



UMC Utrecht

Annual report 2021



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Executive Board

2021 was a year with two faces. On the one hand, COVID-19 once again put us under great pressure in 2021. A lot was asked from our patients, our students, and our people. On the other hand, as a university medical center, together with our partners, we achieved impressive things with the implementation of our Connecting Worlds strategy, and accomplished a variety of innovations. Of this we are naturally extremely proud. We want to sincerely thank everyone who contributed hereto, and in particular our people who once again stood ready at all times! Despite a difficult year, employee satisfaction continued to rise slightly. How much our patients appreciate our efforts is clear from the high ratings we score in our ongoing patient-experience survey. For this too, we are very thankful and proud.

Further accelerating the right care in the right place

In 2021, the COVID pandemic brought a further acceleration in home care and digital care, and the delivery of the right care in the right place. Home-monitoring initiatives such as CovidTherapy@home and Early@home are noteworthy examples of this. It ensured that patients received the right care in a safe and effective manner; home whenever possible, and in our hospital when necessary. Our **Medical Control Center** plays an important part in supporting remote care. This center was therefore structurally equipped in 2021. We also once again cooperated intensively with our regional and national partners, such as the **Ministry of Defense**, regional hospitals, and general practitioners to provide COVID-19 care.

- Margriet Schneider

“One year with two faces: COVID-19 care as well as some fine innovations”

Focus and innovative research with an impact on society

It furthermore appeared that the road we took years ago - our substantive focus via our six focal points and the building of (international) cooperation agreements - offers a solid basis to rapidly bring about impactful innovations in cooperation with our partners. We have for instance set up the international foundation **ECRAID** and are working together with some 300 institutes in 21 countries worldwide in the **REMAP-CAP study**, which in 2021 also brought valuable insights for the treatment of seriously ill COVID-19 patients. We also achieved results in **the treatment of cystic fibrosis and epilepsy** and of people with cancer through the use of **MR-Linac technology**. Together with our partners at the Utrecht Science Park, including Utrecht University, the Princess Máxima Center and the Hubrecht Institute, we could respond quickly and successfully to subsidy opportunities via the **Dutch National Growth Fund**. Financial attributions via this fund for instance give us the possibility to develop regenerative therapies for people with chronic diseases like cancer, type 1 diabetes, cystic fibrosis, kidney failure and heart failure faster. Also with the use of organoids, which are mini-organs grown from a patient's cells. And through our regional cooperation at **Health Hub Utrecht**, together with the city of Utrecht and other partners, we started with a study on pressure points pertaining to care and welfare in the Utrecht region.

New steps in the New Utrecht School

Together with Utrecht University, we also produced some innovations in 2021 within the New Utrecht School. For example we approved our new, broad Bachelor program in Care, Health and Cooperation and the new Master's degree in **Medical Humanities**. In these programs, as from 2022, students will study health and care challenges from different perspectives and subject matters. This will prepare them to develop impactful solutions in the future to tackle social challenges. In the New Utrecht School and challenges via the Knowledge Alliance of TU/e, WUR, UU and UMC Utrecht, students from various programs collaborated and proposed multidisciplinary solutions to social issues.

Development in accommodation

In 2021, we also invested further in a good work environment where highly specialized care can be provided. We started for instance with the building of an ultra-modern MRI operating room for the treatment of brain tumors in children, in close cooperation with the **Princess Máxima Center**. Also in 2021, we finalized the definitive design for the conversion of the (neonatal) pediatric ICs in the Wilhelmina Children's Hospital, which will be done in 2022.

Lustrum 385 years of science in Utrecht

2021 was also the year in which we celebrated 385 years of science in Utrecht. In close collaboration with Utrecht University, we deployed a number of sustainable initiatives whereby we brought science and the people of Utrecht together. Examples were the Utrecht Science Agenda based on questions from Utrecht inhabitants, and the 'Groot Utrechts Stadsdiner' ('Great Utrecht City Dinner') that also took place at UMC Utrecht.

Looking ahead at 2022

In 2022, we once again hope to bring about important innovations within our three core tasks, together with our partners, thereby fulfilling our mission: improving human health and creating the healthcare of the future together. We want to further step up cooperation, for example with the Ministry of Defense for acute complex care, and with the Princess Máxima Center for integral complex care for children. In addition, we will continue to elaborate our longterm **outlook for care** and take further steps in for instance the digitalization of care, so that patients can receive care at home when possible and at our hospital when needed. This will of course also impact our **Strategic Development Outlook for Accommodation**. We must also determine how we want to deal with scarcity in the job market, and deploy our limited workforces as effectively and efficiently as possible in line with our care profile as a university medical center. Further cooperation, not only regional but also national and international, is of course essential here.

We are also paying attention to the war in Ukraine. We are ready to support our employees and students who have family or other loved ones in Ukraine or who have been affected by the war in any other way. We are also on standby to provide medical care for children and adults who have fled from Ukraine and have been welcomed in the Netherlands. (Medical) relief supplies are also being collected at UMC Utrecht via the 'Ukraine needs help' foundation.

Together we want to add value to people's lives. We have shown this in the past year and will continue to do so. Because every person counts.

Executive Board of UMC Utrecht,
Margriet Schneider
Arno Hoes
Josefien Kursten
Remco van Lunteren



Supervisory Board

“Proud of UMC Utrecht”

2021 was for UMC Utrecht the second year in a row that, due to COVID-19, a lot more was asked from all employees. We have great respect and appreciation for the organization's agility and the commitment that everyone there has shown in the past year. Not only to provide the best care to patients, but also to keep making an innovative contribution at a high level to the scientific debate, research, education, and the healthcare of the future.

With all its activities in 2021, UMC Utrecht also played an important role in society, always together with the people of Utrecht, partners, and (political) leaders at regional, national and international level. In this way UMC Utrecht brings worlds together - a true reflection of our Connecting Worlds strategy. We also appreciate the precision and thoughtfulness that UMC Utrecht demonstrates towards all employees and students, including through extra psychological and social support.

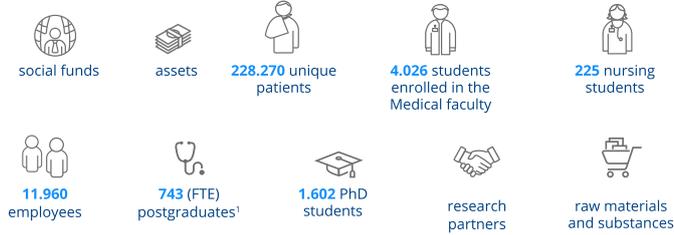
Besides developments and innovations, as described in this report, we as Supervisory Board also had to deal with a number of managerial changes in 2021. We said goodbye to Mirjam van Velthuisen-Lormans en Anouk Vermeer-de Boer, two highly appreciated members of the Executive Board with whom it was a great pleasure to work. We are glad to have been able to appoint two very capable new members, namely: Josefiën Kursten and Remco van Lunteren. Their arrival has brought a good mix of knowledge, diverse backgrounds, and gender equality to the composition of the board. There has also been a change in the Supervisory Board, as Gerrit van der Wal's second term came to an end. The Dutch Minister of Education, Anne-Mei The, was appointed as member of the UMC Utrecht Supervisory Board as of June 1st.

What we saw at UMC Utrecht in 2021 has confirmed that there is a very solid organization in place, with a great impact on society. An organization that we as Supervisory Board are proud of. We are therefore also entirely confident that everyone at UMC Utrecht will continue once again in 2022 to make a valuable contribution to connecting worlds and creating the health care of the future. We look forward to being involved in this again, and to offering support where needed.

On behalf of the Supervisory Board,
Caroline Princen, Chair

The value we create for society

Input



What we stand for, our mission:

Together we improve human health and create the health care of tomorrow

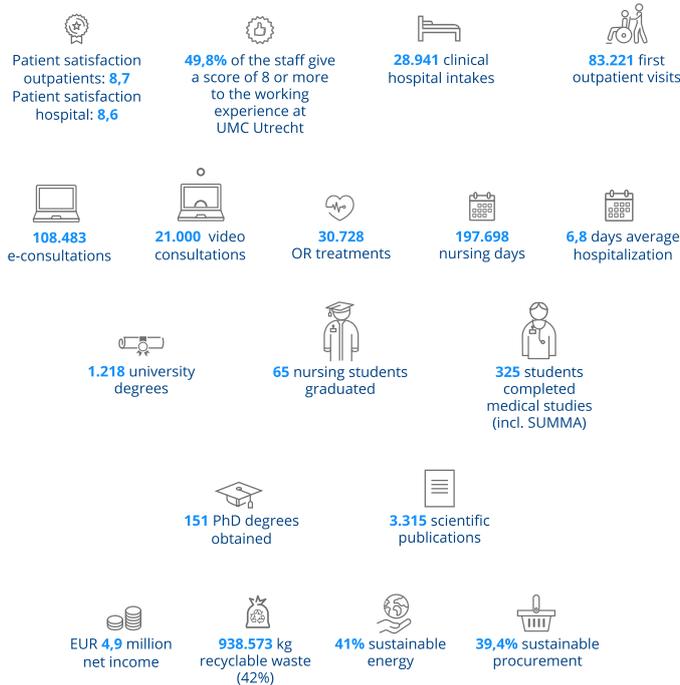
What we are striving for, our vision:

Together we create more value, because every human being counts

Our strategy

Connecting Worlds, because every human being counts

Output



¹The number of postgraduates in medical continuation courses at UMC Utrecht is 431 FTE, and the number of postgraduates in general practice is 312 FTE.

What characterized 2021?

Besides the developments that we highlight for our various target groups in this report, there is a number of topics that received attention throughout the year and/or throughout the organization. Matters that for us characterized 2021. We shall single out a few.



The impact of COVID-19

We cannot deny it: in 2021, for the second year in a row, COVID-19 had an enormous impact on our patients and our employees. Due to the large influx of coronavirus patients, many regular treatments were once again scaled down and postponed nationwide. To deliver COVID-19 care, as in 2020 we once again worked closely with the [Ministry of Defense](#).

Among other things, UMC Utrecht ensured that **1,455 general practitioners in the Utrecht region**, patients, and of course all our employees could be vaccinated fast. **Our pharmacy served as hub in the vaccination program** within UMC Utrecht but also for other hospitals in the region. Over three million people in the Netherlands watched the **special NOS broadcast from UMC Utrecht** on January 5, 2021, on the eve of the national vaccination campaign. Together with Utrecht University and LAREB, UMC Utrecht also coordinates **research into vaccine safety** in the Netherlands and eight other European countries. Together with other UMCs, UMC Utrecht furthermore answers telephone queries from people who are doubting whether to take a COVID-19 vaccine. At the end of 2021, this initiative became the **national 'Vaccinatie Twijfeltelefoon'** ('vaccination doubt line'). Our nurses and doctors also went into the neighborhood to inform people about vaccination.

With for instance the **REMAP-CAP study** we made a big contribution to gaining insights on the treatment of seriously ill COVID-19 patients. In addition, we studied (the effect of) vaccinations for various groups of people, including patients with immune defects, people with Down syndrome, and vulnerable elderly people.

We made a big contribution to gaining insights on the treatment of seriously ill COVID-19 patients

An important topic in 2021 was catchup care. Her Majesty Queen Máxima visited UMC Utrecht in June 2021 in relation with this care that we provide after earlier treatment had to be postponed due to COVID-19. She spoke with the Executive Board, specialists, an IC nurse, and a patient about the impact of postponed and catchup care.



All in all, the pressure was high on all employees in 2021, and more specifically of course on those involved in care. It was an ongoing challenge to work out schedules. On the one hand due to the influx of COVID-19 patients, and on the other hand, due to sick leave that was higher than usual in 2021, just like in 2020. Many colleagues made an extra effort to fill gaps in timetables. Sometimes our health workers had to make concessions on the quality that they are used to delivering. In discussions with care providers, we saw and experienced that risks were carefully weighed up in this regard. Colleagues with office jobs mostly worked from home. For them too, it was a busy, challenging, and sometimes difficult year. In 2021, as in 2020, we paid extra attention to psychosocial pressure and offered additional support in this respect.

Research could sometimes not continue (effectively), and most of the education for our students unfortunately had to take place remotely. Colleagues made considerable efforts to ensure the continuity and quality thereof. This also put further pressure on the wellbeing of our students, to which we were even more attentive than usual.

We now know that COVID-19 is here to stay, and have integrated COVID-19 care in our regular health care. We have also arranged our organization and education in such a way that we shall be better able in the future to deal with situations like pandemics and the changing expectations of employees and students. We are therefore working in an increasingly interdisciplinary way, regionally, countrywide, and internationally.

Longterm outlook on care: we deliver care at home, unless

A successful implementation of our Connecting Worlds strategy requires a longterm outlook on care. In 2021, we developed this outlook with a large group of in-house professionals. Our longterm vision indicates our direction for the future: we deliver care at home, unless. This helps us to make choices. And together, step by step, to give shape to our care, research and education of the future.

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All the developments around us (also in terms of digitalization and artificial intelligence) require a new role from us: Not we as care providers, but those who require care have an information advantage and will determine and control where, when, and with whom care will be obtained. We become a partner and a coach, helping people with what to do with information rather than determining the information. In time, people will only come physically to a hospital if there is no other solution. For example, for acute and complex care. We also support and monitor patients at home, often virtually. The focus here is on preventative care. New innovations make ultra-personalized care the standard. Our role as a university center is to stay ahead in research and education, and in the application of this increasingly complex care. Colleagues with a variety of medical and non-medical disciplines will



eventually work together as one team – on a regional, national and international scale. And, together with our network partners, we shall organize accessible care for everyone. To remain impactful also in the future, we must make choices and stay agile. And organize ourselves fully around citizens, data and sustainability. . Together with our partners, we add value to people's lives, because every person counts – now and in the future!

Lustrum: 385 years of science in Utrecht

In 2021, together with Utrecht University, we are celebrating 385 years of science in Utrecht. With the theme for the lustrum, 'Creating tomorrow together', we are inviting students, employees, alumni and inhabitants of the city of Utrecht to think together about the future. Especially at a time when there was less physical connection in society, we used the lustrum to seek connection. We organized and encouraged unusual get-togethers and cooperation where people paid attention to each other.

One of the activities of the lustrum was to draw up the **Utrecht Science Agenda**. With the motto 'One question can change the world', we asked the people of Utrecht which question they would like to see answered. Over 1,200 people sent in their questions, and we talked about it with a diverse group of inhabitants. All these questions gave us an idea of what was going on in the city, ideas, concerns, and dreams. Many of their questions were about sustainability, a healthy life in the city, and climate change. A selection of these questions will now form the basis for the Utrecht Science Agenda. In this way we can align our research even better with what the city needs.



We also sought connection by supporting 'Grote Utrecht Stadsdiner' ('Great Utrecht City Dinner'). During this initiative on the International Day for the Eradication of Poverty, thousands of Utrecht inhabitants from a variety of age groups and social backgrounds gathered around a table as one big family, in various places in the city. At UMC Utrecht, we spent the evening with a group of guests: patients of UMC Utrecht, our Client Council, representatives of the Ondiep food bank and Foundation Rechtop (promoting the interests of the homeless), and other town citizens. In addition, we distributed meal parcels to colleagues at UMC Utrecht so that they could share a meal and stories with guests at home. Because eating together connects people.

We find it important to be and to stay connected with the city and its inhabitants. That is why both of these have become longterm initiatives and we are going to continue with them in the future.

Friends of UMC Utrecht & Wilhelmina Children's Hospital

Friends of UMC Utrecht & Wilhelmina Children's Hospital is a worthy cause of our (children's) hospital. Via the Friends, new treatments and innovations in health care are financed. The Friends also make an effort to render all patients' stay as pleasant as possible.

The Friends also make an effort to render all patients' stay as pleasant as possible

In 2021, thanks to gifts from donors, companies, funds, foundations and wills, a total of EUR 5.2 million was raised. A campaign was for instance started for a **parent lounge at the new Intensive Care (IC) unit at Wilhelmina Children's Hospital**. In total, through a variety of actions, over EUR 150,000 was raised, and the parent lounge is getting closer and closer to becoming a reality. In addition, thanks to a bequest, **five promising ideas for cancer research could be brought to fruition**, further improving the prospects of patients. Big strides were also made in **pediatric heart research at Wilhelmina Children's Hospital**. A total of over EUR 75,000 was raised for this. In the scope of the lustrum 385 years of science in Utrecht, a mobile living room was also created. The mobile living room gives a friendly atmosphere to the typical hospital room. Patients with incurable diseases who can no longer be displaced or who do not want to be displaced, can thus say goodbye to their dear ones in homely surroundings.

UMC Utrecht

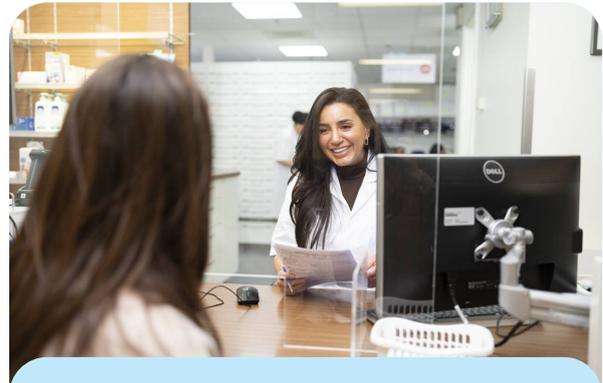


Highlighted figures



Eerste kunsthart in Nederland

Innovatieve behandeling voor patiënt met zeer ernstig hartfalen als alternatief voor donorhart.



Onze apotheek - spil in vaccinatieprogramma

Snelle vaccinatie binnen het UMC Utrecht én voor andere ziekenhuizen in de regio.



Samenwerking met Defensie

Grootschalige opvang van zieken in het traumacentrum Centraal Militair Hospitaal.



MR-Linac: opereren zonder snijden

Combinatie van een bestralingsversneller met een diagnostische MRI-scanner.

UMC Utrecht in society: our core tasks

Our mission is to improve human health and create the health care of the future together. To do this, we focus on our three core tasks:

Patient care

We offer patients qualitative and efficient care based on the most recent insights, within our care profile. This includes care for which we have a statutory task, such as level 1 trauma care and expertise centers, care within our **six focal points**, and complex care (such as multi-specialties or multi-diagnostics). Our principle is that a patient should get treatment there where it is best for them. Our patients have a steering role in their treatment, and experience our people-centered involvement.



Research

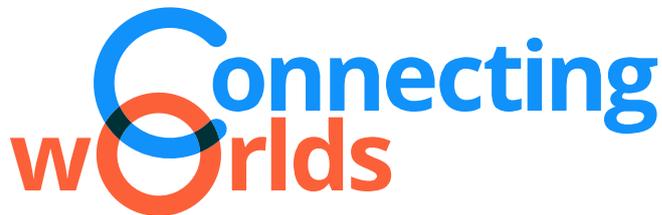
We conduct scientific research where new links can be found between our basic research and more applied and clinical research. Our research focuses on six multidisciplinary programs (**focal points**), in which care is also integrated, to create the health care of the future. In this way, we ensure that new discoveries and knowledge can rapidly benefit patient and citizens. An important starting point for our research are the questions asked by our patients and society



Education

We provide education to our students and (bio-)medical researchers, doctors, nurses, and other care providers. In this way, we train top professionals who contribute to the development of knowledge in and for health care; for today and tomorrow. We involve our students and patients in the development of our education. We offer deployment opportunities and a climate of ongoing renewal.

Our strategy: Connecting Worlds

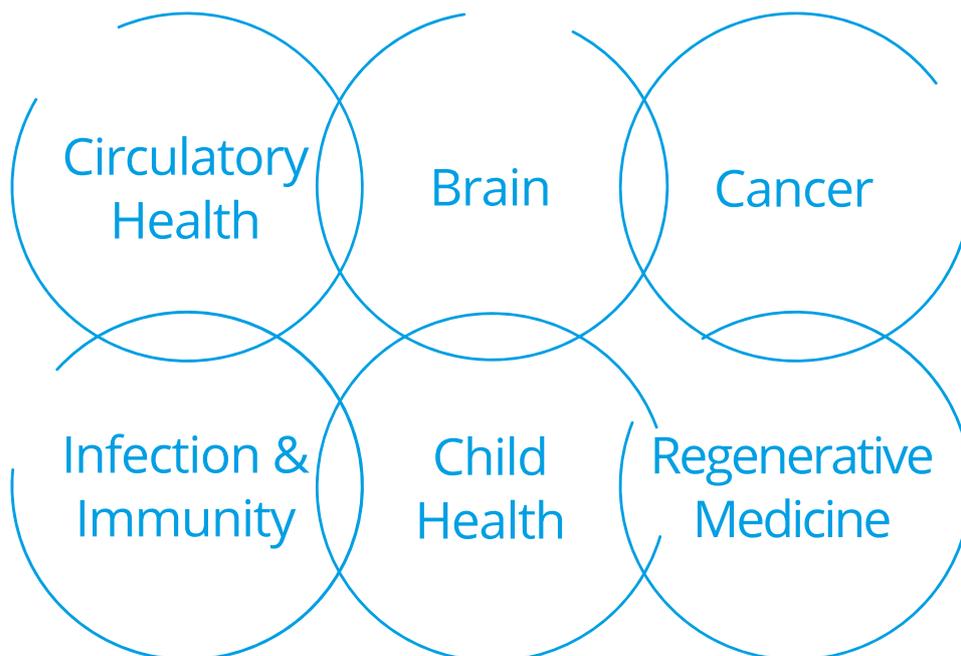


With our Connecting Worlds strategy we give meaning to our mission and outlook. What we stand for: We improve human health and create the health care of tomorrow together. What we aim for: We connect worlds and together, we add value to people's lives, because every person counts.

Connecting Worlds

We believe in connecting worlds that until recently were still apart. This is where unexpected insights and breakthrough innovations arise. Within UMC Utrecht, we bring the worlds of research, care and education - our core tasks - together with multidisciplinary teaching and cross-sector training. We connect the worlds of hospitals, general practitioners and other care providers. Of research institutions, laboratories, commercial businesses, and the public and social domain. Regional, national and international. Of patients, employees, students, and citizens. We connect worlds to create an environment where patients, colleagues and students can be seen and heard. Because every person counts.

In our strategy, we have defined what **our profile is in care, research and education**, with our six focal points as basis:



We bring our mission and vision to life with **the unique Utrecht Approach**, where we work on multidisciplinary as basis for innovation, building strong networks, and giving focus by making clear choices to accelerate and reinforce. In the first half of 2021, we translated this strategy into the five-pronged goals for seven accelerators and seven reinforcers.

Accelerate on content

We are accelerating on our focal points by focusing on content. In the coming years, we shall accelerate in the following areas, to the benefit of our core tasks and focal points:

Healthy Living

We concentrate on the wishes and needs of the individual by focusing on the prevention of disease, and by promoting individual health and the individualization of diagnostics, prediction and treatment.

Biofabrication & disease modeling

Through a combination of technology and biology, we design (regenerative) treatment strategies that boost the body's ability to heal itself. We base this on insights in underlying mechanisms of diseases on which we concentrate.

Molecular science & therapy

We develop more targeted therapies for diseases by understanding them better at a cellular level. Through fundamental research, we create innovative disease models and measuring methods (in combination with artificial intelligence).

Image-guided Interventions

Optical, X-ray, and particularly MRI-guided interventions (operating without cutting) are playing an increasingly prominent part in our focal points.

Integral complex care for children

Together with the Wilhelmina Children's Hospital and in cooperation with the Princess Máxima Center, we focus on integral complex care for children to understand and treat complex diseases and improve prevention.



