Deloitte.

Hospital at Home

A model with a future

MAKING AN IMPACT THAT MATTERS since 1845

Table of contents

Executive summary

Home care has been firmly established in Switzerland for some time. Organisations such as Spitex provide a comprehensive range of home care services. In contrast, the concept of Hospital at Home is still in its infancy: treatments that are traditionally carried out in hospitals are still seldom implemented in the home environment in Switzerland - in contrast to other countries. However, this is likely to change over the next few years.
There is much to be said for the increasing importance of care and treatment in people's own homes. A central driver is demographic change. The number of older people in need of care will increase sharply in the coming decades. At the same time, technological progress is creating new possibilities for caring for patients at home and ensuring the exchange of information between the stakeholders involved.

Against this background, the Hospital at Home concept is likely to become more widely established in Switzerland. It offers several advantages compared to inpatient hospitalisation. On the one hand, patients may benefit from a faster recovery in a familiar environment. On the other hand, they have a reduced risk of side effects of a hospital stay, such as infection. The medical infrastructure also benefits: shifting treatment to the comfort of one's own home relieves the burden on hospitals and frees up capacity for other procedures.

One of the pillars of a Swiss 'Hospital at Home' framework will ideally be based upon regional co-operation between hospitals, pharmacies, general practitioners, Spitex, and insurers. The co-ordination of the various stakeholders is a challenge. The current incentives lead to a silo mentality and render joint activities difficult. An economically sustainable concept also requires an adjustment of fees. From a legal point of view too, several aspects still need to be clarified.

To be able to analyse the benefits and risks of the novel approach in Switzerland, pilot projects are necessary. This requires close co-operation between hospitals, health insurers, and Spitex, as well as other partners and investors. They must all be prepared to work together to develop a holistic concept and clarify outstanding questions. Only by gaining experience collectively can they actively shape the future of the health care system.

Methodology

This white paper is based on scientific literature and findings from various expert interviews. Felix Schneuwly (Head of Public Affairs at Comparis), Dr. Thomas Heiniger (President of Spitex Switzerland), Christoph Engel (Head of Benefits at Visana), Dr. med. Stephan Pahls (former COO Hirslanden East), Dr. med. Abraham Licht (Head Physician Emergency Centre Hirslanden), Dr. med. Andreas Gattiker (CEO Cantonal Hospital Obwalden) and Dr. Jérôme Cosandey (Director of French speaking Switzerland at Avenir Suisse) took part in the qualitative interviews. Many thanks to all interview partners for the interesting exchange and exciting insights.

1. Homecare and Hospital at Home in Switzerland

1.1 From nuns to Spitex

Home care has a long tradition in Switzerland. Until the Second World War, nursing was performed primarily by nuns during home visits. Nowadays, this type of care is delivered by the non-profit organisation Spitex Switzerland. "Spitex" is derived from "hospital external help and care" [Spital externe Hilfe und Pflege]. The cantonal Spitex industry association was formed in 1995 from merging home care organisations into the Swiss Association of Home Care Organisations (SVHO - Schweizerischen Vereinigung der Hauspflegeorganisationen) and the Swiss Association of Community Nursing and Health Care Organisations (SVGO - Schweizerischen Vereinigung der Gemeindekrankenpflege- und Gesundheitspflegeorganisationen).[i]

