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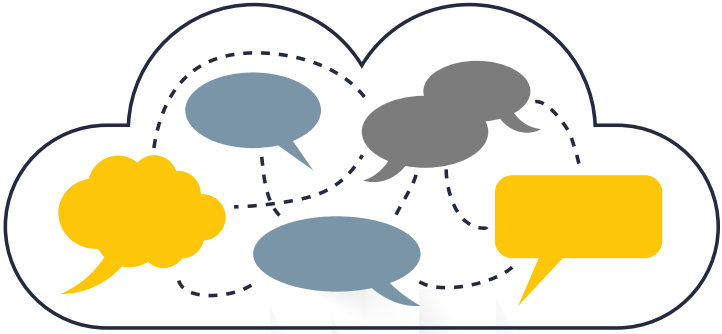
HoCare2.0



CO - CREATION

Introducing HoCare2.0 Public services Co-creation Pilots

Drawing key learnings from co-creation process
in homecare solution development

Project HoCare2.0

The HoCare2.0 project aims to deliver highly innovative, digital-based, customer-centered home care solutions for the elderly. The project targets this area for innovation due to the **ageing of European society.** This process opens up a significant market — the Silver Economy — which still lacks solutions that are designed with the elderly.

The success of newly delivered ICT based solutions depend largely on two main factors:
1. The solution must meet with the real needs of end-users;
2. End-users need to accept the solution.

It often happens that one might have a fitting solution, but it is not used by the elderly as they are not comfortable with the technology.
Therefore, we suggest **involving the elderly already in the design process.**

Co-creation process and the Public services Pilots

One of the most promising ways for the involvement of end-users into the development is co-creation. Co-creation is a process that utilizes the knowledge and experience of end-users in every stage of the development process. Participants share ideas and empower each other. This results in better-fitting solutions and involvement also promotes the usability of the technology. Therefore, increases its acceptance on the market. However, specific knowledge about the co-creation process, its parts, benefits and challenges, seemed to be rather low, at least in the public healthcare sector. The project activities aimed to change this situation.

Therefore, to increase knowledge, test the co-creation method and boost learning, pilot actions were launched in 6 countries: Hungary, Poland, Slovenia, Germany, Czech Republic and Italy where 7 Providers of public services developed innovative home-care solutions.

Prior to the pilots, participants from all parts of the so-called quadruple-helix (QH), namely SMEs, academia or research sector, public service providers and end-users were connected in so-called Co-creation labs. Together, they were involved in all steps of the service development.

Process of Pilots

In order to support the co-creation process with meaningful involvement of the elderly, Tools have been developed during the HoCare2.0 project with guidelines on how to proceed in the various stages of solution development. All Pilots followed a common process procedure described in these Tools involving the following steps: **preparation, knowledge creation, prototyping the outcome and concluding the process.**

Preparation:
the necessary physical conditions for the co-creation process are prepared. This phase includes tasks such as setting an **inspirational and creative environment**, setting up of the **project team** including the facilitator with adequate skills, recruiting **participants** (user representatives) and preparing the **outline of the process** (implementation plans).

Knowledge creation:
here the co-creation starts. The goal is to **identify end-users´ requirements** - the needs, capabilities, attitudes and characteristics of the elderly. The gathered knowledge is evaluated and analyzed by the team led by a facilitator. Helpful methods: shadowing, diary studies, interviews or focus group meetings, sticky notes, diagrams, mind maps, asset maps, mood boards.

Prototyping: with the knowledge gained, the first **low-fidelity prototype** of the service is prepared which is subsequently tested by participants resulting in the **Final design of the public service**. At this point the co-creation process is concluded. However, a review of the user requirements follows to finish the development of the public service. Examples of useful methods: using mock-ups, contextual interviews, citizen walkthroughs. As a final step, the designed solution is approved by decision makers of the Public service provider.

Concluding the process: the team has to reflect on process/activities, to document the process and identify the lessons learnt. These follow-up activities include debriefing the team/individuals and wrapping up the whole process.

Details about each pilot including key learnings are presented on the next pages.

