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Executive summary

Coping with Europe's ageing societies is one of the grand challenges pointed out in the Lund Declaration. The rapidly growing population of seniors represents a complex challenge for Europe and European policy and decision-makers. Societies are faced with increasing needs for specialised healthcare services for a growing number of elderly citizens coupled with a dwindling workforce.

A scenario workshop is a method aimed at facilitating forward-looking discussions and identifying policy alternatives in different contexts. Such a scenario workshop was held in Bulgaria on June 13, 2014, as one of several such national workshops within the Parliaments and Civil Society in Technology Assessment project (PACITA), supported by the European Union's 7th Framework Programme for Research. This report summarises the results of the Bulgarian workshop, and offers initial ideas for policy-makers to consider when addressing the challenge.

The purpose of the scenario workshop was to create awareness of the possible consequences of political choices based off three alternative scenarios developed within the PACITA project with the active guidance of a specially-formed European stakeholders group. The scenarios served as starting point into a discussion of obstacles, opportunities and most viable options for future models of elderly care, whereby technology plays a key part. They differ with respect to the balance between public and private players as providers of specialised elderly care, and with respect to the options senior citizens have to organise themselves to meet their needs for care and assistance.

The Bulgarian workshop was attended by 29 people, representing major stakeholders in the elderly care policy debate. Participants included medical personnel, demographers and researchers, government experts, as well as non-profit organisations. That provided for a rich discussion with multiple viewpoints, but also served as a good example of how different institutional backgrounds were concentrating on more narrow aspects of the bigger picture. The workshop's format allowed participants to seek common ground, while the scenarios proved a helpful framework to reach agreement on the most pressing priorities and possible actions. What was particularly challenging is that no policy exists that focuses especially on the elderly (even for the present), while the anticipation of future systemic challenges is mostly frequently lacking from policy planning altogether. Even though several strategic policy documents are adopted, each is focusing on a very narrow aspect of aging populations' challenge responses, with little to none interchange, amid poor implementation and overall awareness.

Participants first reviewed each scenario and attempted to estimate the relevance thereof to the Bulgarian context. Most agreed that none of the scenarios were directly applicable to the Bulgarian context. Nevertheless, they found one of the scenarios to be the most feasible as it was the closest to the reality in the country, as well as most financially viable.

Concerns were common for all scenarios, and included the management of private data, elderly's privacy protection, lack of technical skills among the elderly (or general reluctance to use electronic devices), the distribution of financial resources to organise needed reforms. Another frequently expressed concern was related to specific changes in the roles and responsibilities of governance and overseeing bodies, among whose tasks would be to ensure equity and equal access, as well to exercise control. Overall, control is still seen by most stakeholders as a key function of the state/municipal bodies, at least as a precautionary anticipatory response to possible corruption among independent providers. There was also a greater tendency among participants to perceive elderly in greater need as having higher priority with respect to access to technology or additional

social discounts, but at the same time failing to determine whose responsibility it would be to decide upon and provide proper incentives. In general, resource distribution was a key topic of discussion, however – decoupled from specific policy content.

The scenarios based on volunteer communities seemed to attract the greatest support and interest, even though participants admitted that the process of selection of volunteer organisations and individual volunteers is rather difficult.

Having discussed all scenarios, participants shared their own visions of the future of elderly care, and agreed on the need of strong political will that they see as necessary in order to cope with challenges of aging and be able to provide good quality care. The following general policy priorities were proposed:

- Develop a clear administrative and legal framework for the provision of social and healthcare services to the elderly
- Develop and implementing long-term policy strategies
- Encourage and support capacity building opportunities for the elderly, the public administration and healthcare practitioners
- Ensurefinancial resources
- Support technological developments
- Increasthe transparency and strengthening the control over public expenditures
- Maintain broad societal debate
- Involve the media

Having elaborated several visions, participants agreed on the following specific policy recommendations:

- Increase public investment in healthcare, improve the efficiency and strengthen control of public expenditures in the sector
- Ensure consistency and continuity of policy efforts
- Integrate technologies in the long-term care provided to the elderly

Lastly, the report offers specific recommendations about how these recommendations can be used to inform national policy making and legislation. However, the amount of specific policy advice remains scarce since participants' visions were formulated as a (disconnected) mixture of wishes for the future state of the healthcare system and a response to short-comings to current policies and practices. Therefore developing specific policy solutions would be the task of further analysis.

Introduction

How to cope with ageing societies is one of the grand challenges pointed out in the Lund Declaration [1]. The rapidly growing population of seniors confronts Europe with a double demographic challenge. The ageing population's need for healthcare services increases at the same time as the access to workforce declines[2].

Use of technology can be increasingly important for the society to be able to offer health care services at a quantity and quality that mirrors the expectations of the European populations. Our society can choose different strategies for the care services, and for the introduction of new technological tools in this sector. The technology promises many opportunities, but there are challenges to be solved and ethical dilemmas to be considered. How can we best use new technology in care services, what is acceptable and what is the resistance by the seniors themselves, and what type of options are policy makers faced with?

Scenarios

To create awareness of the possible consequences of political choices, the PACITA-project have, together with a European stakeholder group, developed three scenarios; "One size fits all", "Freedom of choice" and "Volunteering community". They differ with respect to which degree public and private players are providing future elderly care and how the seniors and other groups in the society organise themselves in order to meet the needs for care. To create awareness of the possible consequences of the choices, the project have also developed user stories, where four people are pictured and further described how they could live their lives in 2025 in the given scenarios.

Scenario workshop

To facilitate and provoke forward-looking discussions and identify policy alternatives the PACITA-project have conducted ten national and regional scenario workshops in: Denmark, Czech Republic, Hungary, Ireland, Catalonia (Spain), Norway, Wallonia (Belgium), Switzerland, Austria and Bulgaria. A scenario workshop is a method aimed at facilitating forward-looking discussions and identifying policy alternatives in different contexts. In PACITA, the workshops aims to stimulate discussions on how one can meet the needs and face the challenges of the rising number of older adults in different European countries, with a set of scenarios as a starting point for the discussion.

The scenarios and user stories have been used to provoke discussions in scenario workshops on how one can meet the needs and face the challenges of the rising number of older adults in the European countries. The scenario workshops in the PACITA project have produced visions for what kind of elderly care services the Europeans (though the views of a diverse range of elderly care stakeholders) want and policies envisaged to achieve these visions.

This report summarises and analyses the results of the national scenario workshop held in Bulgaria, June 13, 2014.

[1] [Lund 2009]

[2] An ageing population is defined as a population in which the number of elderly (65+) is increasing relative to the number of 20-64 year olds. http://www.population-europe.eu/Library/Glossary.aspx

The findings from the ten national workshops will be gathered and analysed in a synthesis report, to be presented to regional, national and European policy-makers at a policy conference in Brussels in late 2014.

National context

Life expectancy at birth in Bulgaria has been steadily rising in the past decades. While in the mid-20th century it was just above 62 years (both sexes combined), in 2010 the life expectancy at birth in Bulgaria reached 73.4 years. The projections of the UN, Department of Economic and Social Affairs, show that in 2030 the life expectancy in the country, assuming medium fertility, will rise to above 75 years; in 2050, it is expected to be more than 78 years. Compared to Western Europe, in Bulgaria life expectancy at birth is still significantly lower. Until 2050, the expected rate of increase of longevity in the country is relatively the same as in the majority of the other EU countries.

The other indicator which determines the rate of ageing of the population in Bulgaria is the rate of fertility in the country. The fertility rate, or, the average number of children a woman would give birth to over her lifetime, in 1950 in Bulgaria was 2.53. In 1980, it was 2.02 and until 2010 it declined to 1.43 children per woman.

