JULY 2022

NO PLACE LIKE HOME

THE SEQUEL

An analysis of the state of hospital care at home, the impact of pandemics and the outlook - five years later

GUPTA
STRATEGISTS

NO PLACE LIKE HOME

THE SEQUEL

An analysis of the state of hospital care at home, the impact of pandemics and the outlook - five years later

TABLE OF CONTENTS

SUMMARY

TRUE VALUE OF CARE AT HOME IS IN SCALABILITY DURING PANDEMICS, BUT READINESS DIFFERS BETWEEN HOSPITALS AND COUNTRIES

No place like home. The first question patients ask when they are in the hospital: 'when can I go home?' Five years ago, we showed that 46% of the activities taking place in the hospital could be provided at home. Our study postulated that the healthcare system would develop according to the following metaphor: doctors as air traffic controllers, patients as pilots of their own diseases.

This study examines the developments of the past five years. How many patients now receive their care at home, and what strategies did providers and countries follow? The good news is that 12% of Dutch patients now have the option to receive their care at home. 66% of hospitals have embraced home care as a key strategy. Many of the barriers have been removed: patients and doctors have been able to experience that care at home works, reimbursements have been adjusted and cost of the required technology has lowered.

The not so good news: it makes a big difference where you live as a patient. The difference between countries is large, and within countries the differences are at least as large.The success of hospital care at home raises some tough questions for healthcare systems. Volume disappears from hospitals, data needs to flow between the various electronic patient records of different care providers, and care processes need to be redesigned.

In the short term, volume that disappears from the hospital may appear like a blessing: after all, hospitals are still clogged with care that has been postponed due to the corona crisis. In the long term, this reduction of care volume in hospitals may threaten the accessibility of the hospital care that cannot be provided at home. Since healthcare providers have high fixed costs, a decrease in volume can lead to inefficiencies of scale, which may cause financial problems.

In the Netherlands, large hospitals are leading the way in transforming care. This is not surprising: they have the scale to innovate. Increasingly, the availability of new technology will enable smaller providers to deliver advanced care. In fact, as they are no longer limited to their own hinterland they can actually expand their reach. Just like the rise of the internet blurred geographic boundaries. This creates new opportunities for regional hospitals. That is good news for the patient and the payer.

Because our Western societies are getting older, the number of patients with more than a single condition will increase[1]. It is the multimorbid patient who benefits most from a hospital that is well connected to the local web of healthcare providers, such as GP's, and elderly care. This leads to lower costs in two ways: better coordination (so more "first time right"), and more care in a more cost-effective setting. In the Netherlands, this could lead to annual savings of up to EUR 1,6 billion[2].

Whether this becomes reality depends on the choices each country makes. While suppliers work worldwide, how care is delivered is mostly locally determined. As with the development of the internet, a winner takes it all situation can easily arise. Investors seem to know where it is headed. A bet of over EUR 40 billion is already made (almost two years of national Dutch hospital budget). It is difficult to guess what the effect of these investments will be. Will these investments make health care more efficient? Will they disrupt health care systems? Chances are, it will be at the expense of current providers.

[1] *In the Netherlands, this number increases from 5.4 million to 6.6 million. Source: https://www.volksgezondheidtoekomstverkenning.nl/c-vtv/trendscenario-update-2020/ziekten-aandoeningen, last consulted on May 13th 2022.*

[2] *Analysis by Gupta Strategists that 20% percentile of hospitals have 5% lower integral healthcare cost than average in their care region. The total healthcare insurance cost (zvw) in the Netherlands is around EUR 40 billion. EUR 40 billion * 5% * 80% is EUR 1,6 billion.*

As the pandemic progressed, the value of surplus hospital capacity became very visible. Treatment at home is a flexible, scalable, safe, and more cost-effective alternative for most nursing days. If other countries followed the same course as Denmark and the Netherlands, one hospital per million people can be saved.

The interaction between people and technology in the treatment of care at home creates an enormous opportunity to increase effectiveness in the delivery of care. Processes will become scalable for the first time. But to reap these benefits, government and health care insurers need to act. If they adopt a laissez-faire attitude, quality and efficiency risks arise. The scale on which digital care and care at home can be efficiently designed exceeds individual hospitals. Sub-optimal and therefore cost-inefficient care concepts are likely. That is, unless a disruptive (new) care provider suddenly gains a major market share.

On the other hand: a rigid top-down approach will harm progress. To return to our metaphor of the airport: safety is only possible through cooperation with market parties. An (inter)national body must establish and maintain the standards on which people and technology can safely provide care together and create an open environment where everyone can learn from failures and near misses.

[1] *In the Netherlands, this number increases from 5.4 million to 6.6 million. Source: https://www.volksgezondheidtoekomstverkenning.nl/c-vtv/trendscenario-update-2020/ziekten-aandoeningen, last consulted on May 13th 2022.*

[2] *Analysis by Gupta Strategists that 20% percentile of hospitals have 5% lower integral healthcare cost than average in their care region. The total healthcare insurance cost (zvw) in the Netherlands is around EUR 40 billion. EUR 40 billion * 5% * 80% is EUR 1,6 billion.*

01.