Multidisciplinary mobile teams

Institution: City Municipality Kranj

Participating organisations: Retirement home Kranj, Health center Kranj, City Municipality Kranj, BSC, IPM

Duration of pilot: 11/2020 - 05/2022

Service description:

The goal is to create a multidisciplinary quality service that will satisfy people's individual health and social needs while still enjoying the home environment and at the same time connect the formal and informal caregivers and other relevant services and experts.

The created mobile teams consisting of social and healthcare specialists will offer the elderly care services in every part of life – from when they have minor problems with health and mobility to when they need more specific and professional care.

To sum up, the main purpose is to improve the quality of home care (both social and health related) and living environment for elderly people and help their informal caregivers with their care.

Participants:

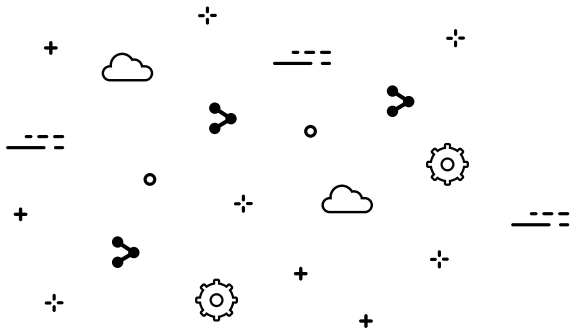
End users: 11 elderly care recipients, 61 - 93 years old and 11 family members.

QH-Partner: all partners of BSC Cocreation Lab, representing the QH participants. Retirement home Kranj (social workers), Health center Kranj (healthcare professionals) and City municipality Kranj (public service provider), with support of BSC and IPM Digital have been actively involved in the pilot activites.

External Expert: one expert in gerontology was involved, as well as 2 geriatric nurses.

Methods used:

focus groups, mapping, questionnaires, collective intelligence, prototyping based on storyboard technique, Identifying existing good practices



Highlights/drawbacks:

- Raising awareness about new service should be adequate and selective to address the right target group with the highest added value.
- Evaluation of budgetary and organizational constraints should be performed on a regular basis in order to keep service on the professional level.
- Proper individualization and customization of service for each user and each visit is essential.
- Some additional services, perceived as non-essential to the active population, should be treated as essential for elderly - consider to include them into provided services.
- Establish on-duty elderly service coordinator to find the specific help that an elderly person needs (specialized home assistance).

Feedback from institution leaders:

Experts expressed the need for an advanced control system, which would monitor the quality of work, coordination, level of service, implementation of services that are actually the most important.

This could be achieved via a digital platform, integrating data from legacy systems of different providers, addressing particular needs of individual caretakers, coordinating work of team members, educating informal caregivers, predicting demand for different services.

Feedback from participants/users:

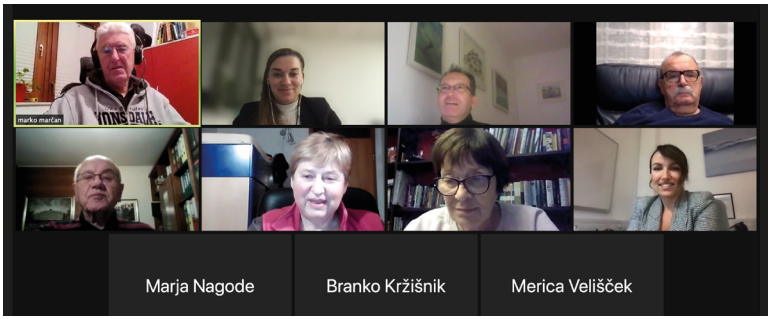
„We must be living on different planets“: first comment of the end users after we presented “in theory” already available public services. After the presentation of the final version of the service end-users were optimistic that they will finally get a chance to receive at least some service contrary to the current situation.

Adaptation in strategic documents:

The aim is to include a sistematic co-creation approach into the regional strategy “REGIONALNI RAZVOJNI PROGRAM GORENJSKE 2021–2027” (Regional development program of Gorenjska Region 2021-2027).

Key learnings:

Co-creation process showed its full potential as both end-users and other key stakeholders were actively participating in the process.