The trend of ageing of the population in Bulgaria is demonstrated also by the rise of the median age in the country. In 1980, the median age in Bulgaria was 34.2 years. Until 2010, it rose to 42.4 years. The projections of the UN Department of Economic and Social Affairs show that the median age in 2030 will be around 46 years and in 2050 – 48 years.

To calculate the country's ageing index the population should be divided into 3 major age groups - 0-14, 15-64 and 65 and above. The country's ageing index is the ratio of the number of elderly persons of an age when they are generally economically inactive (aged 65 and over) to the number of young persons (from 0 to 14). In the mid-20th century, the share of persons aged 0-14 was almost four times higher than the share of the persons of age above 65 years. At the end of the 1990s for the first time in the history of Bulgaria the persons aged above 65 years outnumbered children below 15 years of age. In 2010, the number of older people in the country was already almost 30% higher than the number of children below 15. In 2050, the number of older people (65+) is expected to be twice the number of children (0-14)[3].

The share of the elderly persons (above 65) of the total population in Bulgaria in 2010 was slightly over 18%. Thus, approximately 1 out of 5 persons in Bulgaria in 2010 was over 65 years of age. In 1980, this ratio was just above 11%. The projections for the future suggest that in 2030 the ratio will be slightly less than 21% and in 2050 it is expected to rise to almost 26%[4].

In a comparative perspective Bulgaria ranks as one of the most rapidly ageing countries worldwide. In 2013, the **World Bank ranked Bulgaria fourth in the world according to the share of population aged 60 or over**[5].

The increasing number of elderly persons as percentage of the total population implies that the country's healthcare system will have to deal with increasing number of cases of chronic diseases, for example, diabetes, arthritis, congestive heart failure and dementia as well as loss of function and independence. Thus, the demand for long-term care services will grow significantly. As suggested by researchers, this might lead to **increasing costs of the country's healthcare system**. **Redesigning service delivery with the help of new technologies will be crucial for coping with**

[3] Source: United Nations, Department of Economic and Social Affairs
[4] Ibid..
[5] Link: http://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2013.pdf

the increasing number of the elderly persons in Bulgaria. **Telecare has the potential to reduce the costs for monitoring and care provided to older people and, thus, to mitigate the rising costs of the health care systems of the affected countries.**

Bulgaria is one of the countries with greatest difference in the proportion of elderly persons living in rural areas compared to those living in urban areas. As indicated in the World Population Ageing Report, published in 2009 (Source: UN, Department of Economic and Social Affairs), the share of elderly people (above 65) in the rural areas in Bulgaria is 15 to 18 percentage points higher than in the urban areas. In 2005, around ¼ of the population living in rural areas in Bulgaria was above 60 years of age.

The great shortage of personnel and healthcare facilities in remote rural areas impede the proper monitoring, diagnostics and treating elderly persons living in these areas. **Developing and implementing telecare services in remote areas can significantly improve the accessibility and quality of the healthcare services provided to the rural population.**

Another demographic indicator that affects the availability of services provided to elderly persons is the participation of women in the labour market. Eurostat data suggests that the employment rate of women aged 20-64 in Bulgaria rose with 10 percentage points between 2000 and 2012 (from 50.7 in 2000 to 60.2 in 2012).

The number of emigrants from Bulgaria has been and is expected to remain high in the future according to data on net migration of the UN Department of Employment and Social affairs. Currently, the net migration rate is around -1.4 persons. It is, however, expected to remain negative and increase to -2 persons to 2050.

Increased participation of women in the labour market as well as high emigration from the country implies **decreasing availability of potential carers within families**. Thus, the demand for services provided by social workers and medical personnel will go up as more and more elderly persons are left on their own in their homes. Telecare services will be highly beneficial to deal with this trend.

National policies

With the start of the transition to market economy in 1989 the Bulgarian healthcare sector underwent major changes. The reforms targeted mainly health care financing, reorganisation of primary care and rationalisation of the network of inpatient and outpatient facilities[6]. The most significant reforms in the sector were introduced after 1997 and these were[7]: i) The introduction of mandatory health insurance and the establishment of the National Health Insurance Fund (NHIF), which nowadays distributes around 70% of the public funds to the health service providers in the country[8]. The NHIF was founded in 1999 as an independent public institution with separate budget which is voted by the National Assembly on an annual basis. Health insurance in Bulgaria has been mandatory since then and is regulated by the Health Insurance Act from 1998; ii) Change of property: Before 1989 all hospitals and health care facilities were owned by the state. Since the reforms in 2000 hospitals started operating as trade companies and the ownership to many of them was given to the country's municipalities[9]. There also are a number of state hospitals, which are owned

[6] Dr. L. Tomev, Dr. N. Daskalova, Ms. T. Mihailova. 2005. Social dialogue in the health sector: Case study Bulgaria
[7] Dr. L. Tomev, Dr. N. Daskalova, Ms. T. Mihailova. 2005. Social dialogue in the health sector: Case study Bulgaria
[8] World Bank report - 2012
[9] World Bank report - 2012

entirely by the state, and provide health services to patients from all over the country. There are a number of private hospitals; iii) Privatisation of outpatient and inpatient care: Since 2000 private individuals or legal bodies could provide outpatient care. A moratorium on the privatisation of hospitals was declared in 2002, but was withdrawn in 2007;iv) Introduction of a "General Practitioner" (GP) institution: GPs are registered as sole property traders. They are the "effective gatekeepers to specialised and hospital care" which should reduce expenditure on costlier health care.

Despite the introduced reforms, the **health care system in Bulgaria remained largely inefficient and ineffective in providing quality health services to the Bulgarian citizens**. This is demonstrated by the EuroHealth Consumer Index for 2013 produced by the Health Consumer Powerhouse ranking Bulgaria 30th out of 33 European countries in quality of the health care services provided in the country.

In addition to the challenges associated to the rapidly ageing society in the country, some of the **major issues** to deal with in order to improve the accessibility of citizens to and the quality of the healthcare in Bulgaria are:

- ***Ensuring sufficient financing of the system***

The healthcare system in Bulgaria is financed by four major sources. These are the funds collected by working individuals paying the mandatory health insurance to NHIF, public funding through the Ministry of Health, cash payments from patients and voluntary health insurance[10]. According to the World Health Organisation the amount of total (public and private sources) health expenditure per capita (adjusted for PPP) in the country in 2011 is USD 1064, which is the second lowest health expenditure per capita in the EU28. Taking the national GDP into account, the overall amount of expenditure for healthcare in Bulgaria becomes comparable to the other countries in the region and the new member states to the EU[11].

Yet, the **percentage of costs covered by the households' out-of-the-pocket money is considerably larger than in all other EU member states**. According to the "Eurohealth Consumer Index Report", 44% of the total expenditure for healthcare was paid by private sources (mainly households' out-of-the-pocket money paid for user fees and other regulated and unregulated fees for medical services). The share of expenditure paid by Bulgarian households is among the greatest in Europe and in the region and is increasing over time. On the other hand, the public expenditure for healthcare in the country as share of the total public expenditure was 9.8% (data from 2009) of the total public expenditure, which is one of the lowest percentages among the new member states and is considerably less than the EU average of 14.6%[12]. The increasing share of private financing to the healthcare system may be explained with rising dissatisfaction of the citizens with the quality of the services financed by the NHIF and turn to professionals and healthcare facilities that do not work with NHIF and are not publicly financed. In addition, often the public support for financing the needed treatment for certain conditions is insufficient, which means that people need to co-finance their treatment. This trend contributes to two major problems. First, relying to such a great extent on private sources the financial stability of the system is

[10] Dr. L. Tomev, Dr. N. Daskalova, Ms. T. Mihailova. 2005. Social dialogue in the health sector: Case study Bulgaria
[11] Worldbank Working Paper
[12] World Health Statistics 2012

compromised. The World Bank data[13] demonstrates that as a result of the financial crisis many households reduced the money they spent for healthcare giving up on medical consultations, examinations or medicaments. Second, impoverished people are not able to afford medical services. **20% of the households in Bulgaria pay more than 10% of their income for health services. This contributes to exacerbating poverty in the country.** The average percentage in Europe is 7% of all households. According to Eurostat data, health care remains unaffordable for 14% of the poorest quantile in the country compared to 4.5% in EU28 (data from 2012).

