



UMC Utrecht

Annual report 2022



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Foreword of the Executive Board

“Creating the healthcare of tomorrow together”

2022 was a good year with many innovations. It was also the year in which we introduced important movements and changes. The first few months of the year still stood in the shadow of COVID-19. After that we marked time for a while and then started the movement of ‘the healthcare of tomorrow’. With this movement we are guaranteeing and increasing the value that we want to add to our patients’ lives, as well as our contribution to a healthy society and efficient healthcare.

The healthcare of tomorrow

The Netherlands has a highly developed healthcare and we at UMC Utrecht are proud to be contributing thereto. The quality, accessibility and affordability of care are however under pressure. The demand for care is increasing and continuously becoming more complex, due also to an aging population. At the same time, there are limits to the availability of care due to growing labor shortages as well as budgets for healthcare. Working together is the only way in which we can ensure suitable care as well as a healthy society. It was for these reasons that an integral healthcare agreement or **Integraal Zorgakkoord (IZA)** was signed at the end of September 2022, and that the Healthcare of tomorrow got off the ground.

Quote: “With the healthcare of the Tomorrow movement we are guaranteeing and increasing the value that we want to add to our patients’ lives, as well as our contribution to a healthy society and efficient healthcare

In the healthcare of Tomorrow movement we are taking a two-track approach. The first is about which care we should deliver in our academic institution as such, and which care we could offer together with chain partners or could have delivered through a chain partner. And how we as a knowledge institution can make a contribution through our research and education to create the healthcare of tomorrow. With the second track, we are looking at how we can make the best use of our capacity in terms of material and human resources. And how we can streamline our processes to ensure clarity and thereby also leave room for individual customization for our patients and people. This also includes remote care, digital at the patient’s home if possible, and in the hospital if necessary.

Together we decide which care is the most appropriate.

An important aspect in making a real difference through our care, is cooperation with our patients. Every patient is a person with their own values and preferences, and their own ideas on quality of life. That is why we want to get to know our patients as people, understand them, and together decide about the most suitable care. To help our colleagues as well as our patients and their families conduct this personal dialog effectively, we started a **campaign** in 2022 in which we offer tips and tools to do so.

In terms of giving patients the best possible care, we also gave our full attention to heart care in 2022. Following the decision of former Health Minister De Jonge at the end of 2021 to centralize operations on children with a congenital heart defect, and highly complex operations on adults with a congenital heart defect, at Erasmus MC and UMC Utrecht, extensive discussions ensued regarding the locations. UMC Utrecht is in favor of centralization for highly complex care and considers that the choice for UMC Utrecht among others will lead to optimal accessibility of healthcare for patients with congenital heart defects.



In the interest of all patients who need it, we therefore endeavored in 2022 to keep this care at UMC Utrecht.. Unfortunately without the desired result. Minister Kuipers informed UMC Utrecht on April 13 of his final decision to concentrate operations for congenital heart defects in Rotterdam and Groningen. We are very disappointed about this decision, as it undermines the successful concentration of care and research for all children with cancer in the Netherlands at the Princess Máxima Center, and does not advance optimal accessibility to healthcare. We therefore see ourselves, together with the Princess Máxima Center, as being forced to take legal steps against this decision.

Investing in our people

The ability to provide care - now and in the future - of course stands or falls with the input of all our people. We therefore find it important that they should be healthy, enjoy their work, and keep up their energy. That they should be able to grow and have a perspective on the career that they are striving for. And that we as employer must contribute to this and support them therein. Together with our nursing staff, we are for instance investing in the nursing profession with our program 'The future-proof nurse'. As part of this program in 2022 for example we developed career tracks for our nursing staff.

Innovative research

An indispensable part of giving shape to the healthcare of tomorrow is our scientific research. Researchers and doctors doctors at UMC Utrecht in 2022 for instance worked on a new form of **stem-cell therapy for newborns who contracted brain damage due to a cerebral infarction**. Another example is the large-scale research project **Check@home** that was started. This study investigates whether home-testing can allow the timely detection of cardiovascular diseases, kidney disorders or diabetes among people aged 50 to 75. The study is an initiative of the Dutch Heart Foundation, the Dutch Kidney Foundation, the Dutch Diabetes Fund, and the Dutch CardioVascular Alliance (DCVA).

The care professional of tomorrow

The actual healthcare of tomorrow will be bought and further developed by the care professional of the future. We are proud to say that, together with The New Utrecht School, we are training the healthcare professionals of the future. To do this, we are focusing on inter-professional and multidisciplinary training. September 2022 for instance saw the launching of the new bachelor degree in Care, Health and Society, and the new master's degree in **Medical Humanities**. Students are also once again taking on innovative **interdisciplinary challenges**. We are also happy to say that our bachelor course in Medicine once again received the Excellence label as a top-quality training course from the selection guide to universities or Keuzegids in 2022.

War in Ukraine and CLA

The war in Ukraine naturally also had a significant impact on our people and our organization. And in particular of course on our colleagues with family or other ties in Ukraine or Russia. But everyone noticed the effect of the war with inflation, high energy costs, and shortages in certain products. Together with the Staff Fund we also set up a **Helpline** for colleagues to help those on the verge of financial problems or who might be in need of medical, psychological or social support. This helpline continues to exist in 2023. The new CLA that became applicable on January 1, 2022 fortunately brought improvements for example regarding people's remuneration. Developments in Ukraine and Russia as well as the new CLA will also put our organization before considerable financial challenges in the coming years.

In the coming years

Big challenges are lying ahead for us in the next few years. We will have to work even smarter, more effectively and more efficiently to keep healthcare accessible. But with all the innovations in 2022 and the years before, and the healthcare of Tomorrow movement, we have a solid base for the future. Thanks to this, we as 'UMC Utrechtters' as well as our patients and regional, national and international **partners** will also in the coming years work together with heart and soul to improve people's health and bring about the healthcare of tomorrow. Together we create more value, because every human being counts.

Executive Board of UMC Utrecht,

Margriet Schneider

Arno Hoes

Josefien Kursten

Remco van Lunteren



Supervisory Board report

“Proud of our exceptionally committed,
driven and skilled UMC Utrechters”

After the first few months of 2022, UMC Utrecht like the rest of the Netherlands was fortunately able to step away a bit from COVID-19. As a Supervisory Board we could therefore once again see and talk with many UMC Utrechters in person as of old. For example division managers, heads of staff departments, and research and training centers. We were also able to conduct open discussions with representatives for instance of the Works Council, the Client Council, and the R&D Council. This gave us good insight into what is at stake in our establishment. What the developments are, which aspects are working well, and where the challenges lie.

Topics that were for example covered during these talks and consultations with the Executive Board included developments in remote care and the task of providing care for patients who had to wait for treatment due to the pandemic. Our experience is that informed choices were made in this regard based on the interests of the patients and that much attention was also given to the wellbeing of the staff. In addition, the full scope of research could be resumed and we have seen some fine results, new innovative research that have been launched, and far-reaching cooperation with (inter)national parties. Excellent steps have also been made from The New Utrecht School, such as preparations for the revision of training curricula, and we have also seen a lot of attention to the wellbeing of students. The war in Ukraine has also affected employees and the institution, and was therefore a focal point.

What struck us time and again in all these discussions was the commitment, drive and skill of the people. As Supervisory Council this makes us especially proud of the organization and all its employees.

All in all we see that UMC Utrecht is working continuously on the implementation of the Connecting Worlds strategy and that all parts of the organization are adapting it to the specific topics and questions at hand. And that within the frameworks there is adequate and flexible response when developments require it. Through the contribution of many of our employees in 2022 the healthcare of the Tomorrow movement was also launched in order to work faster and in a focused way on creating the care of the future. We are thoroughly aware of the of the sometimes difficult and painful choices that have to be made in this respect.

Lastly we note that, despite the management changes in 2021, the Executive Board in 2022 once more formed a close-knit team and worked together effectively. This is praiseworthy and necessary considering the challenges that UMC Utrecht will also be facing in the coming years.

It is the people - in all divisions and departments and at all layers of the organization - who together make UMC Utrecht what it is. And, as we clearly saw in 2022, in this regard things are going particularly well. We are fully confident that in 2023 the organization will again be able to cross the necessary hurdles and meet the challenges.