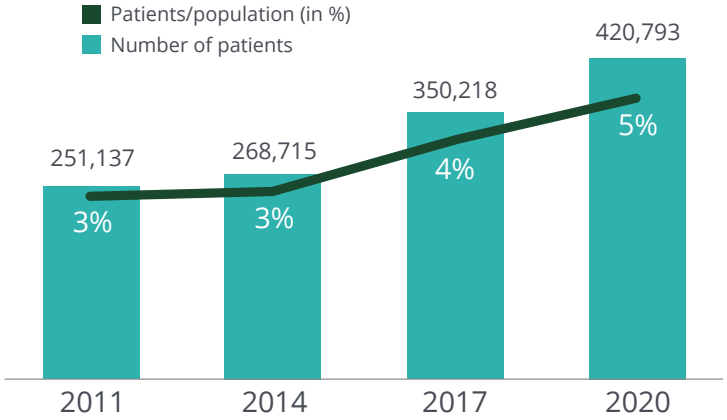
The core services of Spitex include nursing and hygiene care, acute and aftercare, as well as advice on health issues, prevention, and housekeeping support. A distinction is made between long-term care and temporary support - for example after a hospital stay. In 2020, long-term care of primarily elderly patients accounted for most of the services (74%)in terms of hours billed followed by housekeeping and social care at around 24%.

Spitex: Financing and Fees

About two-thirds of the income of the Spitex organisations comes from billed services paid for by insurance companies and patients, as well as municipalities and cantons. One third comes from state contributions. Overall, the cantons and municipalities finance just under half. A distinction is made between services that are subject to compulsory health insurance and those that are not. The fees are set by the federal government through the Health Insurance Act (KVG - Krankenversicherungsgesetz), but they do not fully cover costs. Depending on the care law, residual costs are borne by the cantons or by the municipalities. In addition, there is patient contribution and a deductible in case of long-term care. If aftercare is prescribed following a hospital stay, the deductible does not apply.[i]

The number of people receiving Spitex services has increased steadily over the last ten years. As the graph below shows, the increase has been greater in relative terms than the population growth over the same period. At the same time, however, the market share of Spitex Switzerland organisations has decreased: while Spitex still cared for around 87% of all patients in 2011, this figure decreased to 78% in 2020. Private organisations and self-employed care professionals take care of the remaining patients and have been able to gain market share over the last decade.

Figure 1: Number of Spitex clients



Source: BFS [Federal Statistical Office] (2021) , Hilfe und Pflege zu Hause, BFS (2022), Bilanz der ständigen Wohnbevölkerung - Help and care at home, Federal Statistical Office (2022), Total permanent resident population, Deloitte Research

1.2 Telemedicine and other home care services

In addition to Spitex, there are various private home care providers in Switzerland who specialise in specific services, such as artificial nutrition, intravenous treatments or oxygen treatments.

Hospital at Home: Definition

Hospital at Home is an extension of standard home care: Patients with an illness that usually requires hospitalisation are treated in their home environment. The decentralised concept places the patient at the centre and requires co-operation between different stakeholders such as hospitals, doctors, pharmacies, insurance companies and Spitex.

Hospital at Home services hardly exist in Switzerland, with only small pilot projects such as "Visit - Spital Zollikerberg Zuhause". In Scandinavia, Great Britain, the USA, and Israel, such models have existed for some time. The Israeli Hospital at Home is the country's largest "hospital" with 7,000 people cared for every day.

Telemedicine services, on the other hand, are already widespread in Switzerland. Leading the way in this area are Medgate and Medi24, both of which work closely with insurance providers. Although the demand for remote diagnosis, consultations, and follow-up care is increasing, such services still play a relatively insignificant role in international comparison.The pandemic has acted as a catalyst - also regarding the acceptance of alternative care providers. In addition to doctors offices and hospitals, pharmacies have also carried out Covid 19 vaccinations.

An interesting form of an integrated chain of care is the patient hotel [Patientenhotel] in Lausanne. This is a mixed form of inpatient stays and home care: patients are transferred from the hospital to the patient hotel during the pre- or post-operative phase. Nursing staff are available 24/7 and doctor's visits or treatments can be carried out in the nearby hospital or directly in the patient's hotel. This model enables quicker and more flexible availability of patient beds. In addition, it provides enhanced efficiency due to the concentration on the respective core competences.[ii]

