Original paper

Reumatologia 2015; 53, 5: 252–259
DOI: 10.5114/reum.2015.55828

Supply and demand for long-term care services from the perspective of leaders of health care institutions[1]

Filip Raciborski[1,2], Bolesław Samoliński[2]

[1]Department of Gerontology and Public Health, National Institute of Geriatrics, Rheumatology and Rehabilitation in Warsaw, Poland
[2]Department of Prevention of Environmental Hazards and Allergology, Medical University of Warsaw, Warsaw, Poland

Abstract

Introduction: Poland's transition into the stage of intensive population aging imposes changes in demand for different forms of care (including long-term). The proportion of dependent persons (requiring care) in the population continues to increase. The number of people aged 80 and above (in 2013 – 1.48 million) will double by 2050 and reach 3.54 million. The research objective was to gain knowledge on the supply and demand of different institutionalized forms of care services from the healthcare system perspective.

Material and methods: A computer-assisted personal interview (CAPI) survey was carried out on a Poland-wide quota sample of health care and nursing centres operating within the healthcare system. The respondent group consisted of 96 directors of health care facilities.

Results: In the opinion of more than a half of surveyed directors, supply of health care and nursing centres in their region is insufficient in terms of the needs of both patients and elderly people. In the context of patients, the deficit is observed primarily in health care and treatment centres, long-term nursing care and health care institutions, whereas for the elderly people the main concern is availability of nursing care, day care or social aid centres. More than half of surveyed institutions admit patients requiring care on an ongoing basis; however, in the case of health care and treatment centres more than a year-long waiting time proved to be a frequent phenomenon. In the opinion of the surveyed directors, the key factors influencing the number of available places and waiting time are insufficient financing and personnel deficit.

Conclusions: Introduction of multiple changes to the operation of the care system in Poland is necessary in order to improve its availability, effectiveness and quality. Achievement of this objective requires implementation of a cohesive and integrated system dedicated to monitoring and diagnosing both the supply and demand for different forms of care.

Key words: long-term care, survey research, population ageing.

Introduction

Poland has entered the stage of intensive population ageing. This process will exhibit an increasing trend in the upcoming years. This phenomenon poses a great challenge for both the state institutions and the entire society. Pending demographic changes influence the demand for different types of care too – of both institutional and non-institutional nature. The vast majority of long-term care beneficiaries are patients with motor

[1] The article was drawn up on the basis of the research work carried out by the PBS company on commission of the Human Resources Development Center under the 'Diagnosis and analysis of the functioning of formal and informal institutions of care in Poland. The first stage of work' projects, co-financed from EU funds under the European Social Fund – OP HC, Priority I, Measure 1.2. The beliefs presented in the article express exclusively the opinions of its authors rather than of the institutions involved in preparation and execution of the projects.

Address for correspondence:
Filip Raciborski, Department of Gerontology and Public Health, National Institute of Geriatrics, Rheumatology and Rehabilitation, Spartańska 1, 02-637 Warsaw, Poland, e-mail: filip.raciborski@ir.ids.pl
Submitted: 7.10.2015; **Accepted:** 29.10.2015

system diseases, requiring rheumatologic and orthopaedic consultations, which is of crucial importance with regard to osteoarthritis. Prevalence of this disease strongly correlates with age. The focus should also be on inflammatory joint diseases (including rheumatoid arthritis and spondyloarthropathies) impairing the patients' mobility regardless of age and leading – in a long-term perspective – to disability and independence loss.

At present, there are multiple valid and equal definitions of 'care', which stem from the versatility of this term and its correlation with many aspects of human life. It is applied in various scientific areas, including social and medical sciences. One of the vital definitions of care was developed by Albin Kelm, who described it as actions taken for the benefit of the people due to an actual or potential threat to their lives with no or only limited opportunities to overcome such a threat [1]. For the purposes of this article, 'care' shall be defined as an activity aiming at satisfying the needs of those receiving care, which cannot be satisfied by them personally or they are unable to satisfy such needs (temporarily or permanently). The said needs are crucial to surviving, maintaining good health condition, and ensuring proper development and quality of life.