Acute complex care

UMC Utrecht is a trauma center with the Major Incidents Hospital that we manage together with the Central Military Hospital and in cooperation with the Ministry of Defense, and therefore has a unique position in the large-scale treatment of the sick and wounded. To be able to accelerate, we are striving towards state-of-the-art emergency care, operating facilities, and intensive care.

The New Utrecht School

In recent years we have invested considerably in educational innovation and the overhaul of programs to prepare our students effectively for the health care of the future. We are continuing this strategy ('Fit for the future') and are going to focus even more in our undergraduate and graduate programs on interprofessional learning, and multidisciplinary education with an inclusive and diverse learning environment. We call this the New Utrecht School. To this end, we are working closely with Utrecht University and our other partners in the Knowledge Alliance of TU/s, WUR, UU and UMC Utrecht.

Reinforcing the organization

To achieve our goals, we are reinforcing our organization in the following areas:

Dialog with patients

Continue learning from the patient to advise optimally on personal treatment strategy and address patients' needs and questions.



A good place to work

An organization where everyone is heard and appreciated. Because everyone has their talents, we stimulate personal development through training opportunities. We focus on talent management and career paths.



Solid networks

Be a stimulating partner that brings different worlds together and creates solid regional, national and international cooperation.

Data science and e-health

Use data, artificial intelligence, and digital technology for optimal prevention, diagnosis and treatment, and for the right care in the right place. Our digital care offer is becoming more innovative so that any care that can be provided at home, is done at home.

Affordable and sustainable care

Aim for socially acceptable costs for services to be delivered in care, education, research and support. And reduce the negative impact on climate and the environment.

Agile organization

Encourage an open culture of appreciation, work on the further development of leadership, and work in multidisciplinary teams with joint responsibility, where everyone's voice counts. We are increasing our result-oriented approach by adapting our strategy to all teams and employees.

Decent accommodation

In cooperation with partners at Utrecht Science Park, the province and the city, we are building a UMC Utrecht that keeps pace with our ambitions and the health care of the future. The new Health Campus that we are going to set up will focus on a healthy lifestyle.



The world around us

Society looks towards UMCs in the Netherlands to innovate to the maximum and address topical health care issues by means of high-quality care and prevention. And to do this to the maximum and fast, at acceptable costs and in a sustainable way. COVID-19 has made this societal responsibility even more visible. Research and education form the driving force here. UMCs must also fulfill their role in regional, national and international networks. In this respect too, the COVID-19 pandemic has brought acceleration and intensification.



This happens frequently in the worlds of patients and of our employees and students. But also in the worlds of our partners. This is why we believe in Connecting Worlds, because each person counts.

Our five strategic KPIs

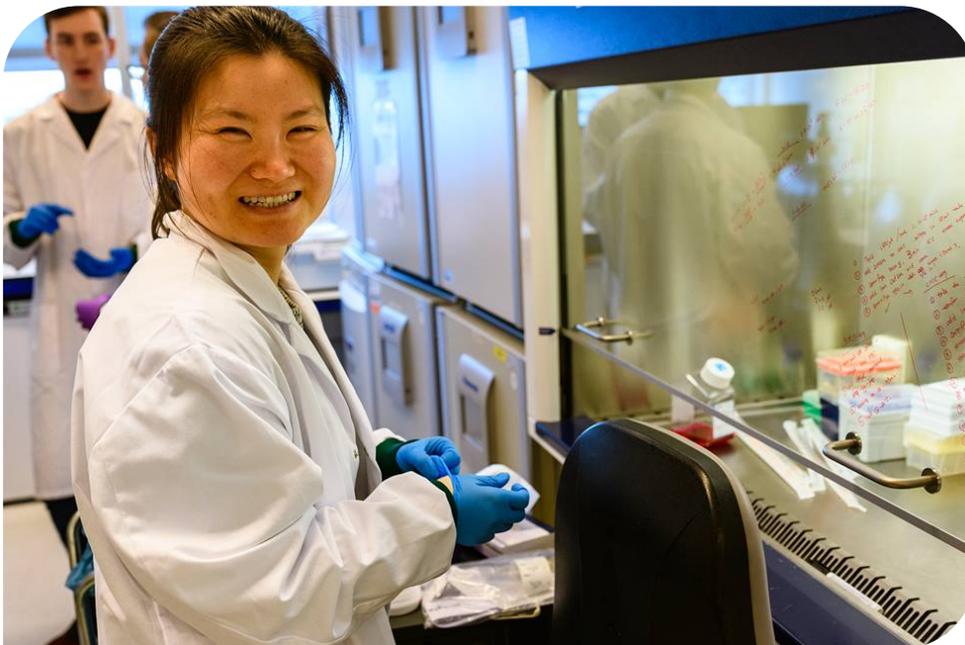
We measure our success in achieving our ambitions according to our five strategic key performance indicators (KPIs): patient satisfaction, employee satisfaction, student satisfaction, impact of research, and financial health.

Patient satisfaction

The satisfaction of our patients with the care we provide, has not decreased. Outpatients rated us in 2021 with an average score of 8.7, and hospital patients with 8.6. We therefore scored higher in 2021 than in previous years, and above our target of 8.5. In the past year, we treated many COVID-19 patients with joint forces. This meant that we were obliged to cancel or reduce the treatment of certain patient groups, and that we had to offer care to our patients in a different way. We now do 50% of all repeat consultations digitally and monitor patients at home using smart e-Health applications from our **Medical Control Center**. In this way we bring care to patients at home. Patients appreciate our remote care at least as much as our physical care. They give a score of 8.4 to the patient portal.

Employee satisfaction

The rating that our colleagues give to working at UMC Utrecht went up slightly in 2021 compared to previous measurements. In the 2021 fall survey, 49.8% of the employees rated the working experience at UMC Utrecht with a score of 8 or more. 48% did so in 2020. Colleagues' overall appreciation in 2021 was 7.4. We can be proud of the contribution that we delivered together during the pandemic. 2021 was an eventful year for everyone with many changes and a lot of work pressure. In 2021 we were also particularly attentive to psychosocial support for our colleagues. And by working together across departments and divisions, we proved to be capable of deploying all available capacities as fast as possible and together deliver good care, good research and good education and innovate in all areas.



Student satisfaction

Our **students** are predominantly very satisfied with our education. Students rate 90% of the courses at or above the expected level. The percentage of courses that got rated as remarkably good exceeded our standard of 7% with 18%. We are very glad about this, considering the big changes that our education experienced due to COVID-19, and the fact that we switched massively from in-person teaching to digital solutions. Our target for 2021 to have 30% of our lecturers and trainers follow the bias training with regard to diversity and inclusion, was achieved with 39%.

Impact of research

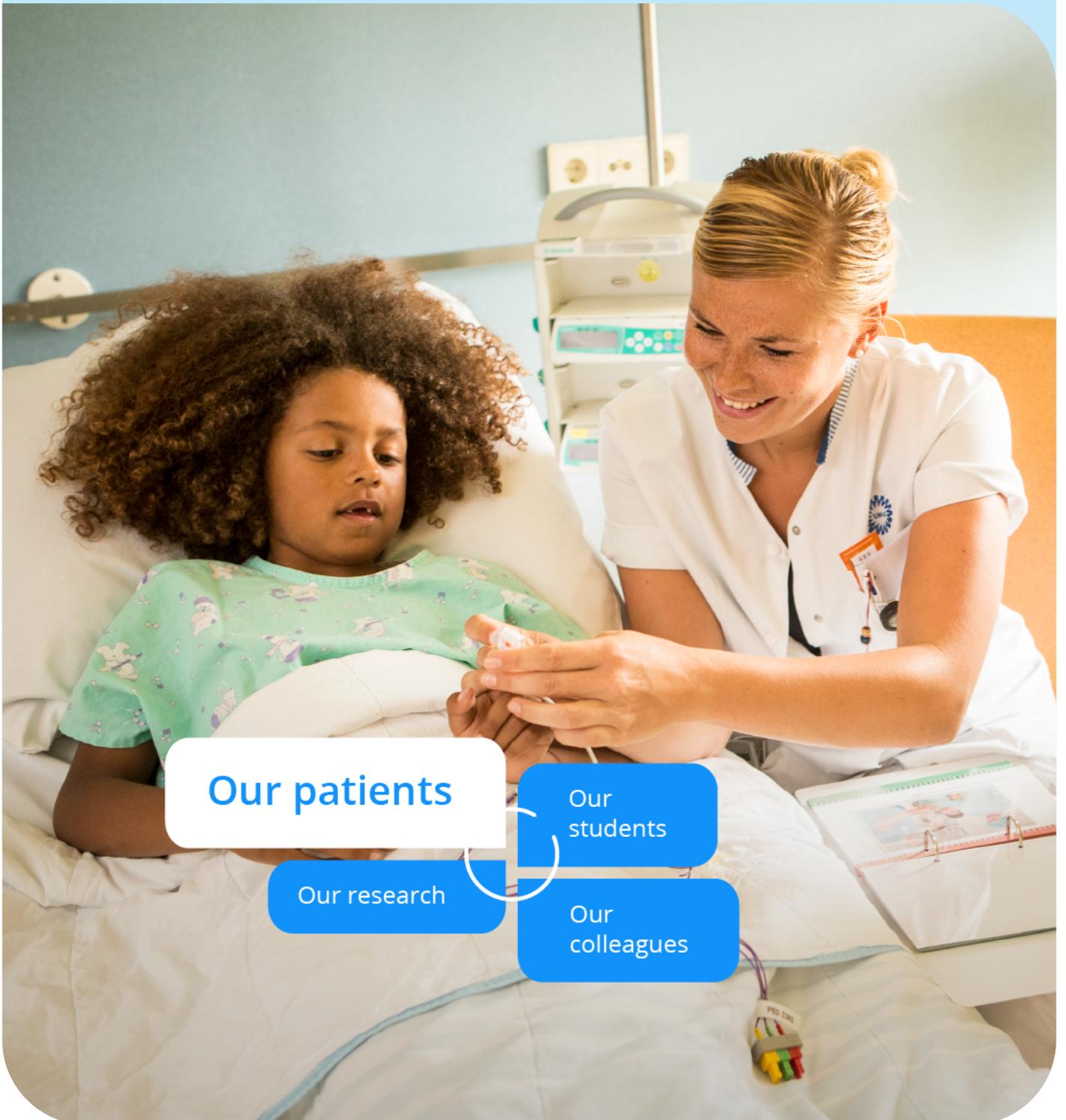
The target for **our research** in terms of recruitment power is EUR 112 million, which we achieved in 2021, despite COVID-19: over 155 million (123 million in 2020). A lot of research was unfortunately delayed due to COVID-19, both the execution of existing research and the setting up of new research. An exception here is research that have to do with COVID-19. In fact, a large increase and acceleration was seen here. In 2021, 95% of our research was conducted within our six focal points.

Financial health

UMC Utrecht is **financially sound**. Our return of 0.3% is lower than our longterm policy of 1%. Achieving a positive result, and adding it to our equity capital, is in line with our goal and ambition to deploy resources for our primary processes and maintain the value of our business. Our consolidated result of EUR 4.9 million is about EUR 5 million lower than the result over 2020, and also about EUR 5 million lower than the budget for 2021. This result is due especially to a cumulation of incidental income and expenses and a complex COVID-19 year that came out negatively on balance.

Our patients

Providing care to patients is one of our three core tasks. This care is something that we continuously try to innovate. We do it through an ongoing dialog with our patients, scientific research, technical innovations, and by continuously assessing what we can do better. And by cooperating intensively and coordinating with our (chain) partners in the network regarding patients, such as general practitioners, regional hospitals, and other treatment centers.



Our patients

Our students

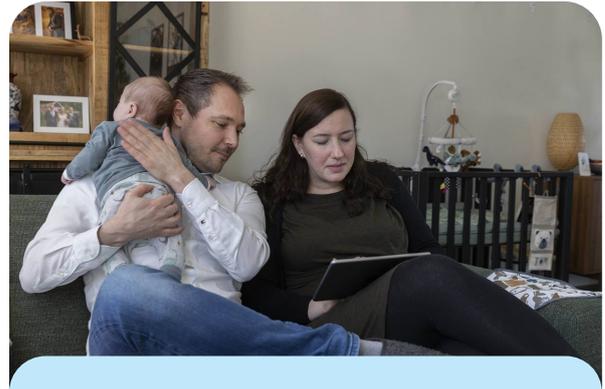
Our research

Our colleagues



Care for our patients

Our principle is that a patient should get treatment there where it is best for them. And that our patients can control the treatment and experience our people-oriented approach and feel safe during care.



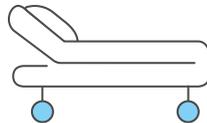
Digital care solutions

Care that can be provided at home, we'll provide at home. This gives patients more control over the care that they receive, and enables health professionals even better to provide care that matches the patient's needs.

Highlighted figures



228.270
unique patients



28.941
clinical hospital intakes



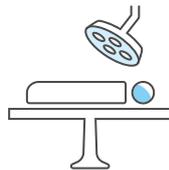
83.221
first outpatient visits



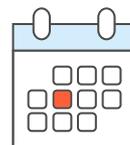
108.483
e-consultations



21.000
video consultations



30.728
OR treatments



197.698
nursing days

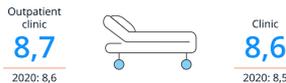


6,8
days average hospitalization

Appraisal from our patients

Since we want to continue improving our care, it is important to keep gaining insight on how our patients experience our care. Because care is only good if people experience it as such. We measure our patients experiences continuously via our Patient Experience Monitor (PEM). In 2021, 20,501 of the adults who visited outpatient clinic filled in the questionnaire. And 5,680 who were taken up in the clinic filled in the questionnaire. Both the appraisal of our outpatient care and that in the clinic went up as opposed to 2020.

Patient Experience Monitor for 2021



Note: The assessment periods for 2020 and 2021 do not match: in 2020 we started on June 1st, whereas in 2021 we measured throughout the year.

The overall patient experience received a consistently high score. We continuously take actions were possible to keep improving our care, in line with patients' needs.

Measuring the patient experience

In our Patient Experience Monitor (PEM) we ask adult patients two specific questions regarding patient participation, namely: Do you feel that you have the opportunity to share your own knowledge and experience with your care givers? And: Were you allowed to co-decide on your treatment or research. The average score for these questions shows a slight increase compared to 2020.

Do you feel that you have enough opportunity to share your own knowledge and experience with your care givers?

	Appraisal of the outpatient clinic	Appraisal of the clinic
2021	96%	94%
2020	96%	93%

Were you allowed to co-decide on your treatment or examination?

	Appraisal of the outpatient clinic	Appraisal of clinic
2021	92%	85%
2020	91%	84%

From our Patient participation we deploy various initiatives to further improve the appreciation of the opportunity to introduce own knowledge and experience and power to co-decide.

Note: The assessment periods for 2020 and 2021 do not match: in 2020 we started on June 1st, whereas in 2021 we measured throughout the year. From 2021 onwards we measured in %. In 2020, measurement still took place with a reported figure. We have converted the figures for 2020 to % in order to compare the measurements.

Care for our patients

We offer patients qualitative and efficient care based on the most recent insights, within our care profile. This pertains to care for which we have a statutory task, such as level 1 trauma care and expertise centers, care within our six focal points and complex care (such as multi-specialties or multi-diagnostics). Our principle is that a patient should get treatment there where it is best for them. And that our patients can control the treatment and experience our people-oriented approach and feel safe during care. We shall mention a few examples of this in 2021.

Better and less strenuous treatment of patients

In 2021 we took positive steps in the field of image-guided interventions, one of our accelerators from our Connecting Worlds strategy. Optical, X-ray, and especially MRI-guided interventions (operating without cutting) is playing an increasingly prominent role within our focal points, since this form of intervention puts less stress on patients and gives better results.



In 2021 we treated the **first patient on our third MR-Linac**. With our large MR-Linac facility we are unique in the world. The MR-Linac is a combination of a radiation accelerator and a diagnostic MRI scanner. With this combination, it can be determined exactly where in the patient's body the tumor is. This makes the treatment of the tumor very precise and avoids the radiation of healthy tissue. We developed the MR-Linac in close collaboration with our partners **Elekta** and **Philips**.

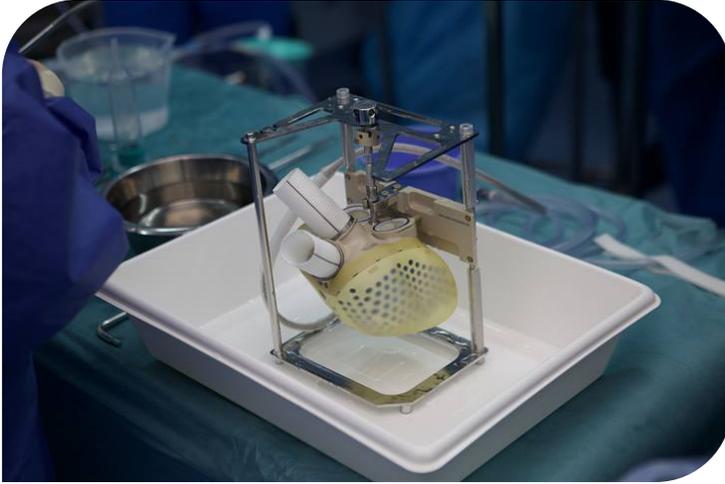
“With our large MR-Linac facility we are unique in the world”

In 2021 we also introduced a new ‘CT-Street’ to improve and accelerate the diagnosis of patients. The CT-Street consists of two ultra-modern spectral CT scanners that give a better image quality and therefore more information. Patients also spend less time in the scanner... These CT scanners are used for complex acute radiology treatment of all organs, diagnostic oncology, and image-guided treatment. UMC Utrecht is the only healthcare institution in the world that has the two latest spectral scanners from Philips to diagnose patients more effectively. This purchase is in keeping with UMC Utrecht’s policy of more targeted treatment with the help of better imaging. We have also decided to make certain improvements to our complex acute care in surgery. In 2022, once the necessary conversion work is completed, a CT scanner will therefore be set up at emergency care.



The first patient in the Netherlands receives an artificial heart

In November 2021, at UMC Utrecht, a patient with very severe heart failure was the first person in the Netherlands to receive a complete artificial-heart implant. This innovative artificial heart replaces and takes over the function of the entire heart and improves the pumping function and blood supply. As a result, the patient experiences fewer symptoms. The implantation of the artificial heart was successful. The artificial heart is an alternative to a donor heart if the patient’s condition is too critical to wait for a heart transplant. There is a great shortage of donor hearts in the Netherlands: around 120 heart patients are on the waiting list for a donor heart every year.



Concentration of pediatric cardiology and highly complex interventions

In the interest of quality care for people with a congenital heart defect, former Health, Welfare and Sport Minister De Jonge decided at the end of 2021 to concentrate interventions on children, as well as highly complex interventions on adults with a congenital heart defect, in two places, namely Erasmus MC and UMC Utrecht. This decision subsequently led to a public and political debate. In February 2022, the current Health, Welfare and Sport Minister Kuipers asked the Dutch health care Authority after the summer recess of Parliament to deliver an impact analysis that will chart the impact on patients and the four centers in question.



UMC Utrecht, a spearhead hospital for healthy nutrition

In 2021, UMC Utrecht became the spearhead hospital in the field of healthy nutrition. The National Prevention Agreement of 2018 gave all hospitals the task to deliver a healthy nutrition offer for patients, visitors and employees by 2030. Overweight/obesity and underweight are causing a fast-growing number of (chronic) diseases, and therefore an increasing care burden. By stimulating a healthy lifestyle, this increase can be slowed down to improve the quality of life. Hospitals play an important role in prevention and encouraging a healthy lifestyle. Healthy nutrition further contributes to faster recovery in patients, shorter hospitalization, and fewer risks of complications. As a spearhead hospital, we are taking the lead in these developments and are committed as a forerunner to produce a healthy nutrition offer as early as June 2022. In this way we are serving as an example for other hospitals, for instance with the project *Goede zorg proef je* ('good care you can taste').



GROZUtrecht

In 2021 GROZUtrecht was launched: a unique cooperation in the Utrecht region to bring about a visible, sustainable, and targeted change in focus from care to health. 'GROZ' is the Dutch word 'zorg' ('care') written backwards, to symbolize the change. The first letter is no longer z for 'ziekte' ('disease'), but g for 'gezondheid' (health). Within GROZUtrecht, we work with citizens, the authorities, other healthcare institutions, knowledge institutions, health insurance companies, and entrepreneurs on the issue of health, with the topics 'Lifestyle in the neighborhood', 'Look out for each other', and 'Vitality network in the district' And always based on the explicit needs of citizens and their own living environment (districts and neighborhoods).

UMC Utrecht drives the data/ICT component in GROZUtrecht. The various components form the basis for a successful collaboration. Digital neighborhood portals, which show which digital applications are available in the neighborhood to contribute to health, play an important role in these activities. GROZUtrecht works closely with Health Hub Utrecht to translate the goals of the Health Hub Utrecht coalitions into neighborhood-oriented support activities <verwijzing naar informatie over Health Hub Utrecht in jaarverslag>.

Digital care solutions

Care that can be provided at home, we'll provide at home. This gives patients more control over the care that they receive, and enables health professionals even better to provide care that matches the patient's needs. To be able to provide the right care in the right place, we are working on an innovative digital care offer using data, artificial intelligence, and digital technology.

In 2021, together with health professionals, our (chain) partners and the Zilveren Kruis health insurer, we continued to develop the foundation to organize and deliver remote care. Based on this, more agreements were signed to finance remote care. We also continued to train our health professionals to provide good remote care and to help patients make optimal use of it. We further continued to expand our **Medical Control Center** and to equip it structurally for remote care, seeing that more and more patients are making use of this facility.

Smart COVID care

When the COVID crisis broke out in 2020, we at UMC Utrecht started looking for smart ways to provide the best possible care to COVID patients. We implemented for example a **Smart Patch** to monitor COVID-19 patients from a distance. We used it again in 2021 in our cohort departments. We also developed a smart e-Health application called **Early@home**, which enabled recovering COVID patients to go home earlier while being monitored effectively with extra checkups and support from our **Medical Control Center**. In addition, in 2021, we and our partners started with **CovidTherapy@home**. This intervention ensures that COVID patients who need extra oxygen can be treated and monitored directly at home, thereby lessening the chances that they will be hospitalized.

Home monitoring for pregnant women

In 2021 studies showed the success and safety of our home-monitoring tool **SAFE@Home** for pregnant women with a high risk of complications during pregnancy due to high blood pressure. About 10% of all pregnant women develop a form of high blood pressure during pregnancy, which can lead to pre-eclampsia. Until now, pregnant patients with a high risk of complications due to blood pressure regularly had to go to the hospital for checkups, sometimes up to three times a week.



SAFE@Home has reduced the number of visits to the outpatient clinic by 20 to 25%, and has led to three times fewer hospitalizations. This means less inconvenience for pregnant women, and cost-savings of about 20%. In total, over 100 pregnant women have taken part in the home-monitoring study via SAFE@Home, from the third month of their pregnancy. Women who participated were positive about the use of the app, the blood-pressure monitor, and the accompanying instructions. In 2021, we expanded SAFE@home in a countrywide upscaling study. In the meanwhile, 10 more academic and peripheral hospitals besides UMC Utrecht have become involved, and over 500 pregnant women have used SAFE@home. We also set up SAFE@home_corona, whereby some 80 pregnant women with COVID could be monitored at home from our Medical Control Center during the COVID crisis. The app was highly rated by pregnant women.