Another major issue related to financing of the national healthcare system is the collection of the mandatory insurance by NHIF. There are two concerning trends in this regard. First, many employers do not comply with the law and do not pay the mandatory health insurance for their employees. The same holds true for employees who remain uninsured as they do not receive any income officially, so nothing is deducted from their pay for health insurance. In 2013, according to a statement of then Minister of Health, 1.2 million citizens had not paid the mandatory health insurance to NHIF. Thus, there is currently lack of incentives to pay the mandatory insurance to the NHIF, which might be due to dissatisfaction with the quality of services covered by the NHIF, dissatisfaction with the amount covered by NHIF, etc.
Another major trend is the **constant and relatively rapid decline of the working population as a share of the total population in the country due to immigration and persistently low fertility rates (data described above).** Thus, financing the system with funds collected from the mandatory insurance paid by the working population will become increasingly burdensome from a financial point of view for employees.

- ***Ensuring the availability of human resources***

According to the draft for National Health Strategy 2014-2020, the number of medical doctors in the country per 100 000 citizens in 2012 was 393 which is higher than the average for EU. There are, however, strong regional disproportions in that figure, thus making healthcare rather inaccessible in some areas of the country. The concentration of doctors tends to be the highest in larger cities where medical universities and university hospitals are also located. In addition, there are some areas where certain specialists are missing altogether. Eurostat data show that unmet needs due to distance to health care facility is 0.6% compared to 0.2% for EU28. Looking at the percentage of people aged 65+, **2% of the elderly do not have proper access to healthcare because of distance to healthcare facilities (compared to 0.5% for EU28).** Other trends which are particularly concerning are that **the average age of medical practitioners is increasing**, as well as the **increasing number of medical practitioners emigrating from the country**[14].

- ***Developing outpatient care services in the country***

The World Bank Report on Health Care Reforms in Bulgaria (released in 2013) states that compared to the other EU countries Bulgaria spends the highest percentage of its total healthcare expenditure for inpatient care[15]. In addition, it shows that among the new member states of the EU, Bulgaria is the country with the highest number of beds in hospitals for active treatment per capita. The data suggest that the healthcare provision in the country is predominantly based on inpatient

[13] Wolrd Bank (2012). Bulgaria - Household welfare during the 2010 recession and recovery. Retrieved from http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2012/06/26/000425970_20120626102236/Rendered/PDF/634570ESW0P1182740Box370042B00PUBLIC0.pdf.
[14] Link: http://www.hapche.bg/sites/default/files/na/national-health-strategy-2020.pdf
[15] World Bank Report on Health Care Reforms in Bulgaria 2013

care. One of the reasons behind this was the obligation of NHIF to sign contracts and provide funds to newly established hospitals which led to fragmented healthcare service provision. Although some reforms have been introduced in order to improve the efficiency of the system the results attained remain rather limited.

The **high expenditure for inpatient care** also suggests a large gap in the efficacy of outpatient care in the country. Eurostat data show that only 12% of the current healthcare expenditure in the country in 2008 (last available data) was spent on outpatient care compared to 25-30% in most of the other EU member states. As outlined in the World Bank's Paper on Reforms in Healthcare in Bulgaria this infers that **outpatient care in the country remains underdeveloped**. Various factors contribute to the inferior state of the outpatient care in Bulgaria. Among these are the prevalent incapacity of the primary healthcare practitioners to play an active role in the coordination of medical care for their patients, as well as the practice of paying to health practitioners per patient and not according to quality of the service.

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Technology alone cannot solve all issues related to the healthcare system in the country. Undertaking necessary reforms to improve the quality of the provided healthcare services, ensure the provision of sufficient funding and ensure the efficient spending of the available resources will be needed in order to provide healthcare services which correspond to European standards and citizens' expectations. **Technologies and innovation in the healthcare sector can play a key role in alleviating the burden of the ageing population on the healthcare system and help deal with some of the challenges described above.**

One of the major advantages of telecare is the optimisation of healthcare expenditure as it provides opportunities for remote consultation and treatment, thus having the potential to reduce costs of both healthcare providers and patients. Ensuring constant monitoring of patients' health indicators and enabling the instant transmission of health data from a patient's location to a healthcare facility, helps reduce the time for and increase the effectiveness of emergency medical interventions, which in turn reduces the number of hospital admissions. This will be of major importance and benefit to the Bulgarian healthcare system, which relies to a great extent on inpatient care. With the population rapidly ageing, this problem will further exacerbate as more and more people are projected to be afflicted with chronic diseases and to need prolonged medical supervision. In addition to this, being able to provide medical consultation remotely might alleviate the burden for people who live in remote areas and who do not have immediate access to healthcare facilities. Furthermore, telecare can also reduce the burden for healthcare practitioners considering the expected decline in the number of medical specialists in the near future.

In addition to the benefits of telecare to the system as a whole, there are **significant benefits to the individual users as well**. As described in the report produced within PACITA "Telecare Technology in Europe", technologies enable patients to maintain their autonomy and allow them to live independently for a longer period of time. Living at home is unequivocally associated with higher quality of life.

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Despite the benefits telecare can bring to the healthcare system and the elderly in the country, there is an evidently low priority of telecare (or similar technologies) in general within official Bulgarian policy planning. This conclusion was made based on a revision of the following documents:

- The *National Healthcare Strategy 2014-2020* has been adopted recently. A key strategic objective therein is directed at people of 65 years of age and older, namely to create opportunities for active aging and to reduce hospitalisation rates by 20% until 2020. For 2011 this rate was more than 45% for that age group. E-health development is highlighted as a priority in the strategy. However, the majority of policy priorities are focused on care improvement and cost optimisations of in-patient, as well as on the overall control of the healthcare costs increase. Telemedicine is seen as a tool to integrate in emergency response care. No specific measures are provided with respect to telemedicinal activities. The strategy features a specific policy targeted at health technologies, innovation and investments, with a strong role implied for health technology assessment.
- In December 2010 the Government adopted a *Strategy for the Restructuring of in-patient care in the Republic of Bulgaria*. However, neither e-health nor any telemedicine integration measures are included in it.
- Within the draft of the *National Strategy for Long-term care*, the word "technology" has been mentioned only once. Usage of ICT is listed as one of the ways to improve long-term care for the elderly and disadvantaged people, yet without further elaboration of the measures to implement ICT in the long-term care in the country. The document mentions only few times "mobile" in reference to services for the elderly, but again in a rather vague manner - "provision of not only stationary but also mobile services in patients' homes – "Services move to the client (to the neighbourhood, his/her home, to the hospital and so on)", which inform, assist and support the inclusion of individuals from disadvantaged groups and services suitable for them" – without further elaboration.
- The *Strategy for the Integration of eHealth in Bulgaria* defines eHealth in terms of application possibilities in Bulgaria and presents the specific objectives with regards to the development of e-health within the national healthcare system. An action plan was adopted for the implementation of this strategy within the period of 2007-2012. No reports of its success or other evaluation documents are (publicly) available at the moment, which provokes doubts as to the prospects of (national) policy development in relation to telecare.

