

# INHEAL: Innovation in Health Literacy

National Analysis in Poland,  
English Version.



**INHEAL: Innovation in Health Literacy**

**DELIVERABLE 1: ANALYSIS**

**DESK RESEARCH: POLAND, 2022**

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## INHEAL: Innovation in Health Literacy

### Deliverable 1: Analysis - Country desk research Poland

<b>Identifier</b>	Zaczyn Foundation <b>Poland</b>
<b>Time horizon</b>	2012-2022
<b>Research objectives</b>	Conducting an analysis of existing documents relating to health, social (senior) policy, and new technologies in the context of the oldest generation of Poles, additionally with regard to the COVID-19 pandemic and war in Ukraine. Presentation of the most important conclusions from the analysis carried out. Presentation of recommendations on the elderly in the context of health and new technologies in Poland.
<b>Research items</b>	The search for relevant literature sources was conducted with the terms and words: <ul style="list-style-type: none"><li>• COVID-19 (health/COVID-19)</li><li>• Elder</li><li>• Senior digital literacy</li><li>• Senior public policy</li><li>• Public and ngo Programs for seniors</li><li>• Public Health System</li><li>• Elder emigrants/ War in Ukraine</li><li>• Eldercare and caregivers</li></ul> Final bibliography consists of 40 publications.

### Research Body

### Ageing and new technologies among elders in Poland

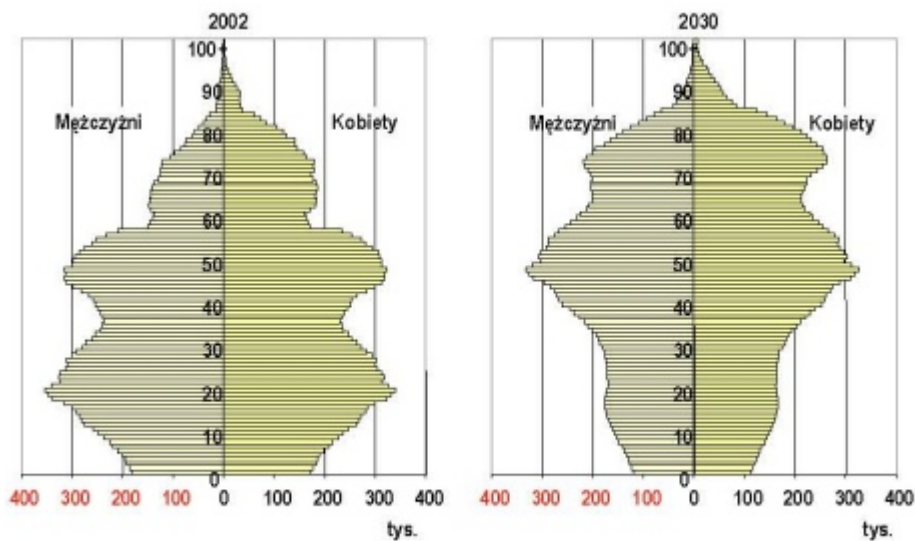
Poland is aging very quickly. Already today, the share of elderly people in the population is high, it exceeds 1/5 of the population. Nowadays, attention is paid to strengthening healthy ageing, and this in turn requires not only a properly functioning health care system, but above all appropriate conditions and lifestyles in its various phases. An important role in this respect is played by attitudes, behaviors, and health competences – both for people who still have the autumn of life ahead of them and for those who have already entered the golden age. Nowadays, digital competences are becoming more and more important in this context, including those that would be focused on caring for one's own or loved ones' health. The progressive digitization (digitization) of many spheres of social life, accelerated during the pandemic, means that it is through new information technologies that we can not only meet

an ever wider range of needs, but sometimes even the situation in which we find ourselves forces it. This also applies to the area of health needs and does not bypass the elderly, both those in the early stages of life and those more mature, when multiplied health and often caring needs may appear. In light of the above conditions, it is reasonable to address the issue of digital health in the context of the situation of the elderly, both their needs and awareness and competence in the use of new channels of care for their own health. These competences should be supported and strengthened, both for older people and for other actors responsible for supporting them: from authorities at various levels, through NGOs and private service providers to direct carers/supporters both formally (e.g., medical or social workers) and informally (close relatives, carers, volunteers). Since, we are dealing with a wide range of recipients and stakeholders of activities in the field of e-health, telemedicine, and telecare it is worth starting with the initial diagnosis of the situation.