Figure 2: Hospital at Home

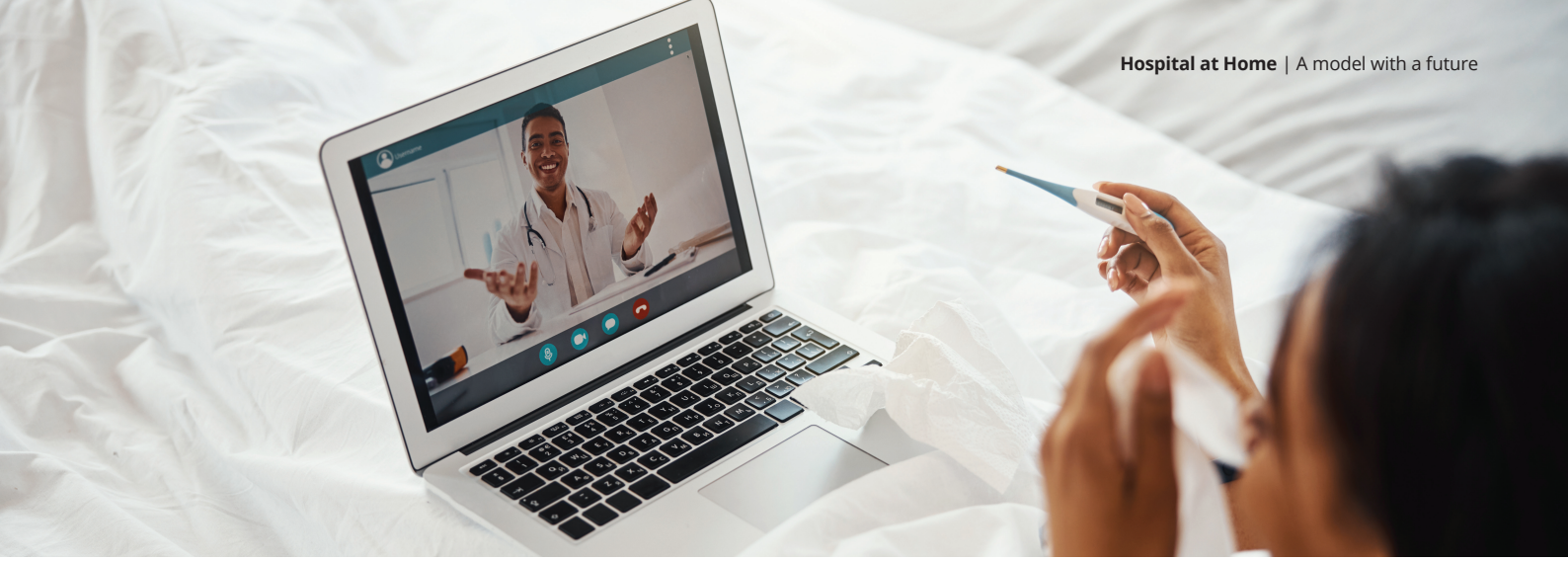
Source: Deloitte Research

1.3 A glimpse into the future

The year is 2040 and Angela Meier has fallen ill with pneumonia. After consulting with doctors and her health insurance provides, she decides - instead of inpatient treatment in hospital - to opt for Hospital at Home. Every day, nursing staff and, if necessary, a doctor come to her home to administer the necessary treatment. Angela is also monitored around the clock by telemedicine from the hospital.

The treatment is successful, but a few years later Angela Meier is once again unlucky with her health: she has to undergo heart surgery. This can only be performed in hospital. After only a few days, however, she returns to the Hospital at Home. Nursing staff visit Angela at home several times a week and she communicates regularly with the doctor in charge, who constantly monitors her condition with wearables from the hospital.

The case study illustrates this: the Hospital at Home concept could usefully complement the existing treatment and care services. In the future, patients would be able to choose whether to be treated at home or in hospital for certain treatments and interventions. This would allow individual needs to be better considered and the healing process optimised. In addition, hospital stays could be shortened thanks to new infrastructure and technical possibilities as patients could also recover safely at home.