Local players and responsibilities in the care sector

Among the **major players** in the field of telecare and telemedicine in Bulgaria are:

Public bodies

- **The National Health Insurance Fund** (described above) was founded in 1999 as an independent public institution with separate budget which is voted by the National Assembly on an annual basis. Health insurance in Bulgaria has been mandatory since then and is regulated by the Health Insurance Act from 1998. It is the major institution regulating healthcare delivery and transaction costs in the country. The NHSF defines the rules and procedures for the delivery of healthcare services, as well as the entire praxis of patient treatment. It funds all major public health services by care providers.

- **National Centre for Public Health and Analysis, Directorate "National health data and electronic health"** (Government agency, Ministry of Public Health). Among its major roles are: i) developing a unified medical records system; maintaining medical care statistics; analysing the congruence of information needs of the healthcare system and available IT solutions; preparing programmes for the creation and implementation of a unified healthcare information system; defining the standards, integration instruments and communication rules among the healthcare information systems; providing monitoring and evaluation of e-heatlh integration, as well of the development and achievements of the unified healthcare information system. The agency fulfills a government mandate and reports to the Ministry of Health. However, its policy leadership role remains very unclear. The emphasis seems to be on data collection and analysis, but it is not obvious how these analyses feed into the policy-making processes. Furthermore, stakeholders widely agree proper medical informatics standards are lacking. It is not clear whether this agency could fulfill such a mandate.
- **Parliamentary Committee on Healthcare**. The Committee reviews all draft laws regulating or related to healthcare, as well as any proposed amendments before final voting. It is also the place where policy discussions happen, with the participation of external experts when deemed necessary. The Committee is very important with respect to any legislative proposals. If it does not approve a submitted draft, it is highly likely it will be voted down by plenary as well.

Academia

- **New Bulgarian University** - A department at the University is involved with the research and promotion of telemedicine, and cooperates with healthcare institutions in the implementation and delivery of telemedicinal applications. There is a small team of two at the department, who are stretched across multiple initiatives, with students sometimes also supporting research. Activities are largely project-based but are communicated as success stories to policy bodies and care providers.

Civil society

- **eHealth Foundation (NGO)** - This is a key NGO working on e-health, and is a closer collaborator to all governments since its inception. It is a well-known and well-respected organisation among policy-makers, and is perceived as possessing expertise on issues of e-health and telemedicine. Leads and provides space for public policy debates involving both public and private sectors, service providers and decision-makers.

Technological status and development

The provision and development of telecare in the country is very limited. The following table lists all relevant cases of telecare/telemedicine provision that the authors of the report came across in their research.

Service Provider	Date Introduced	Objective	Type of Service Provider
Oreol	2013	Offers GPS localisation devices to elderly and children, along with an emergency call-centre, which can track the person or send medical personnel to their position.	Private Firm
University Hospital "Saint Ekaterina"	2008	Installing equipment for transmission of ECG data from a moving ambulance to the particular healthcare facility. The technology allows providing more adequate and timely treatment of patients prior to bringing them to the hospital.	Public body
Security Solutions Institutes, PIM Prima AD	2010	Telemetry system for monitoring the heart activity of patients. The system is called TEMEO and delivers information on the heart activity of a patient anywhere within the coverage of the GSM operator.	Private firm
Pia Mater	2012	Enabling elderly persons with special needs to easily contact a social worker who, when needed, contacts the emergency medical care and informs the person's family. The contact between the elderly and the social worker is established using home-based medical alert device.	Private, Social entrepreneur
Ministry of Health, Bulgaria	2012	The Ministry of Health announced plans for installing equipment for transmission of ECG data from a moving ambulance to a particular healthcare facility in all ambulance emergency response vehicles in the country.	Public institution
First Specialized Hospital Obstetrics and Gynecology "Saint Sofia", University General Hospital "Saint Marina", Varna, Military Medical Academy	2013	Conducting real-time interactive videoconference consultations during surgeries. The technology allows real time consultations with medical experts are not physically present at the surgery.	Public body
Shtrak BG Ltd.	2013	Producing "GPS bracelets" (personal alarm type of device). Using panic buttons the patients can immediately contact a designated emergency center. The GPS devise installed in the bracelet allows for immediate localisation of the patient.	Private firm
Quintessence BG	2013	Emergency Webinfokit for storing health data of each patient in a worldwide accessible web database. The data is accessible by any authorised experts with every connected to Internet computer.	Private firm

Technical terms and definitions in Bulgaria

There are only two definitions which the authors came across in their research in the context of Bulgarian science and policy-making. These are:

- The Bulgarian Academy of Sciences and its Institute for Space Research and Technologies define telemedicine as "medicine, telecommunications, information technologies and education for the purposes of diagnostics, treatment, consultation, and training. It permits the receipt of qualified medical care at any place and at any time, and is essentially medicine practiced remotely"[16]
- The National Strategy for the Integration of E-health in Bulgaria (2007)[17] defines e-health as fast evolving domain whereby medical informatics, public healthcare, healthcare service and information delivery converge based on the utilisation of contemporary IT.

Technology providers in Bulgaria

- *Personal alarm*: A few firms have recently introduced this product to the Bulgarian market. Each product operates with a specially designated emergency response centre run by the respective company. These centres contact the nearest hospital or medical service provider, as well as the family of the patient, if needed. One type of personal alarm also has a GPS device installed into it, so that the location of the patient can be easily determined.
- *Equipment for transmission of ECG data* from a mobile ambulance to the particular healthcare facility was installed in 2008 by the University Hospital "Saint Ekaterina" in Sofia in 10 of its ambulance emergency response vehicles. In 2012, the then Minister of Health has announced plans to install such equipment in all ambulance emergency response vehicles in the country.
- *Telemetry system for monitoring the heart activity of patients (TEMEO):* The system delivers information on the heart activity of a patient to the healthcare provider anywhere within the coverage of the GSM operator.
- *Real-time interactive videoconference consultations during surgeries:* This technology allows real time consultations with different medical teams, which need not to be physically present at the surgery table. In August 2013, for the first time this technology was used during a surgery to establish connection between three medical teams in different hospitals. The team of surgeons performing the surgery could be consulted by the other two teams in the other hospitals in real time.
- *Emergency Webinfokit for storing health data:* The emergency webinfokit is used for storing health data for each patient in a worldwide accessible web database. The data is accessible by any authorised experts through every computer, which is connected to the Internet. The webinfokit has recently been introduced to the market.

[16] This definition is provided in Bulgarian at http://www.space.bas.bg/TTO/bg/n_napravlenia_2.html.
[17] Link: http://www.mh.government.bg/Articles.aspx?lang=bg-BG&pageid=419

Scenario workshop in Bulgaria

Recruitment process and participation

The participants were divided into 3 major groups – health practitioners and social workers, researchers and some health practitioners of academic background, and public administration and representatives of NGOs.

In total 29 participants attended the workshop: 4 of them came from public institutions, such as the National Center of Public Health and Analysis and the National Executive Agency for Social Welfare; 8 of the participants are employed by health care providers; many of the participants came as representatives of associations of health practitioners; a few participants are social workers; members of civil society organisation, excluding trade unions and other interest groups were 3; 2 representatives of the Bulgarian Academy of Sciences; a few participants who are both practitioners but also make research and teach at universities. At the same time, all participants were older than 40 years, and five were older than 65. Representatives of the industry, particularly of technology companies, were invited as well but did not show up at the event.