We can distinguish two basic forms of care organization: formal and informal. Informal care includes primarily the actions taken by the family, relatives, friends and neighbours. It is usually of non-professional nature, which means that the persons providing such care have no professional training or experience. Neither the scope of such care nor 'working hours' are formally regulated as regards the duties of caregivers. Nor does the caregiver receive any formal remuneration; nevertheless, certain financial benefits may be observed. Formal care is provided by professionals holding the required qualifications and skills confirmed by applicable certificates. These services are monitored (supervised) by the state and authorized institutions. The caregivers work under employment contracts regulating the scope of their duties and the tasks performed are matched to the competences and remunerated appropriately. In addition, working hours are precisely regulated [2].

In the context of the above, long-term care (LTC) is of particular importance. According to the definition of LTC adopted on the United Nations (UN) forum, it includes activities undertaken for people requiring care by formal and informal caregivers or volunteers. In principle, such services form a part of the healthcare system; however, due to the fact that those requiring long-term care are dependent (incapable of self-care and of performing simple activities in the household), this scope of care also includes certain social services [3].

The World Health Organization defines long-term care as the system of activities aiming at ensuring the best possible quality of life for those who are no longer fully capable of long-term self-care. These activities are performed by informal caregivers (including family and friends) as well as professionals (medical, social and others). One should note that such care should follow individual preferences and requirements of a dependent person and maintain the greatest possible degree of independence, autonomy, participation, personal fulfilment and human dignity [4]. According to the definition provided by the Organization for Economic Co-operation and Development (OECD), long-term care covers the entire set of services provided to dependent people needing daily living support over a prolonged period of time, such as bathing, dressing, and getting in and out of bed or a chair or moving. Such care is provided for a prolonged period of time, and consists in medical aid, pain treatment, pharmacotherapy, health condition monitoring, prevention, rehabilitation and palliative care. Long-term care is provided to people with physical or mental disabilities, including those incapable of performing daily activities [5, 6].

The Act of 15 April 2011 on medical activity [7] regulates the issue of day and night healthcare services other than in-patient services, including among others care, nursing, palliative services, hospice services, long-term care services and medical rehabilitation services. These are provided in the health care and treatment centres, health care and nursing centres, medical rehabilitation centres and hospices.

Demand for care has been primarily determined by pending demographic changes[2]. Population ageing – i.e. the decreasing proportion of people in pre-productive and productive age with the simultaneous increase of the post-productive-age group in the population – is of key importance. This is a common and irreversible phenomenon. According to the data provided by the Central Statistical Office (CSO), the total fertility rate (TFR) for Poland was 1.26 in 2013. The forecasts demonstrate that by 2025 the TFR will reach 1.38 and 1.52 by 2050 [8]. However, stable demographic development requires a TFR at the level of 2.1–2.15 [9]. The effects of TFR include both population ageing and size decrease. The CSO forecasts anticipate a decrease in population size in Poland from 38.5 in 2013 to less than 34 million in 2050 [8], which translates into a 4.5-million drop.

The changes in the population structure will also translate into changes in the proportion of the unemployed in post-productive age and the employed in productive age. According to the forecasts present-

[2] The authors of this article focus purposefully on the impact of populating aging on demand for care in Poland, since this factor will be of key significance in a long-term perspective. It should be noted however that demand for care covers all age groups rather than solely elderly persons.

ed by the European Commission (EC) for Poland, the economic old-age dependency ratio (15-64)[3] will rise from 33 in 2013 to 87 in 2060. This means more than a 2.5-fold increase of this ratio within the next 50 years [10]. Poland, along with Slovakia, Bulgaria and Romania, belongs to a group of EU Member States with the highest forecasted economic old-age dependency ratio. The changes in the population structure also translate into the economic growth. According to the European Commission, the increase in Polish gross domestic product (GDP) will fall from 3.2% in 2013 to 0.7% in 2060 [10].

As already mentioned, population ageing influences the scale and type of demand for care. Data from the National Census confirm previous observations on the correlation between age and disability risk. The outcome of this phenomenon is the increased proportion of dependent people in the oldest age cohorts [3]. According to the CSO data, there were 5.67 million people aged 65+ in Poland (2.18 million men and 3.49 million women). By 2025 the number of Polish people at this age will reach 8.19 million (increasing by approximately 45% compared to 2013), whereas by 2050 it will reach 11.1 million (almost a 2-fold increase compared to 2013). There should be a particular focus on the 80+ age group, since these will be the main long-term care beneficiaries [11]. In 2013, there were 1.48 million people who fell into this category (0.45 million men and 1.03 million women). By 2025 this number will increase to 1.68 million and then to 3.54 million by 2050, that is approximately 2.5-fold (compared to 2013) (Fig. 1) [8].