### **Sociodemographic context of the aging of the Polish population**

Polish society has been subject to successive aging for many decades, which is accompanied by a growing number of older people in the population and an increase in their percentage share with respect to people from younger generations. According to preliminary data from the National Census, people aged 60+ today constitute more than 20% of all residents. Speaking of the elderly, it should be remembered that this broad age category includes people 60 +, 70 +, 80 +, and 90+. Importantly, a particularly strong dynamics of growth in social participation is already taking place and will occur in the coming years when it comes to the oldest people. According to data and forecasts of the Central Statistical Office, the share of people aged 80+ may increase from 4.4% in 2020 to 5.9% in 2030 and from 9.5% in 2040 (GUS, 2014). Life expectancy, although it has been slightly reduced during the pandemic – is gradually increasing. In the prolonged old age, and especially its advanced stages, various types of health needs accumulate as well as long-term care needs (not only strictly medical). This is important from the point of view of national and local health policies. competence and, at the same time, difficulties in using new information and communication technologies.

Figure 1 Age and gender structure of the population - 2002 and 2030, GUS forecast



When talking about the ageing of the population, it is necessary to recall the uneven nature of this phenomenon. In Poland, ageing has so far occurred faster in cities that are statistically demographically older than rural areas, and in light of forecasts, differences may still persist in the middle of this century (Szweda-Lewandowska, Łuczak, 2020, p.13) This process is also differently divided into regions, with these differences escaping simple territorial divisions (e.g., between eastern and western Poland). (Ibid., p.12). Rural and small-town areas differ from large cities in the context of population ageing processes not only in the statistics and dynamics of changes in the age structure, but also in the conditions and lifestyles of older people, their access to various technological facilities and services, as well as practices and competences, both pro-health and in the sphere of new technologies.

The opportunities of older people in the context of digital health are also influenced by their individual economic, family, and social situation and level of education. In Poland, many elderly needs are met through the family, and less formal support. However, where the family does not have or is not sufficient to provide assistance, there is a risk of exclusion and marginalisation of the elderly. Macro-processes that are also worth noting are the feminization of old age (i.e. the numerical superiority of women over men, growing especially in the later phases of old age) and the singularization of old age (a phenomenon relating to the lonely living of the elderly).

The participation of the elderly in social life, in various forms of life, going to the cinema turns out to be small. Therefore, people are often very marginalized, which is also not conducive to their health, as well as the acquisition of both health and digital competences.

## **Health awareness, pro-health attitudes of the elderly, and their competences in the area of health and health prevention.**

Older people statistically often experience a number of deficits in both health and pro-health behaviors. It is not only about the area of so-called digital health but also basic aspects of life such as nutrition, social and physical activity, the use of stimulants, e.g. smoking. New technologies, on the other hand, can be one of the instruments used to make necessary changes in the awareness and lifestyle of older people. Attention should also be paid to the heterogeneity of the older generation in terms of the occurrence of risk factors for leading a healthy life. In research, for example, the indicator of healthy ageing is used. In light of a study conducted as part of the PolSenior2 project, only every 10th senior met the criteria for healthy aging. Among the criteria taken into account, the most important was the absence of diseases or the presence of only one disease, which referred to only five of the examined seniors. With age, this indicator decreased. This concerned 18% of people aged 61-64 and only 1% of people aged 85+ (Grodzicki et al., 2021) As the study showed, the chance of healthy aging also depended on the level of education, as well as whether the person was widowed or still married. In the case of women, symptoms of depression and multimorbidity were more common, in the case of men, low social activity (Ibid.).

As it has been said among the elderly, multimorbidity is quite common. As we read in the summary of the chapter on multimorbidity of the elderly: "The introduction of electronic systems in health care and the development of telemedicine can facilitate the coordination of medical care and the planning and implementation of optimal management in older patients." (B.Gryglewska et.al, 2022, p.734).

It turns out that at the time of the PolSenior2 study, about 20% of men and 10% of women over 60 years of age remained active smokers. Most women have never smoked tobacco (61.2%) and for men it was 31.%.

It can be said that the problem of being smokers or former smokers affects a significant percentage of older people, which is a challenge for health policy and prevention. Studies also indicate a relatively low level of physical activity among the elderly, which may not be conducive to their health.

According to data from the Central Statistical Office, almost 3/4 of the elderly do not play sports at all. The only form of relatively frequent physical activity was walking, although up to 50% of seniors stated that they never practiced it or almost never (GUS, 2021). Slightly more optimistic data come from the Pol Senior2 study, although they also show that physical activity is quite rarely practiced among older generations.

As we read:

*The most frequently declared forms of physical activity were:*

- short walks around the house (74.4% of seniors),
- work in the plot or in the garden (53.2%),
- walking for several hours, walking distance from home or place of stay (37.9%),
- mushroom picking in the forest (37.7%) and
- cycling (35.0%).

The level of physical activity decreases significantly with age." (Cube et al., 202).

Another dimension of lifestyle that makes up the state of health and aging processes are eating habits, both in terms of quantity, quality, method of preparation, level of processing, and frequency and regularity of consumption. As we read in the chapter of the PolSenior2 report devoted to these issues: *Preliminary analysis of the frequency of food product consumption indicates qualitative and unfavorable trends in the diet of seniors. Elderly people often consumed refined flour products, red meat and cold cuts, butter, sweets, and fried foods, and a low frequency of consumption of vegetables and fruits was observed.*" (Wernio et al., 2021, p.829).