Organisation of the workshop

The workshop was held at the premises of Hotel Arena di Serdica, located in the centre of Sofia. It started with a short introduction to the PACITA project and the agenda of the workshop. Following was a brief introduction to the aim of the scenario workshop method, as well as informing the participants on some major trends on the national level in regard to the ageing of the population and the expected increasing needs for health care and nursing in the future. A quick overview of the three scenarios was also included in this introductory session of the workshop. The expected outcome from each phase of the workshop was explicitly explained before each of the three phases with group discussion.

AGENDA OF THE WORKSHOP

9.00 – 9.30 Registration

9.30 – 10.00 Presentation of the project PACITA, agenda of the workshop and national context

10.00 – 10.30 Presentation of the three scenarios

10.30 – 11.30 **Phase 1:** General response to the scenarios

11.30 – 12.00 Coffee break

12.00 – 13.00 **Phase 2**: How would reality be in scenario 1, 2 and 3?

13.00 – 14.00 Lunch

14.00 – 15.00 Plenary session - *Presentation of the results from Phase 1*

15.00 – 16.30 **Phase 3:** Formulation of the participant's visions

16.30 – 17.00 Coffee break
17.00 – 18.00 Plenary session – presentation of participant's visions and recommendations
18.00 – 19.30 Concluding remarks, thank you and good bye

The list of participants is provided in Appendix A.

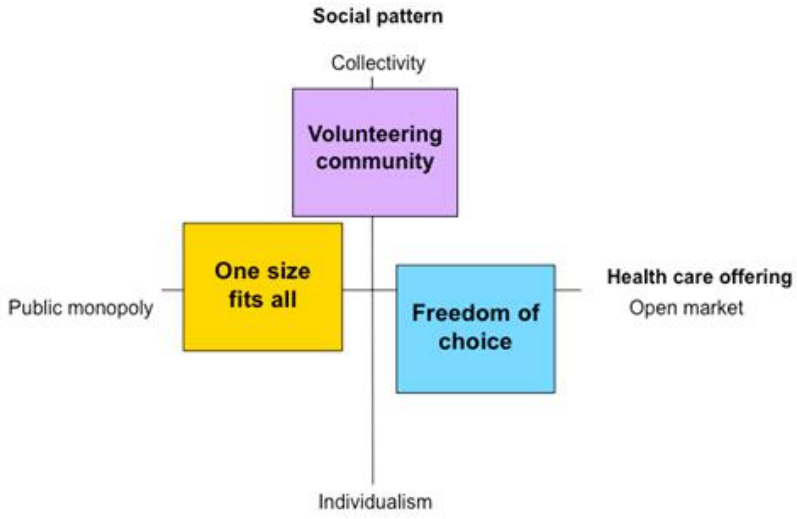
Responses to the scenarios

The scenarios address choices that politicians can make in order to improve the future care services for seniors– and the accompanying dilemmas they are faced with. The two main concerns around which the scenarios are developed are:

- **Is it the public or private health care providers who are providing future elderly care?**
- **How do the seniors and other groups in the society organise themselves in order to meet the needs for care?**

We look at these two main concerns as two axes. On the horisontal axis the one extreme is that the government decides which technologies everybody will be entitled to, and the other extreme is that people can choose freely themselves from an open marked. On the vertical axis, the one extreme is that the seniors themselves, their relatives and the community cooperate and help out, and constitutes the major resource in the elderly care. The other extreme is that each senior has to find and choose his or her own care services.

To illustrate the consequences that might follow different decisions three scenarios have been developed. The three scenarios are not the aforementioned extremes but they include a combination of them. The way they address the main concerns is illustrated by where they are located in the coordinate system (see figure below):



The three scenarios illustrate different ways the community can develop. They show in particular how the health care services may develop, how the municipalities may be affected by increased government control, a stronger private sector or a better organised voluntary community. The scenarios also illustrate what municipalities can do to tackle the different reality models.

All groups were asked to give their immediate reactions to the three scenarios: *Positive and negative feedback. Are the scenarios realistic? Are they possible? Are they desirable? Why/why not?*

The **general comments** received in relation to the three scenarios were:

- The scenarios were generally perceived as not entirely relevant and applicable to the current situation in the country. All three scenarios would need some modifications, clarification of certain issues and risk minimisation in order to be applied in reality. All participants agreed that different aspects of the three scenarios could be used in order to develop the care services that best suit the needs of the elderly and correspond to the social, economic and political situation in the country.
- Considering the current socio-economic situation in the country, the three scenarios seem unrealistic to apply in the near future. The participants stressed on the persistent and extensive poverty among the elderly people in the country, especially among those living in remote areas. Thus, in order to make these scenarios a viable option for the future, the following will need to be accomplished: i) implementing a cohesive regulatory framework; ii) improving the socio-economic situation of pensioners and ensuring that their basic needs are covered; and iii) ensuring the availability of properly trained human resources (well trained professionals in all spheres – public administration, health practitioners, social workers, etc.)
- Having taken these clarifications into account, most of the participants considered scenario 1 "One-size-fits-all" to be the most feasible one for the case of Bulgaria. The reason why is that it is the closest to the currently functioning model in the country, i.e. state-run institutions are predominantly responsible for providing the needed care services to the elderly. On the other hand, scenario 3 was considered the most viable from a financial point of view. Yet, although participants in general expressed very positive attitude towards voluntary work, they acknowledged that there should be a significant change in the mindset of citizens in order to apply the scenario in practice due to the limited popularity of volunteering.

In the very beginning of the group sessions the participants were asked to vote for the scenario they favour the most. An interesting observation was that the three groups had entirely different preferences. The group of health practitioners and social workers voted for scenario 1 and scenario 2. The group of public administration and NGOs voted for scenario 2 and scenario 3. The third major group of researchers voted for scenario 3 and scenario 1. Interestingly enough, in the group of public administration and NGO representatives, although having exactly 4 representatives of ministries and national executive agencies, only 2 persons in the group voted for scenario 1 which implies the expectation for a major role of the government in distributing care kits to the elderly.

Scenario 1: One size fits all

*Short description: "*One-size fits all" is based on the assumption of lack of labour in the future, and describes a large-scale governmental initiative that employs technologies to make people more self-reliant. The local municipalities provide most of the public support services. However, national standards now determine which home care technologies and services the municipalities must provide.

Positive and negative responses, dilemmas and other issues in scenario 1

Groups were asked to discuss and write down positive and negative feedback on the scenarios in addition to the dilemmas and other issues that come up under the discussion. The groups of the representatives of public administration and NGOs, as well as the group of researchers were asked to discuss this scenario 1 in detail.

In Phase 2 the group of health practitioners was asked to discuss more in depth scenario 1, focusing on positive and negative aspects of the scenario, dilemmas and risks.

Positive responses to scenario 1

- The participants who discussed this scenario agreed that in general this scenario is the most feasible among the three for Bulgaria as it is the closest to the way the national health care system works at the moment, namely elderly care is entrusted to the state and municipal institutions in the country. Thus, this scenario would be the most acceptable to the various stakeholders in the system and no fundamental change of attitudes will be needed in order to implement it.
- Having a guaranteed minimum care kit for each elderly person, regardless of their current financial situation or area of living was pointed out as another positive aspect of this scenario. According to the participants, the implementation of this scenario can improve the social justice in the country considering that every person would be entitled to this minimum set of care devices.
- Related to this is the sense of self-reliance the elderly would get from having the needed technological solutions to assist them with their everyday activities.
- This scenario also implies impartial distribution of resources to all elderly people which would have the potential to curtail the abuse of resources in the system.
- Considering that the health indicators of each user would be monitored and signals would be sent to the respective healthcare providers, the scenario would help decrease the number of emergency response cases and that of fatalities among the elderly population.
- The availability of training opportunities for all stakeholders involved in the system to properly use the healthcare kit was also underlined as a positive feature of this scenario.