Objective

The research objective was to gain knowledge on the supply and demand of different institutionalized forms of care services from the healthcare system perspective.

Material and method

This survey research was carried out within the "Diagnosis and analysis of the functioning of formal and informal institutions of care in Poland. The first stage of work" project, co-financed from EU funds. The research was carried out by the research company PBS on commission of the Human Resources Development Centre. Computer-assisted personal interviews (CAPI) were performed in July and August 2015 by a team of professional interviewers on the group of respondents consisting of directors and heads of health care and nursing centres providing services to dependent persons with chronic diseases within the healthcare system. A total of 96 interviews were carried out, 87 of them with women (91%). The research was performed on a Poland-wide scale.

The sample of health care and nursing centres (health care and treatment centres, health care and nursing centres and health care institutions employing community nurses or long-term care nurses) was selected by quota based on the Register of Entities Conducting Medical Activity published on the official website of the Ministry of Health (http://rpwdl.csioz.gov.pl/). Data collected in the register were acquired from the website based on the

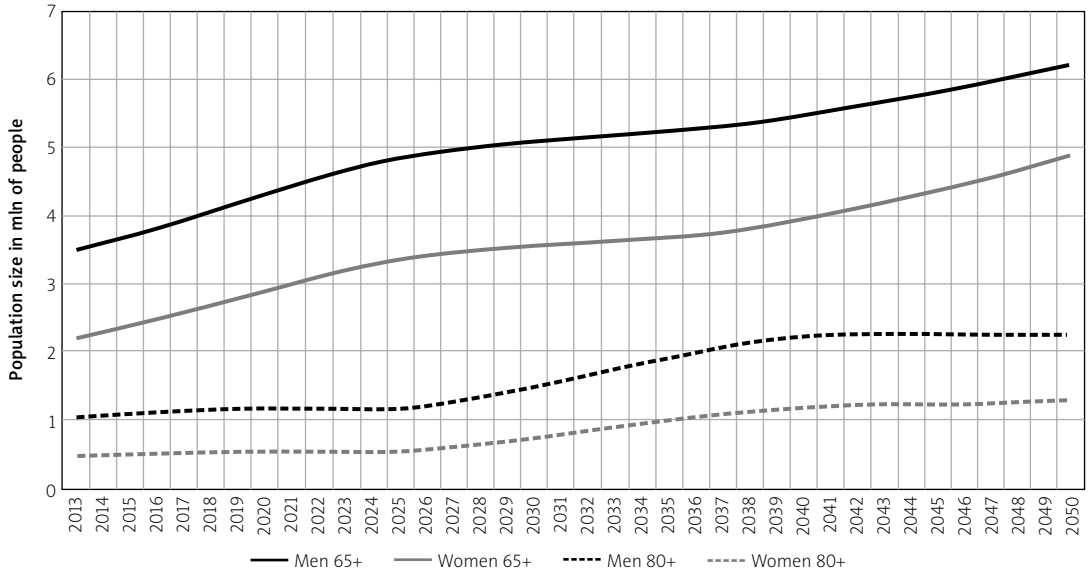

Fig. 1. Forecasted population size aged 65+ and 80+ for the years 2013–2050. Data in millions of people.

[3] The economic old-age dependency ratio 15–64 is the ratio (expressed as %) of the unemployed aged 65+ to the employed aged 15–64. The other variant of this ratio is calculated for the age group 15–74.

following categories (health care functions): HC.3.1 Stationary long-term nursing care (excluding hospitals) and HC.3.3 Long-term nursing care provided at the patient's home. Data on hospices and hospitals offering palliative care were acquired from the register kept by the Forum Hospicjów Polskich (Polish Hospice Forum) (as of June 2013). A detailed description of the performed sample is presented in Table I.

Results

In the opinion of slightly more than half (57%) of the 96 responding directors, the supply of care institutions in their region is insufficient in the context of the patients' needs. The respondents indicated primarily the lack of health care and treatment centres in their region (49% from among those indicating deficiencies in the scope of care institutions), long-term nursing care provided by the public health care institutions (45%) and health care and nursing centres (44%). Detailed data are presented in Fig. 2. Only one person declared that their region provided forms of care that were surplus to the patients' needs, but was unable to specify such excessive forms of care.