In light of the results of the study, the worst eating habits occurred in people with a difficult financial situation, the oldest and those who live in small towns.

Limited physical activity and sometimes unfavorable eating habits can lead to negative consequences, for example, in the form of cardiovascular diseases, cancer, or obesity.

Overweight and obesity are also a problem. According to the results of the Pol Senior2 study, 38% of older people have a body mass index that indicates obesity (and a similar percentage is affected by overweight). Obesity is more common in older women than in men, and overweight is the opposite). The risk of obesity increases especially in the 70-74 age group and decreases in the later years of life. In addition, the obesity rate is correlated with such as low education, living in the countryside or in small towns. According to the authors, the actions against obesity should be more intensive and targeted at all age groups; especially, they should focus on groups with low socioeconomic status (also in old age) as particularly risk groups. (Ibid.)

Only these selected aspects of the health of older people show that their health is subject to risk factors, partly related to health habits, although these are also not unrelated to external determinants, such as family status, level of education, financial situation or place of residence. These circumstances and their diversity should also be taken into account in policies to promote healthy ageing using digital technologies.

### **The Cov-Sars-2 pandemic as a new circumstance for the development of e-health services in Poland.**

The time of the pandemic has brought new and multidimensional health threats and challenges to both the elderly and the entire health care system. At the same time, the importance of digital competencies and remote communication and information channels has increased.

In addition to the immediate threat of coronavirus infection, the time of isolation, limiting activity and functioning in an atmosphere of anxiety has caused negative consequences for the mental and physical health of various age groups, including seniors - who are a group of particular risk. The study of the Institute of Senior Policy showed a deterioration in mental well-being, as well as physical activity among seniors that affects health. (Wisniewski, 2021). According to a study by the National Institute of Senior Economy, 2/3 of seniors indicated difficulties in accessing health care (in particular to specialists), and about 1/3 of them declared to stopping their current treatment due to the Covid-19 pandemic (KIGS, 2022).

Considering that in Poland meeting the needs of the elderly is largely based on the loved ones (cf. Abramowska-Kmon 2021), a huge pressure has also fallen on the families of the elderly, in particular the families of seniors with limited independence. The study conducted in this group, i.e. caregivers of the elderly, also showed a deterioration in the mental situation among representatives of this group, great difficulties with access to health care (Bakalarczyk, Kocejko, 2021), and at the same time showed the fundamental and multidimensional role that digital technologies play in this period (Ibid.).

### **Health, prevention, and digital literacy of older people in government health and social strategies and programs.**

In the National Health Program for 2021-2025, one of the six operational objectives is *the promotion of healthy and Active Ageing*. There are tasks related to health prevention, also within the working framework, as well as the preparation of health care systems. In the context of the issues of interest to us, the following points of interest deserve attention: *supporting older people by enabling the use of modern technologies counteracting e-exclusion* (Ministry of Health, 2020).

Health issues can also be found in strategic documents relating to senior policy / policy for the elderly. In the formally binding strategy "Policy towards the elderly until 2030" adopted in 2018, we find Section IV: *Health promotion, disease prevention, access to diagnostics, treatment and rehabilitation*. Among the recommended activities we read: "promoting knowledge in the area of the possibility of using ICT (applications, systems, devices) to support disease prevention and improve the quality of life;

There is also a whole point devoted to the development of telecare and telemedicine, and within it:

- the dissemination of various forms of telecare and teleconsultation;
- development of solutions in the field of mobile health;
- facilitating access to materials and equipment as well as healthcare services, medical devices compensating for lost efficiency;
- The use of modern technologies to compensate for lost efficiency and strengthen independence;
- supporting the development and dissemination of innovative solutions and technologies in the field of health and telemedicine, and
- increasing the availability of occupational therapy and physical therapy. (Ministry of Family and Social Policy, 2018).

In June 2021, the Ministry of Health also prepared a draft strategy titled "Healthy Future". In the document, one of the key postulated directions of intervention is: "Development of digital services in the public health care system".

It is to be implemented through two tools:

- 1) development of public digital eHealth services
- 2) Building digital competencies on the part of patients and medical staff and actions to increase the digital maturity of healthcare facilities.

As for the second tool, it is to be implemented by:



- organizing information campaigns, trainings, and practical sessions; • informing about the benefits achieved by individual stakeholders through measures created for given user groups;
- popularizing digital health solutions at university levels;
- applying the principle of "simplicity by design" – using affordable operating solutions and user interface for introduced digital solutions;
- use of communication channels known to users (internet, smartphone, mobile applications);
- offering assistance and consultations to the administration of medical entities in the field of computerization of facilities and increasing the competence of staff. (Ministry of Health, 2021).