Negative responses to scenario 1

- As a major drawback of this scenario the participants pointed out the risk of corruption practices among the representatives of the responsible state/municipal institutions and private companies when choosing the provider/producer of the care kit.
- Another disadvantage of this scenario is the lack of clear criteria and information on how the needs of the elderly will be assessed. In addition, the standardised kit might not sufficiently address the real needs of individual users.
- Another concern of the participants was the heavy and costly administration on a municipal level that would be needed in order to ensure the functioning of the system for care kit distribution proposed by the scenario.

Dilemmas in scenario 1

- A major concern among the participants was the protection of private data when using the care kits.
- Another concern was related to the lack of technical skills among the elderly population, which might be an obstacle in using the standardised care kit. Similarly, reluctance to use the new technologies might also prove an issue in this respect.
- Of major importance for the functioning and successful implementation of this scenario, according to the majority of the participants, would be the proper monitoring and control of the distribution of financial resources.

Scenario 2: Freedom of choice

*Short description: "*Freedom of choice" is based on a new system where the incentives for care recipients go directly to the user. Furthermore this scenario describes a society where one can buy a great variety of care services in an open market. Everyone in need of care is entitled to incentives and financial support depending on his or her health condition. The municipality's responsibility is now to ensure the existence of an adequate supply of care services for those living and residing there (national standards or higher).

Positive and negative response, dilemmas and other issues in scenario 2

The group of health practitioners and the group of researchers were asked to discuss scenario 2 in detail. They were asked to write down positive and negative feedback on the scenarios in addition to the dilemmas and other issues that come up in the discussion.

Positive responses to scenario 2

- As a major benefit of this scenario the participants identified the strong competition on the market implied by the service model used in the scenario. Competition among the producers and providers of telecare technologies and services will stir innovation and the development of new and better technological solutions for the elderly. At the same time, producers will need to compete on the price of the products/services as well, thus, they will be strongly incentivised to be efficient, reduce prices and provide satisfactory product/service quality to their customers.
- The other major advantage of this scenario according to the participants in the workshop was lack of excessive interference by the state in the private life of individuals in terms of allowing every person to make their own choice according to their needs, tastes and technological skills. The freedom of choice was repeatedly highlighted as a major benefit of this scenario In addition, users with more financial resources will be able add to the allowance provided by the state in order to buy better equipment.
- Obliging the users to choose the equipment they need from a variety of products and services on the market might positively influence the elderly, keeping them more active socially and preserving their cognitive skills for longer. Users will need to make informed decisions about how to spend the allowance provided by the state, thus, they will need to learn about the different technological solutions.

Negative responses to scenario 2

- One of the most common concern among the participants was the ability of the elderly to make informed choices about the newly emerging technological solutions. On the one hand, the elderly might not have the adequate technological knowledge and skills in order to understand the different options on the market; on the other hand, they might be intentionally misled by company representatives offering products which might not be what the user really needs. In this regard, establishing a supporting structure for the elderly individuals who are not able to make their own choices is considered necessary in this scenario. On the other hand, such structures can also be involved in corrupt schemes of offering the services/products of specific companies only, thus, there should be very strict control in order to ensure the proper functioning of this scenario and the benefits of this structure to the users.

- Another disadvantage of the scenario is that it does not make clear how to differentiate between the different groups of people with regard to their health needs and available financial resources. Parallels were made to similar structures in Bulgaria, which, according to the participants, do not function properly at the moment and do not distribute the available resources according to the real needs of the patients. Moreover, the social aspect in the scenario should be strengthened and people with greater needs should receive more than the people who can afford the technology by themselves.
- Small towns and villages from remote areas might not attract sufficient number of companies to provide services and products to the population living there. Thus, it should be ensured that people from these areas have equal access to technologies and services as the ones living in larger and economically more advanced cities.

Dilemmas in scenario 2

- The scenario assumes that the elderly are mentally healthy, knowledgeable and capable of differentiating between different technological solutions in order to make rational informed choices. Yet, this is not always the case. The participants believe that there should be a structure (within a municipality or state institution) assisting the elderly in making choices in regard to the technologies they need. Related to this is the need for trained professionals who can provide competent assistance to the elderly.
- Social contact is essential for the well-being of the elderly. Participants emphasized that it should not be forsaken and replaced with technologies. Technologies should be complementary to the social contact.

Other issues

- A few times it was emphasized that the elderly should be treated as *individuals* and not as *patients*. They should be treated as people with abilities and capacity to adapt to an appropriate social environment.
- It was strongly emphasized that there would be a need for strict control by the state on the technology producers and service providers. Having the incentive to reduce the price of their products and services in order to stimulate sales might lead to deterioration of the quality of the provided products and services.

Scenario 3: Volunteering community

*Short description: "*Volunteering community" is based on volunteering people as the key resource for the community and for each other. This could include the seniors themselves, their relatives, charities, neighbours, school children etc. The municipality's main role is to mobilize coordination of the volunteering organisations. The local municipalities are responsible for ensuring that there is a proper healthcare for its inhabitants, including monitoring the quality of care provided. The local municipalities are required to deliver some health services, to manage licenses for private operators and to mobilize coordination of the volunteering organisations.

Positive and negative response, dilemmas and other issues in scenario 3

Groups were asked to discuss and write down positive and negative feedback on the scenarios in addition to the dilemmas and other issues that come up under the discussion. The groups of the representatives of public administration and NGO, as well as the group of researchers were asked to discuss this scenario 1 in detail.

The health practitioners and representatives from the public administration were asked to discuss scenario 3 in detail. They were asked to write down positive and negative feedback on the scenarios in addition to the dilemmas and other issues that come up under the discussion.

Positive responses to scenario 3

This scenario provoked quite positive reactions from the participants. According to a few of them, in a similar way a lot of people voluntarily help their elderly neighbours with everyday tasks in some distant areas of the country. Furthermore, this scenario requires the least financial resources, which makes it a more feasible scenario for the time being in Bulgaria.

- All participants were in favour of stimulating the social contact between the elderly and younger citizens. According to them, such an approach to elderly care will maximise the sharing of knowledge and skills among the different generations.
- Another benefit of the scenario often mentioned by the participants is that the active use of new technologies by the older adults, especially when assisted by volunteers, could be effective in minimising the loss of cognitive skills in the elderly.
- In addition, this scenario would make both the young and the elderly feel more useful and valuable to the society as both groups contribute by sharing knowledge and care.

Negative responses to scenario 3

- The process of selection of volunteer organisations and individuals to assist the elderly is considered one of the greatest challenges for the successful implementation of this scenario. Participants explained that there should be a clear framework with criteria for the selection of these organisations/individuals and the whole process should be closely monitored and controlled in order to provide a guarantee for the provision of good quality services to the elderly. The establishment and maintenance of a system for monitoring and control of the services provided by the volunteers might be a costly and burdensome process, which is an additional disadvantage of this scenario.
- In addition, considering that in remote village areas the population consists predominantly of elderly people, the service provision relying on volunteering organisations and individuals would be disproportionately distributed and concentrated mostly in urban, more economically affluent areas, which are more attractive to the young people. The trend of increasing urbanisation and immigration can exacerbate the problem.
- The behavioural change which will be needed in order to be able to implement this scenario is also considered a serious issue. Data suggests that Bulgaria is on one of the last places in Europe in terms of engaging in voluntary work[18]. In order to be able to delegate the care for the elderly almost entirely to volunteer organisations and individuals, a serious change in the attitude of citizens will be needed.