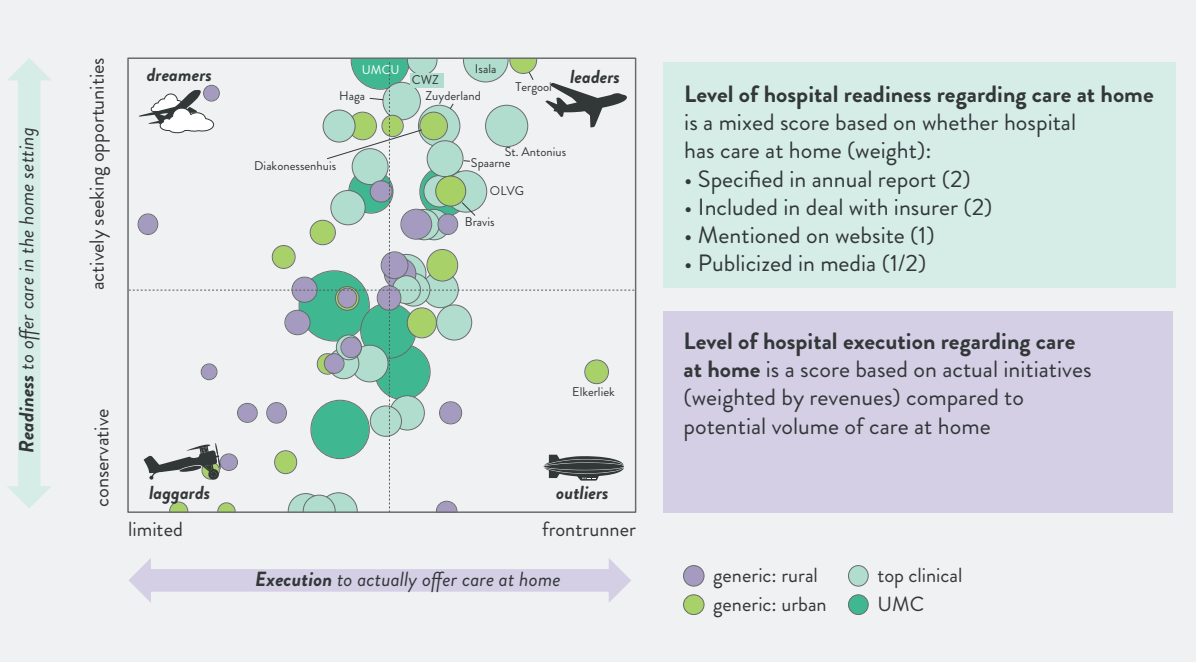
LARGE DIFFERENCES BETWEEN HOSPITALS IN FRACTION OF CARE AT HOME

Even though the entire Dutch hospital sector has shifted to deliver significantly more care in the home setting than five years ago (see next chapter), there are large differences within the hospital sector. Some hospitals are clear 'leaders' in the transition (in analogy to our previous study, these hospitals fly an Airbus A350-1000) while others are lagging behind (in their propeller plane).

We have scored all dutch hospitals on their readiness and execution to offer care at home, classifying them in four categories:

- **leaders**: in the transformation to deliver care at home show a clear ambition to offer care at home and act on this ambition by offering significant number of home care initiatives
- **dreamers:** display a clear ambition, they are all set to offer care at home, but don't execute on it
- **laggards:** don't have the ambition or the execution; care at home is simply not a topic for them
- **outliers:** don't have a clear ambition to offer care at home but somehow end up doing it after all

Figure 1: readiness and execution of individual hospital regarding care at home; score per hospital based on public information; size bubble = revenues in 2019[3]
Based on annual reports 2021 and websites 2022



[3] *This figure does not show the actual success that hospitals have with their initiatives to bring care home (the participation degree of patients) but the broadness of different initiatives.*

Figure 1 shows how hospitals score relative to each other on readiness and execution to transition care to the home setting (the appendix describes the methodology for this scoring). The size of a bubble corresponds to the hospital revenue in 2019, the color shows the peer group of the hospital. Isala, Canisius Wilhelmina Ziekenhuis (CWZ), St. Antonius and Zuyderland are all top clinical hospitals that are leading the transition: they score high on both readiness and execution. Elkerliek Ziekenhuis is an interesting outlier: the hospital does not show a clear ambition or readiness, but nevertheless seems to be most of all hospitals supporting initiatives to deliver care at home. At least they have been working hard to reduce length of stay, resulting in a large decline in hospitalization days.

Large hospitals are leading the transition. Many leading hospitals have a supraregional role in providing certain types of care such as oncological care and complex heart care. But this does not hold for all of them, and it does not hold for most Dutch university medical centers (umc's), even though they have a similar or more extended supraregional role. Bringing hospital care home is not a core focus for most umc's, except UMC Utrecht (UMCU). One possible explanation is the fact that less complex care, potentially most suitable for delivery at home, has already been moved from umc's to regional hospitals. Nonetheless, most oncology centers in umc's have a program to arrange chemotherapy and immunotherapy at home.

One could assume rural hospitals have a higher benefit from moving care home due to travel distances. But in our small country, travel distances are a very limited reason to move care home. It turns out rural hospitals are mostly among the laggards. Their relative size might be an important reason, since bringing care home requires an investment that is easier to afford for larger hospitals. Most leaders are therefore relatively large hospitals: a clear correlation of 0,55 is shown between the level of execution and the equity of a hospital in the annual report of 2019. Bernhoven is an outlier in this correlation: with a relatively low level of equity, they succeeded in getting to a relative high level of execution. This is probably due to their specific contracts with the leading insurer to alter their care model.

It would be wise to monitor actual transition of care to home per individual hospital to provide insight into differences and best practices. One of the drawbacks of the analysis in this chapter is that it is based on public data and therefore does not consider actual delivery of care at home, but only whether certain types of care are offered in the home setting.