Home monitoring for patients with ALS

In 2021 we introduced our e-Health concept **ALS home-monitoring and coaching**, with a **subsidy from ZonMW**, via **our care network** in 10 rehabilitation institutions. This gives us insight into barriers and conducive factors and successful strategies for importing the e-Health care concept for people with ALS. Based on this, we can continue to develop the concept and bring it even more in line with the needs and desires of ALS patients, their caregivers, and rehabilitation institutions. We can therefore offer a good care continuum and make ALS Home Monitoring and Coaching available to all patients with ALS in the Netherlands.

ALS Home Monitoring & Coaching (ALS T&C) is a care concept that is based on home monitoring where patients with ALS answer questions about their health at fixed hours using an app, and maintain contact with healthcare professionals. A care coach gives feedback on the information that they have filled in, answers questions, and schedules appointments with the ALS treatment team if necessary. 7 out of the 10 institutions that participated, decided to continue using ALS Home Monitoring and Coaching.

AI for patient care

In 2021 we also made good progress in applying artificial intelligence (AI) in our health care. This enables us to provide bespoke care and thereby ensure better quality of care for patients, often at a lower cost.

We have for instance started to use **artificial intelligence in treatment for patients with rheumatic fever**. Patients with rheumatic fever would often like to scale down medication if the disease process has been under control for some time. But with scaling down, there is always the risk that rheumatic symptoms will increase again. To reduce the risk of such a flare, UMC Utrecht used data science technologies to **develop a predictive computer model**. It makes use of regularly available information on the patient, such as blood-test results, use of medication, and disease activity. The model can then be used to decide at each subsequent step of scaling down medication, whether it is indeed safe.

In 2021 we also made good progress in applying artificial intelligence (AI) in our health care.

Since the end of 2021 we have also been using the AI app Sleep Well Baby in our neonatology department. Sleep Well Baby analyses aspects like heartbeat and breathing in real time to give insight into the sleep patterns of vulnerable premature babies. In the near future, it will enable us to administer care at times when the baby is awake. We will therefore need to disturb the babies less or not at all during their sleep. Babies sleep significantly less in incubators than in the womb, even though sleep is very important for premature babies' optimal growth and brain development.

The impact of both AI applications on patients' health is now being studied in practice.

Patient portal mijnumcutrecht.nl

Via the online patient portal mijnumcutrecht.nl patients can check their medical information fast and securely, and have the possibility to control the care that they receive. Via an e-consultation on the portal, a patient can for example ask their doctor a (non-urgent) question or ask for a repeat prescription. Due to COVID-19 we delivered more remote care, which means that the number of patients who logged in to the patient portal rose considerably in the past two years. In 2021, 355,000 patients logged into the portal (unique logins). In 2020 there were 282,697. The portal scores a good average satisfaction rating of 8.4.

Based on the patient's 'journey' at UMC Utrecht and on the online patient portal, we have looked at how we can support patients even better. As a result, we have improved information supply in several ways. Patients now receive improved notifications (emails) in which the information helps the patient to prepare for a visit to UMC Utrecht. All appointment letters now also have a QR code that links to the most up-to-date and relevant information for the patient. This gives patients an idea of the journey that they can expect. Caregivers and friends and relatives of the patient can also receive authorization from the patient. This means they can look at the patient portal as well and take some of the burden of the patient.

Remote consultations

Due to the COVID pandemic we delivered more remote care. An important way to ensure that we can keep providing good care is video consultations. As a result, the number of video consultations rose tremendously in 2020 and 2021.

2021	21.000
2020	11.000
2019	Some

The number of e-consultations; an email from a patient to a practitioner via mijnumcutrecht.nl, also continued to rise in 2021.

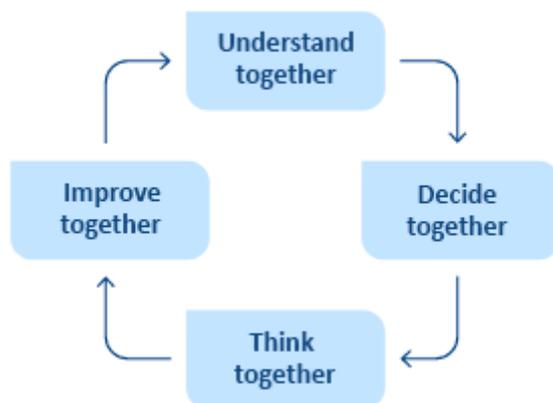
2021	108.483
2020	81.165
2019	36.608

Dialog with patients

At UMC Utrecht, we aim to work together with patients in a structural way, and to involve patients and their relatives in everything that we do in terms of care, research and education. We want to make decisions together, to be in line with the needs, expectations and possibilities of patients. In our approach, we work closely with a network of patients and healthcare professionals as well as **UMC Utrecht client council**.

We'd like to get to know you!

To enable us to offer personalized care, we have drawn up the questionnaire 'We'd like to get to know you!' together with patients and healthcare professionals. The questionnaire includes five questions like: What activities do you consider important, now and in the future? What worries you when it comes to your health? And, what do you expect from your treatment at UMC Utrecht? A patient can answer these questions via the patient portal My UMC Utrecht. The answers are visible to the caregiver in the Electronic Patient Record and can be used as basis for the ongoing dialog with a patient regarding the quality of care. In 2020, the questionnaire was tested in two pilot projects. In 2021, we started to implement it throughout the hospital, starting from (new) patients to 18 years with the questionnaire: We'd like to get to know you. We expect to be able to offer the questionnaire to all patients at UMC Utrecht in 2022.



Professor in Research on Patient Participation

In 2021, UMC Utrecht decided to set up a chair in Research on Patient Participation at the Julius Center. Because patient participation is not just an activity, it is also an academic field of knowledge. Within this field, we want to gather knowledge on what works and doesn't work in terms of patient participation, and what is or is not in line with patients' needs and expectations. The new professor in Research on Patient Participation will be appointed in 2022.

Basic e-learning module in patient participation

To help our colleagues involve patients in their work in a proper and effective way, we started to develop e-learning courses in 2021. In a basis model for all staff members, we look at the importance of cooperating with patients, the difference between individual and collective patient participation, coherence between patient participation in care, education and research, and examples, exercises and advice to apply patient participation in everyday practice. This module is expected to be available as of May 2022.

E-learning on patient participation in research proposals

At UMC Utrecht there are already a lot of researchers who collaborate with patients. For others, patient participation is still a new and unknown field. In coordination with focal-point coordinators, researchers and patients, we have therefore developed an e-learning course for researchers. This e-module focuses on the start of a research study: including and writing about patient participation in your research proposal. What is the relevance of your research question and measurements for the patient? What role does the patient get in your research? And how does a patient jury assess your research proposal? This module gives practical answers and is expected to be available as of May 2022.

Ideas for improvement

Through contact with patients, little ideas for improvement often arise that can have a large impact on how a patient experiences our care. Based on feedback from patients via the focus group of the Imagery and Oncology division, a colleague may for example decide no longer to call patients from an anonymous phone for their surgery hours, but with their UMC Utrecht telephone number showing their face. Which appears to be a success, since patients like to know that it's their doctor calling, and not for example a company that wants to sell something, and this contributes to a positive experience of telephone consultations.

On our intranet, staff can find over 100 good examples of dialog with patients at UMC Utrecht.

Patient participation in education

Patient participation is one of the pillars in the New Utrecht School. To shape and assess our education and thereby increase the quality of care and impact of research, we also make use of patients' unique hands-on experience. This enables us to offer personalized care, with the ultimate goal to increase people's quality of life. In Biomedical courses in 2021, we focused more than in the past on social relevance. We also started with an in-depth revision of the Medicine curriculum, where we paid particular attention to patient participation: we involve patients in the revision, and one patient is a member of the curriculum commission of the Medicine program.

In 2021 our inter-faculty education project **Narratives in Medicine** which originated from the New Utrecht School, was nominated for the Dutch Association for Medical Education (NVMO) prize for best educational innovation. In Narratives in Medicine, multidisciplinary education, interprofessional learning, and the patient's perspective are central. For two weeks during this teaching cycle, students live according to patients' treatment regimen.

Quality & safety

Of course our patients count on qualitative and safe care. However, care is human work. We learn from what went well, we improve prospectively, and we learn from care that did not go the way we had intended. In our safety management system, we keep an eye on risks, learn what could be better, and based on this, take action to make improvements. Despite this, there are some patients who **have an unpleasant experience**. We do our best to discuss it, learn from it, and get rid of any causes of displeasure.

If an incident or major incident occurs, we investigate thoroughly what factors contributed to the fact that something in the care process did not go according to plan. We also look at how we can prevent it from happening again in the future, and how we can continue to improve the quality of our care and the safety of our patients. We have discussions on complications in all healthcare departments and brainstorming and listen-and-learn sessions take place several times a year. The **Adrienne Cullen lecture** also plays an important part in making it possible to talk about and learn from incidents. The **third Adrienne Cullen lecture** took place in 2021. Another important step that we took in 2021 was the further development of our quality management system, whereby the traceability of protocols has been improved and cross-links made visible.

Diagnosis follow-up

To increase patients' safety even further in 2021, we continued further with the improvement of follow-up of diagnosis results. Every year at UMC Utrecht we perform about 200,000 imaging diagnosis (including MRI scans, X-rays and CT scans) and around 5 million laboratory analyses (including blood tests). In addition, pathological, genetic and medical microbiological diagnoses also take place. It is a complex process with various stages in which things sometimes go wrong. Sometimes the result of the requested diagnosis does not reach the caregiver, or not in time. Missed diagnoses can have severe consequences for a patient.

In 2021 we conducted various improvements to ensure that diagnosis results reach healthcare professionals and patients properly, so that if necessary the right treatment can be started on time. We have thus explained the policy and work processes and made the Electronic Patient Record (EPR) more user-friendly for healthcare professionals. Together with the divisions, agreements were made to further reduce the risks of missed diagnoses.



Discharge communication improved

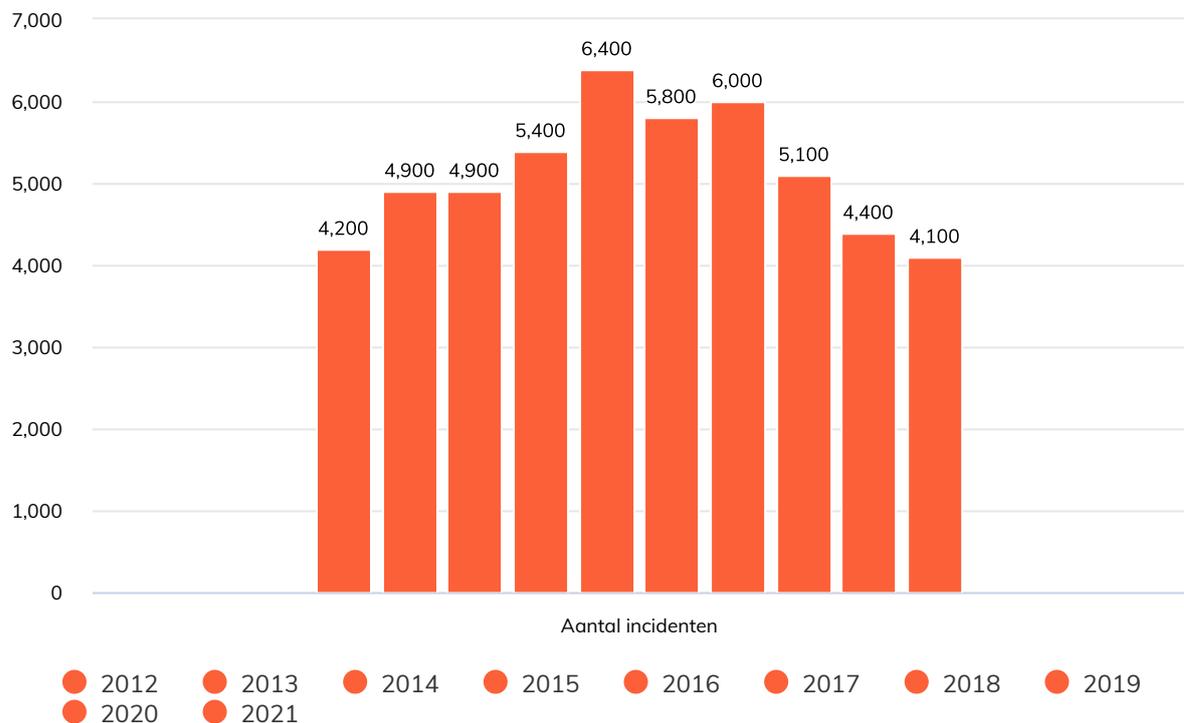
In 2021 we considerably improved our discharge communication. For the sake of care continuity, it is important for a patient's general practitioner to be updated after a clinical hospitalization. For this, it is important to transfer information efficiently and fast. Our aim is to send a report to the general practitioner within 24 hours after discharge, describing what the diagnosis was, what treatment(s) the patient underwent, which medication the patient has received at the hospital and must use at home, and what the further arrangements are. In certain cases there will also be a comprehensive discharge letter. Our ambition is to send a discharge letter to the general practitioner/referrer within 24 hours in 90% of all cases when the patient goes home or is transferred to another institution. In January 2021 we sent less than 30% of all discharge letters on time. In December 2021, the figure went up to over 53%.

Incidents, major incidents, complaints

Day by day, our professionals work with passion to provide patients with the best care. Unfortunately things do not always go as planned, and an incident or major incident may occur. A patient may also have an unpleasant experience and submit a complaint.

In all cases, our policy is to help the patient concerned and/or their relatives as well as possible and to learn actively from an incident, major incident or complaint. In this way we want to avoid a similar situation in the future, and continue to improve the quality of our care and the safety of our patients.

Figure 1: Number of patient-care incidents reported (MIP)



The number of reported incidents went down compared to previous years. We suspect that the drop in regular care during the COVID-19 pandemic played a role here.

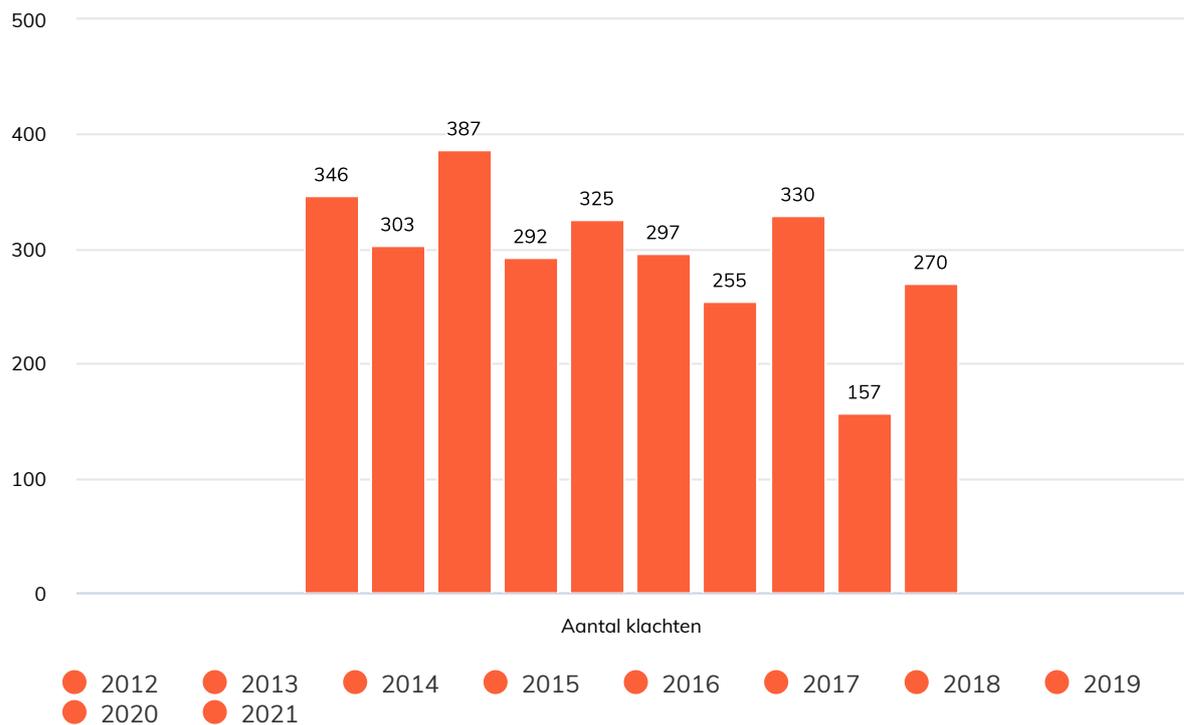
Figure 2: Number of reports of (possible) major incidents

	Interne meldingen	Mogelijke calamiteiten	Uiteindelijke calamiteiten
2021	55	23	8
2020	57	21 ¹	18
2019	74	43	21
2018	71	39	25
2017	98	49	32
2016	136	66	42

¹ In the annual report on 2020, we reported 20 possible severe incidents. Since it was decided in 2021 also to include severe incidents that were reported by the Princess Máxima Center in the figures of UMC Utrecht whenever UMC Utrecht was involved, the final number of reports for 2020 is 21 instead of 20. UMC Utrecht has of course informed IGJ of this.

The number of (possible) major incidents in 2021 was about the same as in 2020, and relatively lower than in previous years. We suspect that the drop in regular care during the COVID-19 pandemic played a role here. The number of reported (possible) major incidents is approximately the same as in other UMCs.

Figure 3: Number of complaints at Complaints Mediation



Patient Support and Peer Support

A major incident, incident or other upsetting care-related event has a great impact on the patient in question and their families, as well as on healthcare professionals. We therefore offer patients and their families support from the Quality & Patient Safety Directorate via Patient Support, among others. Colleagues support each other through a formal collegial structure (Peer Supporter network). Besides that, colleagues also support each other informally.

In 2021, we offered Patient Support 21 times (20 times in 2020). The Peer Support team in 2021, just as in 2020, provided Peer Support 50 times to colleagues. This was done both in one-to-one and in group sessions following traumatic events in the hospital. In 2021, 10 new Peer Supporters were also trained. In total, there were 86 colleagues in 2021 who could provide Peer Support (83 in 2020).

Read more about how we deal with [incidents](#), [major incidents](#) and [complaints](#) at UMC Utrecht.

Our research for the healthcare of the future

To improve human health and create the healthcare of the future, research staff at UMC Utrecht work together with our partners and patients on multidisciplinary research. Patients' demands are of course our starting point here. We strive towards the highest possible quality and impact for patients and society.



We have divided our research into six topical programs (focal points). This allows us to accelerate on six medical subjects (see chapter on Strategy). We work according to the principle of Open Science.

Highlighted figures



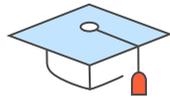
1.132
scientific research
staff members



€155 MLN
million raised
to fund research



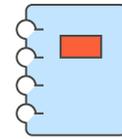
228
professors
(31% female, 69% male)



1.602
PhD students



151
PhD degrees
obtained



3.315
scientific publications,
of which 79%
with Open Access

Unique research

At UMC Utrecht, we conduct unique and pioneering research. Some examples of this in 2021 are:

Brain model could bring relief for epilepsy patients

To stop epilepsy attacks in patients with epilepsy, a treatment where the smallest possible part of the brain is removed, could provide a solution. The first step is to locate the probable focus of the epilepsy. If that part of the brain is expendable, it will be removed. Very often with success. But sometimes the focus is removed, yet the epilepsy remains. Research based on mathematical models offer surprising insights (published in *Epilepsia*). It shows that the brain works differently from what was thought. With this model, we can simulate what happens during an attack. **Subsidy provider ZonMw gave this UMC Utrecht research a Parel ('Pearl') award in 2021.** The researchers are still working on methods to improve the mathematical models and make them practically useful.

Less strenuous treatment for arterial occlusion

To treat patients with an occluded artery in the groin area in a less strenuous manner and with fewer risks, UMC Utrecht is **conducting research on treatment using sound waves** (scientific publication on [PubMed](#)). By targeting high-frequency sound waves at an occlusion (plaque) in the artery, it can be broken down layer by layer. That is the theory behind Hifu treatment (High-Intensity Focused Ultrasound). In 2021 we treated the first patients with arterial occlusion in the groin using this method. The results are encouraging. Following this safety trial, where we want to demonstrate the safety of the treatment, an effectiveness study will be conducted to demonstrate scientifically that the treatment is effective. Once this has been demonstrated scientifically, the next step will be the treatment of arterial occlusion in other parts of the body. For example in the thigh, lower leg, or neck.



Treatment of patients with COVID-19

The international REMAP-CAP study, an ongoing global study to improve pneumonia treatment, is coordinated in Europe by UMC Utrecht. The study is set up in such a way that the effectiveness of drugs can be tested rapidly during a pandemic. In 2020, the REMAP-CAP study tested several already existing drugs in the treatment of COVID-19 patients, with worthwhile results. In 2021 as well, the REMAP-CAP study delivered very useful information for the treatment of patients with COVID-19.

It appeared for instance from the REMAP-CAP study that **treatment with high doses of anticoagulants** is effective for patients with COVID-19 who are hospitalized, but not if they are in IC. This was published in the **New England Journal of Medicine**. The treatment can prevent these patients from becoming seriously ill, and can also improve the recovery of the patients. Treating seriously ill COVID-19 patients with drugs that are generally used for rheumatoid arthritis also appears to **increase the patient's chances on survival**. A publication on this study also appeared in the **New England Journal of Medicine**.

Treating seriously ill COVID-19 patients in IC with **plasma antibodies** brings no improvement (published in **JAMA**). Furthermore, the use of hydroxychloroquine seems to worsen the condition of critically ill COVID-19 patients (published in **Intensive Care Medicine**).

Treatment of cystic fibrosis

Cystic fibrosis is a serious hereditary condition that is caused by one or more mutations in the CFTR gene. Current medication only helps with some of the known mutations. For other mutations, directly repairing errors in the gene could provide a solution in the future. At UMC Utrecht, a study was conducted in 2021 to improve the prime editing of DNA codes. Improving prime editing creates more possibilities to correct the mutations that cause cystic fibrosis. The functionality and safety of these improved prime-editors are tested in intestine organoids that are made from the intestinal cells of cystic-fibrosis patients. Our researchers are also looking for a way to estimate where the best place is to correct the genome. For this, they have developed a test system. To make these techniques available as quickly as possible for cystic-fibrosis patients, researchers at UMC Utrecht have received an **ERC Grant for follow-up research**. In March 2022, the results of the 2021 study were published in **Nature Communications**.

Exploitation of research

Translating scientific knowledge into impactful solutions for patients and society is one of the important goals of UMC Utrecht. To achieve this goal, we support researchers and other professionals in exploitation and funding via the **Research Support Office**, **Utrecht Holdings**, **THINC**, **UtrechtInc**, and a number of programs such as the **Ureka Mega Challenge**.

Utrecht Holdings

Within Utrecht Holdings in 2021, 34 new ideas were introduced from UMC Utrecht, 7 requests for patents were filed, and 2 licenses were granted for the marketing of innovations from UMC Utrecht. Based on knowledge from UMC Utrecht, 7 startups were launched. One of these startups pertains to the innovation of 3D-printed orthopedic implants, which can improve the treatment of patients with an orthopedic condition. Another example is the surgical treatment of scoliosis at a young age. Also in 2021, the first patient with cancer was treated with a cellular immunotherapy innovation from UMC Utrecht.

5 new startups from Utrecht Inc

In 2021, the startup incubator UtrechtInc welcomed 5 new startups with a UMC Utrecht background in their program and startup ecosystem: **CryoCloud**, **MEDxAI**, **PapSamurai**, **MIAMAP** and **Nanocell Therapeutics**.