[18] World Giving Index 2013. Charity Aid Foundation.
Link:https://www.cafonline.org/PDF/WorldGivingIndex2013_1374AWEB.pdf

Analysis and synthesis of visions and recommendations

The groups were asked to discuss and propose their own visions about the future elderly care, and identify possible strategies and political choices that would be central in this vision. The groups of participants prioritised and formulated 1) 1-2 visions for what kind of elderly care services they want in the future; 2) benefits and challenges associated with the particular vision; 3) policy recommendations for changes needed to achieve these visions. The complete set of visions and recommendations are found in appendix A.

The visions are grouped in the following categories:

1. Financial security
2. Good quality social and healthcare service provision
3. Availability of advanced technologies to assist the elderly
4. Freedom of choice
5. Life-long-learning opportunities for the elderly
6. Social contact

General Recommendations

As a general recommendation all participants agreed that there should be strong ***political will*** in order to cope with the challenges of the ageing population and be able to provide good quality social and healthcare services to the population as a whole and the elderly in particular.

As concrete ***policy instruments*** the participants suggested the following:

- *Developing a clear administrative and legal framework for the provision of social and healthcare services to the elderly*

The development of a clear administrative and legal framework for the social and healthcare services has been highlighted as a necessary condition for further developing and improving the service provision to the elderly. This implies e.g. clear mandate as to which institutions are responsible for providing which services to the elderly, mechanisms for inter-institutional coordination, clear legal framework, i.e. consistency in the legislation regulating service provision, etc.

- *Developing and implementing long-term policy strategies*

The participants emphasised the importance of developing long-term strategic policy documents on elderly care, specifying priorities and objectives, as well as concrete measures to achieve the specific objectives based on thorough analysis of the elderly's needs, expectations and future trends of the demographic situation in the country and the possible directions and scope of technological development.

Currently there are a number of national level strategies (Long Term Care Strategy, Strategy on the Deployment of eHealth in Bulgaria, National Health Strategy 2008-2013, National Plan for Better

Healthcare, National Plan to Promote Active Aging 2012-2030) related to the healthcare and well-being of the elderly. Ensuring strong coherence among the different strategies related to elderly care (and in general) is crucial in order to provide a consistent long-term policy framework in this area. In addition, continuity in the implementation of strategies has been mentioned as a particularly problematic area. Many participants expressed their disappointment that constant changes at the top of the political pyramid in the field of healthcare usually lead to different priority frameworks in the field. As a result, new strategies are developed that do not take into account the previously developed ones.

- *Encourage and support capacity building opportunities for the elderly, the public administration and healthcare practitioners*

The need for competent professionals on all levels of the administration and in the healthcare sector has been repeatedly mentioned as essential for ensuring the proper implementation of different strategies for elderly care. In addition to this, in order to be able to choose and use telecare products in their daily life the elderly would need sufficient technological skills and understanding of the different options and products on the market. Certain structures for building the capacity of the elderly in this regard would need to be established. These could be organised as a common effort of the public, private and the nongovernmental sectors.

In order to be able to utilise telecare in providing care to the elderly the following ***resources*** would be needed according to the participants:

- *Ensuring financial resources*

Ensuring the availability of sufficient financial resources was repeatedly mentioned by the participants as a requirement for being able to develop telecare to assist the elderly in the country. Financial resources would need to be ensured in order to allow the implementation of many of the other recommendations, including improve the overall financial situation of the elderly in the country so that they can cover their basic needs (as mentioned earlier), improve the healthcare system in general, stimulate the development of telecare solutions and purchasing technologies or distributing allowances to the elderly to choose the technologies they would need, organise capacity building workshops for the involved stakeholders. The financial resources should come along with increased transparency in public expenditures and improved efficiency in the usage of public funds.

- *Supporting technological developments*

Ensuring the availability of technological solutions which can help the elderly be self-reliant in their daily activities would require policy makers to i) safeguard and stimulate competitiveness on the market of technological solutions; ii) stimulate R&D and innovation by creating a supportive environment for companies willing to invest in research and innovation.

Create supporting environment for realising the listed visions

- *Increasing the transparency and strengthening the control over public expenditures*

Transparency and control over public expenditures have been repeatedly mentioned by the participants while discussing the scenarios and their visions. This recommendation to policy makers is especially relevant to one of the most commonly mentioned vision "Good quality social and healthcare service provision". Taking into account the current state of the healthcare system in Bulgaria, transparency and control become necessary preconditions for improving the healthcare system.

- *Broad societal debate*

Encouraging broad societal debate is crucial when discussing and deciding upon the future of healthcare and policies for improving the well-being of citizens. In order to achieve continuity in the efforts of policy makers in the field of healthcare, and thus, real impact from the introduced policies, broad societal debate on the expectations and objectives for the future is needed upon which policy makers should develop the strategic priorities in the fields. A broad societal debate implies the inclusion of all stakeholders in the debate, allowing for sufficient time for discussion and taking stakeholders' concerns into consideration, informing the affected citizens and other stakeholders about the opportunities, risks and dilemmas concerning the given topic.

- *Media*

Last but not least, media was mentioned as an important actor who has the potential to stimulate a supportive environment for developing telecare solutions by improving the awareness of citizens for different solutions and developments in the field.

Visions and Specific Recommendations

- **Financial security**

Visions

„The elderly are financially secured and their basic needs are covered"
"Financial security means to be able to satisfy your needs, help financially your children and grandchildren, be able to afford travelling"

Recommendations

With an average pension in the country of around 150 Euro, in 2012, 59.1% of people of age 65 and above were at risk of poverty according to Eurostat data. Improving the overall financial situation of the elderly in the country should be the most important priority for policy-makers according to the participants.

- **Good quality social and healthcare service provision**

Visions

"Healthcare is accessible to all"
"The state offers a variety of social services to the elderly"
"The elderly can rely on the state for the provision of good quality health services"
"The elderly are provided with various affordable social and healthcare services, including mobile services"

Recommendations

Basically, all of the above mentioned general recommendations apply to this vision, in particular:

- Developing a clear administrative and legal framework for the provision of social and healthcare services to the elderly
- Developing and implementing long-term strategic policy documents
- Capacity building for relevant stakeholders
- Ensuring financial resources

- Increasing the transparency and strengthening the control over public expenditures
- Broad societal debate

➢ **Availability of advanced technologies to assist the elderly**

Visions
"*The elderly are assisted in their everyday life by easy-to-use, safe and advanced technologies (smartphones, tablets, personal alarms, and other types of technologies)"*
"The elderly live in "smart" houses in the country side"

Recommendations
In order to ensure the availability of technological developments which support the elderly in their everyday life activities, governments should safeguard and stimulate competitiveness on the market of technological solutions and encourage R&D and innovation by creating a supportive environment for companies willing to invest in research and innovation.

➢ **Freedom of choice**

Visions
"*The elderly are free to choose the services and equipment they need, assisted by municipal centers for assessment of the needs of elderly citizens."*

Recommendations
Encouraging the development of telecare technologies on a national level is important for ensuring the availability of technologies which suit the needs and preferences of elderly citizens.

One of the specific recommendations in this respect was the establishment of support centres for elderly who do not have the technical skills and knowledge to choose the technologies they need. The staff of these centres should have the capacity to work with the elderly and understand their needs; they should be aware of the available technological solutions. These centres may also be responsible for organising trainings and capacity building events for the elderly in order to help them make an informative choice.

➢ **Life-long-learning opportunities for the elderly**

Visions
"*The elderly have the opportunity to continue develop their skills and knowledge"*
"Various courses are available to the elderly for developing their technical skills, incl. skills to use social media"

Recommendations
Capacity building for the elderly is important for a few reasons. First, the elderly should have the technical skills and knowledge to understand the different technological solutions and choose one that best suits their needs. Capacity building events should take place in order to inform the elderly about the new trends in technologies and teach them basic technological skills. Second, all kinds of training and capacity-building events can have a positive influence on the elderly's cognitive skills.