2. Why home care and Hospital at Home will play a central role in the future

Various developments suggest an increasing importance of home care and Hospital at Home. The key drivers are explained below. Under certain circumstances, however, some of these may also act as obstacles or entail certain risks (see section "Challenges and solutions").

2.1 Demographic change

Demographic developments are leading to an ever increasing proportion of eldery people and those in need of care. In 2050, Switzerland will have over one million people over the age of 80. Currently, there are only just under 0.5 million. Life expectancy at birth is expected to rise to almost 90 years by 2050 - partly due to medical progress and the large investments in one's own health into old age.

Demographic developments can be predicted very precisely. It is therefore highly likely that the importance of institutionalised care at home will increase simply because of the growing need for care due to demographic change.

2.2 Digitalisation and technological progress

Advances in medical technology provide new possibilities for caring for and treating patients at home. For example, wearables facilitate the measurement of relevant key indicators. Such devices are worn on the body - like a smartwatch - and transmit health data in real time. In addition, wearables can also trigger an emergency call in the event of a fall.

The networking of medical devices as part of the Internet of (Medical) Things (Io(M)T) also offers new opportunities for the use of medical technology in the home. In the future, robots could also take over certain tasks in home care. In Japan, for example, various types of robots have been used in care.[iii] The question remains whether such automated assistants will be accepted by Swiss patients at all.

Digitisation also plays a decisive role in the exchange of information: telemedicine enables contact to be established regardless of location, and audio-visual medical consultations. Cloud-based systems also enable all parties involved to view the data relevant to them, whereby personal rights and data protection must be guaranteed.

"I am convinced that Hospital at Home will also emerge in Switzerland. Ideas like this, which everyone understands, will prevail sooner or later."

Dr. med. Abraham Licht, Chief Physician, Hirslanden Emergency Centre

Figure 3: Drivers of the Hospital-at-Home Concept

Source: Deloitte Research

2.3 Social aspects and quality of care

Demands on medical services are increasing and there is a growing expectation of a medical chain of care to be as time and location-independent as possible. According to the respondents, many would like to receive treatment in their own homes instead of in the unfamiliar surroundings of a hospital. In addition to the type of treatment, other factors determine to what extent this is even possible: the personal living situation, security or the partner status.

A familiar environment can optimise the healing process in many cases. As some studies show, people in the Hospital at Home context are more content and suffer less from muscle deterioration, infections, or delirium, while mortality remains the same.[iv] The adage "If you want to stay healthy, avoid the hospital" has become even more pertinent since the outbreak of the coronavirus.

2.4 Economic aspects

In Switzerland we can afford a high-quality, but also expensive health care system. However, the pandemic has also shown its limitations. Even before the coronavirus outbreak, health expenditure was equivalent to more than 11% of the gross domestic product (GDP), and has only further increased. At the beginning of the 1990s, it was still around 7%.[v]

The 'outpatient before inpatient'" trend is already shaping the Swiss health system today. A day with an overnight stay in an intensive care hospital costs over CHF 2,200 on average.[vi] One possible step towards cost savings for hospitals would be to outsource certain services using the Hospital at Home concept. This could possibly lead to lower overall costs through the efficient use of existing infrastructure. However, the cost savings must compensate for higher staff costs.

The Hospital at Home concept could result in financial benefits especially if it forms part of an integrated chain of care. For this, a geographically functional supply would have to be ensured in different regions, which would in have fewer hospitals overall. Currently, a decrease in the number of hospitals can be observed which leads to further distances needed to be travelled to get care and can therefore drive the need for treatments at home.

3. Challenges and solutions

As the interviews with representatives of hospitals, health insurance companies, associations and politicians show, the Hospital at Home concept could play a more important role in Switzerland in the future. All interviewees agreed with this. However, many questions remain unanswered when it comes to implementation. The experts see the biggest challenges in the following areas:

3.1 Data sharing and privacy

The basis for a functioning and flexible Hospital at Home system is an uncomplicated, secure, and fast exchange of data between the various stakeholders. Prescriptions, treatments and important key data should be available to doctors, nurses and pharmacists on portable devices such as tablets. Patients must be able to contact an appropriate person at any time.