TKI subsidy from Health Holland

In 2021, the top sector Health Holland released released EUR 3 million via the TKI subsidy for projects initiated from UMC Utrecht. The TKI subsidy is a financial incentive for researchers to set up innovation projects with companies. One of the seven selected public-private projects from UMC Utrecht is the research program **MRIGuidance** that will ensure radiation-free imaging for patients with scoliosis. With MRI, both bones and muscles show up, which means less exposure to radiation for patients.

Ureka Mega Challenge

2021 was the eighth year in which the Ureka Mega Challenge was held. 22 ideas were submitted.

Via the Ureka Mega Challenge we stimulate and support colleagues to transform innovative ideas that fit in with our Connecting Worlds strategy into actual products, tools or work methods/processes that can be used in the field. And that improve the quality of care, support a healthy lifestyle, give patients more control over their disease and treatment, and improve or make healthcare professionals' work more efficient. 2021 was the eighth year in which the Ureka Mega Challenge was held. 22 ideas were submitted. 8 ideas were taken through in the Ureka stream. The winner was **BE-FAST**. BE-FAST is an eye-movement analysis method using AI and a smartphone, whereby a cerebral infarction (Posterior Circulation Infarct Stroke or PCIS) can be detected early. Early detection means a better quality of life for the patient (less invalidity, hospitalization, and diagnostic testing) and lower medical costs.

Research funding

In 2021 we raised total funds of about EUR 155 million (EUR 123 million in 2020) to conduct research.

Award from the National Growth Fund

In 2021 the National Growth Fund (NGF) awarded two projects to which UMC Utrecht is contributing. NGF is an initiative of the Dutch Ministry of Economic Affairs and the Climate and the Ministry of Finances for initiatives in healthcare that brings longterm economic growth, among others. The two projects are:

RegMedXB-NGF

NGF gave **EUR 56 million to the RegMedXB-NGF consortium** (one award of EUR 23 million and a conditional award of EUR 33 million).

The money from NGF is being used to build a national pilot plant for regenerative medicine, including a center at the Utrecht Science Park: Innovation Center for Advanced Therapies (ICAT). ICAT is getting a facility for biomanufacturing, a Good Manufacturing Practice (GMP) stimulation environment and a GMP production facility for Advanced Therapy Medicinal Products (ATMPs) for regenerative medicine . Regenerative therapies are highly complex and are often made to measure for each patient. With these pilot plants, the manufacturing process is improved and the development of therapies accelerated, so that in the future larger numbers of patients can be helped, and costs saved. This offers prospects of recovery for millions of people around the world who are suffering from chronic diseases.

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RegMedXB stands for Regenerative Medicine Crossing Borders. It is a cooperation of research institutions, government bodies, provinces, health insurance funds, and businesses in the Netherlands and Flanders. RegMedXB also endeavors to provide therapies for people with a chronic disease such as cancer, type-1 diabetes, cystic fibrosis, kidney failure, arthrosis and heart failure, based on stem cells, miniature organs, tissues and smart (bio)materials. Within the NGF project, UMC Utrecht coordinates the building of the ICAT testing plant in Utrecht for which it has been allocated EUR 12.5 million from the NGF subsidy. The Utrecht research hub consists, besides UMC Utrecht, of Utrecht University (Betasciences Faculty and Veterinary Faculty), the Princess Máxima Center, and the Hubrecht Institute.

Health-RI NGF

Health-RI (Health Research Infrastructure) aims to make the use of health data more accessible for scientific research and innovation, and to promote standardization between Dutch healthcare facilities, knowledge institutions, and companies. Health-RI focuses on the infrastructure needed for the exchange and use of research health data. This for instance makes it possible to perform better diagnoses and to move towards prevention. From the Health-RI Foundation, as the only direct receiver of subsidies, three lines of action are coordinated: a national appointment system, the building of the FAIR data implementation of health data, and the facilitation of a desk that gives access to the underlying services and analysis software, including

support and training for users and data experts. Investments from NGF amount to a maximum of EUR 69 million for the entire project (a conditional award of EUR 22 million and a reserved amount of EUR 47 million). All University Medical Centers in the Netherlands have the task of setting up infrastructure at regional level to allow data exchange and connect with each other. UMC Utrecht is the Health-RI hub for the Utrecht region. For the first two years, EUR 0.8 million will be available for this purpose from NGF.

ZonMW subsidy for promising healthcare

With the grant scheme for Promising Healthcare at a Care Institution in the Netherlands and ZonMW contributes to making promising healthcare accessible for patients. Only care that is proven to be effective receives compensation from the basis insurance, and for this, good research is needed. In 2021 five studies of promising care in Dutch hospitals received over EUR 15.5 million via these two organizations. Of this amount, more than EUR 10 million went to two studies of cancer treatment in which UMC Utrecht is participating. The money is used to pay the research costs and care for patients who are taking part in the studies.

The two projects in which UMC Utrecht participates, are:

- **One-off treatment of metastatic colon cancer with fewer side-effects for elderly and fragile patients** (EUR 6.4 million UMC Utrecht).
- **Laser treatment for a non-operable malignant brain tumor** (EUR 3.9 million Radboudumc and UMC Utrecht).

RVO subsidy knowledge consortium for artificial intelligence

To accelerate the application of artificial intelligence (AI) and make it available for (healthcare) innovations via startups, the civil service fund Rijksdienst Voor Ondernemend Nederland (RVO) in 2021 **granted EUR 8 million** to a knowledge consortium from four cities. UMC Utrecht forms part of this knowledge consortium. Within UMC Utrecht, various divisions and departments are busy with data-science projects, for example improved diagnostics from patient data and images by means of self-learning software. With this RVO subsidy, we can draw links between what is discovered, invented and applied throughout UMC Utrecht, and the possibilities to make this acquired experience and knowledge more widely available.

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KWF investment in eight studies on cancer

Which changes in breast-cancer cells lead to metastasis? How do we prevent follow-up treatment for mouth cancer? **The Dutch Cancer Society KWF Kankerbestrijding** is investing **EUR 4.17 million** in eight Utrecht studies at UMC Utrecht and the Hubrecht Institute to answer these and other questions on cancer treatment. The studies were launched in 2021.

Horizon 2020 subsidy for radiation of cardiac arrhythmias

Patients who suffer from ventricular tachycardias, where the heart chambers contract too fast, are now frequently treated with medication or the implantation of an ICD. In cases of persistent arrhythmias that do not respond adequately to therapy, patients undergo invasive catheter ablation. For patients whose symptoms persist after catheter ablation, radiation might offer a solution. In 2021 the STOPSTORM consortium, coordinated by UMC Utrecht, was launched to investigate the option of **radiation for cardiac arrhythmias**. About 2,000 patients in the Netherlands could eventually become eligible for radiation treatment. STOPSTORM is a European study that is funded with a European Horizon 2020 subsidy of EUR 7.1 million, of which EU 1.2 million goes to UMC Utrecht. The consortium consists of 31 institutions in eight European countries.

2 Veni, 7 Vidi, and 2 Vici grants

The Dutch organization for Scientific Research (NWO) in 2021 awarded **two promising young scientists at UMC Utrecht Veni funding** to a maximum of EUR 280,000. With this grant, two winners can continue to develop their own research ideas for three years. This pertains to research on the patterns of vascular damage in the brain to deduce underlying disease patterns, and a study of powerful treatments against brain tumors. In addition, **seven experienced UMC Utrecht scientists received a Vidi subsidy** from NWO of EUR 800,000, with which they can develop their own innovative line of research in the next five years, and set up a research group. It includes a study of the importance of metabolism in (cancer) stem cells, a study of how intestinal cancers start that metastize in a very early stage, and a study of how stress can change the strength of decision-making connections in the brain, how that leads to impulsive eating behavior, and how the process can be altered for the better. **Two experienced UMC Utrecht researchers also received a Vici grant** of EUR 1.5 million, with which they can do innovative research for five years and continue to build out their research group. It pertains to a study of heartbeat as a source of information on the health of our brains, and a study of the role of naïve T cells in the prediction and monitoring of longterm clinical outcomes of for instance stem-cell transplantation and chronic inflammatory diseases.



Jaco Zwanenburg



Femke van Wijk

The Dutch organization for Scientific Research (NWO) in 2021 awarded two promising young scientists at UMC Utrecht Veni

Open Science

One of the guiding principles of research at UMC Utrecht is the transition towards Open Science. Open Science is a new way of doing science, where the entire research process - from prioritizing to the publication of results - is made public and transparent, and where we involve society as much as possible in all phases of a study.

Open Access scientific publications

An important aspect within Open Science is the free Open Access publishing of scientific publications. Hereby scientific results from our research is made accessible for everyone **online**, and we can contribute to the maximum dissemination thereof. In 2021 we made a number of Open Access publications for each division visible on the focus dashboard of UMC Utrecht. In 2021 we published a total of 79% of our scientific publications with **Open Access**.

Accessible research data

We also do our utmost to make research data accessible using FAIR principles (findable, accessible, interoperable, and reusable). In 2021 we made it possible for anyone to search for and request **datasets** of UMC Utrecht researchers via our website.

Recognition and Appreciation

The transition to Open Science goes with an accompanying assessment system for our scientists: Recognition and Appreciation. This stimulates excellence in each core domain and does justice to the independence and the individual qualities and ambitions of scientists as well as team achievements. It puts the accent on the quality of work rather than quantitative results, and stimulates all aspects of Open Science and academic leadership. UMC Utrecht is one of the forerunners in giving wider appreciation to researchers.

Recognition and Appreciation features prominently in our talent program called 'Research Career Development' <link naar hoofdstuk onze medewerkers waar hier meer info over staat>, of which the first course started in 2021. We have used a broad qualification portfolio to appoint professors and associate professors in 2021. Based on this portfolio, 21 new associate professors were appointed in 2021.

Appointment of clinical scientists

To promote translational research (translating fundamental research into practice) within UMC Utrecht so that innovations can be developed and implemented and social impact can be created, we appointed **eighteen clinical scientists** at the end of 2021. These clinical scientists are healthcare professionals with an interest and proven expertise in conducting scientific research. In the next five years they are guaranteed to spend 40% of their time on research, in addition to their clinical tasks.

Quality of research

At UMC Utrecht we strive for the highest possible quality when it comes to research, and make sure that all our research complies with laws and regulations.

New rules for medical devices

Since 26 May 2021, medical devices such as patches, artificial hips, pacemakers in Europe are subject to new regulations (MDR). This new legislation brings greater clarity and transparency for our patients, and helps them to make better choices between devices, and makes treatment even safer for them. To comply with this new legislation and support our researchers in this respect, we produced a special tool in 2021 that researchers can use to assess whether their study falls within the MDR. We have also provided comprehensive work instructions for clinical research with medical devices.

Clinical Trials Regulation

On 31 January 2021 the EU Clinical Trials Regulation (CTR) came into force. This legislation governs clinical research in Europe and aims to simplify and accelerate clinical trials with medical products so that these can be made available to patients faster. In practice, the CTR means that there is a new process for starting clinical trials. To prepare our research for this, in 2021 we developed for example a detailed procedure for filling in the accompanying form for the 'Declaration of suitability of clinical trial facility sites', and clearly set out all the requisites and contact details of the supporting departments, including the lab, X-ray department and core function. This has also led to better internal procedures in these departments.

Quality manual for research on human subjects

To improve the traceability and application of the UMC Utrecht-wide research policy and procedures, we started at the end of 2019 to establish a quality manual for research on human subjects, in accordance with the research cycle (scheduling, setting up, executing and finishing off a trial). We finalized this manual at the end of 2021. The manual also shows our research organization with descriptions of the roles and responsibilities involved, and how quality is monitored both internally and externally. In 2022 we continued to develop the manual for research on animal subjects and pre-clinical studies.

Our students

Besides healthcare and research, education is one of our three core tasks. Our aim is to prepare our students properly for the healthcare and society of the future. We call this The New Utrecht School. The New Utrecht School stands for: interprofessional learning and multidisciplinary education in a diverse and inclusive environment.



Highlighted figures



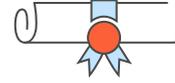
4.026

students enrolled
in the medical faculty



225

nursing students
(163 HBO, 62 MBO)



1.218

university degrees



65

nurses graduated
(43 HBO, 22 MBO)



325

students completed
medical studies
(incl. SUMMA)

Appreciation of our education

Our bachelor programs in Medicine and Biomedical Sciences in 2021 was identified as a 'Top training' program by *Keuzegids universiteiten* ('university choice guide'), an independent comparison of bachelor degrees that helps young people make the right study choices. Both programs scored highest in their category in the Netherlands.

Our bachelor programs in Medicine and Biomedical Sciences in 2021 was identified as a 'Top training'



Multidisciplinary and interprofessional learning

Changes in healthcare, such as the increasing complexity of healthcare needs, and demands for interprofessional cooperation. In our education, we also ensure that students from different disciplines meet each other and (learn to) work together. Since we believe that breakthrough innovations often happen at the interfaces between fields of knowledge, we also put great emphasis on multidisciplinary.



Two new programs approved

In 2021, two new interdisciplinary programs were approved at UMC Utrecht, namely the **new Bachelor program in Care, Health and Society**, developed in cooperation with the faculties of Veterinary Studies and Betasciences at Utrecht University, and the **new Master's degree in Medical Humanities**, developed in cooperation with the Utrecht University Medical faculty. With these new programs we join Utrecht University in focusing on the public demand for differently trained professionals in human and veterinary healthcare. Due to the interdisciplinary nature of these programs, future professionals will be uniquely well equipped to tackle health problems in an interprofessional and innovative way with knowledge of modern technologies. The new programs therefore also fit in perfectly with **The New Utrecht School**.

The new Bachelor and Master's programs will start on 1 September 2022.

Both these new programs meet the tested standards and received a positive test report from the visiting panels at the Dutch-Flemish Accreditation Organization. The new Bachelor and Master's programs will start on 1 September 2022.

Platform EduXchange encourages student mobility

To allow students to follow subject courses at other universities without administrative and organizational barriers, we have created the platform **EduXchange.nl** within the alliance of Eindhoven University of Technology (TU/e), Wageningen University (WUR), Utrecht University (UU) and UMC Utrecht. Through this **platform**, students can follow subjects at partner institutions with a single click. At the end of 2021 there were over 60 subjects from partner institutions on the platform, and we shall continue to expand the offer in the coming years. The platform encourages students to look beyond the limits of courses and institutions, and makes education even more dynamic. In this way, education contributes even more to social transition in the fields of health, nutrition, energy and sustainability.

UMC Utrecht students win international simulation prize

A team of three medical and two nursing students from UMC Utrecht won an **Acute (Trauma) Life Support simulation competition** during the annual SESAM (Society for Simulation in Europe) congress. Their interprofessional teamwork and systematic assessment of 'the patient's' cares convinced the jury of doctors unanimously to choose the team from UMC Utrecht as winner of this **prestigious international SIM University challenge**.

Developments in education

Besides the approval of the two new interdisciplinary programs (the **Bachelor in Care, Health and Society** and the **Master's program in Medical Humanities**) we would also like to highlight a few other developments in the field of education in 2021:

The new program in Basic Acute Care

In November 2021, we launched our **new program in Basic Acute Care**, with which we will train nurses to be generally deployable in acute care, and in which we offer them more expert knowledge, development possibilities and career prospects. Healthcare issues are changing and care is becoming more complex. The new follow-up training focuses on this, and is a step in the direction of **future-proof nursing**. The new program also addresses the need for more good people with the right expertise to provide acute care.

Updated training in traumatology

In 2021, a new version of the training program in Traumatology was launched at UMC Utrecht for (OR) nurses, outpatient staff, and nurse anesthetists who want to further their knowledge in this field. Both the content and the shape of the course has been adapted to the needs and circumstances of our time. It is now the tenth year of this regional course for which there is even countrywide interest.

Both the content and the shape of the course has been adapted to the needs and circumstances of our time

New PhD program in Life Science Education Research

September 2021 saw the kick-off of the **new PhD program in Life Science Education Research** that we have developed in cooperation with the Graduate School of Life Sciences of Utrecht University/UMC Utrecht. The aim of this PhD program is to create an inclusive community of researchers who will study educational processes in the course of their thesis and who want to further develop their knowledge and skills with regard to educational research in the field of Life Sciences.

Diversity and inclusiveness

As explained in The New Utrecht School, we want to offer a diverse and inclusive learning environment. In 2021 we developed a number of specific activities for this purpose.

Student welfare

We are very much aware of the fact that our students' welfare is under great pressure. This was already a matter of concern before the coronavirus pandemic, and with the arrival of COVID-19 and remote teaching, it only became bigger. Together with staff and students of Utrecht University, and via the **student welfare task force**, we are working actively on our student welfare policy. We also developed a tutor program in 2021 for students in the master's phase, in addition to the tutor program for Bachelor students that was already underway, as well as a buddy system for students among themselves. We further organized an introduction weekend for first-year students who were not able to follow any introduction program at the start of their studies. We also prepared the **Speak-up campaign**, which will enable us to work on an open and stimulating learning environment. This campaign starts in 2022.



Summer bridging program

In September 2021 we had the first edition of our two-day **summer bridging program K.I.C.K. Start: A Good Start means Half the Work is done**. For any student, embarking on their studies can be stressful, especially if nobody else in their family has had higher education, if they are new to Utrecht, or if they feel a bit different from most other students. With the **summer bridging program** we offer support to all first-year students in Medicine and Biomedical Sciences who feel the need for it, in the transition phase towards their new studies, and to give them a good start to their study years. The summer bridging program was very well received, and we are going to expand it in 2022.

About 1,000 primary school children from the Utrecht region for instance had a guest lesson from our researchers, called our 'Smart Guests'

Outreach activities

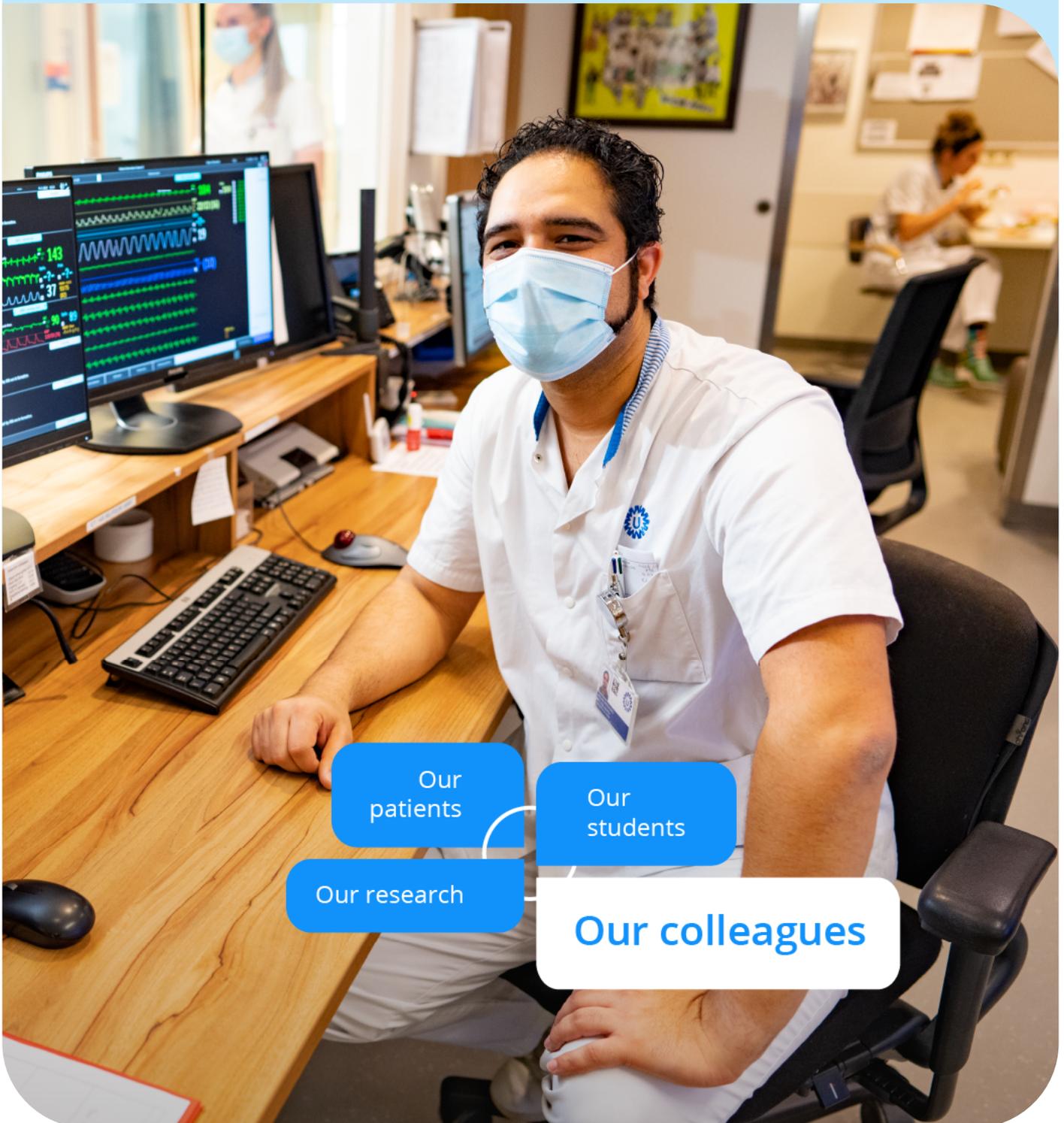
To be accessible to everyone, we also paid a lot of attention to outreach activities in 2021. About 1,000 primary school children from the Utrecht region for instance had a guest lesson from our researchers, called our 'Smart Guests'. With **Smart Guests**, organized from Utrecht University, we bridge the gap between researchers and school children and make an effort to make science accessible for everyone. Over 30 professors from UMC Utrecht Digital also visited primary schools in Utrecht during the fifth edition of Meet the Professor. Some 2,500 pupils from group 7 and 8 had the chance to meet the professors in science and research, and to ask all their questions.

Quality of education

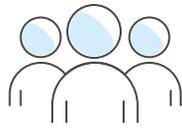
By converting the basic bursary for students, an extra approximately EUR 1.2 million has been made available for the UMC Utrecht Medical faculty from 2020 until May 2024 to continue improving the quality of education. In 2019, in cooperation with students and lecturers, we drew up a multi-year plan for spending these quality funds. In 2021 we used it for instance to take a look at student welfare, and provided **extra coaches and psychologists** for students. We also started with a **'flipped classroom'** initiative, which is an activating form of teaching where students become truly involved and are challenged to learn. In addition, we launched **Student Centraal**: a website with everything you need to know about the quality funds and projects developed in this regard. Because this money belongs to the students, and therefore their input and involvement is crucial.

Our colleagues

Our core tasks - care, research and education - can only be carried out if we have the input of all our colleagues. It is therefore important for us to pay attention to each other, for example when it comes to (psychosocial) health, job satisfaction, and growth opportunities. At the same time we, like many other healthcare institutions, are challenged by the issue job-market scarcity. Not only the retention of existing colleagues, but also the recruitment of new colleagues therefore has our ongoing attention.



Highlighted figures



11.960
colleagues



3.346
men (28%)



8.614
women (72%)

Appreciation of our colleagues

UMC Utrecht conducts three employee-experience surveys a year. With these surveys we want to find out if colleagues are making an effort for (the strategic goals of) UMC Utrecht, and how they feel about their job at UMC Utrecht. In short, whether UMC Utrecht is a good place to work.

In the 2021 fall survey, 49.8% of our employees rated the working experience at UMC Utrecht with a score of 8 or more. 48% did so In 2020. Colleagues' overall appreciation in 2021 was 7.4.