In the opinion of more than half of the respondents (58%), the supply of care institutions in their region is insufficient in context of the needs of elderly persons. The respondents providing such an opinion indicated primarily deficiencies in the field of nursing care (organized within: public health care institutions (63%), daily care centres (63%) and social aid centres (43%)). Approximately one third of the surveyed directors also

Table I. Specification of the surveyed samples

Region*	Central	S	SW	N	E	NW	Total
Total	27	15	15	10	24	5	96
Size of localities in which a facility is located							
Rural areas	13	4	3	1	6	0	27
Urban area with up to 50 thousand inhabitants	7	5	9	6	13	1	41
Urban area with 50–200 thousand inhabitants	1	4	3	1	4	3	16
Urban area with over 200 thousand inhabitants	6	2	0	2	1	1	12
Type of facility							
Health care and treatment centre	4	3	8	3	7	0	25
Health care and nursing centre	1	2	0	2	2	0	7
Hospital palliative care ward	1	3	4	0	3	3	14
Stationary hospice	0	0	0	1	1	0	2
Home hospice	1	1	0	0	1	0	3
Public health care institution	20	6	3	4	10	2	45
Managing supervising authority							
Commune Office	14	6	8	3	9	0	40
Poviat Starosty	2	5	2	1	8	3	21
Marshall Office	2	3	4	1	5	0	15
Governmental Administration Authority	4	0	0	3	1	0	8
Other	5	1	1	2	1	2	12
Ownership form							
Public	22	13	14	9	22	4	84
Non-public, financed from public funds	5	2	1	1	2	1	12

**Region (typology of CSO): C – Central, S – South, SW – South-West, N – North, E – East, NW – North-West*

Source: Own study

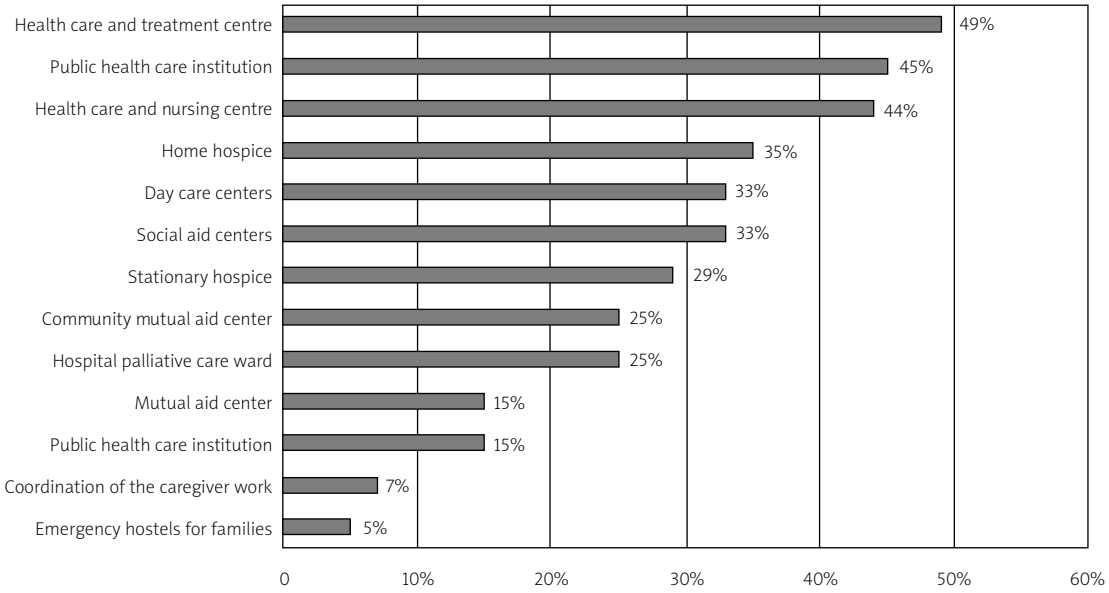

Fig. 2. The most deficient forms of care in the context of the patients' needs according to leaders of care institutions (n = 55).

indicated insufficient availability of community nurses (within the public health care institutions). Four persons (from among the total of 96) stated that there was a surplus of certain forms of care for the elderly people in their area of operation; however, most of them (3 persons) were unable to provide precise data.