Cloud-based systems, wearables, and networked medical devices can provide a critical contribution. While data protection in Switzerland is comparatively strong, compliance should not be an obstacle. This is underlined by a survey conducted by Sanitas: the population's acceptance regarding the sharing of medical data with medical professionals is already relatively high and slightly increasing. [vii]

The technical prerequisites for implementing the Hospital at Home already exist. The experts interviewed do not see the available technology as an obstacle. In their view, the challenge lies rather in coordinating cooperation and agreeing on a suitable solution. It is important to prevent the emergence of too many incompatible individual solutions.

3.2 Interoperability and cooperation

The Hospital at Home concept requires the cooperation of different stakeholders. Most experts do not believe that a hospital going at it alone - for example, with its own nursing staff out in the field - would be effective. Rather, the existing structures of Spitex should be used and, if necessary, supplemented with additional specialists. The network approach must be in the foreground, rather than customer loyalty as has previously been the case. Overall, there is currently too much of a silo mentality, according to the consensus of the interviewees.

"The current strong silo mentality of the stakeholders involved runs counter to the network approach necessary for change, and makes interoperability more difficult."

Felix Schneuwly, Head of Public Affairs with Comparis

It is therefore important to create incentives for increased cooperation. However, these must be designed differently for the individual stakeholders, as their needs are very different. After all, the Swiss health system is extremely complex: private and state companies interact in a highly regulated market in which very few people pay the costs themselves. Cost transparency is relatively low. In addition, knowledge and skills are unequally distributed. Another challenge is that care is always about individual outcomes that can scarcely be standardised. All of this leads to a complex interplay of different incentives, in which, not least, financial motivations are decisive for any cooperation.

The central challenge for Hospital at Home is thus the coordination of the stakeholders. On the one hand, it is necessary to ensure the interoperability of the different technical systems to guarantee smooth information management. On the other hand, the incentives must also be designed according to individual needs.

3.3 Incentives and Funding

For incentives to be aligned with individual needs, it is first necessary to clarify the cost-sharing and revenues of the individual stakeholders in the current system. These can be summarised as follows:

Hospitals and doctors

Since the introduction of the new hospital financing system in 2012, inpatient hospital services have been regulated according to nationally designated flat rates per case (DRG, Diagnosis Related Groups). The cantonal collective agreements specify the amount of the base rate and are negotiated by fee partners, hospitals and insurers. Outpatient treatments, on the other hand, are settled via the TARMED fee. In this case, individual services are charged.[viii] If a patient must visit a hospital again for the same aliment within 18 days after discharge, the same flat fee per case applies. This incentive is intended to prevent 'revolving door' premature discharges" and keep the number of such cases as low as possible. Hospitals earn most of their money with privately insured individuals, as they can charge the health insurance companies for various additional services.

Health insurers

The distinction between outpatient and inpatient is also relevant for health insurance companies: outpatient procedures are fully covered by health insurance (except for the deductible, based on the freely selected deductible). For inpatient treatment, a maximum of 45% is paid by health insurance, the rest is covered by the canton.

Spitex

The services of Spitex are based on an hourly rate. The health insurers contribute to the costs with a fixed contribution per hour. Depending on their financial situation, the patient pays a daily flat rate of a maximum of around CHF 15, which is waived in the case of prescribed acute and after care. The remaining costs are in turn covered by the canton or the municipalities.[ix]

For a busy hospital, it could be worthwhile from an economic point of view, to have an inpatient cared for either at home for their last few days of treatment or outside the hospital. This would relieve the internal infrastructure and create capacities for other patients. However, external treatments are time-consuming because of the additional travel time for the staff. A shorter stay in hospital is only worthwhile financially if the hospital can keep a large part of the flat fee per case, or if there are new options for the assumption of costs. In the case of care at home, partners and relatives can also be involved as much as possible. This 'free' work relieves the burden on nursing staff and is often an optimal solution for all involved.