Overall, we find that individual beliefs and ambitions of hospital leaders, and doctors are a much more important driver of the transition than geographical location, available capital, or hospital setting.

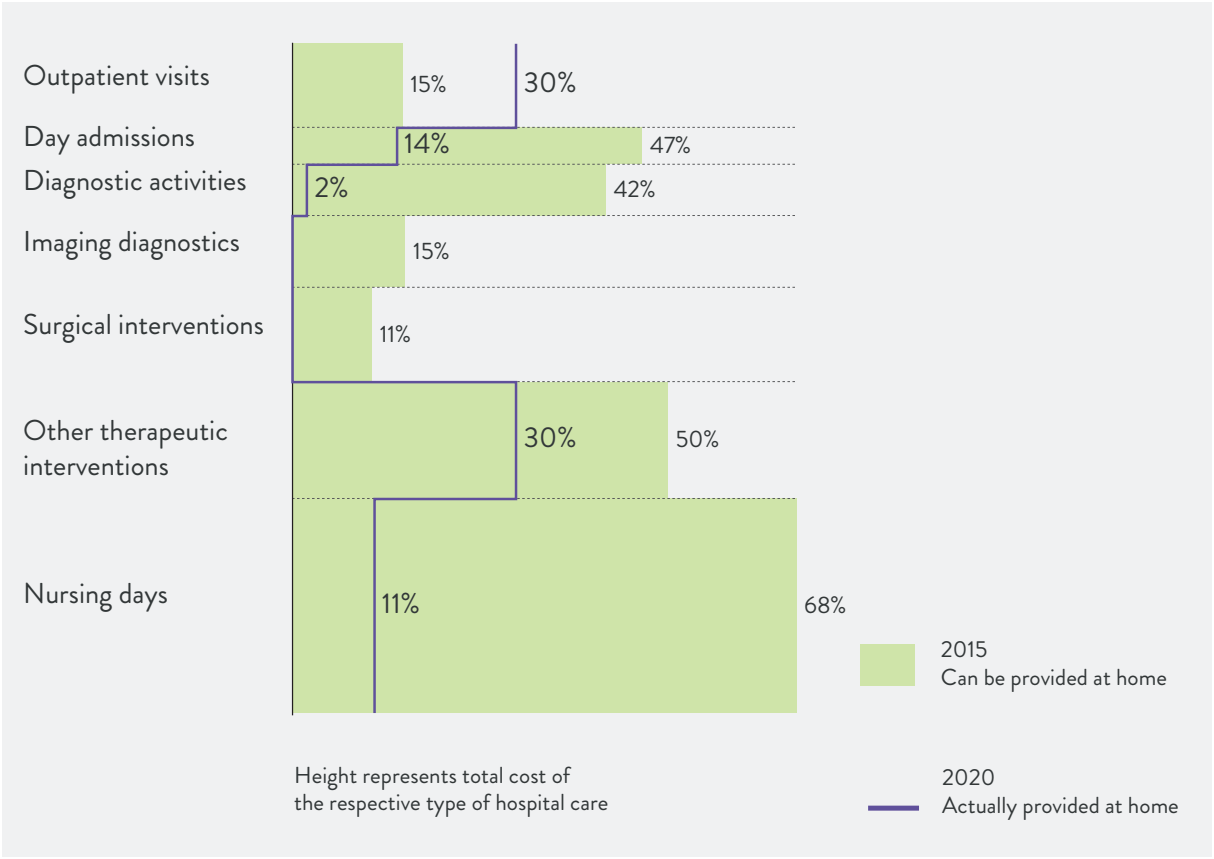
02.

12% OF HOSPITAL CARE IS NOW OFFERED AT HOME

Chapter 1 showed that more and more hospitals are actively pursuing the transition of care to the home setting. In this chapter we delve further to understand what types of activities have shifted home in the Netherlands, and to what extend.

In 2016 we showed in the first iteration of 'No place like home' that 46% of hospital care is not bound to a hospital building and can be provided in the home setting. Five years after our first study on this topic, we take stock to conclude that the transition has gone gradually but slowly. For about 12% of care provided by hospitals the patient now has the option to choose home as the location (see Figure 2).

Figure 2: hospital care for which patients have the choice to receive it at home (% of cost)[4]



