

Background

A lack of General Practitioners (GPs) and other health care providers is a growing problem in rural areas of the alpine countries. The problem is becoming even more acute with demographic change which results in a higher demand for basic health care services per inhabitant. With the long distances between patients and service providers, e-health can offer even greater benefits to the rural than in urban areas. Various initiatives have already started implementing e-health. The initiatives have a different focus and scope. In the rural areas, projects that address basic health care at the regional level and as a whole are particularly promising. This means that the services of pharmacies, gynaecologists, paediatricians, oph-thalmologists, dentists, ambulant and stationary care are also included in the approach. When talking about outpatient care, the services of relatives and volunteers can also be included. The elaboration of digital tools in e-health should take into account the whole system.

The Corona-Virus pandemic in 2020 forced actors of all generations to implement digital solutions in situation where they have not been used before. It was shown that the actors accepted these solutions more quickly than expected. In many situations, the benefits obvious. But the experiences in the corona crisis of spring 2020 have also shown clear shortcomings. The example of Switzerland, where data still has to be transmitted by fax does not meet the requirements of the 21st century, but the digital systems and the processes improvement or even made available at all.

Digitisation offers new possibilities for diagnosis and care of patients, especially in remote regions. Unfortunately, the potential of digitisation is not yet fully used in health care in the Alpine region. Digitisation can therefore help to achieve a breakthrough in the idea of a spatially integrated care strategy. Ultimately, however, digitisation cannot replace the necessary personal contact between patients and medical staff, especially in the health sector. The lack of doctors could, however, be at least partially compensated by the increased use of specialist nurses. With the help of digital tools, they can provide care on site with professional support and under the guidance of doctors who no longer necessarily have to be on site. However, this also requires sufficient qualified nursing staff and adapted policies. Whereas in some countries like the UK or Sweden «advanced practice nursing» is very developed, the alpine countries hardly apply this system. In some of the countries, appropriate adjustments have already been made to the training of the Master's course for nursing staff at individual training centers, but this is just a first step.

After the corona crisis and with the development of the “advanced practice nursing” in whole Europe, it would be a good “window of opportunity” to introduce reliable digital e-health tools. They could be first tested in remote alpine areas where the benefits are the most important.

The present report gives examples of how the problem is being addressed in different regions. The report is based on a literature search and an assessment by AG5.

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Digital link from Care to GP: Health Care 4.0; Oberfranken Offensiv e.V.

In this project, a digital platform is used to reduce visits to the GPs and long journeys by the patients to simplify the flow of information between outpatient care or nursing homes and the GP. In a digital input area, nurses can send a query text, information about the general health status (blood pressure, temperature, pulse, weight, blood sugar etc.) and photos. The doctor can process the request by writing an answer or arrange a video consultation. The advantages for the GPs are seen above all in the time-independent reaction to messages, the absence of "disturbances" in the workflow and the time saved. The nursing staff does not have to wait for the availability of a doctor. For patients and relatives, there is a relief, because time-consuming travel and waiting times for visits to the GPs reduced.

Appreciation of the project and transferability to other alpine regions

The project solves only part of the problem. However, it can be implemented with the cooperation of a few actors. Since, in the course of demographic development, many old people are using care services and some are not mobile, the benefits could be important. It would have to be checked whether a corresponding software already exists and can only be adapted and how this can be integrated with ongoing digitisation projects in the region (digital patient files etc.) Video consultations are already being used by medical care centres in Germany. (E.g. <https://mvz-bietigheim.de/patienten-service>), which shows that they are a successful future model to complement the personal consultations. Video-based consultation has even greater benefits in mountain areas where the journeys are long.

<https://www.digitales-oberfranken.de/gesundheitsversorgung-4-0/>

Virtual Consultations, App for Video-Consultations and Administration of Patients

A Swiss company offers an app for virtual consultations as well as the administration of patients and documents. E-prescription and referrals can also be made with this tool. However the app doesn't directly connect to other service-providers.

Video-Consultations have also been implemented by other medical centres, doctors and health service providers. Although are not useful in all situations, their popularity has quickly developed during the COVID-pandemic.