Older people have not been explicitly mentioned as the recipient group of such activities, although it seems that they may be one of the groups of final beneficiaries, both indirect and indirect. It is also worth noting that an extensive annex to the draft Strategy "A Healthy Future" - entitled: Deinstitutionalization - has been devoted to the elderly. Care for the elderly" (Ministry of Health, 2021). However, in this material, as its title indicates, the elderly are thought of mainly in terms of care, not prevention or health promotion. However, reading shows that the issue of the use of new media is present here, e.g. in the context of the postulated development of telecare. However, it should be noted that at the time of writing this study, "A Healthy Future" is a consulted project, not a binding and already implemented strategy.

### **Government programs to enhance or complement the digital literacy of older adults or use new technologies to support health and care**

- **The "Active+" programme in the module on digital inclusion**

The Active + programme for the years 2021-2025, which replaced the previous " ASOS " programme, is to provide financial support for initiatives and nongovernmental organisations (also as part of partnerships with local governments) in the field of broadly understood social activation of the elderly. As part of the program, from which a competition of offers for obtaining cofinancing of annual projects is announced annually, four thematic modules are provided, one of which is devoted to digital education of the older generation. As we read in the description of the program, the so-called digital inclusion is to include activities to increase the competences of seniors in the use of new media and modern technologies, as well as the dissemination and implementation of technological solutions that would promote the safety of functioning of older people and their inclusion in social life. According to these assumptions, the program can not only equip seniors using it with digital competences, which may also prove useful in the context of e-health or telecare and tele-medicine, but also directly allows for cofinancing of initiatives in the area of digital health. The weakness of the program seems to be its limited budget – annually there is PLN 40 million to be divided across the country – which means that as part of annual competitions, relatively few entities will be able to use the program, and this makes the program not very common.

- **Support the senior in the "Safety Bands" module**

In 2020, due to the ongoing pandemic, a support program for the elderly was also launched, "Support the senior – solidarity support corps", one of the modules - "Digital volunteer" was to support older people in moving in the digital sphere ( [www.gov.pl](http://www.gov.pl)) . The "Support the Senior" program has been extended to 2022 and its formula has been changed, adding an additional module: the so-called 'teleopaski'. When joining the program, local governments may receive funds to cover the partial or full cost of this task. Indirect addressees of the program are people 65 years or older. The main instrument is the distribution of so-called safety bands, which would be equipped with at least three of the several functions listed: safety button - SOS signal, fall detector, band photo sensor, GPS locator, functions enabling communication with the service center and caregivers and functions monitoring basic vital functions (pulse + saturation). According to the program, the safety wristband is to be associated with the help operator and in the event of a difficult situation or sudden health threat, it will be possible to press the button that allows you to call for help (MRiPS, 2022).

The "Safety Bands" program, although it is a program just starting its functioning, which will require ongoing monitoring, is certainly worth emphasizing as probably the first systemic mechanism for popularizing tele-care solutions for the elderly. Previously, there were also such initiatives, but more were implemented at local or regional level. Importantly, safety wristbands can be useful both for seniors who are still fit (although also exposed to, for example, falls or sudden deterioration of health), as for well as those with limited fitness or even requiring constant care. It is also a digital tool for monitoring health, but it can also strengthen it by increasing the mobility and physical activity of older people, who without it may feel less safe, e.g. during walks or running errands outside the home. The challenge seems to be to convince the elderly and caregivers of the benefits of joining the programme, as well as to prepare them to use the technological devices thanks to which it is implemented and to cooperate with the authorities responsible for the implementation of the programme at the local level.

It should also be noted that older people can acquire digital and health-promoting awareness and attitudes competencies as part of the wide infrastructure of social services that operate in Poland (although they are not always available locally). These include institutions such as Senior Clubs, day care facilities under the Senior+ program or Universities of the Third Age. In the latter type of institution, the program of classes includes computer classes, as well as movement classes and various workshops related to various aspects of health.

### **Health prevention and health promotion programs for people of mature age**

A new instrument that supports healthy ageing is the 40+ prevention program. It is addressed not only to the elderly (although they can also participate in it), but to all people over 40 years of age. It consists of access to free diagnostic tests that may allow faster diagnosis of diseases or people at risk. This project is a pilot project and introduced in 2021 and has been extended – still as a pilot – until June 2022. Digital competencies may also be useful in using the program due to the fact that the application can take place via the online patient account.

Health diagnostics, even if carried out early and systematically, should be only one of the

components of broadly defined prevention. Tools to stimulate physical, social and healthy life are also important, and during the pandemic their use in the remote formula becomes particularly important. In the first phase of the pandemic in Poland (Spring 2020), the Ministry of Health together with the National Chamber of Physiotherapists program "Active senior at home" containing video materials showing exercises at home. Unfortunately, this programme was not continued at further stages. A certain barrier to its use could also be the high level of digital exclusion of older people in Poland, as well as limited publicity as part of public debate and by public institutions. However, there are also nongovernmental initiatives to support the physical activity of seniors, e.g. as part of the Online Platform Telewizja Generations.