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Developments for our colleagues

There were some significant developments for our colleagues in 2021:

A new CLA established

In 2021, the new UMC CLA 2022-2023 came into being after a long negotiation process between unions and the Dutch Federation of University Medical Centers (*NFU*). The unions made use in the process of their right to act for better labor conditions. Two action days were also organized at UMC Utrecht. The period in which the new collective labor agreement or CLA came into being was intense for many colleagues. And due to the coronavirus pandemic, it was a difficult time in which to take action. All hands were on deck to provide care to COVID patients and to allow regular care to continue insofar as possible.

The outcome of the negotiations was a good CLA, with a differentiated remuneration scheme. In particular for the middle group in primary care functions, a higher structural wage increase was agreed upon. The agreement also contains structural wage increases for all colleagues.

The new CLA further pays specific attention to the vitality of healthcare staff, for example by including more rest periods in schedules, and to make self-scheduling the norm. In this last respect, UMC Utrecht has already been a forerunner for some time. It was also agreed to develop a scheme in terms of one or more generations. UMC Utrecht already had a scheme in 2021 for experienced, older professionals. This scheme will be reassessed in 2022. Due to COVID, working from home has become a fixture for colleagues who have a job that can also be done at home. In the new UMC CLA, a compensation of EUR 2 has been agreed upon for every day that an employee works from home.

The technically complex CLA was implemented in a short time, and came into effect on 1 January 2022. The different components of the CLA will be worked out in 2022.

working from home has become a fixture for colleagues who have a job that can also be done at home

Care bonus

As a token of appreciation for the exceptional performance of healthcare workers during the COVID-19 pandemic, the Ministry of Public Health, Science and Sport (VWS) has released a second care bonus for these professionals. In relation with *NFU*, UMCs have translated this second scheme from the VWS ministry. Based on this, UMC Utrecht has requested the care bonus from the VWS ministry for colleagues and externs who are eligible for it, and it was subsequently paid out in November 2021.

Christmas bonus

As an extra token of thanks and appreciation, UMC Utrecht paid out a Christmas bonus of EUR 500 net to all colleagues at the end of 2021. Because everyone had made effort to let the work continue during COVID-19, which was a tremendous and real team achievement. The bonus could be paid out due to a one-off financial windfall, which was the sale of one of our placements. The action was highly appreciated by the staff. Also due to the explanation of our Executive Board, in which general appreciation for each person's contribution was emphasized.

Hybrid working

Our approximately 2,300 colleagues with office or research jobs had to work from home during the coronavirus pandemic. On the one hand, employees missed live meetings and found it nice when in the summer of 2021 we made a careful, partial return to the office. On the other hand, colleagues find that working from home brings a better work-life balance and that they are more productive. We therefore decided in 2021 to switch to hybrid working once COVID was over: partly from home or elsewhere, and partly at the office (40-60%). With this new way of working, we are stimulating connection between colleagues, independent of the place and time, and connecting worlds. This contributes to creating a good place to work, and to achieve our goal of creating the healthcare of the future.

To connect colleagues optimally when they are working in hybrid fashion, we ensured a proper preparation in 2021 in terms of 'bricks, bytes and behavior'. Bricks stands for accommodation: the office as an inspiring place to get together, that stimulates knowledge-sharing and cooperation. In our strategic development outlook for accommodation [<link naar onderdeel huisvesting in jaarverslag>](#) we have ensured that office spaces are laid out in such a way that they will be used efficiently, flexibly, and geared towards activity. With bytes we are focusing on digitalization and IT support, so that anything that can be done from home, is done properly. We therefore implemented MS Teams in 2021, and organized webinars to get colleagues on board with all the digital possibilities. Lastly, we looked at the way in which we (co-)work (i.e. our behavior) by establishing frameworks in which we work autonomously. And in supported teams with interactive workshops on how to make good work agreements and work together optimally in a hybrid way.

Future-proof nursing

In 2020 we established a four-year program for **Future-proof nursing**. With this program for and by nurses, we focus on changing healthcare demands and our changing role as an academic center in the care chain. These changes bring opportunities and challenges for our nurses. To respond in time to this as an organization, a repositioning of the nurse is essential: in line with the wishes of nurses, the demands of care, and the possibilities of innovation. Hereby we ensure that our nursing care is future-proof. The program kicked off in 2021.

we focus on changing healthcare demands and our changing role as an academic center in the care chain

In the scope of the Future-proof Nursing program, three nursing teams/departments started working in 2021 as a pilot with the new function of direction nurse. The function combines care tasks with non-patient-related tasks such as developing the quality of nursing care, evidence-based practice, expertise development, and intervision. This ensures further professionalization of the field and the development, work satisfaction and preservation of our colleagues. The results of these pilots are very positive. Both the nurses concerned and the patient groups in question experience it as an improvement.

In addition, 16 departments investigated how nursing team of the future will look in terms of composition, and what is needed to give a more prominent role to innovation in their activities. The outcome is that more direction nurses are needed, and that almost all teams understand the possibility and added value of using caregivers, while nurses maintain the overall patient policy. We also charted the career paths of nurses and looked at which supplementary career paths we want to create in order to offer nurses more opportunities to develop. For example career paths where care, research and education are combined. We have also started with intervention meetings for leaders of nursing departments, where colleagues can learn from each other, and with academic work places: incubators for nursing innovation. The first results will become visible in 2022. Two divisions also started with a trainee program for beginner nurses. It appears to be a good approach to attract and retain nurses. Lastly, a number of nurses have started with a course in nursing sciences. In this way, we are working on making UMC Utrecht a great place to work for nurses, who are so essential, and ensuring that it stays that way.



Recruiting new colleagues

Throughout 2021 about 110 vacancies remained unfilled. About 1,200 vacancies are filled each year.

Revised recruitment strategy

In 2021 we developed a revised recruitment strategy and launched the recruitment plan '**Innovate with us at UMC Utrecht**'. In our strategy, the 'applicant's journey' is central, in other words the path that potential new colleagues follow from their first contact with UMC Utrecht until the moment they apply. In our campaign, we make use of real stories from colleagues. **Operation assistant Randy will for example talk about his job at the Wilhelmina Children's Hospital, Tessa about working as an analyst or lab assistant, and O'Jay about his job as a data scientist.** Diversity has become an explicit component of the campaign and of our vacancy communications. Because UMC Utrecht wants to be an organization that offers everyone this space. Talent as basis and diversity as a strength to achieve better results, together.

During peaks of COVID-19, we took in many extra workers on a temporary basis in the corona flex pool as department assistants, nursing assistants, and nurses

Corona flex pool

In 2021, due to COVID-19, extensive use was once again made of qualified staff. We organized this via flex pools at our 'Workshop', which is the flex-pool office at UMC Utrecht. The demand for temporary support was multiplied by three. Both from within UMC Utrecht and from outside. In view of the exceptional circumstances, for the first time we detached medical students to the National Coordination Center for Patient Distribution (LCPS) and GGD. During peaks of COVID-19, we took in many extra workers on a temporary basis in the corona flex pool as department assistants, nursing assistants, and nurses. For this, we used the subsidy scheme for 'Corona jobs in healthcare'. From all these extra recruitments, we were also able to keep people on, both in the Workshop and directly at UMC Utrecht departments. After a period of flex working, many nurses got a permanent post at a department or training unit where they started working. The Workshop is therefore also a 'breeding ground' for new permanent staff.

During the last COVID peak in 2021 we also asked support from the **National Healthcare Reserve**. Via this initiative, nine healthcare professionals came to help UMC Utrecht provide COVID-19 care to our patients.

Recruitment of nurses

In our recruitment campaign **Innovate with us at UMC Utrecht**, the 'Specialized nurses' target group drew the most traffic with 6,000 clicks per month. The campaign kindled a feeling of pride among participating colleagues and their teams, and quickly also got spread in their own networks. For example through close collaboration with highly motivated people in charge of vacancies and colleagues from nursing departments, and by offering structural online orientation opportunities and meetings, we are increasingly able to make that first important contact with the right candidates.

Scarce/hard-to-fill jobs

In 2021 an average of 75% of the average 40,000 visitors to **our vacancy platform** each month knew how to find us directly. To get the right potential candidate so far as to talk with us and come to work with us, we developed a new vacancy platform in 2021. This website includes information on training, working and orientation at UMC Utrecht. The website offers a sustainable base for recruiting new colleagues for scarce functions and will allow us in 2022 to clarify the results of our recruitment actions even better. In 2021, a total of 14,752 applicants applied to UMC Utrecht (12,713 in 2020).



Talent development

We consider it important that everyone at UMC Utrecht has the opportunity to grow in knowledge and skills. We support, encourage and accompany our colleagues in talent and career development, for example education and training, career coaching, or advice on mobility.

Talent development for scientists

In 2021 we started with the new implementation of a specific talent policy for scientists. The pilot for the Research Career Development program for 24 post-docs and university lecturers/assistant professors also got off the ground. In addition, we set up talent programs for the other three career levels in science (PhD students, associate professors, and professors).

With the Research Career Development program we support talented young researchers in building their academic career. We define talent here not only on the basis of measurable research output, but also for example based on their contribution to Open Science, leadership and social impact. In the selection for the program we take gender diversity and the cultural/international background of participants into account. The program includes - besides recognition and appreciation and Open Science - topics like personal efficiency, networks, and negotiation.

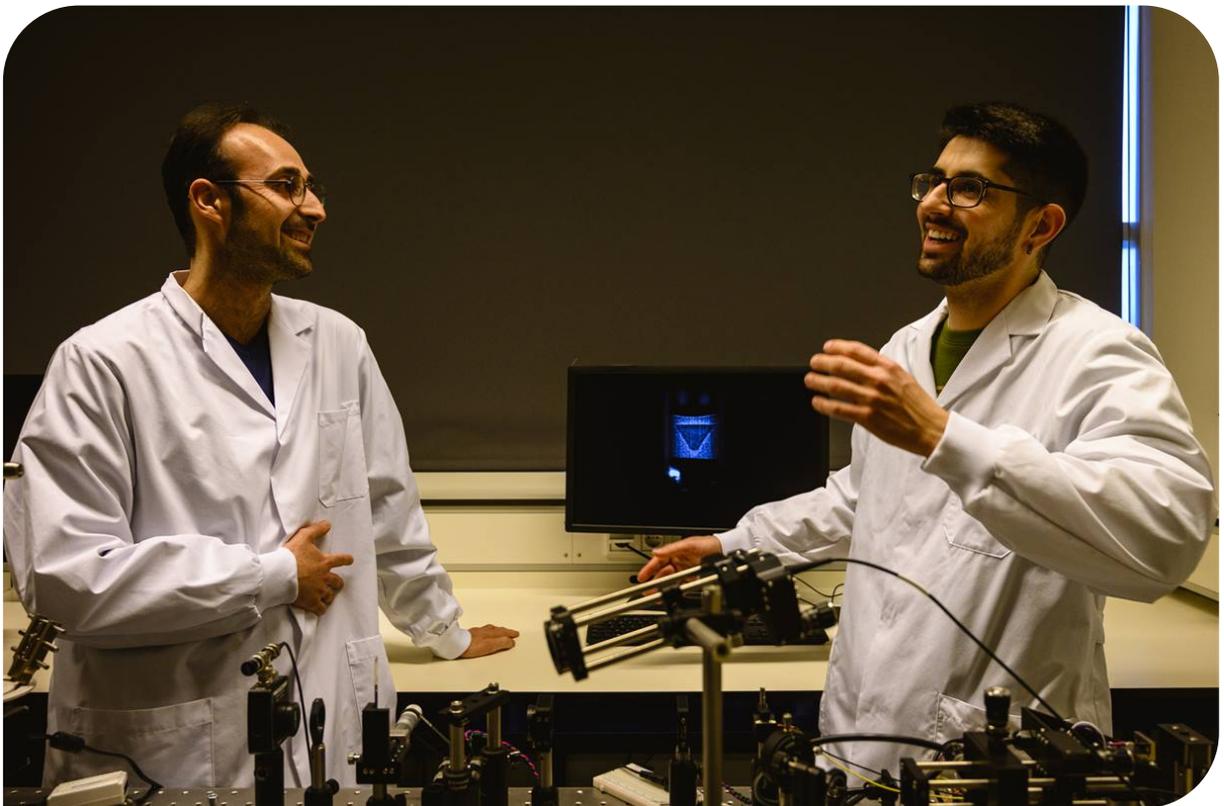
LEV, career development and vitality

To support all colleagues in their career development and increase awareness of sustainable deployment, we offer colleagues a variety of tests, exercises and online training in the field of personal and professional growth via our digital portal LEV (for 'Loopbaanontwikkeling en Vitaliteit', or 'career development and vitality') The topics of these instruments include career development, vitality & health, and happiness at work. Colleagues can also have a discussion with an e-coach. In the past by telephone and email only, but since 2021 also online via MS Teams. A wide range of training courses from Goodhabitz is also available via the LEV portal. The courses, for example on productivity, communication and personal strength, are short, to-the-point, and easily applicable to everyday practice. In 2021, 1,194 colleagues made use of LEV, and 3,478 followed training courses from Goodhabitz. To help colleagues work from home effectively and with pleasure over a longer period of time, we also organized several workshops in 2021 on health and efficient remote working.

Leadership development

To continue with the professional development of leadership at UMC Utrecht and stimulate cooperation within our organization, our leaders work in the leadership program Connecting Leaders on developing the desired leadership skills. Connecting Leaders is based on our vision for leadership and is geared to the learning needs that leaders may have in the different stages of their leadership career at UMC Utrecht (Onboarding, Professional and Advanced).

In 2020 we updated the Connecting Leaders programs. In 2021, a total of 314 leaders followed one of the updated Connecting Leaders programs. Assessment has also become a fixed component of the selection process for leadership positions. Despite the pressure and the need to conduct discussion online, a leadership program for senior management (Executive Board, focal point chairs, division managers and directors) was launched. This will continue in 2022. A successful pilot called 'Influencing without official power' was also organized. It is a course for functional leaders in which 40 people participated.



Vitality and sustainable deployment

UMC Utrecht strives to be a healthy and good place to work. A workplace where not only the health of the patient but also that of our colleagues is central. It is therefore important to create a vibrant and resilient working environment. To achieve this, managers and employees must have control over vitality, the prevention of absenteeism, and support during absenteeism. They are seconded in this by experts and advisers, and extensive support is available. In this way, together, we facilitate a healthy, safe workplace for everyone. An key concern in 2021 was to give colleagues support with regard to psychosocial pressure, which was particularly high due to the COVID pandemic.

Psychosocial support

In our ongoing 'Work in Balance' program, we offer all colleagues the possibility to get psychosocial support through 1-on-1 conversations with inhouse counselors. This offer was also available in 2021. In total, over 250 colleagues made use of it in 2021, and our inhouse counselors conducted about 1,000 conversations. Via our ongoing vitality program [Energiek@UMC <](mailto:Energiek@UMC), we introduced VRRelax virtual-reality spectacles in eight divisions and directorates. This positive diversion helps colleagues to relax, reduce stress, and prevent burnout. VRRelax was received positively, and our aim is to provide these spectacles in more divisions.



For the approximately 500 colleagues who were directly involved in COVID-19 care in particular, we organized the “Lucht je hart” (‘cheer up’) project in 2021, where coaches were available to provide psychosocial support during transfer moments at the beginning and end of shifts. These coaches were also available for individual and team conversations. Reactions to this approachable support have been positive. We also organized after-care get-togethers for these colleagues, to give all of them personal attention, recognition and appreciation for their boundless dedication. 360 colleagues made use of this.

This positive diversion helps colleagues to relax, reduce stress, and prevent burnout. VRelax was received positively, and our aim is to provide these spectacles in more divisions.

Lastly, in 2021, in the scope of Energiek@UMC, we introduced a new program on building resilience. With this, we help colleagues to deal with psychosocial stress by strengthening their vitality (mental and physical health), resilience, and feeling of connectedness. More than 800 employees and managers made use for instance of webinars on resilience, workshops by vitality experts, and/or digital yoga classes.

Sick leave

Despite our actions to boost vitality and prevent absenteeism, sick-leave figures were high in 2021. The average percentage of sick leave was 5.57% compared to 5.32% in 2020. However, there were significant differences between divisions at UMC Utrecht. At IC, where mainly nurses work, sick leave in 2021 for example was more than 12%. In December 2021, this percentage rose to almost 15%. The overall average percentage at UMC Utrecht is lower than the average absenteeism percentage in health- and social care (6.8% average in 2021, source CBS). We can confidently assume that absenteeism rose due to COVID-19. Both because of virus infections, and indirectly because of the additional psychosocial pressure that colleagues experienced as a result of it.

Relocation

It is important for us that everyone at UMC Utrecht should be in the right place. In 2021, we went through a relocation process with 132 colleagues. Of these, 61 found another job at UMC Utrecht, and 25 found a job elsewhere. In total, 27 were integrated in WW and 19 in WIA.

Diversity and inclusion

To deliver the care, education and research of today and tomorrow, it is essential for UMC Utrecht to be diverse and inclusive, so that everyone will feel accepted, appreciated and stimulated, and so that we will be able to attract and retain a variety of talent, reinforce our teams, and make optimum use of skills. In short, so that UMC Utrecht will be a good place to work. This is the basis on which our research, education and patient care can further be improved.

We also made diversity and inclusion an explicit component of our talent policy, our leadership program Connecting Leaders, and our recruitment and selection process.

In previous years, the focus of our diversity and inclusion policy was mainly on gender and work capacity (Participation-law jobs). In 2021, we extended our focus towards other aspects of diversity, such as cultural or social background, orientation, and world views. For example in 2021, in line with our strategy, we developed a vision paper and an integral approach to further give shape to a diverse and inclusive organization. We also made diversity and inclusion an explicit component of our talent policy, our leadership program Connecting Leaders, and our recruitment and selection process. We further defined steps to increase diversity and inclusion in our education.

Bias training

All of us have unconscious associations (biases). By becoming aware of it, we can turn them around and in fact benefit from underlying differences in our work. In 2021, we gave bias training courses to our teaching staff. More than 200 people in total took part in these groups. We therefore reached our goal in 2021. Besides teaching staff, another 250+ colleagues from other job categories received bias training. In addition, we organize tailored courses for divisions and teams who want to do bias training. Bias training courses explain what bias is, what forms of bias there are, and how these can affect us and our work.

Specific moments that drew attention

In 2021 we took a number of days as an opportunity to draw extra attention to diversity and inclusion. For example on **International Day of Women and Girls in Science** (11 February), we put a number of female researchers in the spotlight. On International Women's Day (8 March) we showed **the digital presentation 'We're all equal, aren't we?'** to colleagues and people from outside who were interested. More than 100 people attended. During Diversity Day (1st Tuesday in October) colleagues and students played the 'all inclusive' game online, where they play with dilemma cards to think about the question of how one can create an inclusive work environment. And, on Coming Out Day (11 October), we looked at the opening of **the longest rainbow cycle path at Utrecht Science Park**, which was attended among others by a member of the Executive Board and the head of P&O.

Female talent

UMC Utrecht actively pursues a policy on female talent, both in healthcare and in research and education. The total number of female colleagues remained very high in 2021. In 2021, just as in 2020, 72% of our colleagues were female. In 2021 the percentage of women at management level and diversity management (incl. the Executive Board) rose to 39.5% (38% in 2020). The number of female professors also went up in 2021 to 71, compared to 60 in 2020. This brought the percentage up from 29% in 2020 to 31% in 2021.



UMC Utrecht actively pursues a policy on female talent, both in healthcare and in research and education

Participation-law colleagues

To promote the integration and inclusion of people with (occupational) disabilities or (mental) vulnerabilities and strengthen their position in Utrecht Science Park (USP) organizations, we established the **USP Inclusive** network in 2021, together with Utrecht University. In this employee network, taboos and prejudices about working with (occupational) disabilities or (mental) vulnerabilities can be discussed and tackled.

At the end of 2021, we had 71 colleagues who fall under the Participation-law target group working with us. Between them, they perform 67 jobs. In 2020, this amounted to 64.8 jobs filled by 67 colleagues.

Our partners

UMC Utrecht wants to be a stimulating partner that brings different worlds together and creates solid partnerships – **international, national, and regional**. By building ties and working together, we turn scientific research and education into products and services with added value for society.



International cooperations

UMC Utrecht works on innovation in healthcare, research and education together with strategic partners worldwide.

ECRAID

In 2021 UMC Utrecht established the ECRAID foundation with an international supervisory board, which kicked off officially on 1 January 2022. ECRAID (European Clinical Research Alliance on Infectious Diseases) is a European academic network that aims to improve the diagnosis, prevention and treatment of infectious diseases through clinical research. It is the first network in the world that combines clinical research on (emerging) infectious diseases and resistance to antibiotics. UMC Utrecht coordinates the activities of ECRAID. This new international cooperation makes it possible to react faster to (emerging) infectious diseases that constitute a danger for public health.

European Reference Networks

Rare diseases often require multi-specialist care and multidisciplinary involvement. By connecting internal and external worlds, UMC Utrecht has extensive inhouse expertise on rare and uncommon complex diseases. By order of the Ministry of Health, Welfare and Sport, NFU has set up a procedure to recognize this expertise, based on criteria defined at European level. VSOP (an umbrella organization for patients with a rare genetic disease) and Orphanet NL (a portal website for rare diseases and orphan drugs) are involved in this. In the assessment process, both referants from the field and from patient organizations are included. UMC Utrecht has 34 recognized **Expertise centers for rare diseases (ECZA)**.

These centers can join European Reference Networks (ERNs) that are set up for and by healthcare professionals in Europe and by order of the European Commission. In these ERNs, experts from all over Europe pool knowledge, expertise and resources on specific rare diseases. In this way, a rare and often complex disease can be identified faster, and the treatment of patients with a rare disease can be improved. This benefits the patient's quality of life. Due to the small number of patients, it is very important for instance to be able to do qualitative research. By joining an ERN, we can simplify access to diagnosis and treatment. UMC Utrecht has joined 17 of the 24 ERNs.

International strategic network for healthcare, research and education programs

To improve the quality and impact of healthcare, research and education, we collaborate with Utrecht University in a strategy network with KU Leuven, University College London, the University of Toronto, and the Chinese University of Hong Kong on inter-university healthcare, research and education programs. In 2021 for example a dual PhD program with KU Leuven was launched. In this program, we make use of each other's knowledge and expertise, and PhD students do research both at UMC Utrecht and at KU Leuven and receive a degree from Utrecht University as well as KU Leuven.

Eureka Institute for Translational Medicine

UMC Utrecht is a co-founder and partner of the **Eureka Institute for Translational Medicine**, which aims to provide education and networking for translational scientists. Due to COVID-19, no courses could be conducted on site in 2021. Instead, three international digital courses were developed and dispensed. These were highly appreciated by the participants. Some new partners have also joined the Eureka Institute, namely: Drexel University, Cancer Research UK, and the National Federation for Emergency Medicine. Other partners in the Eureka Institute are: UMC Utrecht, Duke/NUS, Stanford, Toronto, Miami, Arizona, and United Emirates.

We collaborated with four Indonesian universities to improve healthcare research and education

CHARM-EU European University alliance

Together with the universities of Barcelona, Budapest, Montpellier and Dublin, UMC Utrecht and Utrecht University collaborate in the **CHARM-EU alliance**, an innovative challenge-based university model aimed at training professionals who in the future can make a contribution to the UN's 17 Sustainable Development Goals. At the moment, an accredited 90EC Master's is under way that consists of three phases. A compulsory, joint part, a flexible part where the student chooses one of three topics - Food, Water of Life, and Health - and a capstone part where students work in teams on an authentic sustainability challenge. Teaching takes place in an international classroom, where online and physical teaching alternates in various locations, and where students also get the chance to switch physically between the five campuses. In the flexible phase of the Health Challenges & Solutions course, a network of Research Hubs was developed of which UMC Utrecht also forms an active part. One of the deliverables is in fact a **step-by-step guide** for designing courses within UMC Utrecht.