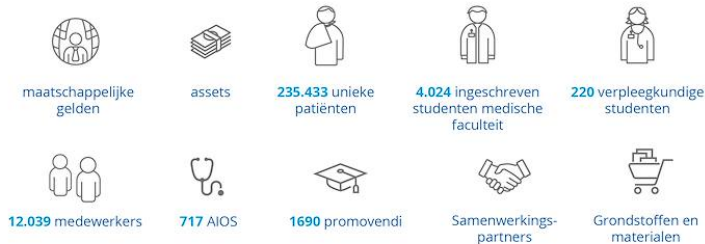
Supervisory Board UMC Utrecht,

Caroline Princen
Marianne de Visser
Dave del Canho
Aloys Kregting
Han van Gelder
Anne-Mei The

[Read more](#) on how the Supervisory Council executed its supervisory task in 2022.

The value we create for society

Input



Waar we voor staan (onze missie)

Samen de gezondheid van mensen verbeteren en de zorg voor morgen creëren

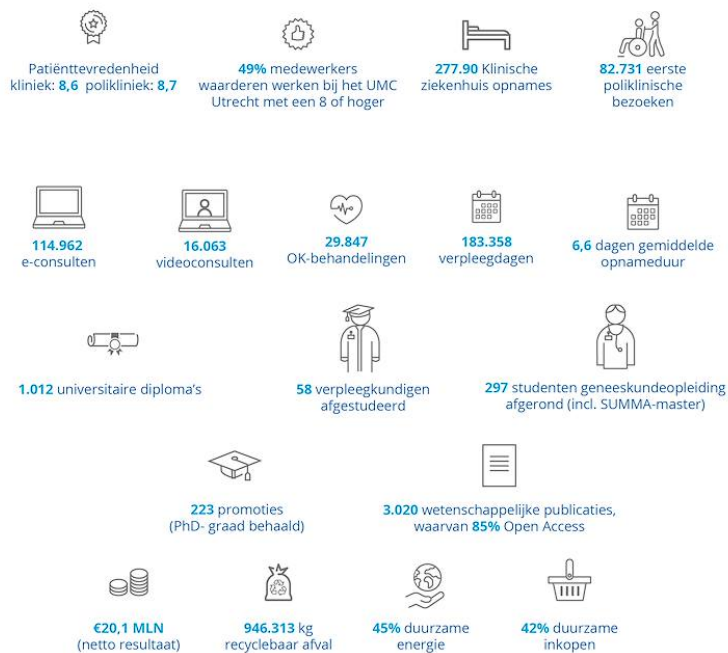
Waar we voor gaan (onze visie)

Samen creëren we meer waarde, omdat ieder mens telt

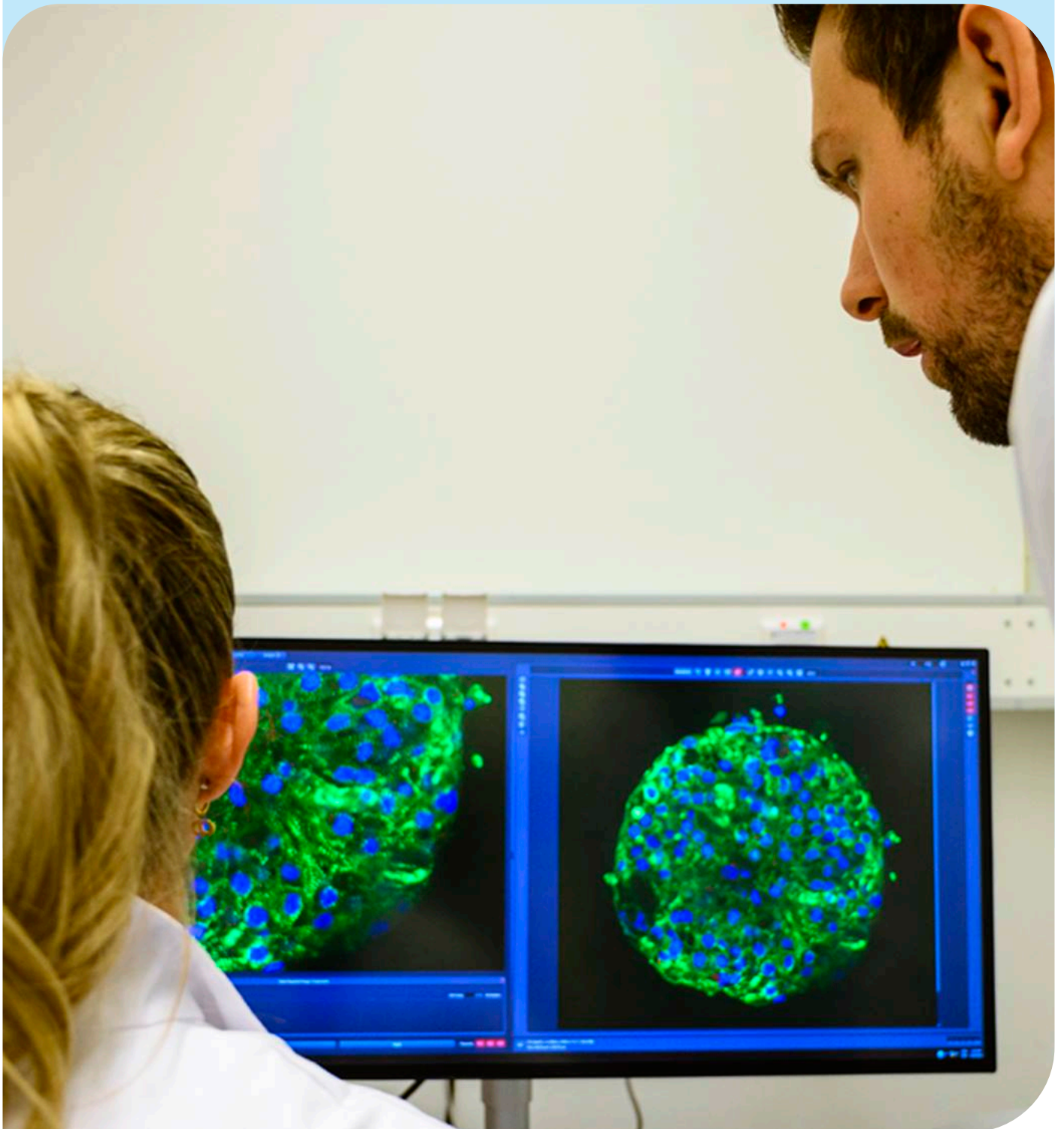
Onze Strategie

Connecting Worlds

Input



UMC Utrecht in society



Our core tasks

Our mission is together to improve people's health and create the healthcare of tomorrow. For this we are focusing on three core tasks:

Patient care

We offer qualitative and effective care according to the most recent insights to patients, in line with our care profile. This includes care for which we have a statutory duty, such as level 1 trauma care and care to patients with rare diseases via our **expertise centers for rare diseases**, care within our six focal points, and complex care (such as multi-specialist or multi-diagnostic care). Our objective here is to **work together with patients**, so that we can give patients care that is suited to them. Read more about our **impact for patients**.



Research

We do scientific research, with narrow links between our basic research and the more applied and clinical studies. Our research focuses on **six multidisciplinary programs** (focal points), which also integrate care to bring about the healthcare of tomorrow. Thereby we ensure that new developments and knowledge can rapidly benefit the patient and healthcare innovation. Questions from our patients and from society form an important starting point for our research. Read more about **our research** for the healthcare of tomorrow.

Education

We offer training for our students and (bio)medical researchers, doctors, nurses and other healthcare providers via our principles of **The New Utrecht School**. In this way we train top professionals who contribute to the development of expertise in and for healthcare: for the healthcare of today and of tomorrow. We involve both our students and patients in the development of our training programs. We offer scope for development and a climate of continuous renewal. Read more about our **impact for students**.

Our strategy

We work day by day on the further improvement of care and the health of the population. Being on the forefront is not enough. We want to be forerunners and take healthcare in the Netherlands further.

Our mission

Together we improve human health and create the healthcare of tomorrow.

Our vision

Together we create more value, because every human being counts.

Connecting Worlds

With our Connecting Worlds strategy we give meaning to our mission and vision. We believe in connecting worlds that are often still separated. This is precisely where unexpected insights and trailblazing innovations arise. At UMC Utrecht we bring the worlds of **research**, **healthcare** and **education** - our core tasks - together with multidisciplinary education and inter-professional training. We connect the worlds of hospitals, doctors and other healthcare providers. Of research institutions, laboratories, commercial companies, and the public and social sector. International, national and regional. Of patients, employees, students and citizens. We connect worlds to create an environment in which **patients**, **colleagues** and **students** will be seen and heard. Because every person counts.



In our strategy we have defined what are profile is in healthcare, research and education, based on our six focal points:

- Circulatory Health
- Brain
- Cancer
- Infection & Immunity
- Child Health
- Regenerative Medicine

We bring our mission and vision to life with the unique Utrecht Approach, where we take a multidisciplinary approach to innovation, building strong networks, create emphasis by making clear choices to accelerate and reinforce.