### **Application of tele-advice and its evaluation in relation to the elderly**

The main instrument of the so-called e-health is the so-called medical tele-advice. Although introduced in September 2019, in practice they were applied on a larger scale during the pandemic. Already in its first phases, regulations were adopted by way of a regulation defining standards of conduct in the form of teleadvice for primary care physicians, i.e. family doctors. Additionally, the national family medicine has developed together with the Ministry of Health on the use of teleadvice during the pandemic. In the Regulation, teleadvice is defined as *"health care provided at a distance using electronic systems or connectivity systems."*

In the current legal status, they are therefore legally allowed as a guaranteed medical benefit for use by family doctors, nurses or midwives of the POZ. However, whether or not it will be used in a given case, informally speaking, should depend on the patient. Consultations as part of direct contact may - in accordance with the regulation - be possible only in relation to children up to 6 years of age, people with suspected cancer, chronically ill patients in the case of which symptoms have worsened, as well as during the first visit of a nurse or doctor of the POZ. Although there are standards for providing medical advice remotely for primary healthcare, no such standards have been introduced for specialist care services.

The popularization of teleadvice and its usefulness has been analyzed from the beginning in the context of the needs of the elderly, some of whom have. Some may have communication problems, such as those related to hearing loss. Studies conducted during the pandemic have confirmed these assessments. Quality of life study? A study conducted by the National Institute of Senior Economy confirmed limited functionality in the context of the needs of at least some elderly people. A ban on tele-advice was considered, among others, for elderly patients, but in the end these regulations did not come into force.

### **Telecare for seniors with limited independence as an important challenge for the development of digital health in Poland.**

An important segment of the so-called digital health seems to be the development of telecare for the elderly (and sometimes in earlier phases of life) with limited fitness and sometimes not fully independent. This dimension of support can be used to use new communication and information technologies to meet health care and needs. It can also be a tool to support caregivers, both formal and informal (e.g. people close to an elderly, dependent person) and to coordinate different dimensions of services and diagnose needs

and respond quickly to them. Telecare issues appear in a number of previously mentioned documents and public programs. In the domestic literature on the subject, the issue of telecare has been appearing for 1.5 decades (e.g. Frączkowski 2008) As it turns out, so far telecare has been used to a small extent. As he writes " *One of the strengths of Polish in building modern telecare services is the ICT sector. The IT staff is one of the top European teams. Half of Polish start-ups are created in the ICT sector, and the value of turnover in this sector is growing by an average of 8.6% per year, which is the best result in Europe(...)* This potential suggests that Poland is very well prepared for the implementation and development of telecare in terms of personnel and technology". (Osman, 2018) The same authors, however, point out that in Poland telecare is in an early stage of development. The solutions used so far are usually solutions containing safety sensors, which using the SOS signal to defined recipients, e.g. from the family circle, allow to react in crisis situations. In addition to monitoring the health of an elderly or dependent person and its possible deterioration, tele-care systems may contain elements of monitoring the environment of a person with reduced mobility (e.g., installing appropriate gas, flood, smoke, or traffic sensors. So far, such telecare solutions have been based on private initiatives or nongovernmental practices, but there was a lack of systemic regulation and public policies in this area (an attempt to use one of the telecare tools, which are the so-called safety bands, is the aforementioned module of the Support Seniors program.

You can also think about telecare using more advanced tools – in the field of robotics and artificial intelligence. As Z.Szweda-Lewandowska writes:*The second branch of telecare is the use of robots in the care and support of caregivers. Robots can be small and used for feeding, for example, but there are also human sizes that can do more activities in the home. Nursebot (robot caregiver) or RoNA (robot nursing assistant) are robots that are supposed to replace caregivers. Their tasks include administering drugs, helping them move, getting up, but also monitoring vital functions or notifying caregivers or medical staff about an unusual situation requiring their intervention* 17. *Robots are a de facto combination of telecare and telemedicine. In Western and northern Europe, they are increasingly used in both home and institutional care.* „ (Szweda-Lewandowska, 2018). In Poland, this dimension of the use of new technologies is practically not applied on a noticeable scale in the sphere of long-term care for the elderly.

### **Older people in the digital sphere in Poland**

Polish society is aging – these tendencies have been visible for many years, but it was the COVID-19 virus pandemic that revealed the unquestionable shortcomings that appear in the digital space and gaps that thanks to new technologies could be supplemented and work for the benefit of the elderly.

The crisis caused by the pandemic has caused organizations (both governmental and nongovernmental) to increasingly transfer information and resources to Internet networks. This is to ensure their wider and faster access. However, the problem here may be the ability to use new technologies and the Internet, as well as their availability.