Global Health

UMC Utrecht actively contributes to Global Health, and in 2021 further strengthened this cooperation with a number of low- and middle-income countries. We collaborated for instance with four Indonesian universities to improve healthcare research and education. The Health Indonesia project was completed in 2021, after three years. It has helped to increase the quality and impact of research and education, and will contribute in the long term to better local care. Other Global Health partners of UMC Utrecht are: the University of Ghana and the Anton de Kom University in Suriname.

National cooperation

We also work at a national level with various partners, and further strengthened our cooperations in 2021.

Ministry of Defense

At country level, we further intensified our cooperation with the Dutch Defense Health Organization (DGO) by signing an agreement with the Institute for Defense and Relational Hospitals (IDR). Specialized healthcare professionals from UMC Utrecht can thus become Defense reservists to join training and missions and support Defense in medical affairs. On the other hand, UMC Utrecht facilitates practical deployment, internships and training for defense staff at UMC Utrecht.



Employees of the Ministry of Defense also supported us in 2021 to create cross-regional capacity for COVID-19 patients. UMC Utrecht could therefore take over COVID patients from hospitals all over the Netherlands that had reached the limits of their capacity. We also renewed the cooperation agreement with the Ministry of Defense. It makes provision for the maximal exchange of people and resources if necessary. For example in the event of a pandemic such as COVID-19, or if medical support from UMC Utrecht is needed at the **Central Military Hospital (CMH)** in Utrecht. Together with the Ministry of Defense, we set up the following steps in the scope of our Complex Acute Care accelerator, and are further giving shape to our strategic cooperation for disaster response. We are on standby to receive medical evacuees from Ukraine by order of the Ministry of Health, Welfare and Sport.

Princess Máxima Center

UMC Utrecht cooperates intensively with the Princess Máxima Center, the national center for pediatric oncology, in the field of care, research and education. We are next-door neighbors at Utrecht Science Park and share facilities with each other. In 2021, Bachelor students in Biomedical Sciences at UMC Utrecht for example worked with the Princess Máxima Center and discovered a way in which immunotherapy might possibly be used in the future against a certain type of aggressive brain tumor that occurs mostly in children (medulloblastoma). UMC Utrecht and the Princess Máxima Center have furthermore co-developed activities for talent development and staff recruitment. They have also started on the joint building of an ultra-modern operating room to operate brain tumors in children.

Apotheek A15

In September 2021 UMC Utrecht became a shareholder in Apotheek A15. Apotheek A15 is a pharmacy that operates at national level and that specializes in the development and preparation of drugs that are not commercially available, yet are essential. For example, drugs for patients with rare conditions. Or medicines for children who need a lower dosage or different method of administering than the standard available on the market. By participating in Apotheek A15 we ensure that we can supply our patients with the drugs they need. Other shareholders in Apotheek 15 are: ErasmusMC, UMC Groningen, and Radboudumc. All four shareholders have an equal amount of shares (25%).

Knowledge alliance between TU/e, WUR, UU and UMC Utrecht

Together with the Technical University of Eindhoven (TU/e), Wageningen University (WUR) and Utrecht University (UU), we form a Knowledge Alliance. By building bridges between institutions, we make a joint contribution to solving major social challenges pertaining to health and circularity. The alliance combines complementary expertise particularly in the fields of: artificial intelligence, a circular society, prevention of health problems, and molecular life sciences.

In 2021 students were presented with two challenges where they learned to work together with other disciplines. In the **COVID-19 challenge** of the city of Utrecht, students from all the organizations in the Knowledge Alliance busied themselves with the question of how to limit the impact of COVID-19 on the daily lives of the inhabitants of Utrecht. In the **Food 4 Health and Safety challenge**, students looked for a new food concept for Defense in cooperation with this ministry and the Ministry of Economic Affairs and Climate. 18 Utrecht scientists from the Knowledge Alliance also received a '**Unusual Collaborations Grant**' to solve social issues within four projects: The Power of One, Defeating Chronic Pain, Structures of Strength, and Data Driven Dashboard.

AnDREa: collaborating in research

Together with Erasmus MC and Radboudumc, UMC Utrecht developed the digital research environment Azure DRE. In 2021, UMC Utrecht implemented Azure DRE and helped researchers to make optimal use of it. This digital research environment contributes to Open Science. It enables researchers to store and analyze data safely across institutions. Researchers from various institutes can thus easily work together on data and thereby co-build results with an impact for society. Data is also traceable and complies with legislation on data-protection (General Data Protection Regulation). Diligence in dealing with patent information is thereby guaranteed. Azure DRE supports the ambitions of UMC Utrecht to accelerate on content. The consortium of Erasmus MC, Radboudumc and UMC Utrecht has switched to a BV (AnDREa BV), of which UMC Utrecht became a shareholder.

Regional and local cooperation

Of course, besides international and national cooperation, our regional and local collaborations are essential for healthcare, research and education. Some worthwhile developments in 2021 include:

Oncomid

To give people with cancer the best care in the right place, we work with other hospitals in Midden-Nederland in the regional oncological network **Oncomid**. Besides UMC Utrecht, the Antonius Hospital, Diaconessenhuis, Meander Medical Center, Rivierenland Hospital, and Tergooi MC also take part in Oncomid. In 2021, Gelderse Vallei Hospital also joined Oncomid. Together, we provide oncological care in the region, an area with about 2,000,000 people. Together we share knowledge and conduct scientific research. We see to it that patients always benefit from the latest insights and techniques, and that we continue to update oncological care. General practitioners are closely involved in this regional network and spend a lot of attention to transmural care.

To give people with cancer the best care in the right place, we work with other hospitals in Midden-Nederland

In 2020 we signed an agreement called 'Data Delen Midden NL' ('Data Sharing Midden NL') with hospitals in Oncomid for the automated, secure and standardized sharing of patient information and imagery for joint oncological multidisciplinary consultation, by linking up electronic patient records (EPRs). Doctors now have real-time access to each other's information and can provide optimal assistance to patients. Each year we discuss more than 6,000 patients in regional oncological multidisciplinary consultations. 'Data Delen Midden NL' is an innovative program by which a standard for the Netherlands is being elaborated in the Utrecht region. In 2021 we started using an app in Oncomid in which for each tumor type, all joint protocols and guidelines, clinical care paths, studies and contact details of colleagues in the region can be found. We also used grant money from the Citrien fund to invest in regionally targeted, innovative information for patients with melanoma or with gynecological tumors.

Health Hub Utrecht

UMC Utrecht is an active member of **Health Hub Utrecht**: a 'regional innovation ecosystem for health and happiness' that brings healthcare professionals, researchers, policymakers, designers and entrepreneurs from the Utrecht region together. Together, we aim to make it possible for everyone in the Utrecht region to grow up healthy, live a balanced life, grow old happily, and die in dignity. And to let all inhabitants benefit as equally as possible from the growing prosperity in our region. Within the Health Hub, there are three coalitions: Neighborhood prevention, Digital Transformation, and Attractive Labor Market.

UMC Utrecht together with the city of Utrecht acts as driver of the Health Hub. In 2021, Public Health researchers of the Julius Center of UMC Utrecht, together with partners in the Health Hub, drew up a regional overview to get detailed insight in pressure points regarding care and wellbeing. This regional overview consists of a quantitative view based on existing data and a qualitative interpretation of the data via interviews with inhabitants and professionals. Based on this, substantiated priorities are defined for the next, more intensive phase of cooperation within the three coalitions.

Transmural Coordination Center

In 2021 the Executive Council of UMC Utrecht ordered the establishment of a Transmural Coordination Center (TCC). The purpose of this inhouse center is to coordinate and optimize transmural cooperation between specialists at UMC Utrecht and general practitioners in the region. The TTC works on expanding network care for patients in the Utrecht region through support, innovation, stimulation and connecting of excellent transmural cooperation with first- and second-line care institutions. The center must for example contribute to better logistic cooperation (e.g. the punctuality and content of release reports), better transmural safety (e.g. drug transfer and discussion and prevention of transmural incidents), realization of transmural innovation within the regional care network (in 6 test gardens), and more efficient cooperation in research and education.

Our organization

To address the changing demands of society and perform our core tasks of healthcare, research and education effectively, we must be and remain agile and financially sound. This means: flexible and efficient in working together, continuously improving and innovating, developing our human capital, and organizing incisively and sustainably. Modern, efficient and sustainable management is our guiding principle here.



Highlighted figures



938.573 KG
recyclable waste
(42%)



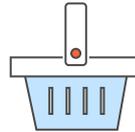
1.296.124 KG
non-recyclable waste
(58%)



12.679.755 m³
gas procurement



15.132.413 kWh
green electricity procurement
(Dutch wind)



39,4%
sustainable procurement



41%
sustainable energy

An agile organization

Together for the Patient

In 2016 we started with a new work method in our organization: Together for the Patient. The guiding principle for this method is: what can we do better for our patients? Multidisciplinary cooperation and ongoing improvement are central here. We do this with the help of daily and weekly starts. Ideas to improve care or our way of working, are tested directly in our daily jobs. And we measure the effects thereof. In this way we sustainably increase the satisfaction of patients and employees, the quality and safety of our care, and our productivity. In 2021 we completed the program Together for the Patient, and the management and development of this work method became anchored in a single department of the Strategy and Policy directorate. Working together in a multidisciplinary way is now common practice throughout UMC Utrecht. We keep looking to see what we can do better, and build further on the foundation that has been laid for multidisciplinary cooperation. So far until 2021, we have collected and discussed more than 15,000 ideas for improvements and completed, and thousands of bigger and smaller improvements were taken through.

Management standardization

At UMC Utrecht we want to provide the best possible service to our patients, healthcare professionals, researchers and students. We therefore standardize our way of working wherever we can. This ensures efficiency, fewer risks, and optimal results.

At UMC Utrecht we want to provide the best possible service to our patients, healthcare professionals, researchers and students

In 2021, we succeeded in centralizing the procurement, management and maintenance of medical devices. This includes a total of over 5,000 medical devices in 35 departments within six divisions. This centralization enables us to work more efficiently, and to control maintenance more effectively, in line with the covenant for health technology.

In 2021 we furthermore completed the standardization of information supply for management purposes at UMC Utrecht. With good management information and recognizable KPIs (key performance indicators), all departments can now be managed in a comparable and recognizable way, so that employees who switch from one department to another can work in an identical and seamless manner. In addition, processes in support service departments, such as staff & organization, project control, and marketing & communication, were optimized and standardized in 2021. Likewise in 2021 we standardized our cell phone system to ensure that all colleagues - those who are working at UMC Utrecht as well as those working from home - can be reached. At the end of 2021, we started to split up and change the coordination of care duties and facilitating tasks like cleaning, feeding and logistics in care units. This enables us better to ensure service continuity in care departments, and allows medical professionals to focus on their care duties (with more hands per bed).

OGSM

At UMC Utrecht we translate strategy, goals and KPIs into concrete plans for each department. Since 2020, we have been doing this according to OGSM methodology (objectives, goals, strategies and measures). Hereby each department can translate our Connecting Worlds strategy into a year plan on a single A4 sheet. With the OGSM methodology, UMC Utrecht can focus more on collective goals, and each department can contribute to it in a tangible and effective manner.

Accommodation

UMC Utrecht is building the hospital of the future: a place where the best care for our patients, a pleasant work environment for our employees, and an optimal training climate for our students will come together. Topics like sustainability, efficiency and flexibility are of course of the highest importance here. Our guiding principle is to accommodate the needs of the users of buildings and areas, such as patients, visitors, employees, students and cooperation partners.

Strategic development outlook for accommodation

In 2018, we started with the development of an integral outlook for the future of our accommodation. More than 30 years have now passed since UMC Utrecht was built, which makes renovation essential. Since then, developments in the fields of care, education, research and technology have also taken place at incredible speed. Besides that, our physical environment - the Utrecht Science Park - has changed considerably. These changes were sped up by the COVID pandemic and continuing digitalization.

Patient care increasingly takes place at home and digitally, and patients have more and more of a say in their own care process. This has changed the role of the healthcare professional, the care process, and the needed accommodation facilities. We have worked this out in our longterm **outlook on care**. During the COVID pandemic, our office employees mostly worked from home, and in the future, hybrid working will remain the standard. This means that fewer fixed workstations and more flex areas will be necessary, and that there is a need for meeting areas where hybrid consultation can take place (with some colleagues who are physically present, and others who are connecting from home via video). Adjustments in and to our building and our environment are therefore essential.

By means of phasing we will ensure that primary processes remain fully operational throughout the entire renovation

Our strategic development outlook for accommodation consists of seven programs, namely: outside areas, public areas, outpatient clinics, clinics, offices, Wilhelmina Children's Hospital (WKZ), and the Central Sterilization Department (CSA). We will be conducting these programs in six phases over the next fifteen years. That way we will be flexible and can continue along the way to respond to societal changes and the changing expectations of users. During the execution process, we shall keep asking for input and continuously adapt our plans accordingly. During renovation, some inconvenience for patients, visitors and staff will be unavoidable. By means of phasing we will ensure that primary processes remain fully operational throughout the entire renovation.

Opening of the Central Sterilization Department (CSA)

In January 2021, we opened our **new Central Sterilization Department (CSA)**. The sterilization of all medical devices in UMC Utrecht is handled at CSA. This new, innovative department is controlled by robot technology. It is a first in Europe. As robots relieve staff of the ergonomic burden of, for example, lifting heavy packages of instruments, the department can respond flexibly and dynamically to supply and demand, and ensure that the right instruments are always in the right place at the right time.



Opening of a second hybrid OR

In April 2021, a second hybrid OR was opened at UMC Utrecht. In this OR, state-of-the-art image technology (image-guided therapy) and innovative OR apparatus are combined so that we can perform image-guided operations on patients with acute trauma or acute vascular disorders. Image-guided operations are less invasive for patients, since there is less need to open the patient's body.



Operating room for children with brain tumors

Wilhelmina Children's Hospital, which is part of UMC Utrecht, and the Princess Máxima Center are building together on an ultra-modern operating room to treat brain tumors in children. The first pile for this 'Intra-Operative MRI OR' was driven in June 2021, and the operating room will be completed by mid-2022. There are only a few places worldwide where such a combination of MRI and OR is used in practice. An MRI in an operating room has important benefits. It makes it possible to get new MRI scans of the operated area while neurosurgery is happening. This gives surgeons real-time information on the size of the remaining tumor, and how it connects with healthy surrounding brain tissue. The neurosurgeon can then remove more tumor tissue more safely and precisely, which may prevent the need for a follow-up operation.

There are only a few places worldwide where such a combination of MRI and OR is used in practice.

Ronald McDonald House in Utrecht

At the end of 2021, together with the city of Utrecht, the province of Utrecht, Utrecht University, and Ronald McDonald House, we chose the **new location for the Ronald McDonald House in Utrecht**. The new Ronald McDonald House will be in or near the still-to-be-built entrance building of UMC Utrecht. This location, just like the present one, is close to the Wilhelmina Children's Hospital as well as the Princess Máxima Center, which means that parents can quickly be with their children. In addition, development at this location will have a minimal impact on the natural environment and nearby UNESCO world heritage site of the 'Hollandse Waterlinies' (Dutch water lines). This choice is in line with the wishes of local residents and other parties not to build in green areas, and with it we are taking an important step in accomplishing our goal to let our buildings fit in even better with the needs of our patients, students and staff.

Sustainability

We want to contribute to a healthy life and a healthy society, not only for ourselves, but also for future generations. We want to increase our positive impact on health by reducing our negative impact on the environment and climate. We do this by offering future-proof healthcare, education and research, in an economical, social and environmental sense.

More than half of our CO2 emissions are caused by our buildings. We therefore developed and established a CO2 roadmap in 2020, in which we worked out with what measures we could reduce the CO2 emissions of our buildings by 50% in 2030, and by 95% in 2050. We shall use this roadmap as a framework for our building projects within our **Strategic Development Outlook for Accommodation**.

More and more healthcare professionals at UMC Utrecht are also working on make their care process(es) more sustainable. Healthcare professionals are pooling their forces in the UMC Utrecht Network for green healthcare professionals. In this network, which now consists of about 300 professionals, knowledge, ideas and best practices are exchanged and concrete projects initiated and coordinated, whereby sustainability can be accelerated and upscaled. The network also serves as a sounding board for UMC Utrecht-wide sustainability initiatives.



Note: We were not able to fully calculate the CO2 footprint for 2021 on time due to the absence of part of the data. We shall publish the exact CO2 footprint for 2021 on our website as soon as all the figures are available.

Sustainability outlook in education

In our education, we are working hard to expand the number of educational moments in which attention is given to Planetary Health. To introduce a clear line for the long term, the Green Team Education in 2021 drew up a vision paper on how sustainability should feature in education. The intention is that all students must get an understanding of how environmental topics like climate and biodiversity fit in with each other and with healthcare, think about how they see their own role in making the (bio)medical sector more sustainable, and learn how they themselves can make a difference in the field. The vision paper has a wide reach and each educational program will be working on their own plan of attack.

ePlanet

Led by UMC Utrecht, the European ePlanet consortium (which consists of UMC Utrecht, Charité Berlijn, Gent University, Karolinska Institutet Stockholm, and the game-design company Superbuff) has been working since the end of 2021 on an online platform for modules on Planetary Health to be used in the medical curriculum. In addition to the usual teaching methods, they are also creating modules with a gamification aspect. As a player, you are then challenged to really get your teeth into the subject. You learn about how health and the environment go together at an individual, local and global level, and how you as a doctor can strike the right balance, for example when choosing a treatment. The project is financed by the EU's Erasmus+ program, and the modules will be freely available. The education platform is expected to be ready at the start of 2023.

Hub Circular hospital

Within the Knowledge Alliance of TU/e, WUR, UU and UMC Utrecht, besides Preventive Health, Circular society is an important topic. The Circular Society work group is working on the transition to a sustainable circular society by combining the knowledge of WUR, TUe, UU and UMC Utrecht and finding responsible solutions to limit the use of resources. Two hubs were formed in the work group in 2021: Circular inclusive cities, and Circular safe hospitals.

At the beginning of 2021 the work group organized two sandpit sessions where researchers were challenged to come up with concrete research proposals. For the Circular safe hospitals hub, this led to four concrete research proposals. Each of these studies received a small grant of EUR 23,000 from the work group. Two of the studies focus on disposables and were launched in 2021: one is a study on barriers and possibilities for replacing OR disposables with circular alternatives, and the other is a study on circular business models for cataract surgery. The other two studies, which are kicking off in 2022, focus on the waste of medication, and drug residues in waste water.

In addition, WUR and UU students tackled various OR-related research questions – including environmental impact analyses to make anesthesia, blood-pressure cuffs, and laryngoscope blades more sustainable. These studies provide tangible leads for further increasing sustainability in the OR.

Green gynecology

At the initiative of the Gynecology department, research was conducted in 2021 by CE Delft to compare the environmental impact of disposable steel gynecology instrument sets compared to a reusable steel version.

After only three uses, the reusable instrument set already appears to have a lower impact on climate and human health over the entire life cycle. The impact of sterilizing reusable sets is much smaller than the process of manufacturing, transporting and recycling a new single-use set. Extrapolated to the average number of births at UMC Utrecht per year, using a reusable instrument set can prevent an annual climate impact of 1,580 kg of CO₂-eq. The conclusion of the report served as an incentive for the Gynecology department to replace their disposable sets with a reusable set. This switch will be made in 2022.

Our finances

What are the financial results for 2021 and how have we dealt with (financial) risks to protect our reputation and continuity?



Impact of COVID-19 on our finances

As in 2020, the umbrella organizations of hospitals, UMCs and health insurers together made agreements at an early stage already to offer hospitals and UMCs that provide COVID-19 care the guarantee of coverage for their COVID-19 costs and lost income. This was put down in a framework agreement in Medical Specialist Care (MSZ) of 2021 for healthcare contracts and a financial safety net. In addition, phase 2d of the 'COVID-19 upscale plan' once again came into force on 25 November 2021. This phase imposes a number of requirements on hospitals and UMCs, for instance to downscale care and the distribution of patients. Phase 2d stipulates that during this phase, health insurers will where necessary agree to take care of any possible financial consequences. There may be no financial impediment to the establishment and execution of agreements that are made in the scope of the regionally coordinated acute care chain (ROAZ). As in 2020, the MSZ arrangement in 2021 also includes a hardship clause. This hardship clause provides the guarantee that hospitals will not realize any negative result for 2021 as a result of COVID-19. For revenues that are not covered by health insurers, the Minister of Health, Welfare and Sport has pledged to make an effort also in 2021 to prevent hospitals from going into the red. The VWS Ministry is also making an availability contribution to help cover the extra costs of IC beds in 2021 and 2022. This has helped to limit the uncertainties caused by COVID-19 in the winding up of the (claims) years 2020 and 2021.

Due to the considerable pressure on our staff and organization, we had to make choices and determine priorities with regard to our programs/projects.

It is good to see how on the basis of trust all stakeholders, including hospitals, health insurance companies, the safety region and the VWS Ministry, have worked hard and responded fast in the past two years to mitigate the various financial risks of COVID-19 for healthcare, education and research. When drawing up the financial statements for 2021, we still had to deal with accumulated arrangements from 2020 and 2021 and uncertainties over the detailed application of these arrangements and the use of and accountability for resources received. We took account of these uncertainties in drawing up the financial statements.

Besides our core tasks of healthcare, research and education, our underlying management and (strategic) programs/projects were also affected by COVID-19. Due to the considerable pressure on our staff and organization, we had to make choices and determine priorities with regard to our programs/projects. Certain programs/projects were still able to continue fully or partially in 2021, while other programs/projects had to be postponed. These were in particular projects that relate to the implementation of our Strategic Accommodation Plan (SOH) and those relating to our Connecting Worlds strategy. The expenses that would have accompanied these were therefore not made in 2021. We moved these forward to the coming years.

Key figures

Below, based on financial key figures from the consolidated financial statements, we give a short summary of our financial developments and achievements (in millions of euros).

	Operating income	Staff costs	Net profits
2021	1.485,9	898,5	4,9
2020	1.391,8	840,7	9,6
2019	1.273,5	784,8	11,9

	Group equity	Provisions	Total assets
2021	413,7	45,0	977,5
2020	408,2	36,2	906,7
2019	399,9	34,8	874,0

	Return on equity	Capital ratio	Liquidity
2021	0,3%	42,3%	1,57
2020	0,7%	45,0%	1,64
2019	0,9%	45,8%	1,67

Financial results

Our operating income was once again higher than in previous years (increase of approximately EUR 94 million (7%)). This increase is partially due to higher proceeds from care services (e.g. expensive drugs) and partially to an increase in other revenue (externally funded research projects). Healthcare revenues in 2021 were influenced by COVID-19. The mix of activities changed during the COVID-19 years, which also means that revenues have changed.

As opposed to the increase in operating income, there were also higher costs. Our staff costs went up 7% from the previous year (increase of approximately EUR 58 million). This increase is in part due to CLA developments, in part to the increase in staff number in research, and in part to the impact of COVID-19. Due to COVID-19 for example, absenteeism further increased, we had to recruit a lot of external people on a temporary basis, and our employees took less holiday leave.

Patient-related costs were also higher than in 2020 (increase of approximately EUR 33 million), particularly due to higher costs caused by expensive drugs, higher costs related to externally funded research projects, and the costs of COVID-19.