The opinions on supply of care institutions compared to the needs of disabled persons were varied. From among 96 surveyed directors and heads of care institutions, 49% stated that such supply was insufficient compared to actual needs. The contrary was expressed by 39% (12% had no opinion). From among the respondents indicating the presence of deficiencies in this area, 55% listed health care and treatment centres, 36% health care and nursing centres, 34% social aid centres, 32% day care centres, 30% long-term nursing care and 28% community mutual aid centres. An excess of care institutions for the disabled was indicated by 5 respondents, but 4 of them were unable to provide detailed examples.

From among the 96 surveyed heads of health care institutions, 49% reported current registration of the persons awaiting the services. The average number (median) of such persons (for 46 institutions which provided data concerning the waiting list) is 12. More than half of these institutions (57%) report a waiting time below 3 months (up to one week – 8%, up to one month – 28%, and up to three months – 21%); however, for 15% of entities with active waiting lists this period exceeds one year. This issue of concern refers primarily to health care and treatment centres, i.e. the entities providing long-term services.

The key determinant for the number of places in the analysed institutions was the level of financing provided by the managing entity. This response was provided by nearly half (48%) of the surveyed directors. The second most frequent response was local demand for care (21%), whereas the third one was administrative regulations and guidelines (15%). In the case of 11 surveyed institutions (12% of the total), the key determinant was co-financing from the Structural Funds.

Approximately 40% of directors of the surveyed institutions reported HR deficiency in their facilities in the field of caregivers. The most frequently specified professions include nurses, physiotherapists/rehabilitants, therapists and care workers as well as physicians. Nearly two thirds (61%) of directors reporting HR deficits indicate insufficient funds for new jobs as the key reason for such a deficit. Other frequently provided reasons include lack of consent of the managing authority (32%) and limited interest of the potential employees (29%). Figure 3 presents the most desired features of caregivers from the perspective of care institution directors.

Only 4 of the 96 respondents stated that they employ volunteers to work with patients. More than two thirds (70%) of the surveyed institutions are not currently looking for volunteers. In most cases, these institutions plan no activities in this area in the near future; however, among the institutions currently employing volunteers, almost half (52%) report difficulties in their

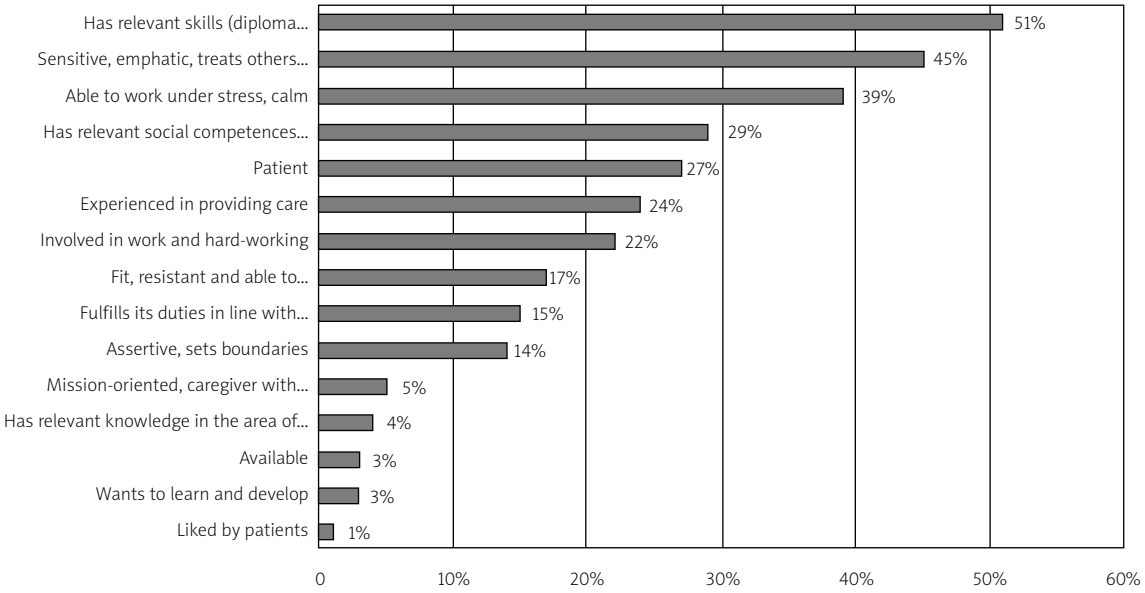

Fig. 3. Key features of a perfect caregiver according to leaders of care institutions (*n* = 96).

recruitment. The key reason is an insufficient number of candidates.