The level of digital competences of older people in Poland varies in relation to their age and social status, which was clearly shown by the Polsenior2 survey conducted in 2021 (*Polsenior 2, 2021*) implemented every 10 years in a group of nearly 6000 Poles aged 60+.

As the authors of the above report emphasize, these competences are strongly related to the phenomenon of digital exclusion – a new form of social exclusion, which is defined as a situation in which people who are members of society cannot fully function in it because they do not have adequate access to institutions or resources available to other people (Resolution No. 104 RM, 2013).

According to the above survey, 17.7% of the respondents do not use a computer or laptop at home at all. However, there are noticeable significant differences in the subsequent groups. For the age of 60-69, it is 13.1%, 70-79 – 22.5%, and for seniors 80+ already 52.3%. This shows a nearly four-fold difference between the youngest and oldest seniors. 61.5% of seniors do not use the ability to search the Internet for health-related information. Detailed information is presented in the table.

Categories	Men	Women	Together
Total	65,3%	64,9%	65,1%
<b>Group</b>			
60-69	57,5 %	46,1%	51,3%
70-79	70,4%	77,6%	74,7%
80+	91,0%	95,0%	93,7%
<b>Education</b>			
Basic, incomplete Primary or middle school	91,2%	94,7%	93,6%
Essential professional	71,3%	72,3%	71,7%
Medium/post-secondary	56,7%	50,9%	53,0%
Higher	33,2%	32,4%	32,7%

*Table 1* Noust of the Internet in health-related matters in the last 12 months by gender, age and education. (*Polsenior 2, 2021, p. 988*)

Seniors – the younger, the more often – are interested in the possibility of contacting a doctor at a distance (39.8%) and the possibility of remote monitoring of their health (46.4%).

The data presented above coincide with those carried out in earlier years in Poland. In their 2012 paper (Szmigielska et al., 2012), Szmigielska, Bąk and Hołda emphasize gender differences in the context of seniors' use of network resources. These are, respectively:

For women:

- Ability to contact loved ones
- Use of email
- Possibilities to play online games

For men:

- Ability to read newspapers/books
- Searching for the necessary information
- Browse offers
- Make a reservation online

New technologies not only provide access to information and the opportunity to be up to date – they are also a very important element of a friendly healthy, independent and independent life in old age. This is shown by research conducted in the oldest demographic parts of the Polish: Łódzkie, Świętokrzyskie, Opolskie, Podlaskie, Lubelskie m.in voivodships (Urbaniak, 2020, pp. 16–39). The Internet also gives Polish seniors the opportunity to participate in culture and educational events, which was particularly important and visible in the reports summarizing the time of the COVID-19 pandemic (*Regional survey: offer for Małopolska seniors - free time, activity, information*, 2021). It is also one of the mechanisms activating older people in the activities of local communities – for example, through the possibility of submitting their ideas to the participatory budgets of cities or reporting defects through numbers and intervention pages (e.g. the Municipal Contact Center in Warsaw).

### **Initiatives, programs and tools prepared by legal and social actors.**

In recent years, the public debate has seen voices emphasizing the crisis of care activities awaiting Poland – as a result of both demographic changes and the division of roles between women and men (Zapędowska-Kling, 2021).

As Zachorowska-Mazurkiewicz emphasizes in her 2010 work: *most economic models ignore caring activity, which consequently leads to the absence of this sphere in the economic policy guidelines. As a result, care is undervalued – the value of unpaid care is omitted from national accounts, care workers are underpaid and their profession is not prestigious, and people providing care services to members of their own household are treated as nonworking (economically inactive). These phenomena, in turn, translate into a crisis of care.* (Zachorowska-Mazurkiewicz, 2010, p. 295).

As emphasized by Zapędowska-Kling (Zapędowska-Kling, 2021, p. 66) *Demographic changes – although they should – do not necessarily entail an increase in expenditures from the state budget on the health care system and the long-term care system. Overloading the negative system does not affect the quality of services and generates inequalities in their access. New technologies are seen as a potential to improve and facilitate the care of the elderly and/or dependents. New technologies can be complementary to the traditional care and health care systems.*

Important legal issues related to telemedicine are highlighted by Oręziak (Oręziak, 2018, p. 136): *the constitutional right to health care requires equality in access to health services,*

which in turn makes it necessary to look at issues related to telemedicine much more broadly than before because:

- *whereas telemedicine, by definition, requires access to ICT networks;*
- *persons over the age of 65 are most interested in accessing the benefits in question;*
- *People over the age of 65 are the most affected by the phenomenon of digital exclusion.*

Telemedicine in this context is therefore not only a matter of ensuring the technical conditions and technological background of a given solution, but also of preparing future users to use them.