Accelerating on content

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

Healthy Living

We look at the wishes and needs of the individual by focusing on the prevention of diseases and the furthering of individual healthcare and the individualization of diagnostics, prediction and treatment.

Biofabrication & disease modeling

Combining technology and biology, we design (regenerative) treatment strategies that facilitate the body's own capacity to recover. We do this based on insights in the underlying mechanisms of the diseases on which we focus.

Molecular science & therapy

We develop effective therapies for diseases by developing a better understanding of these on a molecular and cellular level. Through fundamental research, we create innovative disease models and measurement methods (in combination with artificial intelligence).

Image-guided Interventions

Optical-, X-ray-, and in particular MRI-guided interventions (operating without cutting) are playing an increasingly prominent role 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 are focusing on integral complex care for children to unravel complex disorders and improve treatment and prevention.

Acute complex care

As a trauma center, UMC Utrecht with the **Major Incidents Hospital** and together with the Central Military Hospital cooperates with the Dutch Defense Ministry (read more about our **national partners** occupies a unique position in the large-scale care of the sick and injured. In order 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 extensively in educational innovation and reform of our training programs to ensure that our students are well prepared for the healthcare of the future. We are continuing this strategy ('Fit for the future') and will give even more attention in our training and continuation courses on inter-professional learning and multidisciplinary education in an inclusive and diverse learning environment. We call this the New Utrecht School. To do this we are working closely with Utrecht University and our other partners in the Knowledge Alliance of TU/e, WUR, UU and UMC Utrecht (read more about our **national partners**).

Strengthening the organization

To reach our goals, we are strengthening our organization in the following areas:

Dialog with the patient

With the knowledge and experience of our patients, we can continue to improve and innovate healthcare, education and research at UMC Utrecht. That is why we **work together with our patients** and why it is important that we listen to them and learn from them.

A good place to work

An organization in which all our **colleagues** feel that they are heard and appreciated. Because everyone has talent, we stimulate personal development through training opportunities. We focus on talent management and career tracks.

Powerful networks

A stimulating partner is one that brings different worlds together and creates powerful cooperation at an international, national and regional level. Read more about our **partners**.

Data science and e-health

Using data, artificial intelligence and digital technology for optimal prevention, diagnosis and treatment, and for the right care in the right place. Our **digital healthcare** offer is becoming more and more innovative, so that care and also be offered at home.

Affordable and sustainable care

Focusing on socially acceptable costs for services delivered in healthcare, education, research and support. Reducing the negative impact on climate and the environment by offering future-proof healthcare, education and research, from a financial, social as well as **environmental** point of view.

Agile organization

Stimulating an open culture of appreciation, further developing leadership, and working in multidisciplinary teams with joint responsibility, where every voice counts. We are increasing our focus on results by adapting the strategy to all teams and employees. Read more about this in **Our colleagues**.

Good accommodation

In cooperation with our partners at **Utrecht Science Park**, the province and the district, we are **building a UMC Utrecht** that moves in line with our ambitions and the healthcare of tomorrow. The new Health Campus that we are going to create is aimed at a healthy lifestyle.

The world around us

Society expects from UMCs in the Netherlands to innovate to the maximum and to address topical healthcare issues through qualitative 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 social responsibility even more visible.



In the Netherlands, as in many other Western European countries, aging of the population is a growing concern, and along with it, the increasing demand for care. In addition, there is a scarcity of staff, and the availability of healthcare professionals is bound to decrease rather than increase in the coming years. This growing demand for healthcare, the accompanying costs and labor shortage are putting pressure on the accessibility and affordability of care. We are also aware that climate change has a considerable impact on our health. Sustainability will have to be a part of all our actions in healthcare, research and education.

To guide the way in which we take on these challenges in healthcare, an Integral Healthcare Agreement or **Integral Zorgakkoord (IZA)** was signed in September 2022, and in November, **the Green Deal for Sustainable Care 3.0**. As an academic hospital, we play an important role in this by combining research, education and care to create the healthcare of tomorrow. For this, cooperation between regional, national and international networks is an important key to success. It allows us to learn from others, organize healthcare in the right place, and apply new innovations across a wide spectrum.

With the healthcare of Tomorrow movement we are meeting the challenges of the world around us.

The healthcare of tomorrow

A lot is happening in the worlds of our **patients, colleagues and students**. But also in the worlds of our partners. That is exactly why we believe in Connecting Worlds, because every human being counts. In 2022, based on our strategy, we started the 'healthcare of tomorrow' movement in multidisciplinary teams and in cooperation with patients to take on this challenge. Within this movement, we are working along two tracks:



The first track is about 'what' and will help us to do the right things. With this track we look at which patients (more/less) belong with us and how we can make room for this. This is about specialized and third-line care as opposed to first- and second-line care. We must make informed choices and determine what should be done differently. Hereby we make room for patients who need the distinctive care of UMC Utrecht. In 2022 we did a test implementation in the Surgical Specialties division with an approach to this question. We are continuing with this at UMC Utrecht in 2023.

The second track is about 'how' we should do these things in a proper way. We want to cooperate even more effectively with each other and with our partners, introduce innovations even faster, and spend even more time on healthcare, education and research. To do this, we must make our processes more people-oriented, digital and uniform. We apply our vision to processes, organization, IT and accommodation. In this way we can jointly increase the quality of healthcare, research and education, as well as job satisfaction at UMC Utrecht.

Our strategic KPIs

Patient satisfaction

Our patients are consistently satisfied with the care that we deliver. Outpatients in 2022, as in 2021, rate us with an average score of 8.7. Thanks to our efforts and commitment, we are therefore scoring above our target of 8.4. We are obviously happy about this. And we are proud of our colleagues to have achieved this result together.

95% of our patients feel that there is enough or ample room for sharing their own knowledge and experience with caregivers at UMC Utrecht. In this we are achieving the target we have set for ourselves. On the other hand, 78% of our patients are satisfied with the information on the side effects of medication that they receive from us. This is only slightly lower than our target of 80%. To ensure that the general practitioner can continue the treatment at home after a patient has been discharged from our hospital, we want to send a discharge report to the GP within 24 hours in 90% of all transfers to home care. In 2022 we achieved a score of 62%. Through more detailed analyses we have identified actions with which we can make further significant improvements in 2023. An important objective is lastly to provide patients with care at home as much as possible. Our goal is therefore to do 50% of outpatient repeat consultations remotely. In 2022, we reached 45.66%.

Employee satisfaction

In 2022, an average 48.7% of our colleagues at UMC Utrecht rated their job satisfaction with 8 or more. This is slightly down from 2021 (49.7%), and below our target of 55%. We are naturally striving to bring employee satisfaction to the desired level as fast as we can.

Nevertheless, 83% of our staff indicate that they take pleasure in their work (target 85%). We are of course happy about this. Absenteeism unfortunately increased in 2022 to 6.33% (5.57% in 2021) and is higher than our target of 4.5%. We realize that the corona-virus pandemic took a heavy toll on many colleagues and that it still continues to have an impact. It is obvious that the high absentee rate is related to COVID-19 and the work pressure that was felt. As in previous years, we continued in 2022 to focus on (psychosocial) support and the spirit of our colleagues, and it will remain an important area of concern in the coming years. We are proud of all our colleagues' efforts to maintain the high level of care that we provide for our patients and to work on the healthcare of tomorrow. Another area in which we are working on improvement is support for our colleagues in their development. Because offering development opportunities is an important aspect of being a good place to work, we concluded 34% development interviews in 2022, while our target is 75%.

Student satisfaction

Our students are predominantly quite satisfied with our educational offering. For 16.7% of our courses, more than 55% of the students indicate that they are very satisfied with the course as a whole. In this regard we are well above our target of 11%. We are of course very happy about this assessment, especially since our students had a difficult period during the COVID-19 pandemic of which the impact is still noticeable.

For 87% of the courses, 80% or more of the students indicate that they are satisfied or very satisfied with the course as a whole. Our target is 100%, but this is mainly in order to ensure that we pursue the right dialog between us. Our aim is always to have all courses on or above the desired level. With innovations in education such as new courses or new ways of teaching, this is however not always possible in equal measures. In terms of professional training for lecturers, we are still just below target: 79% of our lecturers had a Basic Teaching Qualification (BKO) in 2022 (our target is 85%). However we are following an upward trend that started in the past two years. In terms of diversity and inclusiveness, we are scoring satisfactorily. 58% of our lecturers and trainers have followed the basic training in diversity and inclusiveness (our target is 60%).