In the existing health care system in Switzerland, a significant increase in home care and Hospital at Home would probably lead to higher costs for health insurance companies and cantons - both of which are ultimately paid for indirectly by patients and the public. It would therefore also be conceivable to have a solution whereby any additional costs for Hospital at Home are paid via supplementary insurance. However, this option would not be available to all patients. For health insurance companies, however, this could be an interesting form of differentiation.

Today, Hospital at Home is not yet economically feasible. Pilot projects such as 'Visit - Spital Zollikerberg Zuhause' are dependent on funding from foundations. If the expansion of such projects is desired, fee adjustments for this area would have to take place.

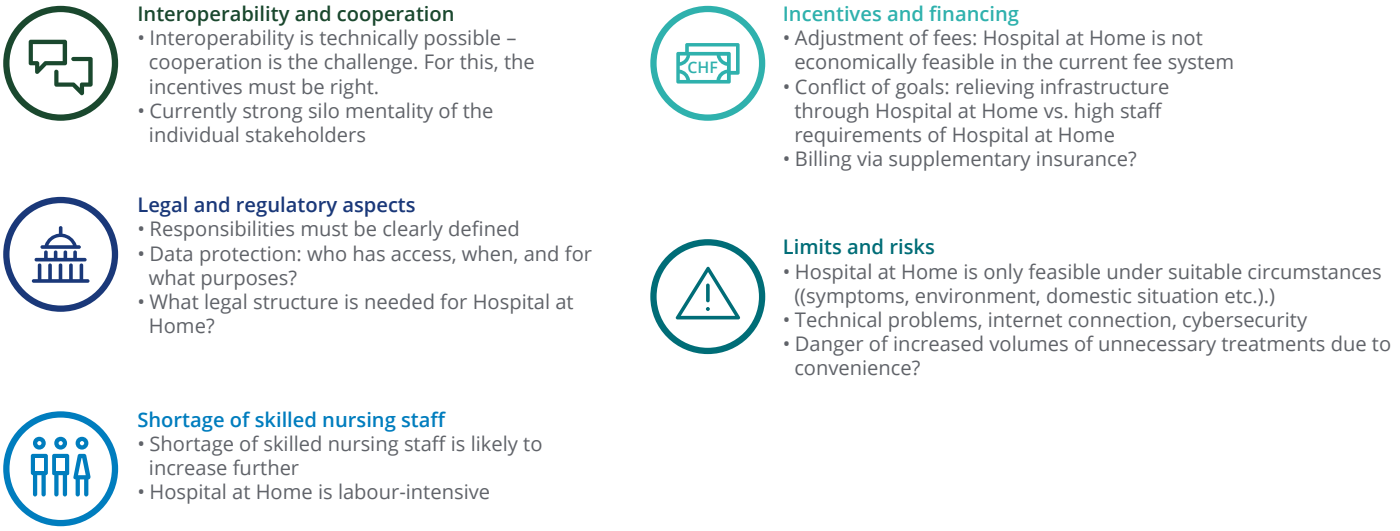
"The incentive and fee system is very strongly anchored in the Swiss healthcare system, but not optimal. I hope that the innovation paper will breathe new life into it."

Dr. med. Andreas Gattiker, CEO Obwalden Canton Hospital

The incentive and fee structure in the Swiss health system is changing in any case. One trend is Value-Based Healthcare (VBHC). This compensation system rewards quality instead of quantity. As part of a pilot project, the Basel University Hospital, Groupe Mutuel, and Hôpital de La Tour have developed an innovative fee system in the fields of orthopaedics and urology based on the principles of VBHC.[x]

The incentive system for Hospital at Home would have to be designed in such a way that all stakeholders benefit. Regional networks throughout Switzerland could then emerge where stakeholders break out of silo thinking and strive for joint customer loyalty. These networks should be based on cooperation and not on end-to-end solutions by the big players.