The vast majority of the surveyed institutions receive co-financing for the care-related services from numerous independent sources, including primarily contracts with the National Health Fund (89% of analysed entities). One third (34%) of institutions state that they receive grants from the managing authorities. Practically the same proportion (30%) indicate income from fees from those receiving care and their families as the source of care financing. The remaining financing sources, such as own income and donations, are statistically insignificant.

From among 96 surveyed institutions, in 51 cases (53%) neither the persons receiving care nor their families pay for provided care. As for the remaining entities, only certain services (22 cases) are payable. Payment for all services has also been observed (although only for certain patients or their families). Payments were recorded primarily in health care and treatment centres (22 from among 25), community nursing (8 from among 29) and health care and nursing centres (7 from among 7).

Discussion

The vast majority of data concerning care institutions available in Poland originate from the public statistics and consist of official data. Research results constitute an alternative source of information; however, they present the discussed issue from the perspective of those requiring care and their families. Examples of such information include the *Social Diagnosis*, and *POLSENIOR* projects. Care also became the subject matter of systemic analyses and reports on its functioning. The 'Diagnosis and analysis of the functioning of formal and informal health care and nursing centres in Poland' project aims to improve the quality and effectiveness of aid and social integration institutions in the field of care as well as to achieve better effectiveness and efficiency of the state policy in the area of supporting care institutions (in the broad sense) in Poland. The diagnosis of the current situation will serve as the baseline for achievement of these goals. The research results presented in this article constitute one of the components of the said diagnosis.

A key obstacle in implementation of the 'Diagnosis and analysis of the functioning of formal and informal institutions of care in Poland' project is the lack of a uniform care system for independent persons operating in Poland. It comes under the management of multiple ministries, which hinders identification of the potential sources of information and – at a further stage – their combined analysis. Due to this fact, the project involves a number of research tools, including survey interviews with the directors of the selected care institutions. This method has enabled information to be gained on the opinions and preferences of the managers of entities providing different forms of care. Use of the survey tool enabled acquisition of the standardized research material.

From the methodological perspective, the key drawbacks of this study are the applied sample selection method and the number of carried out survey interviews. However, due to the fact of the sampling frame and total number of operating care institutions in Poland, the

quota sample seems to be an optimal and scientifically proven solution. Application of any fully probabilistic method would not result in significant improvement in the research quality and would only act as an additional risk due to the small sample size.

The other limitation is that this part of the study does not cover the role and importance of family in the care of the dependent person. According to research conducted by Borowiak et al. [12, 13], this issue is extremely significant in the context of long-term care.

Based on the performed research, we can say that the current supply of care institutions (in the healthcare system) is insufficient as compared to the demand. The main deficiencies concern the number of health care and treatment centres, long-term nursing care and health care and nursing centres. We may assume that considering the pending demographic changes, demand for different forms of care will gradually increase due to the growing number of the elderly. In addition, a drop in the average number of children per household observed for a long time will result in limited capacity for care of the families and therefore in an increased demand for state care in a long-term perspective.

The financial aspect remains the key barrier in increasing the supply of care institutions in the opinion of the surveyed respondents. Limited resources prevent an increase of the number of available places and employment of additional staff. One should note, however, that the Polish system of care for dependent persons is of dispersed nature and remains in the competencies of multiple ministries. On one hand it encourages diversity of the available forms of care, but on the other it hinders effective management. There are no doubts that increasing the financing level in Poland due to growing demand for such services will be necessary in the upcoming years. However, this depends on drawing up – in advance – the long-term development strategy for the entire care system in Poland. Development of an integrated monitoring system as well as a diagnosis of the supply and demand for different forms of care should be components of this strategy.

The results of the performed research demonstrated a minor interest of care institutions in the voluntary work. Due to growing demand for different forms of care, voluntary activities seem to be an important element acting to improve the situation. However, according to the research result, a deficit of persons interested in such activity poses concerns. The question about the reason behind such a situation remains open. It is possible that there should be more focus on a pro-active approach of the care institutions and on the information campaigns.