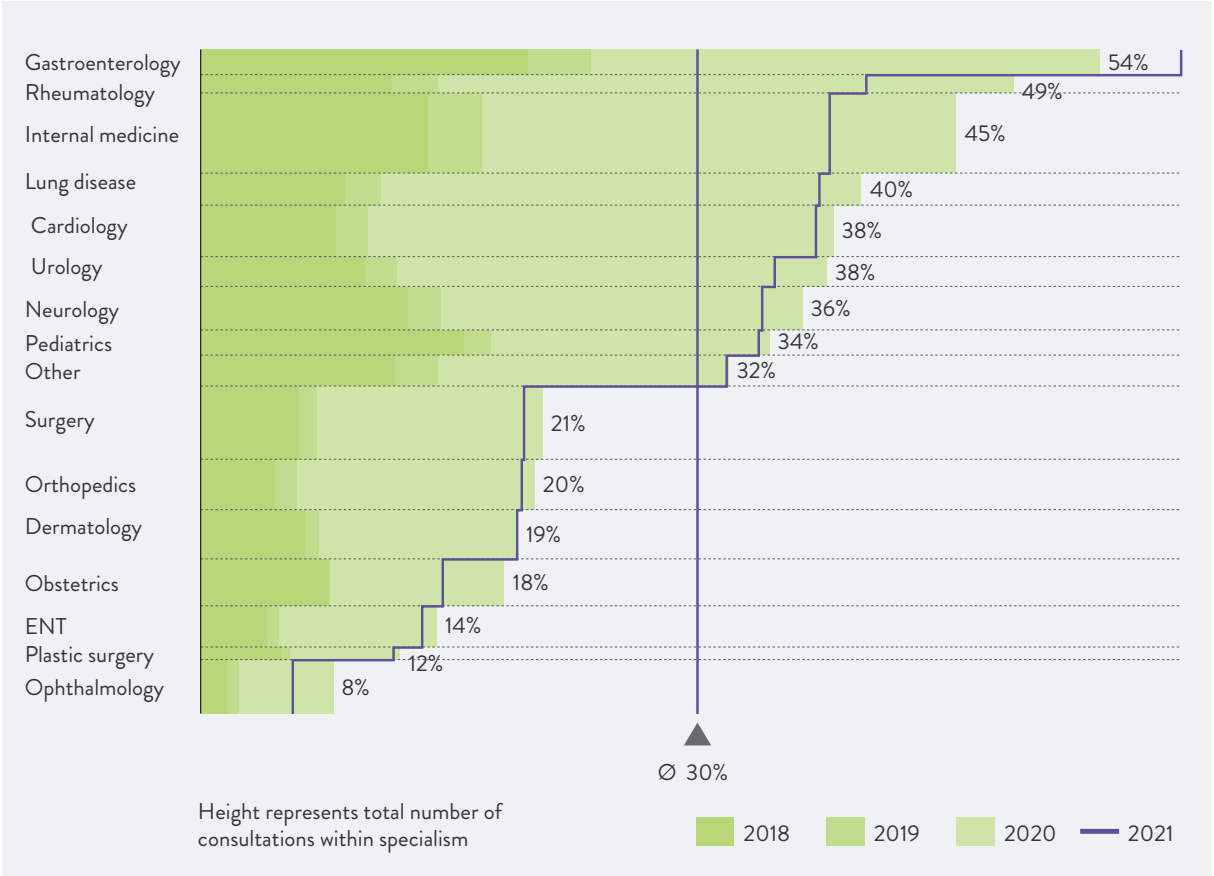
[4] *Calculations based on home initiatives of individual hospitals weighted by hospital revenues, for outpatient visits = actual percentage digital consults 2020 and for nursing days = actual decline in nursing days between 2014 and 2019; this overview does not account for transitions of nursing days to day admissions and for same day activities (for example: a patient has a doctor's appointment and a scan on the same day, making the consult digital does not provide much benefit for the patient if he still needs to go to the hospital for a scan).*

Delivering hospital care at home is possible thanks to numerous technologies. These have continued to advance over the past years. The steep adoption curve of three existing technologies has hugely increased the transition of hospital care to patients' homes:

1. remote monitoring,
2. mobile therapy,
3. communication technology.

Especially communication technology has been immensely amplified by the corona crisis: non-physical consults have more than quadrupled (to double the percentage we assumed possible five years ago). About 30 percent of consults in 2021 where non-physical[5] and almost all hospitals offer digital consults as an alternative for physical consults. The trend was staggering: for gastroenterology 20% of consults were digital in 2018 and more than half in 2020 and 2021, internal medicine consults went from 14% digital in 2018 to 45% in 2020, although this went down a little in 2021 (see Figure 3). This trend has not just happened in the heat of the first wave of the corona crisis due to huge drops in elective non-COVID care as critics might state. The data shows that even though there were significantly fewer consults in 2020 than in 2019, varying from -3% for gastroenterology to -20% for Ear, Nose and Throat (ENT) consults, the absolute number of non-physical consults has grown across the board. The trend has continued in 2021 when there was a steep wave of COVID but much less postponement of regular care. It is noticeable that almost all non-physical consults are still performed by phone; less than 2% of all non-physical consults in 2021 is done with screen-to-screen technology. However, this fraction has grown compared to 2020.

Figure 3: remote consultation per specialism, 2018-2021



[5] *Based on calculations by Gupta Strategists on data from opendisdata.nl*

Qualitative research[6] into digital follow-up consults during the pandemic found that doctors and patients experienced that the interaction was the same as in a physical consult and there were few technical barriers. However, it also showed that due to a lack of communication on the purpose of a follow-up consult, patients miss the physical aspect of a consult, where doctors don't think it is of added value. Thus, an important lesson for doctors is to discuss the purpose of a consult and specifically the value of physical examination with their patients before proposing or planning a digital consult.

Corona has proven that remote care is accepted, and it has amplified the transition to home over the last two years significantly due to:

1. the sense of urgency to keep hospital facilities available for COVID-patients and the very ill,
2. the (perceived) unsafety of hospital buildings, as a place to get infected while visiting the doctor,
3. our adjusted appetite for working, studying, socializing, and doing other activities from home altered the way we think about care.

The changed attitude toward digital interactions is an important accelerator that is here to stay. Doing things from home has become so much more natural; we found out the hard way that many contacts with others can be through digital methods. We all got more digitally savvy, and we learned to use tools for video conferencing. It saves us enormous amounts of travel time and our house feels like the extension of ourselves; it is more comfortable and convenient at home. Where many sectors have applied digital first principals in the past decade, now finally patients have also experienced the added value in healthcare settings. We expect patients to ask for digital solutions more and more in the future. Providers will have to find an answer for this customer demand.