Patient route management

Institution: National Directorate General for Hospital

Participating organisations: Hungarian Foundation for the Development of Personalized Healthcare

Duration of pilot: 01/2021 - 04/2022

Service description:

Dr.BetMen is a user-driven web platform and application connecting the key players along the patient journey to improve and develop their collaboration.
Its core functional features are:

- Patient pathway tracking - easy to follow list of treatments;
- Personalised patient journey - personalised and optimised treatment plan and treatment itself;
- Communication - supporting efficient doctor-patient communication;
- Outcome-based funding - evaluation system to identify good practices;

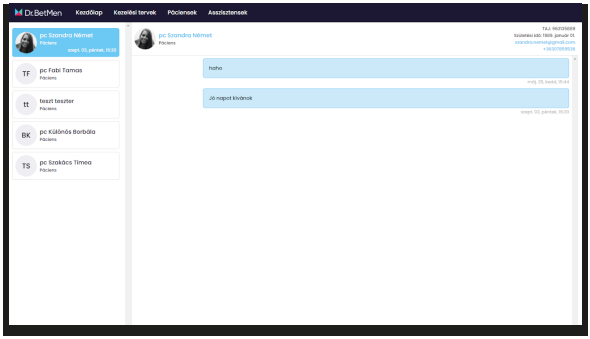
The route is an institutional journey patients take when referred for further treatment by their GPs (or other health professional). The pathway gives an outline of what is likely to happen on the patient's journey and can be used both for patient information and for planning services.
DrBetMen offers a solution to reduce the administrative burden on healthcare providers, speed up patient care, make the whole process transparent and minimise face-to-face encounters.

Participants:

The key groups targetted are health care emloyees (medical professionals), health services users (patients) and their relatives.

Methods used:

mapping, qualitative interviews, comparative analysis, desk research, low-fidelity prototyping, feedback collection



Highlights/drawbacks:

Some medical professionals were initially sceptic about the potential benefits of the platform and argued that certain medical fields were sui generis so that no significant improvements were possible. Interestingly, the solution developer appreciated this approach and invited those taking a critical stance to assist in sketching up the specific features in order to enhance the functionality of the platform.

Feedback from institution leaders:

Participating instituions appreciated the opportunity to be actively involved in the core and real development activities of a product before it is termed final. They specifically underlined the significance of co-creation method, i.e. the fact that end users have a say and their opnion matters, which yields to a future product proving actually useful and usable when finished, complete and ready for launch in the public service.

Feedback from participants/users:

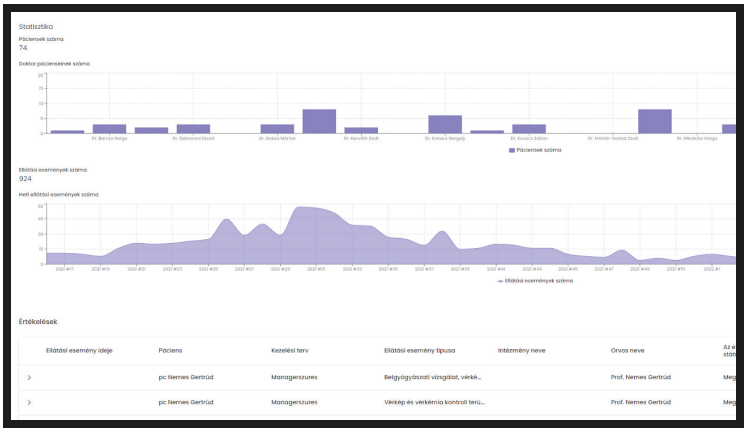
Despite minor intital setbacks, recipient end users have become ever more enthusiastice as the course of piloting evolved, and unanumiously appreciated the opprotunity to participate. They were, in particular, grateful for the help at hand when needed, and could not only turn to a family member but to the caregiver directly as well.

Adaptation in strategic documents:

NDGH Institutional Strategy 2020-2025 will be reviewed whether co-creation is suitable among its objectives.

Key learnings:

Regular contact with and parallel engagement of end users is a key feature of development activities in general. However, the problem of drop-outs still persists, and remains a core challenge to the success of the developmet process per se.