On balance, these developments have led to a consolidated result of EUR 4.9 million. This is about EUR 5 million lower than the result over 2020, and also about EUR 5 million lower than the budget for 2021. This result is due especially to a cumulation of incidental income and expenses that came out negatively in terms of balance during this complex year of COVID-19. For example, the incidental income from proceeds of about EUR 5 million from the sale of one of our holdings and the release of a risk provision that had been made earlier, was canceled out for about EUR 4 million by the newly formed generation-scheme provision and allocations on balance to other staff provisions. The increased income and expenses from expensive drugs and externally funded research projects contributed only slightly to the increase in result. For these developments, income and expenses were more or less equal to each other.

The result was added as a whole to our equity capital. This enabled us to maintain our healthy equity position. Our financial ratios went down slightly compared to previous years, but are still healthy. We thereby amply meet the minimum requirements agreed with our banks in terms of capital ratio and Debt-Service Coverage Ratio (DSCR).

Consolidated participating interests had a negative impact on our result on balance of about EUR 1 million.

Risk control

UMC Utrecht is an extensive, open organization in a dynamic environment. This naturally entails risks. Due also to our social role and the financing of our core activities with public funds, we are obliged to exercise adequate control over these risks and to be conservative when it comes to risk appetite.

At the end of 2020, we started off with a trajectory to raise our risk control to a higher maturity level. Focal points here are: integrality, uniformity, and alignment of risk control with existing procedures. In establishing it, we have sought alignment with the COSO-ERM framework. For this, we started on two trajectories.

The first trajectory led to a strategic heat map of risks. These are the main risks that could stand in the way reaching our goals. In 2021, we held the control of these risks up to the light, in order of priority, and where necessary, started to improve this control. This resulted at the end of 2021 in an updated heat map, which we explain in the following paragraph.

The second trajectory pertains to the setting up of a framework, in which we bring together all activities that relate to risk management at a strategic, tactical and operational level. One component of this was a strategic risk analysis, whereby we eventually identified the thirteen biggest risks in our organization. UMC Utrecht has a high degree of decentralization. In accordance with the principles of the COSO-ERM framework, the responsibility for risk management lies with our divisions, directorates, and departments. For the analysis and control of these risks, they are assisted by disciplines for instance in areas such as patient safety, labor conditions, integral safety, data security, infection prevention, and financial continuity. This decentralized aspect will mostly be maintained, but will be supplemented by a central Risk & Compliance Officer who will be appointed to monitor and if necessary rectify the process. Integral risk management will enable us better to identify possible risks in the organization and combine them in order to control them more effectively. This gives us more certainty that we can reach our strategic goals.

We are also taking active steps in terms of fiscal risk control. Our intrinsic motivation to comply persistently with fiscal laws and regulations alone is not sufficient to keep us in line with the covenant on horizontal supervision with Tax Authorities from 2023 onwards. Recently we started to formalize our tax control framework based on COSO-ERM. The implemented actions should lead to a solid, up-to-date framework by the end of 2022.

Risk overview

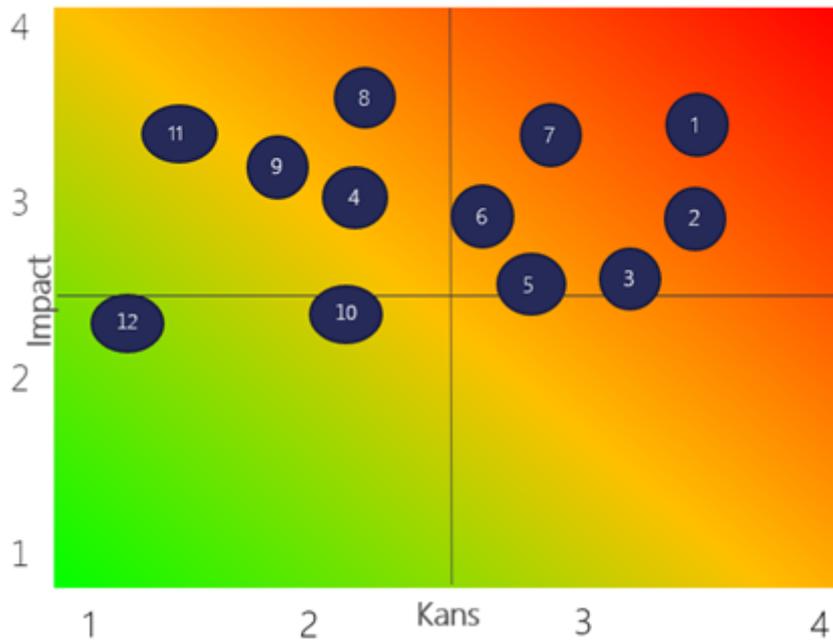
As last year, COVID-19 remains an important concern

COVID-19 had a great impact on our entire organization. The downscaling of care, growing waiting lists, higher extra costs due to COVID-19, more difficult access to care for our patients, increased work pressure for staff and more absence due to sick leave, and government measures like lockdowns and social distancing, had a significant effect on patient care. Education and research were also negatively impacted in 2021. These developments in particular proved costly for our staff and management activities.

In 2022 too, COVID-19 will have an impact on employees and management activities, and our patients will experience the consequences thereof. 2022 is seen worldwide as the year in which COVID-19 should be downgraded to the status of a regular virus. If this happens, previously postponed care will be our highest priority. Whether this can be accomplished will depend a lot on how scarce staff and capacity and be deployed. How it will be funded is also relevant. The additional demand for care due to postponed treatments is counterproductive for the limiting of care funding from the Global Agreement on medical specialist care. Further agreements and effective funding will be crucial in this regard.

Other risks

The heat map below gives an overview of the main strategic risks at the end of 2021, including COVID-19. Featuring on this heat map depends on the one hand on the estimated chance that a risk may occur, and on the other hand, on the potential impact that the risk would have on reaching the organizational goals. The size of the dot indicates to what extent we believe that the control measures are sufficient.



The following overview shows which risks were taken up in the heat map above.

Number	Description	Treatment
1	The risk that UMC Utrecht may not have sufficient (qualified) staff at its disposal.	Action undertaken
2	The risk that the intended cross-division (multidisciplinary) changes may not be successful.	
3	The risk that a (further) concentration of healthcare in the Netherlands may lead to loss of specific care that is essential for UMC Utrecht.	
4	The risk that UMC Utrecht may not demonstrably or in a timely manner comply with laws & regulations and internal guidelines.	
5	The risk that the proposed efficiency goals for certain divisions will not be attained.	
6	The risk that large programs that are underway or that have been planned, will not yield the intended returns.	
7	The risk of impactful cyber incidents leading to data loss or IT system failure.	
8	The risk that patient-care incidents or a data leak may cause reputational damage for UMC Utrecht.	Monitoring and assessment
9	The risk that UMC Utrecht may lose its position as a leading research institute .	
10	The risk that the intended benefits from strategic cooperations will not fully be obtained.	
11	The risk that UMC Utrecht may not meet external and internal goals in terms of sustainability .	
12	The risk that the quality of education may deteriorate and that UMC Utrecht might become less attractive for top talent.	

Based on the ranking and our own risk policy, we have decided to focus on the first seven risks. For each risk, we shall determine an actionee who will:

1. Identify which control measures will reduce the named risk to what an extent.
2. Identify which additional measures are needed to reduce the risk to the desired level, and assess the efficiency of existing measures.

Other risks will be evaluated on a continuous basis to decide whether we may have to shift our focus.

The fact that we intend in the immediate future to take action with regard to the first seven risks does not imply that these risks are currently not or not sufficiently controlled. Below are further explanations regarding the risk-management and control system.

Risk-management and control system

To execute our core tasks, make decisions and mitigate risks in a responsible way, the risk-management and control system in 2021 also included the following:

Performance dialog	<p>We organize weekly performance dialogs with each other. Here, we discuss the state of affairs at all levels in the organization via KPIs, in areas of concern: patient experience, employee satisfaction, productivity, quality and safety, and impact. Display dashboards give insight into the state of affairs for each area of concern and per KPI at central and department level, thereby facilitating monitoring and steering.</p>
Planning & control cycle/ Management of contracts	<p>Our planning & control cycle starts with an annual update of the main internal and external opportunities and threats, also those that come from our strategy. Management contracts (in which a risk analysis is included and actions made concrete via the OGSM methodology) and budget that are based on this form the basis for the monthly monitoring of financial and non-financial achievements, which include risk control, and are a first step towards taking corrective measures. Divisions and directorates have included KPIs in their monthly reports in fields such as quality and safety, employees, and finance.</p>
Policy and guidelines	<p>At UMC Utrecht there are formal policies and guidelines for a variety of focal areas, such as scientific research, quality and safety of care, and the protection of data and automated systems and finances. Where possible, we have embedded policy in our systems with the aim to guarantee optimal compliance via IT applications.</p>
Targeted control tools	<p>Control of quality and patient safety is done via SAFER (Scenario Analysis of Failures, Effects and Risks). SAFER is a methodology for proactive (or predictive) risk analysis. We have made a comprehensive compilation of guidelines and protocols for quality and patient safety available in one place where all employees can access it. Reporting incidents is extremely important, and we support it in various ways.</p> <p>For risk analysis in care registration, and based on Horizontal Supervision, we conduct an annual dialog with health insurers and together establish an overview of risky care processes. For these risks, we set up control measures and stand accountable, following a test by an external accountant, towards the health insurance companies.</p>
'Three lines of responsibility'	<p>Within UMC Utrecht, we have a 'three lines of responsibility' system for risk control. Our Internal Audit department has been operational for some years already. This department works from an annually updated concern-wide risk analysis and an annual audit plan. Based on this risk analysis and the annual plan, the department conducts audits and reports on these to the Executive Board and the Supervisory Board. At present, compliance and risk management is being defined closer as a second-line function.</p>
Attention to soft controls	<p>Risk control also means encouraging and ensuring the desired behavior and integrity among employees and management, which is called soft controls. Structural attention is given to soft controls at UMC Utrecht, in the following areas among others.</p>

- By recruiting the most suitable people with the right educational background and experience, providing education and development during their career and stimulating a safe working environment, we strive to limit risks and, if they do occur, to learn from our mistakes. One of the topics that we are specifically focusing on at the moment, is leadership. All leaders at UMC Utrecht have followed an intensive leadership and cultural learning course via our program Connecting Leaders. After they have completed the course, they have the duty to follow periodical further training on cultural and behavioral topics of concern.
- Soft controls form an implicit part of audits and advice from the third line (internal audit). In the past year for instance, soft controls were included in the assessment for advising on and auditing of strategic programs such as SOH, HiX and Works4U,
- Maintaining a healthy and stimulating social climate, for example via a survey on social safety at Aios and Anios, conducted in 2021.

Looking ahead at the financial situation in 2022

How will COVID-19 impact 2022?

Whereas the situation was still a source of concern at the start of 2022, we are now seeing the positive impact of the relatively mild Omicron variant. Government measures are being scaled down, and we see the pressure on hospitals steadily reducing. That does not necessarily mean that everything will return to normal in the summer. Before 2022, the entire sector, and therefore also UMC Utrecht, stood before the challenge to restore the balance in healthcare as a first priority. Before we have the capacity to catch up on care, the impact of COVID-19 must first be limited sufficiently, the deployment of medical staff must return to the desired level, and (regular) care must once again be stabilized at the intended 100%. After that, the challenge will be to catch up on postponed care.

In 2022, there will in principle no longer be a generic continuity contribution (CB) scheme. Financial continuity is guaranteed in individual contracts with health insurance providers. On 23 December however, under the denominator 'Joint COVID agreements MSZ 2022', wider agreements were established between the Dutch Association of Health Insurance (ZN), the Dutch Association of Hospitals (NVZ), and the Dutch Federation of University Medical Centers (NFU). These agreements are necessary because a number of COVID-19-related risks cannot (or not easily) be solved through bilateral contracts. To summarize, wider agreements for 2022 pertain to:

- Once again a hardship clause stipulates that for hospitals and UMCs that announce a negative result due to insufficient compensation for the impact of COVID-19, the 'Joint COVID agreements MSZ 2022' will apply, and that for this purpose, a solution will be provided together with the two biggest health insurance companies.
- Continuation of an availability compensation for additionally provided IC capacity.
- Suitable compensation for production loss.
- (Partial) coverage of generic additional costs due to COVID-19.
- Compensation to cover COVID-19 care.

There is also an 'Omicron clause' as a safety net for currently unforeseeable risks of virus mutations. In these cases, ZN, NVZ and NFU will once more consult with each other to mitigate undesirable effects. Health insurers furthermore have the additional duty to compensate for the financial consequences of downscaled care, in any event during the effective execution of the 'COVID-19 Upscale Plan' that was proposed at the start of 2022.

To summarize, in the event of any uncertainty caused by COVID-19, in 2022 we as UMC Utrecht can again rely on individual and collective agreements with health insurance companies (as mentioned above) and allocations from the VWS Minister.

Before we have the capacity to catch up on care, the impact of COVID-19 must first be limited sufficiently, the deployment of medical staff must return to the desired level, and (regular) care must once again be stabilized at the intended 100%.

Impact on activities

Due to the large impact of COVID-19 on our organization, certain major strategic projects and investments were implemented in phases in 2021. For 2022 as well, certain decisions were made by our Executive Board and priorities defined to avoid putting too much pressure on our organization and staff. This means that certain actions and costs are shifted to following years.

Other areas of concern for the coming years

Besides the challenges due to COVID-19, other challenges will also require our attention in the coming period. These include:

Pressure on tariffs combined with a limiting of growth

In light of the public discussion on the availability of care, which has also been laid down in the Global Agreement, and the right care in the right place, we are keeping account of the pressure on our budgets and tariffs, knowing that our costs will increase in the coming years for a variety of reasons.

Significant investments in accommodation and ICT

Due to the age of our buildings, large-scale renovations in various places will be necessary in the next few years [<link naar Huisvesting in Onze bedrijfsvoering>](#). The biggest part of these renovation projects will be in the next decade. To tackle these building and financial challenges in a proper way, we have drawn up an integral vision on accommodation. This vision defines an execution in several phases, with a recalibration and evaluation before the start of each subsequent phase. At the moment we are preparing the transition to a next phase. Hereby, the entire vision will once again be recalculated financially and submitted for external approval. An important issue here is the development of sharply rising building costs over the past period. We shall not start with the next phase before it has clearly been concluded that the entire package of renovation projects is financially feasible. We expect that attraction of additional funding will only take place from around 2025.

In the coming years we shall also have to invest in ICT due to the steadily increasing digitization of processes within UMC Utrecht, developments in the fields of e-Health and big data, and scheduled investments to replace IT components (hardware, system software, and applications).

Maintaining financial continuity

As indicated before, the financial impact of COVID-19, due to the currently visible 'weakening' of the impact of the virus and arrangements and agreements with health insurers and the authorities, is now relatively limited. We recalibrate our liquidity budget several times a week so that we can respond immediately to changes in our financial position if necessary.

As for other developments, we have explicitly moved them forward to the 2022 budget and to the longterm budget until 2025. These calculations are showing positive results, which means that we can maintain a healthy equity capital in the longer term. Our liquidity position is also sufficient to meet all obligations in the coming years.

Our governance



Management and structure

The tasks and competencies of the Executive Board and the Supervisory Board are defined in the administrative regulations. Within the Executive Board, we have made a portfolio allocation.

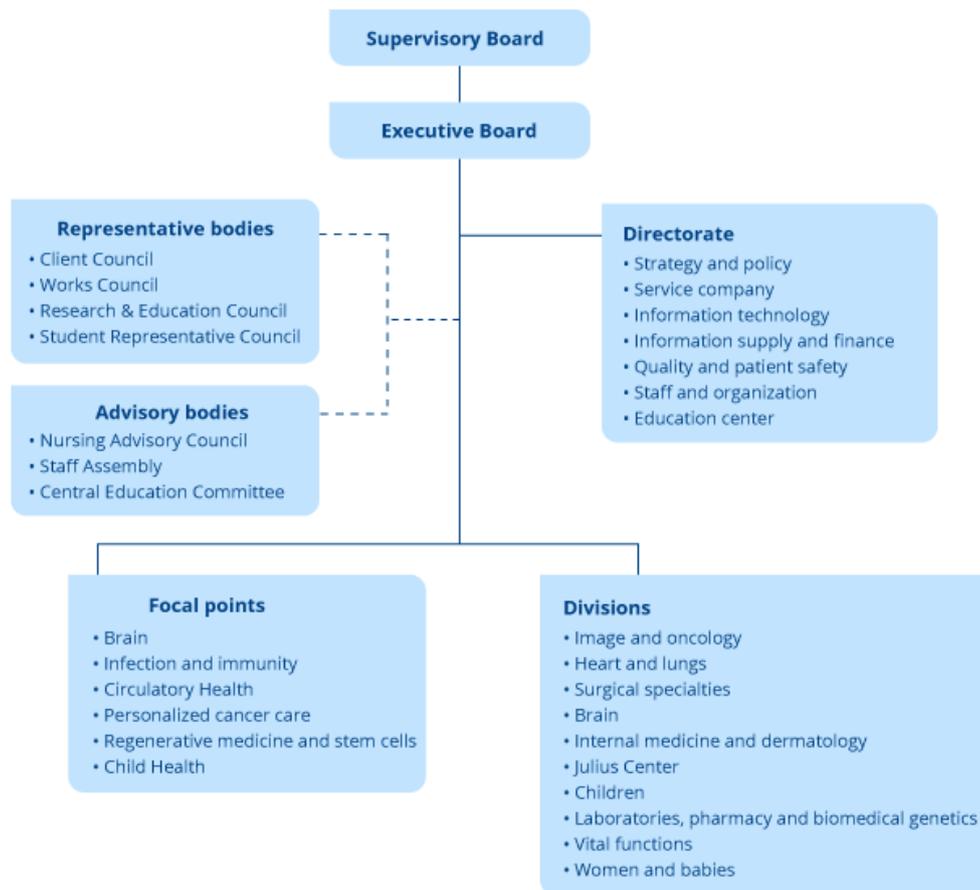
Legal structure

University Medical Center Utrecht (UMC Utrecht) is a legal entity governed by public law under the Act on Higher Education and Scientific Research (WHW).

All activities at UMC Utrecht related to the commercialization of patentable inventions and the creation of spin-off companies fall under UMC Utrecht Holding B.V. Under the Dutch Patents Act of 1995, UMC Utrecht is the owner of all patentable inventions by its staff members. The Executive Board has entrusted the management of these to Utrecht Holdings. This includes the start and coordination of patent applications, the search for suitable commercial partners, and license negotiations. UMC Utrecht Holding B.V. pioneers innovation and knowledge valorization through patent control, the licensing of knowledge or participation in BVs where knowledge is developed further, and provides services (care-related innovations that do not involve any patents or licenses). UMC Utrecht is the sole owner of UMC Utrecht Holding B.V.

The public-law entity UMC Utrecht is accredited under the Care Institutions Accreditation Act (Wet toelating zorginstellingen, WTZi) and applies the Governance code for UMCs. UMC Utrecht is registered at the Chamber of Commerce under KvK number 30244197 and company number 000023527250.

UMC Utrecht organization chart



Management philosophy

The management philosophy of UMC Utrecht is based on three lines of responsibility:

1. Divisions and departments are according to the first line wholly responsible for their own operational process and risk control. Through self-monitoring they supervise how effectively they are doing it with regard to policy and strategic frameworks.
2. Directorates are in the second line responsible, together with health-care providers, for taking the strategic goals of UMC Utrecht, operational risks and laws and regulations that apply to their – content supporting – field, and translating it into policy. The focal points do this in the field of health care, research and education. In coordination with the divisions, they issue a supported proposal that is submitted to the Executive Board for decision. Departments and focal points advise/facilitate the first line in the implementation of policy and monitor the organization-wide execution thereof. The second line monitors implementation and reports this to the first line, including the Executive Board.
3. The Executive Board is responsible for the strategy of the organization and is wholly responsible for business operations, compliance with laws and regulations and standards, and the realization of the strategic goals. The Executive Board is supported in this by an internal audit section that, based on an annually drafted audit plan, tests whether risks in the organization are sufficiently controlled, and where there may be areas for improvement.

A number of UMC-wide consultation structures facilitate and structure the coordination between division managers, board members, focal-point chairs, and members of the Executive Board: Strategic Consultation, Operational UMC Utrecht Consultation, Business Operations Consultation, Education Consultation, and Research Consultation.

Executive Board

The composition of the Executive Board was modified in 2021.

Mirjam van Velthuisen-Lormans, who had been a member of the Executive Board since 2013, was discharged as member of the Executive Board following her appointment as Chief Financial Officer and member of the Executive Board of ProRail as of November 1st, 2021. To replace Mirjam van Velthuisen-Lormans, the Supervisory Board of UMC Utrecht appointed Josefien Kursten as member of the Board with the portfolio management and finance (CFO), with effect as of January 1st, 2022.

Anouk Vermeer-de Boer announced in 2021 that she would be leaving UMC Utrecht as of April 1st, 2022.. She subsequently decided - when an in-house successor came to the fore at short notice - to hand over her activities as member of the Executive Board as of November 1st, 2021. To replace Anouk Vermeer-de Boer, the Supervisory Board of UMC Utrecht appointed Remco van Lunteren as member of the Executive Board with the portfolio operational affairs, with effect as of November 1st, 2021.

Members of the UMC Utrecht Executive Board in 2021:

Prof. M.M.E. (Margriet) Schneider, Chair

Margriet Schneider (1959) is Professor of Internal Medicine and a specialist in internal medicine and infectious diseases at Utrecht University (UU). She graduated in Medicine at UU in 1991 and in 1998 obtained her doctorate there. From 2004 to 2010, she held the position of Chair and Medical Manager of the new Intensive Care Center division, with the task to combine the four separate IC units at UMC and to innovate in a future-proof way and start up the Intensivist and IC nursing course. During this time, an international award-winning state-of-the-art intensive care unit was built on the roof of UMC Utrecht. In 2010 she was appointed as Chair of the Internal Medicine & Dermatology department and Internal Medicine instructor, and Chief Instructor for the Utrecht region. In November 2015 Magriet Schneider became Chair of the Executive Board of UMC Utrecht and in this capacity gave shape to the renewal of the UMC.

- Margriet Schneider holds the following additional positions in 2021:
 - NFU Chair (non-remunerated, position related)
 - Health Hub Utrecht ambassador (non-remunerated, position related)
 - Director of Koninklijke Hollandsche Maatschappij der Wetenschappen (non-remunerated)
 - Chair of Bestuurstafel Gezond Utrecht (non-remunerated)
 - Member of the Topspecialistische Zorg en Onderzoek (TZO) committee at ZonMw (remunerated, allowance to Friends of UMC Utrecht/WKZ)
 - Member of the evaluation supervisory committee JZOJP (remunerated, allowance to Friends of UMC Utrecht/WKZ)
 - Chair of ROAZ Midden-Nederland (non-remunerated, position related)
 - Board member of Oncomid (unremunerated, position related)

Prof. A.W. (Arno) Hoes, Dean and Vice-Chair

Prof. Arno Hoes (1958) has been Dean and Vice-Chair of the board of directors of UMC Utrecht since June 1, 2019. He is Professor of Clinical Epidemiology in General Practice at Utrecht University and was, until June 1st, 2019 Division Chair of the Julius Center for Health Sciences and Primary Care at UMC Utrecht. His research and teaching activities focus mainly on (early) diagnosis, prognosis and therapeutic interventions in cardiovascular disease and on clinical research methods. He has a wealth of experience in managing national and international scientific associations and was closely involved in drawing up a range of national and international clinical guidelines.