The acceleration due to COVID has increased the number of patients treated at home for existing conditions due to a different perception of advantages and disadvantages by doctors and patients. It has hardly caused new initiatives to be embraced and implemented. Of course, that is completely understandable since care professionals were battling the worst pandemic in a century. But now is the momentum to redesign healthcare processes, adjust work routines, and update logistics of hospitals. We can leverage our adjusted view of hospital care to further set the standard for care at home, scale up existing initiatives, and embrace new initiatives. It is important that policy makers keep up and secure the new ways of delivering care in regulation. It cannot be true that barriers for care at home are raised again, because corona policies are withdrawn[7].

[6] *M. Pet, C. van de Graaf, E. Bossink and B. van Munster (2021), 'Teleconsult een blijvertje? Leg dan eerlijk uit waarom', Medisch contact 13-14, April 2021*

[7] *As of June 2022, the temporary exception on article 67 of the 'Geneesmiddelenwet' is with withdrawn. This limits the possibilities for online prescription again. Source: https://www.knmg.nl/advies-richtlijnen/actualiteit-opinie/nieuws/nieuwsbericht/regeling-online-medicijnen-voorschrijven-na-videoconsult-vervalt-per-1-juni.htm, last consulted on June 14th 2022.*

03.

THE DUTCH ARE DOING WELL IN HOME CARE DELIVERY, BUT DENMARK AND FINLAND SCORE HIGHER

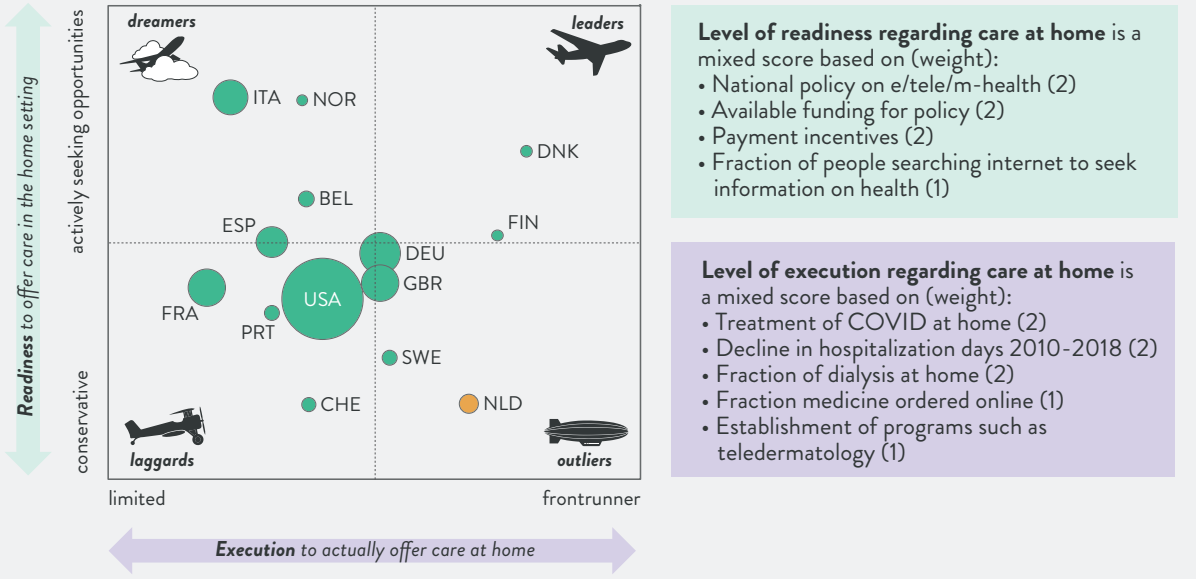
The corona pandemic is a driving force for hospital-at-home programs all over the world. Take for example a 400-bed tertiary hospital in Barcelona that implemented a COVID-specific hospital-at-home and more than doubled the beds available for hospitalization[8].

The transfer of care to home is an international movement; countries can learn from each other, apply best practices, and adopt useful technological solutions. Like the flight industry: countries can benefit from an international ecosystem with clear standards and full transparency when it comes to learning opportunities from (near) plane crashes. We have scored a list of countries in the same framework as Dutch hospitals: readiness and execution to offer care in the home setting.

Figure 4 shows the score for 13 European countries and the United States (see the appendix for details on the methodology). Denmark and Finland are furthest on executing care at home programs and seem to be the leaders in the field. The Netherlands is somewhat of an outlier, due to the relative high score on execution while there is limited national organization on the topic. This is reflective of the smaller degree of political direction in the Netherlands than in Scandinavian countries: the Netherlands has a private system performing public duties.

It is likely that countries with (high levels of) private care are less likely to be frontrunners; this might explain the lagging or dreaming position of countries such as France and Italy. In the US care is expensive and more of a cost proposition compared to Europe, where the transition of care to patients' homes seems to be mostly driven by a patient centered proposition. Making the transition to care at home is much harder from a cost perspective than it is from a patient centered proposition.