Impact of research

In 2022 our fund-raising capacity for research was € 100 million. This means that we did not reach our target of € 112 million. In 2022 UMC Utrecht introduced a different method for administrating fund-raising capacity, which must still be assessed and developed further. This change most likely led to a deviation in fund-raising capacity compared to previous years. Besides, we were not yet able to process a number of large projects (for instance several in the National Growth Fund that received subsidies) in the fund-raising capacity of 2022, since formal grants handled up till now had not yet gone through at the time of registration. In addition, the stream of COVID-related income for research had declined, which brought a further decrease in fund-raising capacity compared to 2020 and 2021.

In 2022 we published a total of 85% of our scientific publications in Open Access, whereby we exceeded our annual target which is an increase of 5%. Lastly, in 2022 we conducted nearly all of our research within our six focal points.

Returns

UMC Utrecht is financially sound. Our 1.3% profit is above our current long-term policy of 1%. Realizing a positive result and adding the result to our equity capital is in line with our goal and ambition to apply resources for our primary processes and to maintain the value of our enterprise. Considering the high inflation at the moment and the extensive investments in accommodation and ICT, we may reassess the target of 1% and adjust it if necessary. In this respect, we consider the realized result as appropriate.

The internal calculation of healthcare provided versus agreements made is -/- € 1.4 million. The main reason for this is the lack of OR availability. To improve this, we are working on the one hand on reducing absenteeism, and on the other hand we are making use of external resources to increase OR capacity.

The annual result for all divisions and departments combined is negative on balance. The negative prognosis is among other reasons due to capacity issues caused by vacancies and a high absentee rate. The other financial effects follow from the (still) insufficient realization of the retrenchment measures from the 2022 management contracts and transformation plans. Harmonization projects also require more time. Given the worsening financial outlook expected in the coming years, it is very important to adjust these results.

The percentage of days on which the number of available emergency beds had a green code in 2022 was 52%. We therefore did not reach our target of 75% in this regard. In 2022 the consequences of covid were still visible, with peaks in patient intake and extra absenteeism among colleagues. This led to fewer available beds and therefore a score below the target. In order to further improve the number of available beds for emergency intakes, we established a package of measures in the fall of 2022.

Our patients

Providing care to our patients is one of our three core tasks. We continuously try to improve this care through innovation. We base this on an ongoing dialog with our patients, **scientific research**, training of **healthcare professionals of the future**, **technical innovations**, and by continuously assessing what we can do better. And through intensive cooperation and coordination with our (chain) **partners**.



Onze patiënten

Onze studenten

Ons onderzoek

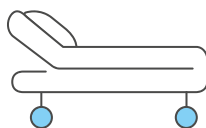
Onze collega's

Patient care in numbers



235.433

unique patients



27.790

clinical
hospital intakes



82.731

first outpatient
visits



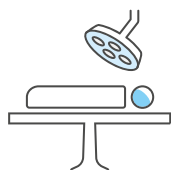
114.962

e-consultations



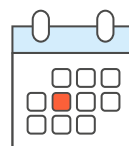
16.063

video consultations



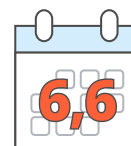
29.847

OR treatments



183.358

nursing days



6,6

average number of
days in hospital

Our patients' appreciation

Since we want to continue improving our healthcare, it is important always to have insight in how our patients experience our care. Because care is only good if it is experienced as such. We measure our patients' experience continuously by means of our Patient Experience Monitor (PEM). In 2022, 20,292 adults who came to our outpatient clinic filled in the questionnaire. And 6,641 who were hospitalized filled in the questionnaire. The appreciation of our care in the outpatient clinic and in the hospital was equal to the appreciation of both in 2021.

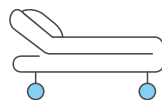
Patient experience overall shows a stable and high score. We continue to take actions were possible to keep improving our care, in line with patients' needs.

Patiënttevredenheid

Waardering
polikliniek

8,7

2021: 8,7



Waardering
kliniek

8,6

2021: 8,6



Experience of cooperation with patients

In our Patient Experience Monitor (PEM) we ask adult patients two specific questions on how we **cooperate with patients**, namely: Do you feel there is room to share your own knowledge and experience with your caregivers? And: Were you able to participate in deciding about your treatment or examination? The average score for these two questions remained stable compared o 2021.

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
2022	96%	94%
2021	96%	94%

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

	Appraisal of the outpatient clinic	Appraisal of clinic
2022	92%	85%
2021	92%	85%

Care for our patients

We offer qualitative and effective care according to the most recent insights to patients, in line with our care profile. This includes care for which we have a statutory duty, such as level 1 trauma care and care to patients with rare diseases via our **expertise centers for rare diseases**, care within our six focal points, and complex care (such as multi-specialist or multi-diagnostic care). Our objective here is to **work together with patients**, so that we can give patients care that is suited to them.

Opening of the MRI OR



New intra-operative MRI operating room

In the fall of 2022 we opened the new **intra-operative MRI operating room** for children with brain tumors at Wilhelmina Children's Hospital together with the Princess Máxima Center. The MRI at the operating room offers the possibility to make new MRI scans of the surgical zone during an operation. This means that up-to-the-minute information on the size of the remaining tumor and how it relates to healthy surrounding tissue is available to the neurosurgeon. The neurosurgeon can thus remove more tumor tissue, more safely and precisely. As a result, fewer complications will arise, with a better outcome of the operation for the patient, which could prevent further operations.

Watch the video about the opening of the intra-operative MRI operating room

1,000th patient treated with MRI-LINAC

In March 2022 the **thousandth patient received radiation treatment with MRI-LINAC**. More and more cancer treatments at UMC Utrecht are taking place with the use of MRI-LINAC. Using this radiation device together with an MRI scanner makes it possible to radiate patients with great precision while sparing healthy tissue. Thanks to the precision and dose per application, fewer radiation may be needed in total. UMC Utrecht has three MRI-LINAC devices.

First laser ablation with epilepsy in the Netherlands.

In May 2022, for the first time in the Netherlands, we did an **MRI-guided laser ablation in the brain for two patients with epilepsy**. Till recently, patients from the Netherlands who need to undergo this treatment had to be sent to Houston (USA) or London (UK). Due to the high costs, very few patients qualified for this operation. Now that the treatment is available at UMC Utrecht, more patients in the Netherlands can be treated in this way. Through MRI-guided laser ablation, damage to surrounding tissue with important functions can be prevented. Because the treatment is also less stressful for the patient, the latter recovers faster and can go home sooner.

Better prediction of metastases in skin cancer

At UMC Utrecht a **new prediction model for skin cancer** that allows a better estimate of whether skin cancer (melanoma) will lead to metastases in the lymph nodes and whether lymph-node surgery will be necessary. Every year, about 7,000 people in the Netherlands are told they have a melanoma. With lymph node surgery, a physician can examine whether there are metastases in those lymph nodes. In approximately 80% of patients with melanoma who undergo lymph-node surgery, the lymph nodes do not appear to contain metastases. Thanks to the new prediction model, fewer patients are operated needlessly.

Digital healthcare solutions

If care can be provided at home, that is what we do. It gives patients more control over the care that they receive, and the possibility to recover in their own familiar environment. This enables healthcare professionals even better to deliver appropriate care according to the patient's needs. To deliver the right care in the right place, we cooperate and coordinate with our (chain) partners to develop an **innovative digital healthcare offer** through data science, artificial intelligence and digital technology. These innovations also help us keep healthcare accessible within the overall cost chain, in view of the growing demand for healthcare and the shrinking labor market. By providing care at home whenever possible, making more beds available for other patients.

In 2022 home monitoring and treatment increased further.

Digital healthcare results

Overall in 2022 we see that home monitoring and treatment increased further. The number of patients included rose with more than 50%. This was partly due to an increase in our remote healthcare services. Home monitoring via **Early@Home** also contributed at the start of 2022 to the fact that less COVID-19 patients needed to be hospitalized, or that patients could stay in hospital for shorter periods, whereby beds could be freed for other patients. In the **podcast Voorzorg** in 2022 we shared our vision of digital healthcare - from home monitoring and remote triage to home treatment and ongoing remote monitoring - and the role of our Medical Control Center in delivering human-oriented digital healthcare.

Patients with muscle disease satisfied with digital care

Since 2017 rehabilitation care providers have been monitoring the disease progression of a group of patients with a muscle disease like ALS by means of an online care platform. A study by a doctoral candidate at the UMC Utrecht Brain Center shows that **patients find this remote care more pleasant** than traditional care, with relatively few on-site appointments. They also feel safer because they have the feeling that their treatment team are continuously keeping an eye on matters.