As part of the activities carried out in the field of telemedicine in Poland, we can mention (Zapędowska-Kling, 2015):

- *assistive technologies, supporting the daily functioning of people with dysfunctions of the locomotor organs, hearing or vision*
- *monitoring technologies, including:*
  - a) *biomedical sensors (enable monitoring of physiological functions at a distance),*
  - b) *breath monitors,*
  - c) *smoke and carbon monoxide detectors,*
  - d) *fall detectors,*
  - e) *bracelets that allow you to instantly call for help with one button.*

#### *Examples of actions carried out by local actors in the context of care services*

- *"Łódź – City (Tele) Care – pilot program implemented from May 2018 to March 2021. Recipients: 2000 people, dependent seniors who live in Łódź and have not previously used telecare, living in single-person households(HRP, 2020). Recipients receive GPS wristbands that monitor their daily activities. The 40 least independent people have the opportunity to receive nursing care at the place of residence. The post-pilot program was not continued due to lack of funding opportunities. As a result, the wristbands were taken away from the beneficiaries and the Center itself handling applications, which were liquidated.*
- *"Małopolska Tele-Angel" – implemented from April 2018 to June 2022. (Marshal's Office of the Malopolska Region, 2018). Recipients: 6000 people, seniors 75+ or younger people but with a declaration of independence living in the Malopolska Region. Recipients receive GPS wristbands that monitor their daily activities. The criterion for receiving a monitoring bracelet is the inability to perform one of the above-mentioned basic everyday activities, e.g. independent preparation / eating meals, shopping, maintaining hygiene, self-dressing). In addition, 1800 people are given the opportunity to obtain care and neighborhood care services.*
- *Telemedicine in Wrocław, realization 2020, pilot(returned aw.pl, 2020). Recipients: 35 people (65+) for a maximum of 3 months. The Senior Telecare Package is dedicated to the charges of the Day Care Home on Ciepla Street, the charges of the Ecumenical Care Station and Seniors with the Emerald Senior Card.*

*Ten people receive home hands-free terminals and a bracelet or pendant with an alarm button (the so-called life button). This form of help is primarily intended for people who do not leave home. More active seniors (25 people) receive the so-called life bands – which allow them to call for help in the event of sudden fainting.*

*Patients who, as part of the pilot, will be equipped with a terminal with an alarm button will be covered by the so-called Telecare Plus, - a service provided by a team of caregivers of the Telesocial Center operating 24h/7days.*

*The service focuses on m.in the organization of assistance in situations of stress, anxiety, the need for conversation, feelings of loneliness, social isolation, situations of everyday life difficult for patients and requiring the support of a third party. In the event of a threat to life or health, employees of the Telesocial Center will contact the emergency services.*

*The project includes: cardiology package, diabetes package and senior telecare.*

- *"Telecare" in Poznan (AW, 2021)*

*Recipients: over 700 people (data from 2021) residents of Poznań, people living alone or spending most of the day alone. It can also be used by people in a difficult life situation (e.g. due to dependency or disability). The project continues in 2022.*

*The participant is equipped with a bracelet with an alarm button and an easy-to-use hands-free telephone. Thanks to this set, in the event of a threat to life or health, a senior can easily contact a Teleassistant who takes appropriate actions, e.g. calls emergency services, notifying a neighbor with keys.*

*During the call via the emergency button (the so-called "red call"), the Teleassistant is shown an information card about the participant. This solution allows you to provide key information to medical services (e.g. about medications taken, allergies, possibilities of entering the building, etc.). This information is determined with the senior assistant, who qualifies the senior for the project and trains in the use of equipment enabling the call for help.*

*As part of Telecare, the participant can also use the so-called green calls, i.e. social conversations with the Teleassistant, e.g. if he suffers from loneliness or needs additional information.*

*In addition, once a week, Teleassists themselves initiate a conversation with the mentee to check how he feels and whether his situation has not deteriorated.*

*The Telecare Center is open 24 hours a day, also on Sundays and holidays.*

*HOME SERVICES is the support of specialists from the medical team: geriatrician, nurse, physiotherapist and psychologist, as well as the opportunity to obtain legal advice from the Ombudsman for the Elderly and / or Disabled. The scope of services is determined with a personal assistant on the basis of an interview and an individual care and Support Plan created. All services are provided at the home of the mentee or, due to the threat of coronavirus, by phone.*

*Support for volunteers who provide emotional support, computer support (e.g. registering for vaccination), buying medicines, etc. are currently restricted for security reasons and are only implemented in exceptional situations.*



In Poland, several documents and activities within the framework of social policy that are important from the point of view of telemedicine have been created, these are:

- Resolution No. 161 of the Council of Ministers of 26 October 2018 on the adoption of the document Social Policy toward the elderly 2030. SECURITY-PARTICIPATION-SOLIDARITY (*Resolution No. 161 of the Council of Ministers of October 26, 2018, on the adoption of the document Social Policy towards the elderly 2030. SECURITY-PARTICIPATION-SOLIDARITY, 2018*). This document formulates 5 key social policy objectives until 2030. These include activities related to the use of new technologies in the care of the elderly and comprehensive monitoring of their health, as well as the use of new technologies in the context of compensating for deficiencies resulting from lost efficiency and strengthening independence.
- The „Active +” program is focused on the digital activation of older people and skills related to the use of new technologies in various areas of the functioning of older people (Department of Senior Policy, 2021).