Appreciation of the project and transferability to other alpine regions

These solutions are even more interesting in remote areas with long journeys and a high percentage of population with a fragile immune system or dependant of the help of relatives to get to the practice. Video-consultations can quickly be adopted by doctors and health service providers if the regulation allow it. For these reasons, health service providers in the alpine regions should be encouraged to offer video-consultations and e-solutions for prescriptions in order to overcome the topographical disadvantages.

The approach can easily be tested with existing tools. Starting from these experiences, for regions looking for a more holistic approach, programmes should be enlarged with more functions, especially enabling the interaction of different service providers

<https://www.nzz.ch/wirtschaft/corona-krise-telemedizin-in-deutschland-und-der-schweiz-boomt-ld.15507>

<https://eedoctors.ch/deine-onlinepraxis/>

<https://www.deindoktor.ch/de/online-consultation.html>

Transfer of responsibility to the nursing staff: Advanced Practice Nurses (APN)

Advanced Nurse Practice has emerged in the spacious rural regions of the USA. Even in some European Countries like the UK and Sweden, nurses have more authority to make decisions rather than "just" preparing them for the doctor. In APN, one speaks of two specialties: The "Clinical Nurse Specialists" have more managerial functions e.g. in nursing development in outpatient care, homes and hospitals, and the "Nurse Practitioners" who take on more practical, clinical tasks. In some European countries, Master's training colleges or universities already offer a specialisation in both areas. By increasing the competence of the nurses, they could, for example in nursing homes, small hospitals or outpatient care, make more decisions themselves instead of consulting a doctor. In order to make this system efficient, digital systems will be necessary to facilitate the exchange of info between the doctor and the APN. In addition, they can also join a GP's medical practice. Especially in the care of the increasingly frequent cases of chronically ill patients, a doctor is not always necessary. The stability of the treatment and personal contact can be more important than extensive medical knowledge. In terms of treatment quality and costs, there seem to be no disadvantages in using APN: The consultation hours tend to be a bit longer with APN and APN can respond better to the patients and their history. The costs per time unit are lower with APN, however. Patients trust the APN if the APN call their doctor for assistance in cases of need, either by video-calls, digital requests or a personal consultation with the patient if needed. Within APN, « Nurse Practitioners » are particularly suitable for the replacement of GP's tasks. They are already used to a small extent in some Alpine countries as "delegated persons" to supplement a GP's practice. They can make home visits or triage of emergencies, as well as carry out consultation hours themselves and consult the doctor when making a decision as a back-up (and to fulfill legal formalities). Some "Nurse Practitioners" are also being used in outpatient care. Adapted legislation and training offers would promote the use of "Nurse Practitioners". Although some small changes in policies have been done in some alpine countries, APNs have significantly fewer rights in the Alpine countries than in countries such as the USA, the UK or Sweden.

Appreciation of the project and transferability to other alpine regions

The use of APNs as a supplement to a doctor's practice, outpatient care or in nursing homes would be easy to implement. The availability of trained APNs is still limited; appropriate people would have to be found or, during the transition time, nurses with a similar level of training as APNs would have to be deployed. In addition, digitisation must be pushed accordingly for the purpose of video consultations, transmission of patient files, etc. At the same time, the following measures could be taken to promote the use of APN in Alpine regions

- Further expansion and adaption the university offers in nursing in the alpine area (Master in APN)
- promotion of the existing offers in the alpine area, for example in high schools
- Electronic patient files will simplify cooperation between the players here, especially if the APN acts as an additional player in the health care of a person

Nursing professionals with responsibility in the village community: Community Health Nursing

Community Health Nursing is a form of Advanced Nurse Practice, but there is a stronger focus on prevention and support for a healthy lifestyle, especially for health problems that are becoming more frequent in the specific region. Studies in Germany have shown good results. The Community Health Nurses were able to take over many of the visits from the GPs and the patients trusted the community health workers. In Germany, specific training will be started in the winter semester 2020/2021. After completion of the qualification "Community Medicine Nursing", graduates are to work in the domestic care of patients and elderly people on behalf of a GP. By means of a computer-supported video and audio connection, the future CM-Nurses will be able to call in the responsible GP at any time in case of medical necessity and, for example, to transmit medical values (blood pressure, ECG etc.) during the consultation.

This concept and the possibility of an IT-supported close information exchange between a peripherally acting medical assistant and the treating physician has not yet been implemented and evaluated in Germany in the project context under realistic boundary conditions.