COVERED: 24/7 remote monitoring of patients

With the growing demand for emergency care and a continued scarcity of healthcare professionals, change is needed to give everyone high-quality acute care in the right place. Halfway through 2022 we started with the project **COVERED**, where we will eventually be able to monitor patients with (infectious) diseases 24 hours a day, 7 days a week from our **Medical Control Center**.

To see how we can provide 24/7 optimal and safe home monitoring and for whom, we first monitored about 250 patients of our regular nursing unit in a pilot study. Vital functions like heartbeat, respiratory rate, oxygen saturation, blood pressure, and temperature could be monitored from the Medical Control Center. There is also daily remote contact from the center with patients and the caregiver, because personal attention for the patient remains essential. COVERED makes the home environment a safe place in which to recover (further) from for instance a respiratory infection or surgery. The ministry of Public Health, Welfare and Sport has granted € 650,000 to COVERED.

Specialist pharmaceutical care at home

In 2022 around 1,500 patients, both children and adults, received **specialist pharmaceutical care at home** from UMC Utrecht. For example chemotherapy for patients with lung cancer, or antibiotics for instance for patients with a chronic lung disorder or an infection following a hip or knee operation. In 2022 our pharmacy delivered 14,000 antibiotic infusions in order to treat patients at home rather than at the hospital. Administering specialist drugs at home contributes to patients' quality of life. It can also shorten hospital stays or sometimes even prevent hospitalization.



https://www.youtube.com/watch?v=_OhCqA_YSmk

To ensure that patients also receive essential care at home in a way that fits into their everyday life, we have set up an integral process that is centered on the patient. It involves not only the medical treatment team, but also transfer nurses, the (outpatient) pharmacy, and district nurses. And if necessary, the eHealth team and monitoring staff of the **Medical Control Center** as well. For example with polyneuropathy patients who use the **polyneuropathy@home** app.

Big data in healthcare for the littlest ones

To help doctors determine with more certainty whether a premature baby suffers from late-onset neonatal sepsis (LOS), we have developed a decision-support machine-learning model. LOS is a frequent disease babies in the neonatal intensive care unit (NICU) that can be fatal for the baby. The condition is however hard to diagnose, due to varying, unspecific symptoms. Often doctors give antibiotics as a precaution, but the unnecessary administering of antibiotics - in about 60% of all cases - has a negative effect on the baby's quality of life with a bigger chance of developing resistance to antibiotics. By means of an algorithm it is now for the first time possible to make last-minute patient data such as heartbeat and blood-test results directly available for the machine-learning model. This opens the way to the implementation of more models based on current patient data. The final decision on treatment of course remains with the doctor at all times.

Remote consultation

At UMC Utrecht we offer remote consultation where possible and if that is what the patient wants. In 2022 we did 16,063 video consultations (21,000 in 2021). The number of e-consultations (an email from a patient to a practitioner via My UMC Utrecht) in 2022 was 114,962 (108,483 in 2021).

Patient portal <https://www.umcutrecht.nl/en/patient-portal-my-umc-utrecht>

Via the online patient portal My UMC Utrecht (<https://www.umcutrecht.nl/en/patient-portal-my-umc-utrecht>) patients have safe and fast access to their medical information and can have some control over 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 request a repeat prescription. In 2022, 417,884 patients logged in on the portal (unique logins). In 2021 there were 355,000.

Cooperating with patients

At UMC Utrecht we want to work together in a structural way with **patients** and their families when it comes to healthcare, **education** and **research**. Our goal is to make decisions together, so that we can be in line with patients' needs, expectations and possibilities. With the knowledge and experience of our patients, we can continue to improve and innovate healthcare, education and research at UMC Utrecht. In our approach we work closely with a network of patients and caregivers as well as the UMC Utrecht Client Council.

Watch the video "Samen maakt het verschil".

Campaign for deciding together on the most suitable care

In 2022 we launched a campaign on how we work together with patients to ensure the most suitable care. We show that at UMC Utrecht we want to get to know the patient as a person. We talk with the patient about what is important to them. Before, during and after treatment. So that we can decide together which care suits the patient best. Because; **together we make a difference**. In addition we offer various **tips and tools** to facilitate the personal dialog with each other.



We would like to get to know you/learn from you

An example of how we help patients and caregivers is the questionnaire We would like to get to know you/learn from you. We developed this questionnaire together with patients and caregivers. In 2022 we started using it for **patients under the age of 18**. We have also been using the questionnaire for a longer time already for patients from the rehabilitation and neuro-oncology units. Through the questionnaire a patient can for example indicate what activities are important to them now and in the future, what worries them with regard to their health, and what they expect from an appointment/treatment at UMC Utrecht. Patients can answer the questions via the patient portal My UMC Utrecht. The answers will be visible to the care provider in the Electronic Patient Record (EPR). The next step is to offer this to all patients of UMC Utrecht.

Facilitating cooperation with patients

In 2022 we undertook a number of activities to facilitate cooperation with patients.

One of these was to establish the **Bureau for Patient Input (BPI)**. This entity brings together the staff's demand for experience-based knowledge of patients, and the offer that patients can bring in this regard. To encourage patients/family members to defend their own interests, the BPI has developed a course for patient partners. The course deals with questions like: what is patient participation, how can I participate effectively, how does UMC Utrecht work, how can I best share my knowledge (and experience)?

In addition, in 2022 we launched two new e-modules on patient participation for staff members. One is a basic module for all staff members, as an introduction to cooperating with patients in healthcare, education and research, and the other is a module on patient participation in research proposals, especially for our researchers. The basic e-module on Patient Participation was completed in 2022 by 100 staff members starting from July 2022, and the e-learning for researchers by 35 (also since July 2022). A model for education is in the making.

Quality & Patient Safety

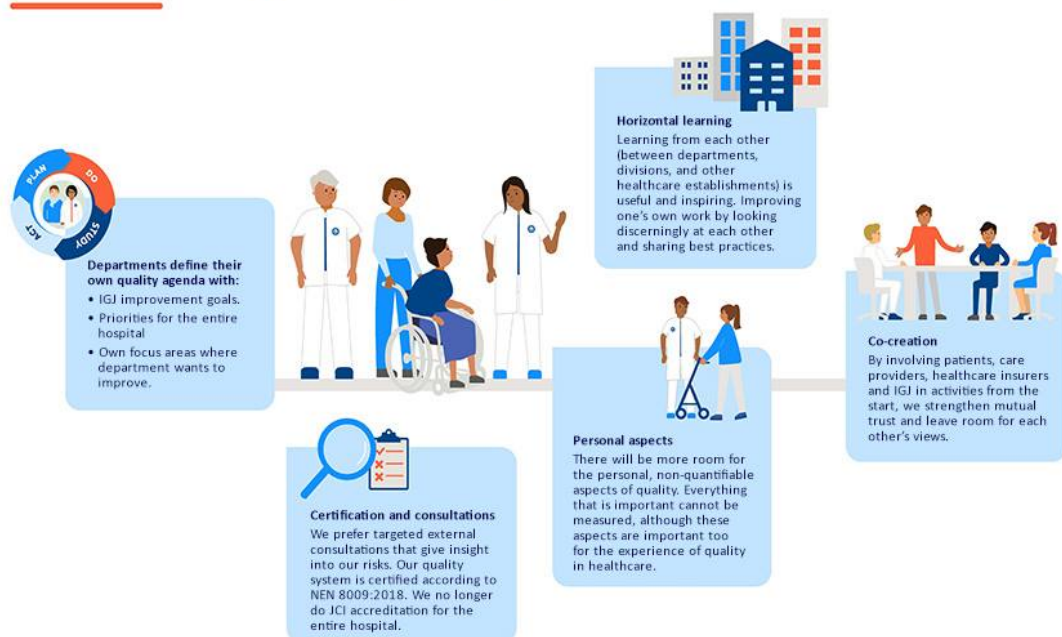
Naturally our patients expect qualitative and safe care. But care implies working with people. Through research and hands-on experience we learn how best to contribute to good care, improve in a proactive way, and learn about care that did not turn out as we had intended. If an incident or major incident 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 this from happening again in the future, and work actively on improvements.

Quality-management system

In 2022 we started with a new approach to test, improve and guarantee quality: Quality Cooperation. In this we continue to build on the solid foundation that we have developed in the past fifteen years and that was tested three times in this period by an external body, the **Joint Commission International (JCI)**. We reached the conclusion that a fourth external assessment by JCI would not per definition contribute to further improvement of quality and safety for patients. Since the hospitals in the Netherlands have agreed with each other in a field standard to have their safety management system reviewed externally at least once a year, UMC Utrecht is getting assessed according to the NEN8009-2018 standard in which the requirements are defined. An external assessment took place in September 2022 which showed that UMC Utrecht meets the requirements for a safety-management system.