In recent years, Poland has undertaken actions aiming at developing an active ageing policy to counteract the negative effects of the pending demographic changes [14]. Examples of such activities aiming at reducing negative population ageing effects include changes to the pension system [15] and adoption by the Government of the Assumptions for Long-term Senior Policy in Poland for the years 2014–2020 [16]. In September 2015, the Seym adopted another significant legal act – the Act on seniors [17], imposing on the state the obligation for monitoring the situation of the elderly (aged 60+), including the availability and the level of social services. Therefore it seems reasonable to expect that improvements should be considered in the field of availability of various forms of care within active and healthy old-age policy development.

Conclusions

Introduction of multiple changes to the operation of the care system in Poland is necessary in order to improve its availability, effectiveness and quality. Achievement of this objective requires implementation of a cohesive and integrated system dedicated to monitoring and diagnosing both the supply and demand for different forms of care.

The authors declare no conflict of interest.

This article is part of a project 'Diagnosis and analysis of the functioning of formal and informal institutions of care in Poland. The first stage of work' projects, co-financed from EU funds under the European Social Fund – OP HC, Priority I, Measure 1.2

References

1. Kelm A. Węzłowe problemy pedagogiki opiekuńczej. Wydawnictwo Żak, Warszawa 2000.
2. Triantafillou J, Naiditch M, Repkova K, et al. Informal care in the long-term care system: European Overview Paper. Interlinks, Ateny Wiedeń 2010.
3. Błędowski P. Potrzeby opiekuńcze osób starszych. In: Mossakowska M, Więcek A, Błędowski P (eds.). POLSENIOR – Aspekty medyczne, psychologiczne, socjologiczne i ekonomiczne starzenia się ludzi w Polsce. Termedia, Poznań 2012.
4. Jurek Ł. Sektory opieki długoterminowej – analiza kosztów. Gerontologia Pol 2007; 15: 111-115.
5. Ministry of Health. Stan faktyczny i perspektywy rozwoju opieki długoterminowej w Polsce. Ministry of Health, Warszawa 2012.
6. European Commission. Long-Term Care in the European Union. Office for Official Publications of the European Communities, Luxemburg 2012.
7. Act of 15 April 2011 on medical activity. Journal of Laws of 2011, no. 112 item 654.

8. Central Statistical Office. Prognoza ludności na lata 2014–2050. CSO, Warszawa 2014.
9. Pustelnik A. Rynek ubezpieczeń wobec problemu wieku podeszłego. In: Samoliński B, Raciborski F (eds.). Zdrowe starzenie się – Biała Księga. Wydawnictwo Naukowe Scholar, Warszawa 2013.
10. European Commission. The 2015 Ageing Report – Economic and budgetary projections for the 28 EU Member States (2013-2060). European Union, Brussels 2015.
11. Błędowski P, Wilmowska-Pietruszyńska A. Organizacja opieki długoterminowej w Polsce – problemy i propozycje rozwiązań. Polityka Społeczna 2009; 7: 9-13.
12. Borowiak E, Kostka T. Comparative characteristics of the home care nursing services used by community-dwelling older people from urban and rural environments. J Adv Nurs 2013; 69: 1259-1268.
13. Borowiak E, Kostka J, Kostka T. Comparative analysis of the expected demands for nursing care services among older people from urban, rural and institutional environments. Clin Interv Aging 2015; 10: 405-412.
14. Samoliński B, Raciborski F, Bousquet J, et al. Development of senioral policy in Poland– analysis. Eur Geriatr Med 2015; 4: 389-395.
15. Act of 11 May 2012 on amending the Act on pensions and annuities from the Social Insurance Fund and certain other acts. Journal of Laws of 6 June 2012, 2012, item 637.
16. Resolution No. 238 of the COUNCIL OF MINISTERS of 24 December 2013 on adopting the Assumptions for the Long-term Senior Policy in Poland for the years 2014–2020 document. Polish Monitor – Official Journal of the Republic of Poland, 4 February 2014, 2014, 118.
17. Draft Act on the seniors. [Online] [Quoted on: 18 9 2015.] http://orka.sejm.gov.pl/Druki7ka.nsf/Projekty/7-020-1439-2015/$file/7-020-1439-2015.pdf.