- In 2021, Arno Hoes held the following additional positions:
 - Chair of the steering group cluster cardiovascular risk management, Dutch Federation of Medical Specialists (FMS) (unremunerated, work-related)
 - Member of advisory commission, Dutch Association for Epidemiology (VvE) (unremunerated, work-related)
 - Chair of the Supervisory Board, DCVA (Dutch Cardiovascular Association) non-remunerated, work-related
 - Member of the Heart Failure Guidelines Task Force of the European Society of Cardiology (ESC) (non-remunerated, work-related)
 - Member of the Supervisory Board of the Netherlands Center for One Health (NCOH) (non-remunerated, position related)
 - Member of the Supervisory Board of Utrecht Holdings (non-remunerated, position related)
 - Member of the general board of the Dutch Clinical Research Foundation (DCRF) (non-remunerated, position related)
 - Member of the Supervisory Board, anDREa B.V. (digital research environment) (non-remunerated, position related)
 - Member of the editorial board, European Journal of Heart Failure (non-remunerated, position related)
 - Member of the ESC Heart Failure editorial board (non-remunerated, position related)

Ms M.H. (Mirjam) van Velthuisen-Lormans, member (until 1 November 2021)

Mirjam van Velthuisen-Lormans (1972) studied Health Care Policy and Management at the Erasmus University in Rotterdam. From 1996 until 1999 she was an external organizational consultant at the organization consulting firm Inter-Orga BV. In 2000 she joined UMC Utrecht where she filled a number of positions over a period of ten years, namely: business manager for Peri-Operative Care and SEH, business manager and manager Brain care division, business manager a.i. Utrecht Heart-Lung Center, member of the Daily Management, Severe Incidents Hospital, and member of the Management of the University Center for Sports Medicine. In 2010 she was appointed as member of the Executive Board of the Rivas Health Care Group, focusing on the Beatrix Hospital. Since October 2013 she was appointed as a member of the Executive Board of UMC Utrecht and until November 1st, 2021 was portfolio manager of Finance, Business Operations, IT, Sustainability, Accommodation and Real Estate. As manager, Mirjam van Velthuisen-Lormans gives direction and content to these fields.

- In 2021, Mirjam van Velthuisen held the following additional positions:
 - Member of the Supervisory Board Friends of UMC Utrecht/WKZ (non-remunerated, position related)
 - Member of the Supervisory Board of Health-RI (non-remunerated, position related)
 - Manager, Uithofbeheer partnerships (non-remunerated, position related)
 - Chair a.i. Board Cluster Gezond, EBU (non-remunerated, position related)
 - Member, Management Consultation, Regional Development Agency (ROM) Utrecht region (non-remunerated, position related)
 - Member of the External Advisory Board Executive Master of Science Finance & Control (EMFC) program at Nyenrode Business University (non-remunerated)
 - Member of the Nictiz Supervisory Board (remunerated)

Ms A. (Anouk) Vermeer-de Boer, member (until November 1st, 2021)

Anouk Vermeer-de Boer (1969) studied Technical Physics at HTS Eindhoven and General Business at Nyenrode University. She worked for 18 years (until 2013) in various positions at Philips Electronics B.V., in particular the Health Care division. She has built her career in export, new business development and innovation, and intellectual property licensing and sales. Her last position within Philips was General Manager of Philips Healthcare Solutions, overall responsible for multi-year partnership projects with health-care providers worldwide. From 2013 to 2015 she worked at DSM Biomedical as Business Unit Director Biomaterials. From 2015 until October 1st, 2018, she was a healthcare group manager at the Catharina Hospital in Eindhoven. Here she was responsible among other things for the Catharina Heart & Vascular Center. Anouk Vermeer joined the UMC Utrecht Executive Board on October 1st, 2018 as Chief Operations Officer. In this capacity, she is Chair of the Operational UMC Consulting and portfolio-holder of most of the (health-care) divisions and the directorate of Quality & Patient Safety at UMC Utrecht. Taking effect as of November 1st, 2021, she handed her position over to Remco van Lunteren.

- In 2021, Anouk Vermeer-de Boer held the following additional positions:
 - Member of the Supervisory Board of Utrecht Science Park (non-remunerated, position related)
 - Administrative Chair NFU-Consortium (non-remunerated, position related)
 - Member of the general management of the Netherlands Study Center for Technology Trends (STT) (remunerated)

Mr J.W.R. (Remco) van Lunteren, member of the Executive Board (as of November 1st, 2021)

Remco van Lunteren (1977) studied Organization, Culture & Management at Utrecht University. He started his career in 2003 as procurement and ICT manager and subsequently worked as general manager of M2 Vloeren, his family business. After that, he built up managerial experience with the province of Utrecht as deputy from 2010 till 2015. At UMC Utrecht, he was director for strategic alliances since 2015, and in 2019 became business operations manager of the Brain-care division. As crisis capacity manager at UMC Utrecht, he played an important part in 2020 and 2021 in the organizing and upscaling of care during the COVID pandemic. Remco van Lunteren joined the UMC Utrecht Executive Board on November 1st, 2021 as Chief Operations Officer. In this capacity, he is Chair of Operational UMC Consulting and portfolio-holder of most of the (healthcare) divisions and the directorate of Quality & Patient Safety at UMC Utrecht.

- Remco van Lunteren held the following additional positions in 2021 (as of November 1st, 2021):
 - Member of the Supervisory Board of A15 Apotheek (non-remunerated, position related)
 - Member of the Education & Patient Care Commission (non-remunerated, position related)
 - Vice-Chair of the Supervisory Board of PALLAS Foundation & NRG Foundation (remunerated)
 - Vice-Chair of the Board of the International Franz Liszt Competition (non-remunerated)
 - Chair of the Supervisory Board of Speelklok Museum (non-remunerated)
 - Chair of the Association of Former Members of the Utrecht Provincial Council (non-remunerated)

Supervisory Board

The Supervisory Board is in charge of continuously monitoring everything that happens at UMC Utrecht, which includes supervising compliance with laws, rules, guidelines, instructions and regulations that apply to UMC Utrecht. These tasks and competencies are described in more detail in the administrative regulations.

Members of the Supervisory Board are appointed by the Minister of Education, Culture and Science (OC&W). The Supervisory Board draws up a general profile for its composition, with attention to expertise, skills and diversity. This profile was updated in 2020 with regard to a vacancy that arose for 2021. For this, the Supervisory Board called upon the Executive Board as well as the participation councils.

Five committees advise the Supervisory Board in their respective fields and help the Board prepare for its decision-making. The Supervisory Board is responsible for decision-making. The five committees are:

- the Audit committee
- the Quality and Safety committee
- the Education and Research committee
- the Governance and HR committee
- the Defense committee

Composition of the Supervisory Board

The composition of the Supervisory Board was modified in 2021. As of June 1st, 2021, a vacancy arose when Gerrit van der Wal's second term ended. The Dutch Minister of Education, Research & Science, Anne-Mei The, was appointed as member of the UMC Utrecht Supervisory Board as of June 1st, 2021.

Furthermore, the Minister of Education, Research & Science at the request of the Supervisory Board exceptionally extended the Caroline Princen's second term - which was to end on February 28, 2022 - with one year until February 28, 2023. This request followed the announced departure on November 1st, 2021 of Mirjam van Velthuisen-Lormans, who had served as CFO on the UMC Utrecht Executive Council since 2013. In combination with the end of Caroline Princen's second term as Chair of the Supervisory Board on February 28, 2022 and the end of the second term on April 30, 2022 of the Chair of the Audit Committee - Peter Leijh - this would have led to discontinuity in the management and a great loss of experience in a short time. By granting the request to extend Caroline Princen's second term of appointment for a period of one year until February 28, 2023, a simultaneous discontinuity was avoided that would have arisen both in the Executive Board and in the Supervisory Board.

The composition of the UMC Utrecht Supervisory Board in 2021 was as follows:

Ms C.E. (Caroline) Princen, Chair

Main function in 2021: CEO Nuts Group

- Supervisory Board of UMC Utrecht: second term extended by one year, ending 02-28-2023
- Member of the Governance and HR committee
- Member of the Defense committee

- Caroline Princen held the following (additional) positions in 2021:
 - Member (Vice-Chair) of the Supervisory Board, Ordina
 - Board member, VUMC Alzheimer Center (until 3-1-2021)
 - Member of the Supervisory Board, EYE Film Institute (until 1-1-2022)
 - Chair of the Supervisory Board, Perspectief

Prof. M. (Marianne) de Visser, Vice-Chair

Previous main functions: neurologist and former Chair of the Outpatient Division of Amsterdam University Medical Center, and Emeritus Professor of Neuromuscular Diseases at the University of Amsterdam.

- Supervisory Board of UMC Utrecht: second term, ending 07-01-2024
 - Chair of the Quality and Safety committee
 - Member of the Education and Research committee

- Marianne de Visser holds the following (additional) functions:
 - Member of the Scientific Council for Government Policy (WRR), The Hague

- Member of the Supervisory Board, Leyden Academy, Leiden
- Chair of the Supervisory Board, LifeLines, Groningen
- Member of the Supervisory Board, Center for Human Drug Research, Leiden
- Board member, Voeding Leeft, Amsterdam
- Chair of the Program committee Memorabel, ZonMw
- Chair of the Board, Interest Group for Chronic Respiratory Support (VSCA)
- Board member, Genetic Engineering Committee (Bilthoven)

Dr. P.C.J. (Peter) Leijh, general member

Previous main functions: former Board member, Leiden University Medical Center

- Supervisory Board of UMC Utrecht: second term, ending: 04-30-2022
 - Chair of the Audit committee
- Peter Leijh holds the following (additional) functions:
 - Chair of the Supervisory Board, Holland PTC
 - Chair of the Chair of the Wilhelmina Children's Hospital Foundation fund
 - Member of the Supervisory Board, CHDR Jan. 1st, 2021
 - Member of the Supervisory Board, Netherlands Heart Institute
 - Board member, Medipark B.V. Shareholding Foundation

Dr. A.H.P. (Aloys) Kregting, general member

Main function in 2021: Chief Information Officer (CIO) at AkzoNobel NV (until 1-1-2022)

- Supervisory Board of UMC Utrecht: second term, ending 12-01-2024
 - Member of the Audit committee
 - Chair of the Governance and HR committee
- Aloys Kregting held the following (additional) positions in 2021:
 - Member of the Supervisory Board, De Volksbank
 - Member of the Global Research Board
 - Member CIO Platform

Mr. J.H. van Gelder, general member

Main function in 2021: Deputy Secretary General, Ministry of Finance

- Supervisory Board of UMC Utrecht: second term, ending 10-01-2024
 - Chair of Defense committee

Prof. B.A.M. (Anne-Mei) The, general member (from 06-01-2021)

Main functions in 2021: owner Tao of Care and 'Dementie achter de voordeur'; also endowed professor of Longterm Care and Social Approach to Dementia, with a special focus on diversity, VU.

- Supervisory Board of UMC Utrecht: first term, ending 06-01-2025
 - Chair of the Education and Research committee
 - Member of the Quality and Safety committee
- Anne-Mei The held the following additional positions in 2021:
 - Regent RCOAK (Rooms Catholyck Oude Armenkantoor Foundation), an equity fund
 - Member of the Supervisory Board, In mijn buurt Foundation

Prof. G. (Gerrit) van der Wal, general member (until 6-1-2021)

Previous main functions: former Inspector General, Health Care Inspectorate, and Emeritus Professor in Community Medicine at VUMC.

- Supervisory Board of UMC Utrecht: second term, ending 6/1/2021
 - Chair of the Education and Research committee
 - Member of the Quality and Safety committee
- Gerrit van der Wal held the following (additional) positions in 2021:
 - Chair of the Supervisory Board, Groene Hart Hospital, Gouda
 - Vice Chair of the Supervisory Board, Zorggroep Almere
 - Chair of the Advisory Board, Princess Máxima Center and Shared Care UMCs
 - Chair of the National Program for Palliative Care Palliantie ZonMW
 - Chair of the ABS-physicians steering group
 - Chair of Beleidscollege SCEN

Activities of the Supervisory Board

The Supervisory Board was briefed in 2021 on developments at UMC Utrecht and on the implementation of its policy. As in 2020, due to COVID-19, this took place partly online and partly in person.

Via webinars, digital and partly in-person consultations with the Executive Board and employee representatives, newsletters, individual work meetings, team-building, a strategy session at an external venue, and various reports enabled the Supervisory Board organized supervision in 2021. In its self-appraisal at the end of 2021, the Supervisory Board talked about drawing up a vision for supervision. This will be determined in the first quarter of 2022 and will be published on the UMC Utrecht website. The Chair of the Supervisory Board moreover participates in Chair discussions of the joint Supervisory Boards of UMCs.

- In addition, the Supervisory Board undertook the following activities in 2021:
 - Seven regular meetings (four times online and three times in person) meetings with the Executive Board.
 - Participation (partly in person, partly online) in committee meetings.
 - Two (online) consultations with the Works Council.
 - One (online) consultation with the Client Council.
 - One physical self-appraisal.
 - Attending digital week-starts.
 - In the scope of onboarding for two new members, work visits were conducted and master classes followed.
 - Participating in digital tracers.
 - A team-building evening for members of the Supervisory Board.
 - An in-person theme event with the Executive Board on culture and digital care.

Employee Representation

UMC Utrecht has the following formal Employee Representation bodies:

Works Council

UMC Utrecht staff members are represented in a Works Council. The Works Council meets weekly, and committee meetings take place every other week. Once every six weeks, a consultation takes place with Executive Board representatives. The Works Council reports to UMC Utrecht staff members on activities and results in an annual report on the UMC Utrecht intranet.

Works Council members serve for a three-year term. An election was held in 2021, where 13 members were reelected, and 12 new members elected. The Daily Management (chair, vice chair, secretary and deputy secretary) coordinates the activities of the Works Council and holds agenda meetings with the manager. Three division committees and four theme committees prepare documents, hold informal meetings with managers, and consult staff members. Each Works Council member sits on at least one division committee and one theme committee. The Works Council is supported by a secretariat that consists of three staff members.

The three division committees are:

- Committee 1: Brain, Internal Medicine & Dermatology, Julius Center, Images & Oncology, Information & Finance, Information Technology and the Education Center
- Committee 2: Children, Laboratories, Pharmacy & Biomedical Genetics, Women & Babies, Concern Staff Executive Board, Staff & Organization directorate, and Quality & Patient Safety directorate
- Committee 3: Services, Heart & Lung, Surgical Specialties, Vital Functions

The four theme committees are:

- Finance and Strategic Policy
- Social Policy and Working Conditions
- Safety, Health, Welfare & Environment
- Education & Research

The Works Commission is furthermore represented in a number of forums by Works Council members or people with specific expertise. Examples include the Complaints Committee, the UMC Utrecht staff provident fund, and the National Meeting of UMC Works Councils.

Some of the important topics that were handled by the Works Council in 2021 were: A change plan for Marketing and Communication, a change plan for P&O, a new Risk Inventory and Evaluation (RI&E) procedure, the selling of staff housing, and the policy for organizational changes.

The Education and Research Council (O&O council) and the Student Representative Council

The Education and Research Council (O&O council) is the employee-representative body for academic teaching and research at UMC Utrecht. The O&O council is a statutory body with rights based on the Dutch Higher Education and Scientific Research Act (WHW). The O&O council consists of students (who together also form the Student Representative Council) and staff members of UMC Utrecht. Together, they monitor the UMC Utrecht policy on education and research.

In 2021, the O&O council consulted at least five times with the Medical Faculty Dean and Vice-Dean on educational and research topics. Elections were held in 2021 for the staff delegations on the O&O council. Nine enthusiastic lecturers and researchers were elected. New challenges are already awaiting them. The problems that students and lecturers encounter as a result of longterm online teaching imposed by government measures due to the COVID-19 pandemic, the new UMC Utrecht talent policy for researchers, the distribution of NPO funds for education and research, preparations for the temporary move of education due to the renovation of the Hijmans van den Bergh building, and the launch of two new programs (a Bachelor's degree in Care, Health and Society, and a Master's degree in Medical Humanities), are all topics that will receive particular attention this year.

Client Council

UMC Utrecht has its own Client Council by virtue of the Law on client representation in health-care institutions (WMCZ). The Client Council advises the Executive Board on anything that affects the interests of patients at UMC Utrecht. The council has also been asked to help promote patient participation within UMC Utrecht. The aim is to involve hospital patients in a far broader sense than merely via the Client Council in anything that happens at UMC Utrecht.

In 2021, the Client Council had eleven plenary meetings, as well as monthly discussions with the Executive Board. The Client Council also had one meeting with the Supervisory Board. In addition, consultations took place in smaller groups (portfolios) on specific topics. The Chair of the Client Council together with the Chairs of the Nursing Advisory Council (VAR) and the Staff Assembly took part until mid 2021 in the weekly update on capacity planning and the organization of corona care at UMC Utrecht. One member of the Client Council was also a member of the Longterm Care Vision project group. The UMC Utrecht Executive Council asked the Client Council to give their advice on eleven proposed decision. The Client Council also drew up a longterm plan with the title 'More human, less patient: From patient participation to personalized care.' Each year, the Client Council publishes an annual report on [the UMC Utrecht website](#).

Members of the Client Council are members in their own personal capacity. New members of the Client Council are recruited by UMC Utrecht. Each member of the Client Council may serve a maximum of two four-year terms. A chair and an official secretary are in charge of meeting agendas and ensure that all commitments are met. The Client Council got a new chair in 2021.

Staff Assembly

The Staff Assembly consists of medical specialists from all fields who come together to safeguard the quality of patient care. The Council of members, the representative consulting body of the Staff Assembly, gives the Executive Board solicited and unsolicited advice on developments in medical fields and administrative affairs that pertain thereto.

The Staff Assembly meets twice a month. The Chair of the Staff Assembly joins the meeting once a month. In addition, the daily management of the Staff Assembly meets once a month with the Chair of the Executive Board.

The Staff Assembly for instance advised on major UMC Utrecht-wide trajectories like Quality Cooperation, the Strategic Development Vision for Accommodation, and how to deal with the implementation of standard HiX content. The Staff Assembly also gave input for the CLA. This emphasized the importance of a good CLA for the entire team, in other words all UMC Utrecht employees, and - especially in this time of COVID-19 - vitality and sustainable deployability of medical specialists regularly came under discussion. The performance of Individually Functioning Medical Specialists (IFMS) within UMC Utrecht also falls under the responsibility the Staff Assembly. In this, the Staff Assembly works closely with the P&O directorate.

Nursing Advisory Council

The Nursing Advisory Council (VAR) is an advisory body appointed by the Executive Board to give advice – solicited or unsolicited – on matters that concern nursing care. The VAR includes nurses, nurse specialists, and team leaders from various divisions and departments, and forms the mouthpiece for all nursing staff at UMC Utrecht. The VAR aims to expand and reinforce the impact of nursing within UMC Utrecht. Nursing leadership is central to this. The goal is to improve and guarantee the quality of care. The VAR liaises with all care divisions and informs nurses on current topics that are relevant for their profession.

In 2021, the VAR's focus was for instance on the positioning of nurses and the Future-proof Care program, the professionalization of nurses, nursing leadership and pride, and the stimulation of nursing research. The VAR brings out an annual report on the UMC Utrecht intranet on activities and results.

Committees

Besides the aforementioned forums, the following committees are also active at UMC Utrecht: Medical Ethics Committee (CME), Medical Ethic Testing Committee (METC), Animal Experimentation Committee (DEC), Decision/Complaints Committee (external), Incident-Reports Committee (MIP), and Major Incidents Committee.

Integriteit

Patients, students and other stakeholders rely on us. And we rely on each other. This means that we are honest, trustworthy, committed and involved in our work, thereby creating an open and pleasant work environment where we express ourselves, discuss matters with each other, make commitments, and call each other to account in this respect. This way of working is described in our Integrity code of conduct. Our UMC Utrecht Research Code describes the standards for good research practices and refers, where applicable, to internal policy and procedures. It also specifies how and to whom any (suspected) violation of scientific integrity can be reported.

For notifications pertaining to scientific integrity, the Ombudsman and Confidential Matters office works with confidential counselors on scientific integrity at Utrecht University. In 2021, these confidential counselors handled four notifications from UMC Utrecht.

Ombudsman and Confidential Matters

In 2021, the Ombudsman and Confidential Matters office received 217 notifications (an average 2% of all UMC Utrecht staff members). This is 80 less than in 2020, which is partly due to a new way of registering. Most of the notifications in 2021 pertained to questions and issues regarding co-working problems (42), followed by notifications of undesirable behavior (41) and notifications related to conflicts (37). Compared to 2020, the sharpest increase was in the number of notifications relating to co-working problems (from 35 to 42), followed by notifications related to reorganization issues (from 6 to 10). The increase in notifications that had to do with co-working is partly due to remote working. Hybrid working is effectively facilitated by the organization on several fronts, but sometimes co-working problems arise due for instance to slower and less direct communication. In a number of cases, high work pressure also led to co-working problems. The biggest drop compared to 2021 was in notifications pertaining to legal status. In 2020, 62 notifications were made with regard to legal status. In 2021, there were only 28. There is no clear explanation for this.

In 2019, a decentralized confidential counselor pilot was launched, with the purpose to lower the threshold of broaching the topic of (possibly) undesirable behavior even further, and to be even more in touch with what is happening at UMC Utrecht in this respect. The pilot got a positive assessment at the end of 2021. As a result, the Executive Council decided that recourse to decentralized confidential counselors would be structurally embedded in the organization. With the use of confidential counselors, topics like etiquette and integrity become easier to discuss in the organization, which in turn increases awareness of these matters. The use of an additional confidential counselor for PhDs and AIOS will also continue. This does not only address a specific need, but also contributes to co-working ties. In this way, a careful system is created with each other, in which signals are discussed and can be taken up.

Whistleblower procedures

No whistleblower notifications were received in 2021.

Codes of conduct

Health Care Governance Code

A new governance code for all of health care was implemented in 2017. The UMC Utrecht Executive Board and Supervisory Board adhere to the principles of this **Health Care Governance Code** because in our view too, good management and good supervision are of great importance to guarantee good care. The Health Care Governance Code is based on seven principles, which contribute to ensuring good care, reaching the community goals of healthcare institutions, and community trust. The principles furthermore serve as guidelines regarding rules, to leave more room for dialog rather than 'ticking off' little rules as in the past. The code focuses in particular on culture and behavior, values and standards, and participation and dialog. These are all aspects that keep changing and that therefore require ongoing attention. On January 1st, 2022, a new Health Care Governance Code came into force. Naturally UMC Utrecht also endorses this new code.

Culture and behavior especially remain important areas, where ongoing attention is important. This is why we have anchored our strategic program Together for the Patient in our organization.

Our leadership program Connecting Leaders is another example of our ongoing attention in this respect. For example, in our workplace-experience surveys (three times a year) we ask our staff about their experiences also in this area.

Other codes of conduct

Besides the Health Care Governance Code, we also look at:

- Internal codes of conduct:
 - the Integrity Code of Conduct (see 10.3 Integrity)
 - the UMC Utrecht Research Code (see 10.3 Integrity)
 - the Code of Conduct for dealing with ICT and data
 - the Code of Conduct for Dealing responsibly with body material for scientific research (Federa/UMC Utrecht)

- Codes of Conduct in Health Care:
 - **the Dutch Code of Conduct for Scientific Integrity of 2018**
 - **the Code of diligent and honest scientific practices**
 - **the Code of Conduct for Health Research**
 - the Code of Conduct for Electronic Data Exchange in Health Care
 - the Code of Conduct for Transparency regarding Medical Incidents and Medical Accountability (GOMA)
 - **the European Code of Transparency (EFPIA)**
 - **the Code of Conduct in Drug Advertising (CGR)**
 - **The Code of Conduct for Medical Equipment (CMH)**

Credits

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Contents

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