With our new Quality Cooperation method, we can be more in line with caregivers' intrinsic motivation to improve, and with patients' own experience. After all, they know better than anyone where there is still room for improvement in care. Quality Cooperation is based on five pillars, where we move from monitoring to trust:

Cooperating on quality



In keeping with this movement, we started in 2022 to draw up a department-specific quality agenda in several departments. Besides countrywide IGJ improvement goals and UMC Utrecht-wide priority areas, it leaves room for department-specific improvement goals.

In 2022 we also gained further experience through what we call value discussions, where experience experts and caregivers gather around a clinical picture and talk about what they see as quality in care. This remains an important source of inspiration for our improvement goals and contributes to an equal discussion between caregivers and experience experts. In 2023 we will expand on this experience to form a guideline for other departments.

In 2022 we furthermore started in the scope of NFU to draw up a guideline for 'horizontal learning' as a quality instrument: sharing best practices between departments, divisions, UMCs in the region, or other professional categories.

Adrienne Cullen lecture

The annual Adrienne Cullen lecture plays an important role in opening discussion and learning about things that go wrong, so that we can avoid making similar mistakes again and so that patients can feel supported. The fourth **Adrienne Cullen lecture** took place on Friday, March 25, 2022. The lecture focused on the experience of a family member of a patient with regard to our communication. The lecture can be seen **online** and is also available with live **English interpreting and Dutch subtitles**. The lecture is named after Ms Adrienne Cullen who contracted terminal uterus cancer due to a medical error at UMC Utrecht. She died on December 31, 2018.

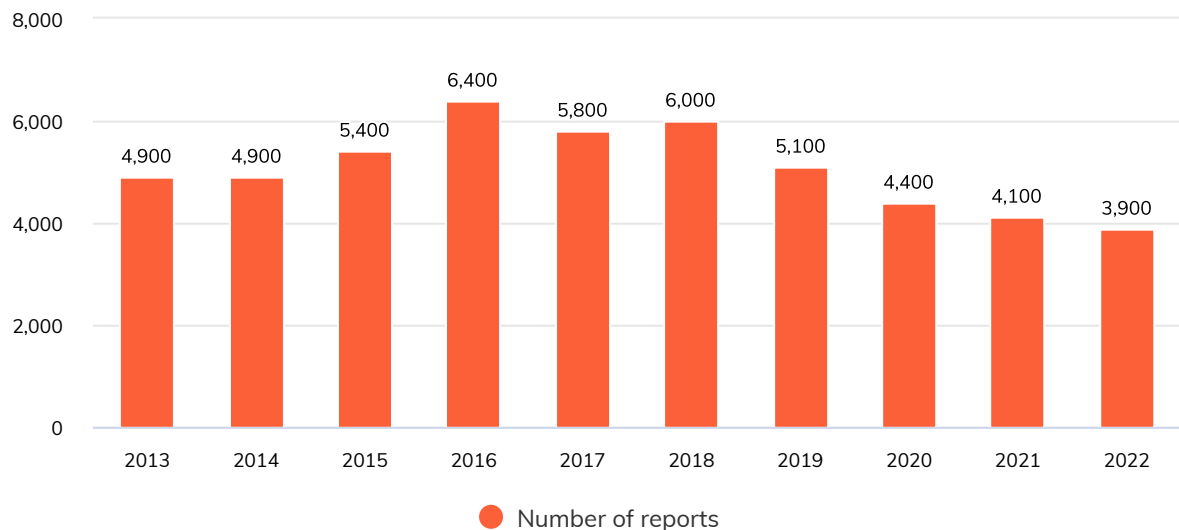
Discharge communication further improved

In 2022 we continued to improve our discharge communication. Our ambition is to send a discharge report to the general practitioner/referrer within 24 hours for 90% of all transfers to the patient's home or to another institution. We thereby guarantee care continuity, also after a patient has left UMC Utrecht. In December 2022 we sent 65% of all discharge letters on time (53% in 2021). Through more detailed analyses we have identified actions with which we can make further significant improvements in 2023.

Incidents, major incidents, and complaints

Our professional work daily and with passion to give patients the best care. Sometimes unfortunately things do not go according to plan, and an incident or major incident may occur. A patient may also have an unpleasant experience and make a complaint. In all cases our policy is to help the patient in question and/or their family members to the best of our ability, and to learn actively from an incident, major incident or complaint. We hereby want to prevent similar situations in the future and further improve the quality of our care and the safety of our patients.

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



The number of incident reports went down from previous years. This development is in line with a countrywide trend that we see at academic hospitals.

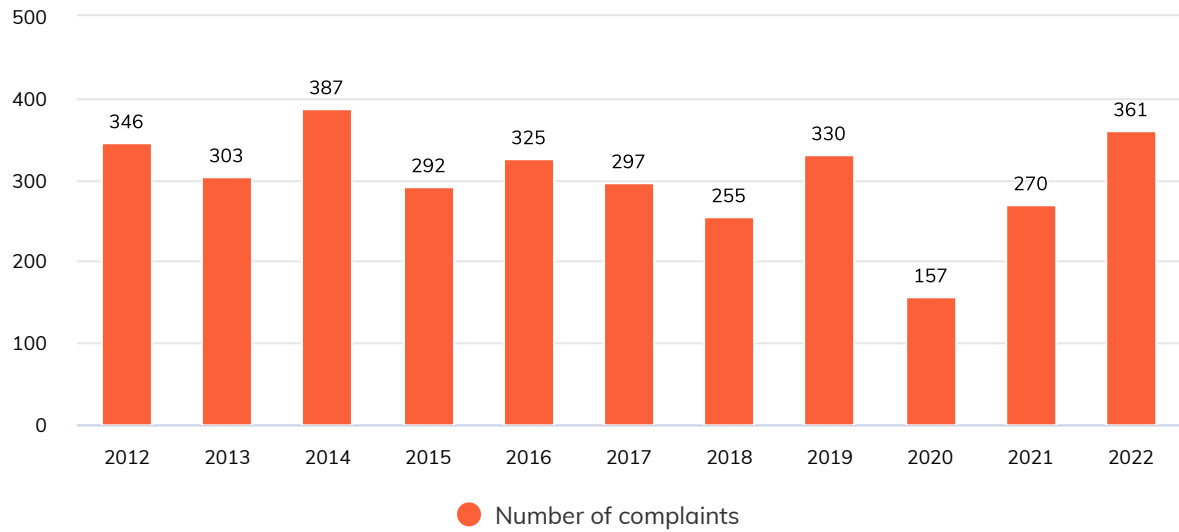
Figure 2: Number of reports of (possible) major incidents

	Internal reports	Potential incidents	Ultimate incidents
2016	136	66	42
2017	98	49	32
2018	71	39	25
2019	74	43	21
2020	57	21	18
2021	55	23	8
2022	58	21*	4*

*not yet finalized

The number of (possible) major incidents in 2022 remained at around the same level as in 2021 and 2020 and is similar to that of other UMCs.

Figure 3: Number of complaints at Complaints Mediation



The total number of complaints in 2022 went up from 2021. After the most intense period of the covid pandemic when the number of complaints dropped sharply, we see the number of complaints stabilizing towards the pre-pandemic level.

Patient Support and Peer Support

A major incident, incident or other upsetting care-related event has a big impact on the patient in question and their family, as well as on caregivers. We therefore offer patients and their families support from the Quality & Patient Safety department, including via Patient Support. Colleagues support each other through a formal collegial structure (Peer Supporter network). Colleagues also support each other informally.

In 2021 we offered Patient Support 33 times (21 in 2021). The Peer Support team gave colleagues one-on-one Peer Support 69 times in 2022 (50 times in 2021) following traumatic events at the hospital. In 2022 we also conducted a number of group discussions with colleagues after serious events at various departments in the hospital.

Read more about how we handle **incidents**, **major incidents** and **complaints** at *UMC Utrecht*.

Diversity and inclusiveness in healthcare care

UMC Utrecht strives to be a home where patients feel recognized and acknowledged. Factors like gender, cultural or social background, personality, ideology, work capacity or age may not stand in the way. In 2022 we deployed a variety of activities to further increase diversity and inclusiveness in our care.