Figure 4: readiness and execution of countries regarding care at home; score per country based on public information; bubble size is number of inhabitants



Level of readiness regarding care at home is a mixed score based on (weight):
- National policy on e/tele/m-health (2)
- Available funding for policy (2)
- Payment incentives (2)
- Fraction of people searching internet to seek information on health (1)

Level of execution regarding care at home is a mixed score based on (weight):
- Treatment of COVID at home (2)
- Decline in hospitalization days 2010-2018 (2)
- Fraction of dialysis at home (2)
- Fraction medicine ordered online (1)
- Establishment of programs such as teledermatology (1)

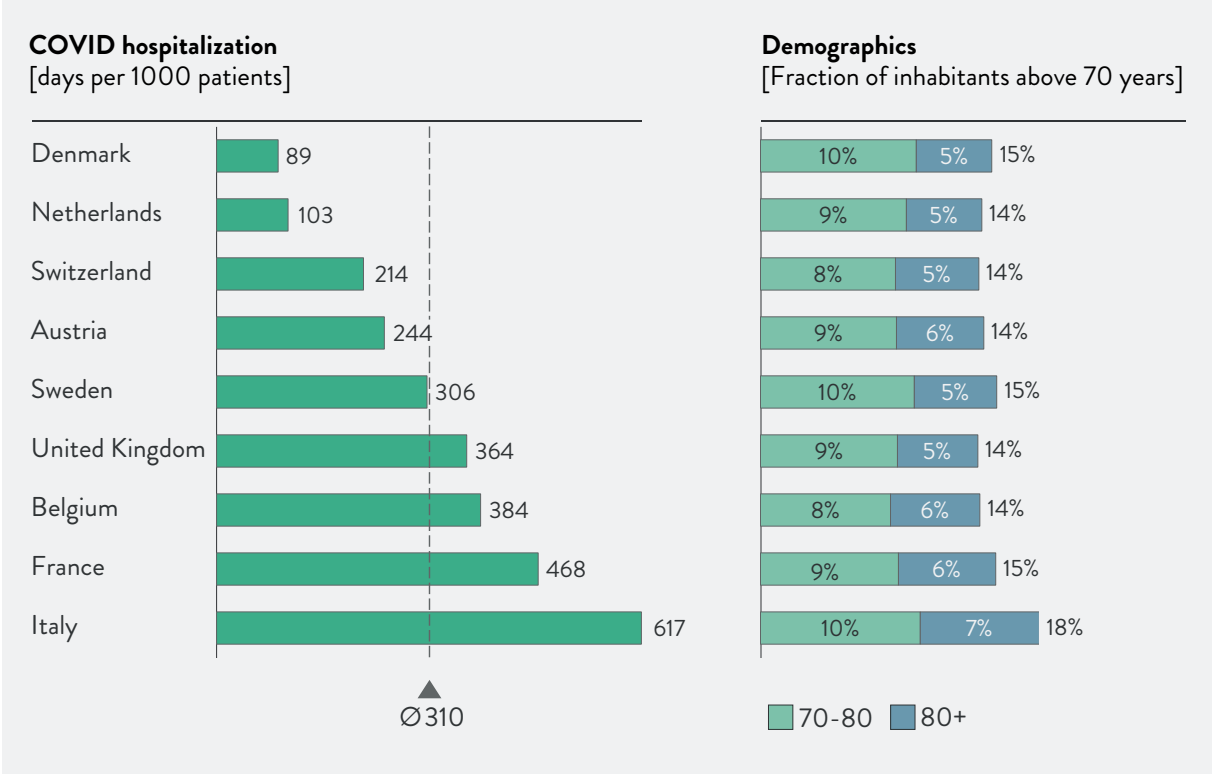
[8] *Nogués X, Sanchez-Martinex F., Castells X., et al., Hospital-at-home expands hospital capacity during COVID-19 pandemic, JAMA 2021; 22-5, 939-942*

One notable example of the care transition to patients' homes comes from the treatment of COVID: a new care path suddenly needed to be implemented on a large and unpredictable scale. The degree to which patients have been treated outside the hospital for COVID says a lot about a country's execution of care at home (see Figure 5). Certainly, it's debatable whether the differences seen in hospitalization levels between countries during COVID is fully attributable to care at home. Other effects such as demographics (but fraction of inhabitants over 70 years old is rather comparable between the countries in this analysis), severity of COVID waves (but over the period of 2020 en 2021 the waves have different timings but comparable cumulative impact), triage approach, and quality of elderly care in a country play an important role as well. The fact is that the differences in hospitalization days per COVID-patient between countries are huge.

Already during the first wave of COVID a call for more brick-and-mortar hospitals and ICU beds was heard, and it grew louder afterwards. However, the hidden value of treatment at home is the flexibility to scale up during a pandemic. Per 1 million inhabitants a hospital building with mostly unused capacity can be saved when countries follow the example of Denmark and the Netherlands. Even more constraining is of course the workforce availability to scale up healthcare facilities significantly to prepare for pandemics.

It will be interesting to see in a few years if the corona pandemic really changed these dynamics and shift these countries towards the leaders-quartile. In the meantime, we can study the approach towards care at home in countries such as Denmark and Finland and learn from them.

Figure 5: Hospitalization for COVID patients in 2020-2021 in selected countries[9]



[9] *This analysis is also part of the scores in Figure 4; but a different selection of countries is made. For Finland, Norway, Germany, Spain and USA no data is available. These countries are given the average score. For Finland and Norway an easy comparison won't be possible anyway due to the significantly divergent development of the corona pandemic in these countries. Source: www.ourworldindata.org*

04.