### **Challenges related to the current refugee crisis and the COVID-19 pandemic in Poland**

- **COVID-19 pandemic**

The COVID-19 pandemic has shown how important it is to respond quickly to the needs of the elderly. In the so-called 'first and second wave' of the pandemic, when there was no effective vaccine yet, the actions of the government and local governments were very much focused on the elderly. They were the most exposed to the virus. The pandemic has made even more visible the shortcomings in the care and support of seniors, which have been emphasized over the years by specialists, both in health issues (queues to doctors, lack of geriatricians, lack of developed telemedicine services) and care (nursing homes and hospice facilities) as well as related to everyday support (staff shortages and overload of employees of Municipal and Municipal Social Care Centers). Seniors were encouraged to stay at home, avoid contact with people outside their place of residence, isolate themselves. On the one hand, such actions have had a negative impact on the well-being of the elderly. (*Quality of life of older people in the first year of the COVID-19 pandemic, 2021*) but also caused changes in both the health system and local social policy activities. In a few weeks switched to a contactless style of work: both services (such as ordering the necessary medicines) and medical appointments could be arranged online or by phone. This allowed people at particular risk of the virus to continue treatment or see a doctor for an urgent matter.

New technologies were also useful in the context of maintaining social contacts – with members of the immediate family. Seniors, forced by isolation and government-managed lockdowns, used computers, the Internet, social media and instant messaging to keep in touch with the world. According to the respondents of the Institute of Senior Policy Senior.HUB, the use of the Internet in this context affected their mental well-being (*Quality of life of older people in the first year of the COVID-19 pandemic, 2021*). Detailed data are shown in the Table.

## KORZYSTANIE Z INTERNETU A KONDYCJA PSYCHICZNA BADANYCH. N = 500

Odsetek osób, oceniających swoją kondycję psychiczną jako gorszą niż przed pandemią	
Dla ogółu populacji osób 60+	59,6%
Wśród osób nie korzystających z internetu	61,2%
Wśród osób korzystających z internetu	55,6%

*Table 2 Internet use and mental condition of the subjects (Quality of life of older people in the first year of the COVID-19 pandemic, 2021).*

The comparison of those above data with the previously cited, regarding digital lettering and digital exclusion among seniors, makes it necessary in the coming years to take action to effectively introduce seniors to the digital world. It is about the conditions in which the software will be adapted to their psychophysical capabilities, but also about the equipment being available at prices acceptable to seniors. The activities carried out should be of a long-term nature and be implemented not only in urban centers, but above all in the countryside – where both the percentage of older people declaring the use of a computer and access to the Internet is the lowest (*Polsenior 2 Ads*, 2021, pp. 991–992).

- **War in Ukraine**

The aging of the population in Poland, understood as the percentage of elderly people in society, results primarily from the decline of the population in Poland, which has been visible for many years. However, Russia's armed aggression against Ukraine, which took place on 24 February 2022, may change these tendencies. Estimates presented by the Polish Border Guard (data from 25 April 2022) show that more than 3 million people have already crossed the Polish border (*Border Guard Statistics, 2003-2022*, n.d.). According to Kamil Sobolewski, an economist at the Polish Employers' Association of the Republic of Poland, most of them are women with children and the elderly (10%) – men cannot leave Ukraine due to the war. The health policy system in Poland was burdened even before the outbreak of the war in Ukraine. A report published in 2021 by the Helath Care Foundation confirms these data. In their light, difficult access to specialist doctors is visible, as is the length of the diagnosis process resulting from the need for the patient to go through all stages of medical procedures – from queues to the diagnostician to the procedures themselves (*WHC BAROMETER Report on changes in access to guaranteed health services in Poland, 2021*). Furthermore, the data made available by the Supreme Audit Office indicated queues for specialist doctors, insufficient preventive measures for the elderly, lack of geriatricians and adequate care for the elderly, requiring support in specialized facilities. *The health care system in Poland: the current state and desirable directions of change*, 2019). Due to the emergence of a sudden wave of refugees that are potentially in need of short-term and long-term support in the Republic of Poland, we can expect a greater burden on institutions that implement activities within the health system. Those persons may be helped, but not out of turn, but within the framework of medical criteria. *Problems reported to the Ombudsman by Ukrainian patients*, 2022). An additional challenge is the need to make services available to patients in their native language – Ukrainian or Russian – for which the health care system is not prepared at the current stage of the Polish. *Problems with translators for Ukrainian patients*, 2022).

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