dependency would be of approximately about 160000, all the while, the number of state and private institutions for the care of the elderly is 10 times as small.

The distribution of the number of places for the elderly at the territorial level and their relation to the number of persons over 65 years of age accounted for another indicator analysed and used in the analysis of the composite index (figure 2). The counties best equipped from this point of view can be found in the centre of the country (Sălaj, Sibiu, Brașov, Cluj and Harghita) to which we add Argeș and Ilfov counties and Bucharest municipality and the ones confronting with a crisis (especially if we also take into consideration the number of persons over 65 years of age) are exactly the counties with the oldest and/or the poorest population (Botoșani, Vaslui, Ialomița, Călărași, Giurgiu, Teleorman, Gorj, Mehedinți, Olt and Vâlcea).

The composite index, which may show the extent of the vulnerability of the administrative-territorial units in the face of the demographic aging process and of the ensuing problems, takes into consideration, in variable proportions, the indices used above. For the creation of this index the values of the partial indicators were standardized and the importance of each in the final value is as follows: 15% for the demographic aging index, the parental support index, the economic potential support index, the percentage of persons gone for long periods of time and the ratio between the number of persons over 60 years of age and the number of places in the institutions, 10% for the dynamic index of the aging of productive population and for the average life expectancy and 5% for the percentage of widowed persons in the total of the population.

Analyzing the values of this indicator one finds the outlining of two distinct territorial assemblies: a south-south-western and partial eastern one, superimposed over Arad, Timiș, Mehedinți, Olt, Olt and Vâlcea).

\(^1\) Law 17/2000
Vâlcea, Teleorman, Ialomița, Buzău, Suceava, Neamț, Vaslui counties, and characterized by a high degree of vulnerability and a central-western one, superimposed over Maramureș, Satu Mare, Bihor, Alba, Mureș, Covasna, Harghita, Brașov and Sibiu counties, an ensemble characterised by a low degree of vulnerability in relation with the demographic aging and the related issues.

Figure 3 – The vulnerability index compared to the demographic aging

Beyond statistical data, the aging of the population is a phenomenon with consequences on multiple levels, generating changes at the society level. It is important to know the way in which the Romanian society, still fairly traditional and powerfully anchored in family values, acknowledges and manages this phenomenon. The results of the questionnaire from the county-wide survey of Suceava managed to broadly outline, the way in which demographic aging is perceived. Unsurprisingly, the majority of persons questioned (66.2%) think that demographic aging is a real problem for contemporary Romania, a fact which shows awareness and therefore a first step towards an adequate management of the phenomenon.

The changes that have affected the institution of family in the last decades of the XX-th century also began to appear in Romania after 1990 (Pelletier, L., 1992, pp 71). In addition to the measurable changes, tied to the increase in divorce and the decrease in marriage, a dimensional reduction of family also occurred, a weakening of the inter-generational relations an increase of individual autonomy. In these conditions, the model of the traditional family seems increasingly diminished, family solidarity seems to have decreased, and the care for the elderly is no longer considered solely the responsibility of the family. If however in Western European countries economic prosperity allowed the state to create services and institutions for the elderly, to compensate for the decrease in family solidarity, in Romania, the conditions are very different.

The resources of the state are insufficient to provide quality services for the elderly in need, and private services are few and expensive for a population that has an income well below the European average. But would the Romanian society be ready, with the appropriate economic conditions, to leave the paradigm of the traditional family and adopt a model based on the
transfer of effective care for persons with a high degree of dependency towards specialized institutions?

The people surveyed continued to manifest a strong traditional attitude when having to decide about the entity responsible for the care of the elderly, the dependent. Over 80% (81.5%) of the respondents indicated the family as being mainly responsible and the percentage of those who have responded so in Suceava is greater by 15 points than the percentage obtained in a similar question during a national survey (Mureșan et al. 2009, pp.134).

However, when the persons interviewed are presented a concrete situation, when their personal opinion is required related to how they should proceed if an elderly member of their family would need constant care, the percentage of those interviewed who argue that the family should be mainly responsible, drops to a little over 40%. Does that mean that the traditionalist attitude is just declarative and that, in fact, the Romanian society is modernizing? The percentage of those who, being old, and in a situation of dependency, would turn to a family member is around 50%. The other options, after family, are in all cases (both concrete and declarative) private specialized institutions (secular and religious), followed by the help of a qualified person and, lastly, state institutions (figure 4).

![Figure 4](image)

**Figure 4** a. Responsability for the care of older people b. Options on care of an old people from own family

State institutions for the elderly are negatively perceived by the interviewed persons. Although the cost of services in such institutions is perceived as less than in similar private institutions, there are many of those that believe the services offered by the state are expensive. In regard to the quality offered by these institutions, they are perceived as weak. Attention is also drawn by the large percentage of those who declare themselves uninformed about the price of the services offered by state, compared to those who are uninformed about the price of services offered by private institutions, which might indicate a higher interest for the private ones.

The fact that an important percentage of the people interviewed said they were informed of the existence of at least one institution for the elderly either in or near the place of their residence denotes the presence, in the public consciousness, of this alternative to the family networks as a form of support.
4. Conclusions

It is an obvious fact that Romania’s population is growing older. Between the last two censuses (from 2002 and from 2011), the country’s total population decreased by 7.2%, all the while, during the same period, the number of old people over 70 years of age increased by over 20%. Already old, the rural area is rapidly joined by the urban one, especially the small and medium sized cities, in which the speed of manifestation of the demographic aging is now greater than in the rural areas. The southern counties, predominantly rural and less economically attractive, are beginning to be joined, on the stage of demographic aging, by eastern counties, marked by massive departures of young adults abroad.

This segment of population, increasingly important in terms of number, has certain needs, to which society must respond, either at a collective level, or at an individual one. Unfortunately the aging of Romania’s population takes place in a still difficult economic period, a period which differs from the one in which the western and south European countries began to face a similar phenomenon.

In these conditions, an increasing gap emerges between the needs of the elderly population and what society has to offer. The counties vulnerability map in the face of an aging population is also nuanced by the inadequate distribution of places in institutions for the elderly, less numerous precisely where demand is greater. Individual attitude towards the problems of the elderly show us that, although family solidarity remains important in Romania, its part begins to decrease, and the presence of institutions for the elderly, be it public or private, is becoming a necessity.

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