WORLDWIDE, GROWING INVESTMENTS IN HEALTH TECHNOLOGY ACCELERATE THE TRANSITION OF CARE TOWARDS PATIENTS' HOMES

Funding by venture capital and acquisitions by big tech of technology that support digital health and care at home has grown hugely: from around 500 million euros in 2015 to almost EUR 20 billion in 2020[10]. The last years there were especially large fundings in:

- telemedicine, such as investment in a device for remote monitoring of heart failure patients (Fire1) and a small device that responds to brain activity and informs the doctor real time on the condition of the patient (Neurophase)
- technology that supports, enables, and improves communication of doctors and patients, such as apps that promote 24/7 access to doctors (OneMedical) and speech recognition software for consults (Nuance Communications)
- clinical decision support, such as software to search for the right medications (CoverMyMeds) or conversational AI systems that warn for falls and prevents loneliness (Orbita)
- wearable sensors, such as injury detecting socks for diabetic patients (Siren Care) or Fitbit measuring heart rate and activity
- mHealth apps such as Headway (therapy and help for starting and progressing mental disorders) and Onduo (app for patients to manage diabetes type II)
- patient health record systems such as Netsmart and PatientPing,
- and all kinds of innovations in equipment and medicines to facilitate care at home, such as a portable MRI scanner that can be used to do MRI scans at home (Hyperfine Research) and all kind of innovations towards non-invasive treatment

The market is booming for medtech investors, who completed 62 deals in 2020 with disclosed value of about EUR 3,5 billion (although this is a slightly larger scope than only those technologies that support digital health and transition of care towards home)[11]. But M&A money is a much larger fraction of funding, and it has hugely increased with acquisitions by the large companies in the world such as Microsoft buying Nuance communications, Google acquiring Fitbit, IBM buying Truven Health Analytics and Philips acquiring Biotelemetry.

These investors and buyers believe in the transition of care. The money is used for further developing the technologies and reaching a larger public. Not all technologies will become successful in the end, but the large and growing amounts of investments in this market will make a lasting impact on the way care is delivered around the world and the transition for patients to be in their own comfortable environment.

[10] *Analysis by Gupta Strategists*

[11] *Global healthcare private equity and M&A report 2021*

05.

NO DOUBTS ABOUT VALUE OF HOSPITAL CARE AT HOME, BUT SCALE-UP NEEDS AN IMPULSE

Over the past five years a lot has changed in the provision of care at home, amplified by the pandemic: the value for patients and doctors has been shown. The potential became clear from the great number of local initiatives to offer care in the home setting, and globally huge amounts of funding have come available for healthcare technology that supports the movement.

However, scale-up is very slow and requires a serious impulse. We see three scenarios for the next five to ten years in the further development and transformation of the hospital landscape to care at home, see Figure 5. While the laisser-faire scenario, without central steering, seems most likely for the Netherlands at this moment, the dirigisme scenario with central government control, may results in the quickest steps forward when performed wisely.

Figure 6: three scenarios for care at home in the next five to ten years

There is no steering from the government or market parties. This results in sub-optimal upscaling of care concepts and solutions.

Each plane flies headfirst into the turbulence,
since there is no learning from each other

Market parties take control of scaling up. Sub-optimal design choices are prevented through collaboration between providers and financiers.

Airlines cooperate, share data openly to prevent recurring accidents and set technology standards

Central government takes control to realize optimal care infrastructure for scaling up home care, but outcomes are uncertain (do they succeed in their aim?)

Central government sets the standards and imposes them on all airlines, with a risk of sub-optimal choices from a technological point of view

THE LAISSER-FAIRE SCENARIO

In this scenario, current incremental transition of care to the home setting continues slowly but steadily. This is likely to happen in the Netherlands if government and health insurers do not change their pace. Providers reason primarily from their own interest and therefore make choices that contribute most to strengthening their own competitive position. However, the scale on which digital care and care at home can be efficiently designed is considerably larger than the potential of an individual hospital. Sub-optimal and therefore cost-inefficient solutions are likely. This could be prevented if some (new) care providers greatly increase their market share.

When all is left to the market, optimization options through integrated care, such as collaboration between hospitals and home care organizations or hospitals and regional partnerships of general practitioners, will be inadequately used. As a result, the potential to increase efficiency in the care system through integrated care concepts is insufficiently exploited.

Large regional hospitals have capacity and resources to lead the way. As a result, there is a risk that smaller regional hospitals, that are necessary in the local healthcare system, but cannot follow the pace of large hospitals, will come under significant pressure due to volume shifts. This decrease in volume will lead to an increase in cost prices since fixed costs cannot sufficiently scale with volume, which will threaten their existence.

THE MARKET-COOPERATION SCENARIO

In this scenario, market parties work closely together to achieve a cost-efficient and future proof scaling up of home care. The precondition for success is the ability to let the common interest prevail over one's own interest. This is the sweet spot, but how to get there?

In line with the philosophy of Proper Care in the Right Place ('Juiste Zorg op de Juiste Plek'), providers and financiers can jointly implement the relocation and replacement of care. This requires structured collaboration aimed at the development and implementation of care solutions on a multi-supplier scale. Within the legal space allowed by the Authority for Consumer & Markets (ACM), parties can jointly develop and scale up new care concepts in the interest of patients and insured people. New care concepts should be backed up by a factual and public analysis of the care need. Also, patient representation must be fully involved in every step of concept development, implementation, and evaluation.

In this scenario, all market parties have an import role to play. As financiers, health insurers, will at least have to be facilitating and, where necessary, guiding to initiate the right dialogue and cooperation. In practice, not all insurers will be involved. However, for a successful scaling up, substantive congruence is of great importance. The government will have to speed up the process of enabling digital data exchange in healthcare. In line with their report on appropriate care, the Dutch Healthcare Authority (NZa) can facilitate through managing the insurance basic package, funding, and room for innovation. Finally, patients can realize an acceleration by choosing effectively.

THE DIRIGISME SCENARIO

Countries with more central control from (local) government seem to be accelerating the scaling up of care at home (chapter 3). The Dutch government could also take more central control to accelerate the optimization of care at home. However, we doubt whether this is an appropriate direction in the Netherlands.