When someone comes to the doctor

In June, a three-week exhibition called 'Komt een mens bij de dokter' ('When someone comes to the doctor') could be seen at UMC Utrecht. The exhibition told stories of people who due to shame, lack of knowledge and wrong assumptions did not always receive the care that they needed. Our aim was to bring barriers that stand in people's way, out into the open. On June 21 we closed the exhibition with an interactive panel discussion in which colleagues, patients, and the Rutgers knowledge center took part. Thanks also to an active audience, many topics related to inclusive care and the barriers associated with it, came up. Messages regarding hierarchy and social insecurity that came to the fore have helped us to work on our **diversity and inclusiveness policy**

Symposium on Colorful care, our care

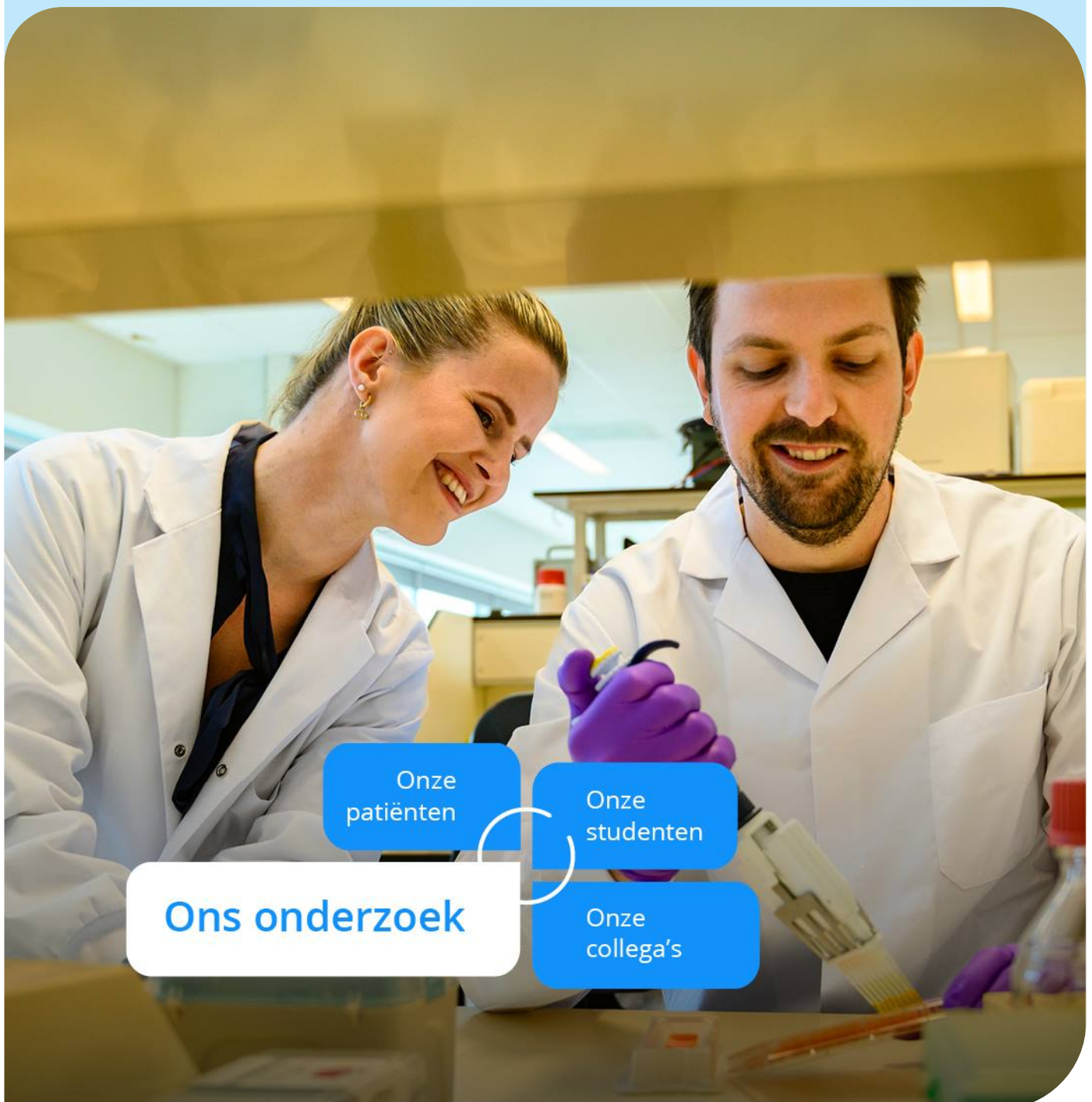
On October 4, 2022 - Diversity Day - we organized a symposium in cooperation with Pharos, the Anne Frank Foundation, Vilans and CODING, to make staff members more aware of diversity and inclusiveness and their role when it comes to providing inclusive care. A number of speakers talked about topics like diversity, inclusiveness, discrimination and racism. During workshops and inspiration sessions, employees themselves could also discuss topics like: (experiencing) discrimination in care in the scope of practical situations, the impact of discrimination on health and how it affects the patient, developing perspectives on diversity and discrimination, and intercultural communication when providing healthcare.

Diversity & inclusiveness theme month

For the whole of October at Wilhelmina Children's Hospital there was a special focus on diversity and inclusiveness to raise even more awareness on the topic. And to give staff guidance on how to find answers to questions such as: when do people feel at home with us, what type of communication can every colleague and patient recognize and understand, and do we give sufficient attention to the biological and social aspects of diversity? The program was varied and included lectures, workshops, and a questionnaire for patients. In a number of our restaurants a world kitchen was also set up, so that patients and staff could enjoy tasty dishes from various countries throughout the month.

Our research for the healthcare of tomorrow

To improve people's health, create the healthcare of tomorrow, and effectively train the professionals of the future, research staff at UMC Utrecht work together with our partners and patients on multidisciplinary studies. And to turn these research results into new treatment methods for our patients and the optimization of education. Patients' demands is of course our point of departure. We strive to achieve the highest possible quality and impact for patients and society.



Our research in figures



952

scientific
research staff



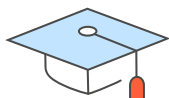
€100 MLN

funds raised
for research



213

professors



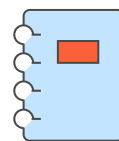
1.690

PhD students



223

PhD completed
(graduated)



3.020

scientific publications,
of which
85% Open Access

Unique research

We have divided our research into six substantial programs (focal points). Hereby we are accelerating on **six medical topics**. We work according to the principles of Open Science. Some examples of unique, trailblazing research in 2022 are:

Stem-cell therapy for brain-damaged newborns

Researchers and doctors at UMC Utrecht are developing a **new form of stem-cell therapy for newborns with brain damage due to a cerebral infarction**. The purpose of the treatment is to support the natural recovery capacity of a baby's brain. The recently completed clinical study shows that mesenchymal stem cells can be administered safely to newborns via nose drops. The findings of the research groups were published in June 2022 in *The Lancet Neurology*.



Earlier detection of cardiovascular diseases Check@home

The **large-scale research program 'Check@home'** came off the ground in four regions in the Netherlands. This study investigates whether home-testing can allow the timely detection of cardiovascular diseases, kidney disorders, and diabetes among people aged 50 to 75. The Check@Home study is an initiative of the Dutch Heart Foundation, the Dutch Kidney Foundation, the Dutch Diabetes Fund, and the Dutch CardioVascular Alliance (DCVA), and will continue for five years. The study leaders are from UMC Utrecht and UMC Groningen.

Scaling down rheumatism medication with the help of artificial intelligence

Watch the video on using data science to safely phase out rheumatoid arthritis medications.

Once the disease process of rheumatism patients has been brought under control through medication, the latter is scaled down. But with scaling down of medication, there is unfortunately always the risk that rheumatic symptoms will increase again. To reduce the risk of such a flare, UMC Utrecht has made use of **artificial intelligence to develop a computer model**, which is now being studied.

Predicting whether chemotherapy will be effective for breast cancer

Breast cancer researchers at UMC Utrecht have discovered that a **certain protein can predict whether a course of chemotherapy will be effective for aggressive breast cancer**. Women with breast cancer and a high level of FER protein have a greater chance of successful treatment with taxane chemotherapy. This was discovered in a trial that was published at the beginning of April 2022 in the renowned scientific journal *Cell Reports*.

Predicting cognitive problems

Vascular damage to white matter in the brain can cause various cognitive problems, for example in people's language ability or memory. Researchers at UMC Utrecht have developed **smart software that can predict through brain scans of this type of damage which problems the patients will encounter**. The model will initially be useful especially for patients who come to the memory clinic and who therefore often already have ailments. The researchers hope that the software can later also be used for people who are not yet suffering from anything.