➢ **Social contact**

Visions

"*The elderly are able to use social media for maintaining their networks of contacts"*
"Different social events are organised within the community to satisfy the social needs of the elderly, help them maintain their social skills, and help them overcome isolation"

Recommendations

The participants were repetitively referring to social contact as an essential aspect in the life of the elderly. Maintaining their social contacts helps the elderly to preserve their cognitive skills. Technologies are seen as complementary to the overall package of care services provided to the elderly rather than entirely supplementary to the personal contact with health practitioners and social workers.

Alignment with National policies

As demonstrated in the "Technological Development Report" produced in the framework of PACITA project technologies and innovation in the healthcare sector can play a key role in alleviating the burden of the ageing population on the healthcare system and help deal with some of the challenges described above. Yet, as seen above, the national policies suggest that despite the benefits telecare can have on the healthcare system and the elderly in the country, it is not yet perceived as a priority in the Bulgarian policy planning.

The following aspects have to be taken into account when comparing the recommendations formulated during the stakeholder scenario workshop and the current policy-making initiatives in the country:

- **Increase public investment in healthcare, improve the efficiency and strengthen control of public expenditures in the sector**

The amount of health care expenditure by the Bulgarian government as a percentage of GDP has been steadily decreasing in the period 2003-2008, which is the only period for which data is available (Eurostat). While in 2003 the healthcare expenditure was 4.65% of theGDP of the country, in 2008 it was 3.86% and considerably less than all but one of the EU member states. In addition, as mentioned above, the public expenditure for healthcare in the country as share of the total public expenditure was 9.8% (data from 2009) of the total public expenditure, which is one of the lowest percentages among the new member states and is considerably less than the EU average of 14.6%[19]. Increasing the public spending in the healthcare sector and perceiving money for healthcare as "investment" rather than as "expenditure" would make an important shift in improving the quality of the healthcare services. The financial resources should come along with increased transparency and control over public expenditures and improved efficiency in the usage of public funds.

- **Ensure consistency and continuity of policy efforts**

Lack of coordination between the different structures in the healthcare system remains a serious issue. Similarly, there have been calls for improving the consistency between all legal acts regulating health and social service provision. Strategic documents in the field of long-term care,

[19] World Health Statistics 2012

active ageing and healthcare also lack consistency in the listed priorities and measures to achieve these priorities. These should be based on **broad consultation and consensus among the relevant stakeholders.** In order to achieve continuity in the efforts of policy makers in the field of healthcare, and thus, real impact from the introduced policies, broad societal debate on the expectations and objectives for the future is needed upon which policy makers would develop the strategic priorities in the fields. A broad societal debate implies the inclusion of all stakeholders in the debate, allowing for sufficient time for discussion and taking stakeholders' concerns into consideration, informing the affected citizens and other stakeholders about the opportunities, risks and dilemmas concerning the given topic.

- **Integrate technologies in the long-term care provided to the elderly**

As seen from the policy documents reviewed above there is little acknowledgement of the role technologies can play for improving the provision of care services to the elderly. Neither there are any specific measures to implement technological solutions in the elderly care services. In order to benefit from the various technological solutions which are already being implemented in care services in other EU member states, Bulgarian policy makers should fill this gap in the Bulgarian strategic policy documents and effective measures should be taken in this regard.

Summary and concluding remarks

The scenario workshop that took place in Bulgaria was very well received by the participants, despite the initial doubts about the relevance of the chosen scenarios to the Bulgarian reality. A mixed group of stakeholders – institutionally and hierarchically – the participants were able to reach agreement on the most important policy priorities that should be addressed in order to ensure a better elderly healthcare system in the future.

The workshop followed a rigorous design, and each step was useful in enriching participants' perspectives on the challenge of aging and the possibilities and role of technologies in closing the gaps in the available care. The initially developed visions were often more the result of wishful thinking than of a careful review of current policy gaps. The scenarios, as guiding visions, were helpful in having participants think beyond just their specific professional field, and to start looking for synergies and complementarities among the possible contributions of the different providers and governing bodies in the healthcare system.

However, it remains unknown to what extent participants have changed their prior views or have developed new perspectives with regards to their own work or possible contributions to the expressed changes that were deemed necessary.

Appendix A: List of participants in the scenario workshop

Bistra Cenova	National Center of Public Health and Analysis, Public administration
Valia Georgieva	State Phychiatric Hospital for the Treatment of Drug adictions and alcoholism, Health practitioner
Veska Nikova	Specialised Hospital for Active Treatment in Orthopaedics "Prof. B. Boichev", Health practitioner`
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Appendix B: Summary of visions and policy recommendations from the workshop

Financial security

Visions
"The elderly are financially secured and their basic needs are covered"
"Financial security means to be able to satisfy your needs, help financially your children and grandchildren, be able to afford travelling"

Recommendations
Improving the overall financial situation of the elderly in the country should be the most important priority for policy-makers.

Good quality social and healthcare service provision

Visions
"Healthcare is accessible to all"
"The state offers a variety of social services to the elderly"
"The elderly can rely on the state for the provision of good quality health services"
"The elderly are provided with various affordable social and healthcare services, including mobile services"

Recommendations
- Develop a clear administrative and legal framework for the provision of social and healthcare services to the elderly
- Develop and implementing long-term strategic policy documents
- Capacity building for relevant stakeholders
- Ensuring financial resources
- Increasing the transparency and strengthening the control over public expenditures
- Broad societal debate

Availability of advanced technologies to assist the elderly

Visions
"*The elderly are assisted in their everyday life by easy-to-use, safe and advanced technologies (smartphones, tablets, personal alarms, and other types of technologies)"*
"The elderly live in "smart" houses in the country side"

Recommendations
In order to ensure the availability of technological developments which support the elderly in their everyday life activities, governments should safeguard and stimulate competitiveness on the market of technological solutions and encourage R&D and innovation by creating a supportive environment for companies willing to invest in research and innovation.

Freedom of choice

Visions
"*The elderly are free to choose the services and equipment they need, assisted by municipal centers for assessment of the needs of elderly citizens."*

Recommendations
Encouraging the development of telecare technologies on a national level is important for ensuring the availability of technologies which suit the needs and preferences of elderly citizens.

One of the specific recommendations in this respect was the establishment of support centres for elderly who do not have the technical skills and knowledge to choose the technologies they need. The staff of these centres should have the capacity to work with the elderly and understand their needs; they should be aware of the available technological solutions. These centres may also be responsible for organising trainings and capacity building events for the elderly in order to help them make an informative choice.

Life-long-learning opportunities for the elderly

Visions
"*The elderly have the opportunity to continue develop their skills and knowledge"*
"Various courses are available to the elderly for developing their technical skills, incl. skills to use social media"

Recommendations
Capacity building for the elderly is important for a few reasons. First, the elderly should have the technical skills and knowledge to understand the different technological solutions and choose one that best suits their needs. Capacity building events should take place in order to inform the elderly about the new trends in technologies and teach them basic technological skills. Second, all kinds of training and capacity-building events can have a positive influence on the elderly's cognitive skills.

Social contact

Visions
"*The elderly are able to use social media for maintaining their networks of contacts"*
"Different social events are organised within the community to satisfy the social needs of the elderly, help them maintain their social skills, and help them overcome isolation"

Recommendations
The participants were repetitively referring to social contact as an essential aspect in the life of the elderly. Maintaining their social contacts helps the elderly to preserve their cognitive skills. Technologies are seen as complementary to the overall package of care services provided to the elderly rather than entirely supplementary to the personal contact with health practitioners and social workers.