To overcome conflicts of interest, which form a big risk in the first two scenarios, more central control could force parties to make optimal choices when scaling up care at home. However, in the current healthcare system this public responsibility has been delegated to healthcare providers and insurers. Legislation and regulations will have to be substantially amended to make this shift, making it less likely to happen.

An acceleration of care at home requires a culture of innovation and renewal. In almost all sectors, innovation is driven by private companies that meet (latent) needs of customers with new technological solutions. Once embraced by customers, the new concept will force the industry to change across the board. Preconditions for realizing this innovation are close relationships with customers and in-depth and practical knowledge of the content. When we apply these lessons to healthcare, it makes more sense that market parties take control of innovation. The knowledge of clinical conditions and the care process will be decisive in the development process. This in-depth knowledge is shared among doctors, nurses, and other healthcare professionals. The challenge for healthcare is involving customers, because giving the patient a real voice in the development of new healthcare concepts and solutions is insufficiently self-evident in healthcare.

ABOUT THE STUDY

No place like home is an independent study conducted by and for Gupta Strategists. This is a sequel to the initial study on the topic of transition of care from hospitals to the home setting published in 2017. Although written in English, most chapters of this study have been aimed at the Dutch situation. Gupta Strategists regularly publishes independent studies on a variety of healthcare issues. For more information see www.gupta-strategists.nl/studies.

About the authors

Roxanne van Donselaar and Samuel Smits are strategists at Gupta Strategists. Both are experts on the topic of providing medical care at home. They have extensive experience in multiple areas of healthcare and are particularly interested in shaping the future of the healthcare system. They are always willing to discuss the principles of providing healthcare to patients at home.

ROXANNE VAN DONSELAAR – BUSSCHERS

roxanne.vandonselaar@gupta-strategists.com

+ 31 (0) 6 52 29 56 25

SAMUEL SMITS

samuel.smits@gupta-strategists.com

+31 (0) 6 28 34 08 16

Acknowledgements

We thank all patients, doctors, nurses, hospital directors, representatives of health insurance companies, pharmaceutical companies and manufacturers, and all other stakeholders for their valuable contributions to our understanding of this topic over the past five years. We also thank our fellow strategists at Gupta Strategists, in particular Olivier Gerrits, Lissy van de Laar, Folkert Kan, Daan Livestro and Simon Jacobs for their contribution to this study.

ABOUT THE METHODOLOGY

Scoring hospitals on readiness and execution of care at home
The dimension of Readiness concerns the degree in which the hospital is motivated and ready to move care home. We quantify this dimension with the following four metrics:

1. Annual report: has the hospital (publicly) shown ambition to move care home by explicitly mentioning the ambition in the annual report? (weight: 2)
2. Payor deal: has the hospital 'puts it money where its mouth is', stating in a clear goal to move care home in a contract with a large insurer? (weight: 2)
3. Website: has the hospital mentioned on its website that it wants to move care home with examples? (weight: 1)
4. Media attention: did the hospital generated media attention with their ambition or initiatives offering care at home? (weight: 1/2)

The dimension of Execution is measured by the actual care at home initiatives of a hospital (weighted in euros relative to the portfolio of the hospital[12]). We've inventoried initiatives related to home monitoring for COPD, diabetes, heart failure, inflammatory bowel disease (IBD), and pregnancy hypertension as well as therapies such as hemodialysis, chemo- or immunotherapy, light therapy and general reduction in hospitalization days.

Scoring countries on readiness and execution of care at home
The dimension of Readiness concerns the degree in which the country is ready and organized in a way that enables moving care home. We quantify this dimension with the following four metrics[13]:

1. Payment incentives: has the country payment policies that encourage - or at least do not discourage - the provision of healthcare services in less costly venues[14](weight: 2)
2. Available funding: combined metric to measure the availability of public, private, and commercial funding for eHealth programs (weight: 2)
3. National policy on e/tele/m-health: combined metric to measure the existence of national policies regarding elements such as eHealth and use of big data in the health sector (weight: 2)
4. Internet search: the fraction of people searching internet to seek information on health in the past three months as a proxy for the tech savviness of the population and the open mindedness to use digital sources in the healthcare space (weight: 1)

The dimension of Execution is measured with the following five metrics[15]:

1. COVID at home: days of hospitalization per 1000 COVID-patients, where a lower number is associated with more care at home through stricter triage, faster discharge, and home monitoring (weight 2)
2. Hospitalization at home: the decline in hospitalization days between 2010 and 2018 (weight: 2)
3. Dialysis at home: the fraction of all haemodialysis sessions in a country that are performed at home (weight: 2)
4. Medicine ordered online: fraction of individuals who have purchased medication online in the past 12 months (weight: 1)
5. Establishment of programs: combined metric to measure the establishment of programs such as teledermatology (weight: 1)

[12] This is based on a sector wide distribution of cost within hospitals and not hospital specific

[13] Source for first metric: OECD; last three metrics: WHO

[14] Taking into account payment system for hospitals (public and private-not-for-profit) and renumeration of in-patient specialists

[15] Source of the first: ourworldindata.org; second, fourth and fifth: OECD; third: ESRD international database

GUPTA
STRATEGISTS

POSTBUS 94437
1090 GK AMSTERDAM

AL FARDAN OFFICE TOWER, 9TH FLOOR, OFFICE 931
61 AL FUNDUQ STREET, WEST BAY, DOHA, QATAR P.O. BOX 31316

GUPTA-STRATEGISTS.NL
INFO@GUPTA-STRATEGISTS.NL

GUPTA-STRATEGISTS.COM