The Nutritional Support Assistant

Institution: Malopolska Region
Participating organisations: Nutricare Ltd.
Duration of pilot: 10/2020 - 11/2021

Service description:

A Nutritional Support Assistant is a defined function, a person who assists patients and carers in the nutritional therapy process at its every stage, even before the start. It helps to find solutions to basic problems that a patient or carer may encounter both before qualifying for therapy and during the home therapy process. It also provides information to patients in nutritional therapy and those interested in enteral nutrition.

The web platform is dedicated to enteral nutrition patients and their carers. The aim is to bring useful knowledge and information together in one place.

Both services are aimed at providing information and knowledge to the patients and their care givers. They also answer the need to connect with a professional regarding treatment.

Participants:

The participants of the pilot action (15 patients and 15 care givers) were selected on the basis of a few criteria:
- Adult patients of enteral nutrition, staying at home;
- Age: 50 years and older;
- Habitant of the Malopolska Region;
- Patients and care givers are able to communicate their thoughts / needs / conclusions;
- Patients must be cared by a formal/informal carer

Involved patients suffered from neurological, oncological or cardiovascular diseases. Further, the service was tested also by nursing home employee and a mother of a child fed with a gastric tube.

Methods used:

- qualitative study-personal interview combined with contextual interviews
- the empathic interviews.
- service design and co-design techniques;
- workshops (persona technique, brainstorming design thinking method);
- interviews
- citizen walkthroughs

Highlights/drawbacks:

- overcoming the challenge of isolation of end-users and developing bonds and trust between all involved parties was crucial for succes of the whole process
- sharing the success story with policy makers and academia who can further deploy the idea (such as expanding the Assistant role for other diseases or barriers) was key positive moment
- another highlight: the HoCare2.0 pilot action in the Malopolska Region was submitted to the contest „Innovative Self-Government"

Feedback from institution leaders:

- The Nutritional Support Assistant and the website may be considered as an attempt of integration of healthcare and social care systems
- The Assistant's intervention helped in avoiding the hospitalisation and staying at home in relatively good condition
- The designing process showed that it is crucial to find consensus between demand and supply sides;
- The Assistant service may be transferred to other types of chronic diseases (e.g. diabetes)

Feedback from participants/users:

„I was afraid to call the doctor to interrupt him with my questions... But this lady was so nice to call her. She told me everything I needed!"
„I like that it's shown how to feed my Mum. At the beginning I was afraid I was doing that wrong..."
„My family and I love this website! We're just starting with this topic so that's brilliant we have each step clearly explained..."

Key learnings:

Important success factor was working with the professional facilitator who led the team through the designing process.
The process of designing the public service went smoothly, even though the Sars-Cov-2 pandemic imposd some limitations. All the parties, including the public service provider, seem to be satisfied with the results.
All the parties were involved in the process, feeling they participate in something unique. There was no need to encourage them by additional means of inducement.The designed solutions themselves brought many advantages to the patients and care givers such as: access to credible information, help in building trust between the Assistant and patients / carers, effective working tool for specialists in enteral nutrition.

Social Ambulance

Institution: Institute for social services Prague 4
Participating organisations: -
Duration of pilot: 01/2021 - 04/2022

Service description:

The Social Ambulance is dedicated to complex help to the clients and their care-givers as a new part of „The Centre for Family Care Providers" which is already working under USSP4.The Centre offers free support to those who take care of a family member at home. This Centre offers:

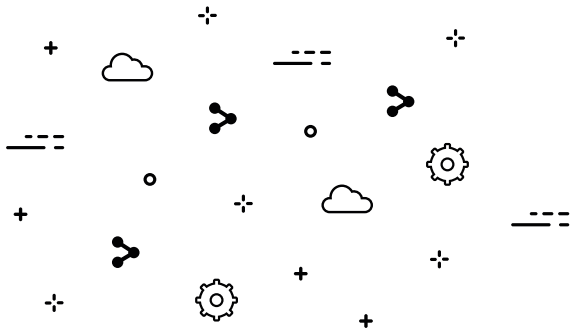
- Social counselling,
- Orientation in contributions (care allowance, mobility and other benefits),
- Mediation and cooperation with registered social services or other facilities (e.g. nursing homes, hospices, homes for the elderly, etc.),
- Psychological counselling,
- Group activities (self-help group for caring),
- Palliative counselling.