Figure 4: Challenges of the Hospital at Home concept



Source: Deloitte Research

3.4 Legal and regulatory aspects

For a functioning Hospital at Home model, various legal and regulatory aspects must be critically reviewed. Firstly, responsibilities must be clearly defined. The primary responsibility should lie with the attending physician. Aside from that, it needs to be clarified how Hospital at Home must look from a legal structure.

A second key point concerns the data collected. After all, this information belong to the patients. Therefore, various questions arise regarding data protection: who from the network should have access, when, and why? And who should ultimately be allowed to use the data for their own purposes and draw conclusions from it?

Another central aspect concerns fees. Specific framework conditions for possible Hospital at Home fee models are currently missing. In principle, however, according to the Zurich Health Directorate, it would be possible to charge for such services via existing fee regulations. As mentioned in the previous chapter about incentives, adjustments are probably needed here. The question is whether the KVG [Health Insurance Act] and the federal structures are suitable for this, or whether a top-down approach via a national health law would be more effective. Experience has shown that a bottom-up approach with limited pilot projects, in which legal exceptions might even be possible, would be quicker and easier to implement.

3.5 Shortage of skilled nursing staff

The existing shortage of nursing staff is likely to worsen in the coming decades. Demographic change is also having an impact: many carers of the baby boom generation will soon retire, and younger specialists are scarce, also because working conditions in the nursing sector are becoming increasingly stressful.

To counter the shortage of skilled workers, the nursing care initiative was adopted in 2021 - although it remains to be seen how positive the impact will be. Unfortunately, the initiative only refers to nursing professionals and, for example, neglects other healthcare specialists. In addition, the fixed quotas per patient prevent flexible solutions, which would be necessary especially in times of crisis. Since the expansion of home care and the introduction of Hospital at Home are comparatively labour-intensive, the shortage of skilled workers could hinder the shift of care into the home. However, new training and skills, and higher wages could make the job more attractive and alleviate the lack of qualified personnel.

3.6 Limitations and risks

Hospital at Home is not the optimal solution in every case. Therefore, the selection of patients for whom treatment at home is relevant and appropriate is a decisive initial step. Individual circumstances and the symptoms must be considered. Only then can quality be ensured and risk minimised.

There are also various risks in actual

implementation. Should an emergency arise, prompt consultation or, if necessary, relocation to a suitable institution must be guaranteed. In addition, several problems could arise in the routine medical context, for example if nursing staff face a locked door, medical equipment fails, or there is no reliable WiFi connection. Hacker attacks are also a serious risk.

For elderly patients and in case of long-term care, nursing homes are an option to consider. According to a study by the Bureau for Labour and Social Policy Studies (BASS), care at home offers cost advantages, especially for care cases of light to medium complexity. In cases of medium to high complexity, however, nursing homes perform better. In the longer term, due to the countervailing trend of expensive full care costs and lower infrastructure costs, there will probably be an increase in hybrid models such as 'assisted living'. [xi]

Expanding treatment in the home environment also carries the economic risk of a possible increase in the number of treatments. The convenience factor of treatment options in one's own four walls could lead to unnecessary treatments or therapy. This must be avoided at all costs from a macroeconomic point of view, and in the light of rising health care costs. In principle, this risk exists in every type of care system, where the focus is on the illness and its treatment, and not on health. Therefore, incentives are needed to avoid unnecessary treatments. In the absence of these, there is a risk of a health care system that is oriented towards the maximum instead of the optimum.

4. Next stage: pilot projects

To analyse the benefits and risks of the Hospital at Home model in Switzerland, long-term pilot projects are needed to gain valuable experience. With a positive evaluation, projects could be successively expanded.