Appreciation of the project and transferability to other alpine regions

As long as the social structure in the mountain communities is intact, there may be no need for specific training for community health nurses. An APN could perform the function of a Community Health Nurse and be the main contact person for patients in one or more mountain villages. The IT-supported exchange with the GPs must be organised (e.g. so that it does not disturb the flow of the doctor's work), and will be profitable if APN are taking over the function of a CM-Nurse. Adjustments in tariffs and legislation can give such a specialist even more responsibility. In areas or countries where the social structure is falling apart with increasing health problems that are interlinked with social disfunctioning of the communities, a specific training or nursing degree for CM-Nurses would be helpful.

<https://www.dbfk.de/de/themen/Community-Health-Nursing.php>

Routine work by medical practice assistants

A similar concept to the APN is the delegation of certain work to medical practice assistants (in Germany "medizinische Fachangestellte MFA"). In Germany there have already been several successful projects in this area. This has led to the establishment of nationally regulated training for this new role of MFA (www.verah.de). Among doctors, the new distribution of roles can sometimes trigger scepticism. In most cases, however, the new distribution of roles is a relief and enables doctors to devote themselves to the "more interesting" issues.

Appreciation of the project and transferability to other alpine regions

An attempt of this kind could easily be implemented if there is a corresponding willingness among doctors and MPAs. It might also be interesting to strive for such a distribution of roles in advance of a transfer of practice. This could make it easier for newcomer GP to get started, reduce the workload and create the possibility of part-time work. E-Health solutions will strongly facilitate the implementation of this system, to assure the transfer of information from assistant to the doctors and vice-versa.

<https://deutsch.medscape.com/artikel/4900782>

Financial support of the Alpes-Maritimes Department for purchase of teleconsultation and e-health equipment

This financial support impulsed by the Alpes-Maritimes Department consist on an exceptional reimbursement assistance that was intended only for healthcare professionals working in the Alpes-Maritimes Department during the confinement period. It has concerned a large diversity of healthcare professionals, including General practitioners or specialists, nursing surgeons, pharmacists, dieticians, psychotherapists. The aid makes it possible to cover up to a maximum of 1000 euros the acquisition of e-health infrastructure and digital devices such as webcams, helmet, laptop or tablet with integrated camera.

Appreciation of the project and transferability to other alpine regions

In the Department before Coronovirus crisis, e-health medical consultation represented around 200 a week only. During the pic of the epidemy in March 2020: about 16.997 teleconsultations have been reached. For the Department and Region, this support enabled a durable shift to impulse e-health consultations among practitioners that are now trained and familiar with the process and digital infrastructures needed to safely operate the medical services. Moreover, e-health capacitation for the territory could consist of an opportunity to reach more easily elderly people or people deprived from mobility solutions.

<https://www.departement06.fr/mesures-pour-les-professionnels-de-sante/aide-pour-les-professionnels-de-sante-liberaux-35681.html>

<https://www.departement06.fr/>

A Covid 19 Health Team for homeless and people in fragile situations

Provence Verte Solidarités NGO, located in the Southern part of French Alpine region in Provence, aims in mid-2013 the creation of a reception center for people who have discontinued their care path by offering an itinerant place, a reception and privileged access to care to people who have lost their rights in terms of health coverage. The project makes it possible to deal with the emergency situations of these people in fragile situations, and their attorney for support so that they recover their rights as quickly as possible. In the meantime, treatment is provided and pharmaceutical products are handed out free of charge. During Covid-19, the NGO had to adapt his missions: a new project, specifically dedicated to supporting homeless people, in emergency accommodation and poorly housed people possibly suffering from COVID 19 was created. Another one in partnership with the Provence Alpes Cote d'Azur Region Regional Health Agency, a "mobile health team" has been also created with an intermediate telephone platform, diagnosis and guidance.