Participants:

The pilot projects aims at three main target groups. The first are the professional care providers and employees of the partner. The second group are the actual care recipients. And the third and from the point of view of the pilot project most important group are the informal or family care providers, who play an essential role in the wellbeing of the care recipient. Together, these groups around the services of ISS4 count in the hundreds.

Methods used:

on-line questionnaire CWAM, compare case analysis (mapping), desk research, low-fidelity prototypes



Highlights/drawbacks:

A few care recipients were sceptical at first and could not imagine the advantage of the service. Some issues arose from the on-line form, as due to COVID-19 pandemic the questionnaire could not be made „in persona" and the only way was to use on-line form; which was not very familiar to elder clients.

Feedback from institution leaders:

During the project, we have managed to improve the quality of care. We were also successful in providing remote cultural and social activities thanks to comprehensive needs assessment and consistent case management. We feel that the contribution to quality of care has been very high and clearly, we intend to maintain this new element into the future. We are satisfied very much with the service we developed together and happy to see the positive impact on the clients and staff, as well.

Feedback from participants/users:

A care-giver: „I feel more as a part of team. The Ambulance mades us work as a one organism, not as a separate departments." A client: „I was not happy to have another „institution" in my care plan, but I see the good level of management of my case and see the development in care organisation. I am glad to see the improvement." A relative of a client: „At first, I ddidn't see the advantage, but now I see perfetct care management and tha all insitution works as one. It is ice to see such level of organisation, as well as the good outreach of information I need."

Adaptation in strategic documents:

The concept of the Institute for social services Prague 4

Key learnings:

If possible, provide regular supervision and „crisis intervence training" for the social ambulance workers, mainly those who work with the palliative care clients/relatives.

Video consultation with assistance

Institution: University Hospital Dresden
Participating organisations: Cultus gGmbH, CCS GmbH
Duration of pilot: 10/2020 - 11/2021

Service description:

The service „video consultation with assistance“ which was developed together with the public service provider Cultus gGmbH gives care recipients the opportunity to attend their doctor‘s appointment in the form of a virtual consultation after a preliminary examination by their official carers. They are supported by an assistant who is responsible for preparing, accompanying and following up the video consultation. The special feature of this service compared to other services of this kind is the active support that benefits both the caregivers (nursing staff) and recipients.

Participants:

End users: 11 care recipients - between 80 and 103 years old. Most of them suffer from cardiovascular diseases or mobility impairments and various neurological diseases, they need nursing support. Caregivers are medical staff and employees of the public service provider.
External Expert: An expert in gerontology accompanied the process.
Knowledge Partner: CCS GmbH accompanied the process and provided knowledge about co-creation.
Public service provider: A regional care service provider for outpatient and inpatient care.

Methods used:

paper questionnaire in combination with personal interviews, low-fidelity prototypes, co-creation-workshop (group session for presentation), role-play, testing

Highlights/drawbacks:

If possible, the service should be role-played at least once, but it is better to test it under real conditions. Some care recipients were sceptical at first and could not really imagine the service. The role play and the subsequent test phase were very helpful in forming the seniors' opinions.

Feedback from institution leaders:

It is not only the private sector that is striving to improve home care services. „As a supramaximal care provider, we have a great interest in solutions that make it easier for seniors/citizens to access safe medical care," says Prof. Dr. Michael Albrecht, Medical Director of the University Hospital Carl Gustav Carus Dresden. „Therefore, together with other partners, such as Cultus gGmbH, an operator for nursing homes and home care in Dresden, we have developed a new innovative service, the ‚video consultation with assistance'."

Feedback from participants/users:

„I see many advantages, you have fast access to the doctor and save the way to the doctor's office and the long waiting time, plus the risk of infection is minimised. The assistant makes me feel safe. He takes care of the technology and everything else around it," (80-year-old care recipient)

Adaptation in strategic documents:

Strategy of the Health Region (East-) Saxony

Key learnings:

If possible, regular, physical meetings (due to the COVID situation, this was limited)

Innovative Meal delivery service

Institution: Cremona Chamber of Commerce
Participating organisations: Municipality of Cremona
Duration of pilot: 10/2021 - 04/2022

Service description:

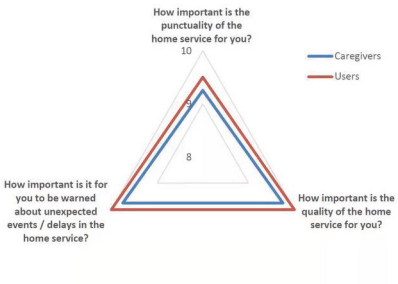
The service consists of an online tracking of the meal deliveries in the city of Cremona, by means of a GPS device installed on the delivery vehicles and by means of an app which would allow to upload on a cloud system the relevant information about the level of performance (i.e. timing, alerting, anomalies). Moreover, the app would allow the operator, properly trained, to monitor the environmental or general condition of the user at his or her home, uploading useful information to the network of professionals (i.e. doctors, healthcare public service providers, caregivers, families, etc.), reporting the actual consumption of the meal delivered (with beneficial information on the actual diet of the elderly person). Once tested, the app could be used for extended services dealing with home deliveries and health care, such us medicines, general purchasing, etc.

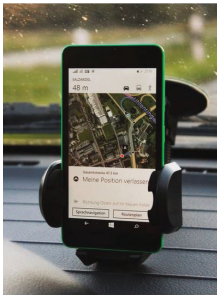
Participants:

End users: 14 seniors, 67 - 89 years old, 14 caregivers from the Cremona city center, with specific social care needs, already addressed by at least one public service managed by the Cremona Municipality.
QH-Partner: all 5 partners of the Co-creation Lab, representing the 4 helixes actively involved in the pilot activites.
External Expert: one expert in gerontology was involved, 3-4 geriatric nurses.
Public service provider: the Municipality of Cremona.

Methods used:

mapping, guided interviews, diagrams, collective intelligence, Identifying existing good practices, questionnaires





Highlights/drawbacks:

During the co-creation process some major insights about the service emerged as feedback from participants which contributed to the final service design:

- it needs to be easy to use for the user and the caregiver;
- the solution should support the traditional service with physical interaction of an operator with the user;
- it should send notifications to the caregivers automatically;
- the solution should increase the quality of the service, in terms of punctuality and overall quality of the delivered meal

Feedback from institution leaders:

Positive feedback was obtained from the Mayor of Cremona, about the engagement in the project and from the Deputy for Healthcare Services, about the co-creation approach and participation in the Cremona Co-creation Lab. The pilot produced interesting positive results and there is the will of implementing the innovative service at a broader scale.

Feedback from participants/users:

Seniors:

“I like the solution because someone knows how I am and if there is an emergency I do not risk too much being alone”,

“I like the fact that the Municipality is trying to improve things, but the operators shall remain and not be replaced by technology”,

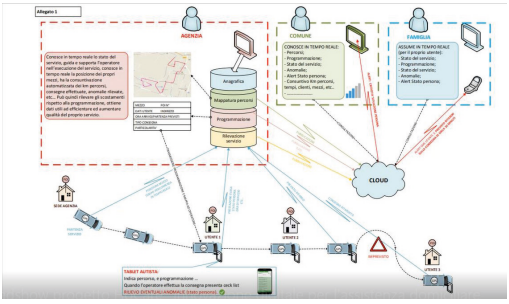
Caregivers:

“I like the idea of being informed promptly in order to organize myself”

“I don’t use technology well, so I am afraid about innovative solutions which requires specific skills”.

Key learnings:

- Users and caregivers need to be engaged since the beginning, analysing their needs, describing the process and goals.
- Training for public service operators is crucial for desired service quality.
- Co-creation approach is very helpful for a proper design and management of pilot actions, whenever innovative services are meant to be deployed.



Casa Sicura

Institution: Regione Lombardia
Participating organisations: Chamber of Commerce of Cremona
Duration of pilot: 12/2020 - 03/2022

Service description:

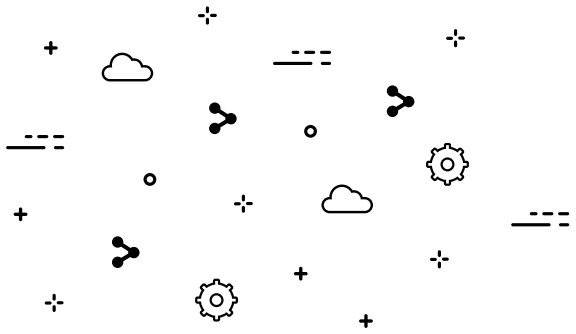
The Casa sicura telemonitoring service of vital parameters and fall events, using wearable and non-wearable devices connected wirelessly to a control unit allows the values to be transmitted to an operations center, which can provide assistance in case of alarm situations.
Moreover a software allows to profile the users, to store and visualize the data, to show analyses of the trends of the monitored parameters.