Recent political developments signal hope that such projects will come to fruition. At the end of 2021, the Federal Council (Bundestrat) passed a bill as part of the cost control programme to relieve the burden on compulsory health insurance. Amongst other things, this includes an experimental article that is intended to enable innovative and cost-reducing projects outside the 'normal' framework of the KVG. It is not yet clear exactly when the programme will come into force. This is currently under discussion in parliament.[xii]

In November 2021, a position paper on Hospital at Home was submitted in the canton of Zurich.[xiii] The governing council (Regierungsrat) was asked to present in a report whether and how the above-mentioned Hospital at Home project from the Zollikerberg Hospital could be implemented throughout the canton of Zurich. This position paper, as well as the experimental article, could favour Hospital at Home – ultimately increasing the need for crucial regulatory flexibility.

Just as important as the regulatory framework is the increased cooperation of investors and partners on the part of hospitals, health insurance companies and Spitex. They must all be prepared to work together to develop a holistic concept for Hospital at Home and to clarify the legal and technical issues. Only when the central stakeholders gain experience in the network will they be able actively to shape the future of the healthcare system.

5. End notes

i Spitex (2020), Spitex Magazin 5/2020
https://www.spitex.ch/files/VT0QMUE/Die-Gruendungsgeschichte-Spitex-Schweiz.pdf

ii Reliva (2022)
https://reliva.ch/patientenhotel-lausanne/konzept/#betriebskonzept

iii NZZ (2021), Wie japanische Firmen und Tüftler mit ihren Robotern Heime und Spitäler erobern
https://www.nzz.ch/pro-global/asien/roboter-in-japan-eroberung-des-alltags-ld.1597812?reduced=true

iv Healthcare Financial Management Association (2021), Hospital-at-home programs are gaining traction and have well-documented benefits
https://www.hfma.org/topics/news/2021/07/acute-care-hospital-at-home-programs-are-gaining-traction-and-ha.html

v BFS (2021), Ausgaben für das Gesundheitswesen
https://www.bfs.admin.ch/bfs/de/home/statistiken/querschnittsthemen/wohlfahrtsmessung/alle-indikatoren/gesellschaft/gesundheitsausgaben.html

vi BFS (2019), Gesundheitsstatistik 2019
https://www.npg-rsp.ch/fileadmin/npg-rsp/Themen/BfS_2019_Gesundheitsstatistik.pdf

vii Sanitas (2021), Monitor Datengesellschaft und Solidarität 2021

viii FMCH (2022)
https://fmch.ch/bereiche/tarife-und-honorare/tarife/

ix Spitex (2022)
https://www.spitex.ch/Spitex/Tarife/Kassenpflichtige-Leistungen/PaAVw/

x Universitätsspital Basel (2021), Medienmitteilung vom 13. September 2021
https://www.unispital-basel.ch/medien/medienmitteilungen/details/article/das-universitaetsspital-basel-die-groupe-mutuel-und-das-hopital-de-la-tour-entwickeln-ein-neues-tar/?cHash=c51b5341df9bc5b17b125f8816dc976c

xi BASS (2011), Grenzen von Spitex aus ökonomischer Perspektive
https://www.spitex.ch/files/5BA91S2/studie_oekonomische_grenzen_spitex.pdf

xii BAG (2021), Kostendämpfung
https://www.bag.admin.ch/bag/de/home/versicherungen/krankenversicherung/kostendaempfung-kv.html

xiii Kantonsrat Zürich (2021)
https://www.kantonsrat.zh.ch/geschaefte/geschaeft/?id=d42a4138d0724654981630dfd7861f76

6. Contacts and authors

Matthias Scherler
Partner
Government & Public Services Industry Leader
mscherler@deloitte.ch
+41 58 279 6068

Annieck de Vocht
Healthcare Sector Leader
adevocht@deloitte.ch
+41 58 279 7260

Dr. Michael Grampp
Chief Economist & Research Director
mgrampp@deloitte.ch
+41 58 279 6817

Damian Rohr
Research Economist
drohr@deloitte.ch
+ 41 58 279 7302

Deloitte.