Appreciation of the project and transferability to other alpine regions

The added-value is firstly relying on the Agility of this NGO to quickly operate efficient partnerships with Health institutions, Municipalities and Regions. Second, the NGO adopted the itinerant strategy that offers the opportunity to go forward meeting with people that are most touched and concerned by poverty and concerned by Health impacts, and highly exposed to Covid-19 infections. Third, the organization is strongly rooted in terms of knowledge of territories social challenges and main problematics. It is highly inspiring to imagine inhabitants social, health support and rights access.

http://www.codes83.org/depot_arkcms_codes83/depot_arko/articles/3484/equipe-sanitaire-mobile-covid-19_doc.pdf

<http://provence-verte-solidarites.fr/>

MisMi, integrated health model for an inclusive mountain

MisMi is a cross-border project bringing together Italy and France with the aim of developing integrated social and health services in close proximity to help counter depopulation in mountain areas and reduce health inequalities, in particular through prevention and monitoring of the health status of people with chronic diseases.

The project is based on two pillars:

- the empowerment of people and communities in the area
- the use of new technologies as levers for innovation, improving quality and access to services and reducing insulation

In MisMi, in fact, technologies are considered effective and sustainable to the extent that, in parallel, care-givers and social networks are properly involved.

Italy-France territorial cooperation is considered the main instrument to test an integrated model of both health and social services that are effective because they are close to the needs of the person and his/her context. The needs analysis, comparison and discussion between the specificities of the Italian and French realities took place mainly during the training sessions, intended as a platform for the project start-up and activation of the operators involved.

Appreciation of the project and transferability to other alpine regions

The project, which was due to finish on 18 March, was extended during the Covid-19 emergency to give continuity to the activities tested.

The Alcotra programme has therefore suspended the deadlines for expiring projects, allowing MisMi to invest the remaining funds in activities that are consistent with the project and useful to cope with the emergency situation in the best possible way, with an eye already oriented towards post-Covid-19 needs.

MisMi supported people in need and hit by Corona virus living in Italy and France mountain areas with caregivers' assistance at home, hospital and with telemedicine.

<https://www.mismiproject.eu/>

<http://www.interreg-alcotra.eu/it/decouvrir-alcotra/les-projets-finances/mismi-modello-integrato-di-salute-una-montagna-inclusiva>

Digital solidarity and educational continuity in Aix-en-Provence

Following the health crisis, Anonymal has set up a complete system in Aix-en-Provence to equip families in great difficulty with computer equipment, to support them in their digital use and to connect them to existing educational support actions in the area.

It all starts with an alert from the metropolis, from the social cohesion service: many students drop out!

As a resource center for the region (historical digital mediation actions and the Fabrique de territoires label), Anonymal sets up a system to equip and support these families in conjunction with Aix-en-Provence's social centers and local facilities and the social cohesion department.

In order to identify the needs in a precise way and to get in touch with the families, a large and unprecedented partnership work has been initiated and should continue!

Indicators had to be established to choose which families would receive priority support.

The system also plans to train other carers than those from the Anonymous structure in order to increase the number of mediation and digital inclusion actions.

In addition to pedagogical continuity, the system has made it possible to work more globally on access to the rights of these families. The audience is therefore twofold: young people, but also parents!

The national education system has shown an interest in this initiative and now plays the role of facilitator in bringing up the needs of families.

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As mentioned this topic can be addressed in more or less all territories, and the process is going to be very well documented in order to be spread.

Conclusion

Digitisation is rather underdeveloped in the health sector. However, it has a big potential, with even higher benefits for rural alpine regions. The situation in basic health care in the alpine region faces big challenges. The experiences and examples from different regions presented in this report clearly show that e-health combined with other changes in the systems can solve these problems. Video-consultations, digital interaction between the actors and centralized administration could lead to simplifications in the system. Digital tools and the delegation of responsibilities to specialist nursing staff or medical assistance will help to reduce the workload of GPs. Evaluating all the examples, we estimate that the Alpine Region will strongly profit from investment in the discussed solutions at every level (motivating health service providers to use digital tools, adapting the policy framework, investing in pilote projects, education of nurses, development of digital tools, etc.).

New approaches in medical health care such as e.g. the use of the potentials of digitalization and a stronger role for professional nurses require enough flexibility in the regulatory frameworks. Feed-back from members of Action Group 5 all over the Alpine arc show, that this flexibility is not always given. In some cases, even the possibilities for General Practitioners are extremely restricted by the regulatory framework. Rural areas in the Alpine countries are confronted with severe shortages in medical services. New and innovative solutions can only be developed, if the regulatory framework give enough flexibility. This question must be addressed very seriously at national, regional and sometimes even local level.