Participants:

End users: 13 seniors (81 - 94 years old), 13 family members, located in the regional health care service „Integrated Home Care“. All users are affected by pathologies that require telemonitoring (e.g. pressure, temperature, etc.), they are frail and exposed at falling risk. During the project 3 users left the pilot, because of death or deterioration of physical conditions, and they have been replaced by new ones.
QH-Partner: members of Co-creation Lab, representing all 4 helixes (Academia by Politecnico di Milano, 3 Public service providers accredited to the local healthcare authority, 2 SMEs representing Industry and Citiziens) have been actively involved in all pilot activites.
External Expert: one expert in gerontology was involved, as well as 3-4 geriatric nurses.

Methods used:

co-creation lab, questionnaires provided at different timelaps, various level of prototypes, roadshows/workshop/training/bilateral meetings, testing



Highlights/drawbacks:

The service will probably be considered for integration and implementation. However, further adaptations to various users´ needs will be beneficial as not all groups of users responded positively.

Feedback from institution leaders:

„We need a stonger connection and coordination between the Service center providing courtesy calls and the local provider of public service in order to provide the service properly. The cooperation is crucial.“

Feedback from participants/users:

The received feedback on the solution varies among end-users. Answers concerning usefulness, false alarm calls and other features differ among participants which showed possible space for improvement. On the other hand there were positive aspects which the service provider can build on.

Adaptation in strategic documents:

1) Smart Specialization Strategy (S3) working plan 2022 - 2023
2) Regional Deliberation “Determinations concerning the healthcare system management for 2022”

Key learnings:

- Users recruiting not to be based only on clinical data but also on a qualitative evaluation by professional caregivers
- Training for caregivers should address using new devices and also how to properly involve elders in using new technologies
- Service center providing courtesy and help calls should be trained to approach users with different needs

Policy deployment and Transregional monitoring

The aim of the project activities was to test the co-creation method and design innovative public services in home care but also to share knowledge, create awareness about co-creation among those responsible for designing and providing such solutions and finally ensure that co-creation will be used in designing solutions in the future. Therefore, the involved Public institutions seeked to adapt changes towards co-creation in relevant strategic documents, taking the following steps:

summarizing relevant documents, identifying strategies, policies, methodologies to be adapted

⟶

consulting adaptations with responsible decision making body

⟶

delivering adapted strategic documents

⟶

achieving approval of adapted strategic documents by decision making body

Such adaptations towards co-creation will be implemented into institutional and also regional strategic documents by the participating Public service providers.

Further, the project aimed at increasing knowledge about co-creation which was helped by mutual learning and monitoring of pilot activities among participating institutions at a transregional level. The institutions engaged in peer-reviews, giving each other feedback and participated in meetings each covering one step of the service development where experience was shared and progress of all pilots was evaluated.

Key learnings

There are several points which emerged from the pilots and can be generalized for the whole process even though every tested service and subsequent group of participants has its specific characteristics. The general learnings are:

- Co-creation is a very helpful method to develop innovative services –> end-users have to be involved in every step from the beginning with clear communication about process and goals
- Working with a professional facilitator to lead the team through the designing process leads to higher performance
  Recruitment of end-users should include feedback from professional caregivers
- Training of public service operators is crucial to achieve desired quality of the innovative service –> training should focus on using new devices but also working with/involving of end-users with respect to their specific needs
  Regularity in working with end-users and public service operators is beneficial
- Risk of changes in end-users group due to drop-outs –> causes challenges in service development
- Physical meetings are preferred

Notes

How to get involved

Do you want to enjoy the benefits of being part of the HoCare2.0 network? Please contact one of the project partners in your country to get detailed information.

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