Innovation and economic exploitation of research

Translating scientific knowledge into impactful solutions for patients and society is an important objective of UMC Utrecht. To meet this objective, we support professionals in economic 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

Withing Utrecht Holdings a total of 39 new ideas for innovations were further elaborated in 2022, and 13 patent applications were filed. As a result, seven licenses were granted for the marketing of innovations from UMC Utrecht. Utrecht Holdings also awarded an innovation voucher of € 40,000 to a highly promising UMC Utrecht project, namely RF Sensing (Radio-Frequency Sensing). Based on this technology the new diagnostic modality **PrecorDX** was developed. **PrecorDX was also the winner of the Venture Challenge in 2022.** In 2022 Utrecht Holdings also made a follow-up investment in **Arthrosave**, a healthcare innovation that originated from UMC Utrecht.

In 2022, seven licenses were granted for the marketing of innovations from UMC Utrecht.

Five new UtrechtInc startups

In 2022, the startup incubator UtrechtInc was able to welcome five new startups with an UMC Utrecht background (founder of IP) in its program and startup ecosystem. They are **Cordys Analytics**, **Kidney Match**, **Radiostethoscope/PrecorDX**, and **Loktu HTS Bio**.

TKI subsidy from Health Holland

The top sector Health Holland in 2022 released € 5 million via the TKI subsidy for projects that are initiated from UMC Utrecht. The TKI subsidy is a financial incentive for researchers to set up innovation projects in collaboration with companies. In 2022 the subsidy was used for the development of Artificial Intelligence (AI) and Data Science projects. These projects got off the ground at the beginning of 2023.

Ureka Mega Challenge

In the innovation program Ureka Mega Challenge we support colleagues in turning their innovative ideas into actual products, tools or work processes that will improve the quality of care both for the patient and for the healthcare professional. 2022 was the ninth year that the Ureka Mega Challenge took place. The winner became **I See You**, an AI technology with which healthcare for premature babies can be aligned even better with the baby's needs. These vulnerable children thereby get a better start in life and a bigger chance of a healthy future.

In this project, UMC Utrecht staff members worked with partners from the **EWUU alliance**.

Subsidy for the application of digital health and data science in healthcare

In 2022, UMC Utrecht together with a special consortium including Hogeschool PXL Hasselt, the Medical University of Gdańsk, and Utrecht Inc., received a subsidy of € 1.2 million to boost innovation and entrepreneurship around digital health and data science and to stimulate the application thereof in healthcare. The innovAid project stimulates creative and innovative thinking and creates test environments for innovative ideas at UMC Utrecht. The subsidy comes from the European Institute of Innovation & Technology and Higher Education Institutions Initiative (EIT-HEI).

Research funding

To enable us to do research, we also raised funds in 2022:

The National Growth Fund in 2022 gave grants to four projects of which UMC Utrecht forms a part.

National Growth Fund

The National Growth Fund (NGF) in 2022 gave grants to four projects of which UMC Utrecht forms a part, namely Oncode-PACT, NXTGEN HIGHTECH, Biotech Booster, and Pharma NL. The Growth Fund project RegMedXB pilot factory that received a grant in 2021, also received one in 2022 for the second phase.

Oncode-PACT

Cancer remains the number one cause of death in the Netherlands. Although many things have improved for patients, little progress has been made in the past ten years for those with metastasized cancer. The aim of **Oncode-PACT** is to speed up and improve the pre-clinical development process of cancer medication in order to develop faster and less expensive drugs for specific patient groups. An infrastructure with innovative models and methods is being set up for the four most frequently encountered groups of cancer medication, namely: Small molecules, Biologics, Cell & Gene Therapy, and Therapeutic Vaccines. For this, researchers make use of Artificial Intelligence (AI), Organoid Models, and patient cohorts.



UMC Utrecht is one of the initiators of Oncode-PACT and one of the coordinating establishments of the sub-projects. Partners include the Princess Máxima Center (PMC), the Dutch Cancer Institute (NKI), TNO, Utrecht University (UU), Leiden UMC and other UMCs, Philips, Janssen, and TUDelft. The total project budget amounts to € 224 million for the project's duration of ten years, and UMC Utrecht will implement € 107 million from this budget. Of this, the National Growth Fund is giving € 60 million, and UMC Utrecht must deliver € 47 million in the form of in-kind contributions.

NXTGEN HIGHTECH

In **NXTGEN HIGHTECH**, researchers are developing new-generation high-tech equipment aimed at sustainability, digitization, health, and technological sovereignty. UMC Utrecht is involved in two projects with a biomedical scope, namely the development of an artificial kidney, and cell-production technology.

The aim of the artificial-kidney project is to create an open-technology platform for the production of the next-generation artificial kidneys to replace and support organ function(s). UMC Utrecht is the project trigger and collaborates with sixteen other organizations, including the Dutch Kidney Foundation, IMEC, UTwente, NextKidney, Corbion, Aspen Oss, and LifeTec Group. The total project budget is € 37.6 million, of which € 2.39 million at UMC Utrecht. Of this € 2.39 million, the National Growth Fund is giving € 1.59 million, and UMC Utrecht will deliver € 805,000 as co-funding.

In the cell-production technology project, UMC Utrecht is one of the partners. The aim is to create the next generation of high-tech equipment for the development of Advanced Therapy Medical Products (ATMPs). ATMPs are medical treatments that use living cells, genes or tissues to treat or prevent diseases, such as genetic disorders and auto-immune diseases. Within this seven-year project, over € 1.1 million in the form of an NGF subsidy was awarded to UMC Utrecht, and UMC Utrecht will make an in-kind contribution of € 150,000.

Biotech Booster

The aim of **Biotech Booster** is to turn knowledge faster into sustainable biotech products by selecting and developing promising propositions according to business objectives and to create spin-offs. In this way returns on scientific research can be increased and biotech can contribute optimally to solve social challenges. Biotech Booster is a unique public-private coalition with the joint ambition to make the Netherlands a global hotspot in biotechnology by being the missing link in the value-adding chain. The exact (allocation of the) NGF funding is not yet known.

PharmaNL

PharmaNL wants to give a sustainable impulse to the entire Dutch value chain of drug development, to make optimal use of the economic potential of innovative pharmaceutical products and production technologies in the Netherlands. That is why PharmaNL established as a completely open program, is accessible to all Dutch pharmaceutical hubs, start-ups, scale-ups, small and medium-sized enterprises (SME), large companies, pharma-oriented universities, knowledge institutions and educational establishments. The exact (allocation of the) NGF funding is not yet known.

Allergy research on 'new foodstuffs'

UMC Utrecht is going to coordinate an international study with 24 international partners that will develop methods to assess **the potential for allergy of so-called 'new foodstuffs'** (for example insect burgers). To this end, the consortium led by a researcher from UMC Utrecht in 2022 received an EC Marie Skłodowska-Curie DN subsidy of € 2.6 million. UMC Utrecht will receive € 500,000 of this.

Improved exercise program for cancer patients

A study group at UMC Utrecht is coordinating a consortium that received a Horizon Europe grant of € 6 million to develop and assess a **personalized remote exercise program for cancer patients**. This new intervention (PEREFERABLE-II) is expected to solve current problems with the implementation of movement programs for cancer patients and to improve cancer patients' quality of life. Out of the total subsidy amount of € 6 million, € 1.2 million goes to UMC Utrecht.

NWO subsidies and grants

In 2022, three consortia of which UMC Utrecht researchers form part received a **large subsidy from the Dutch organization for Scientific Research (Nederlandse organisatie voor Wetenschappelijk Onderzoek or NWO)**. These include studies on the impact of genetic drugs with stem cells (€ 5 million), regenerative treatment methods for osteoarthritis (€ 3.2 million) and a study focusing on the contrast between tailor-made personalized drugs on the one hand and large-scale industrial production of drugs on the other (€ 8.1 million).

A study group from UMC Utrecht is also coordinating a consortium that received a **grant of € 3.6 million from NWO for the Perspective Program MAESTRO**. With this amount the group will be able to develop a new imaging technology that will predict at an early stage whether a treatment against cancer or type 2 diabetes will work.

In addition, two UMC Utrecht researchers received a grant of over € 700,000 from NWO for research on **how the body shuts out inflammatory pain**. They thereby hope to understand what goes wrong with people with chronic pain that does not go away, to be able in the long term to develop new treatments against chronic pain.

1 Veni and 1 Vidi grant

The Dutch organization for Scientific Research (Nederlands organisatie voor Wetenschappelijk Onderzoek or NWO) in 2022 awarded Veni funding of up to € 280,000 to a highly promising young scientist at UMC Utrecht. With this grant, the scientist will be able to develop own research ideas further. The research in question is to study the feasibility of an **implantable brain technology (communication Brain-Computer Interface (cBCI))** for children with serious physical impairment which prevents them from communicating, in order to establish communication.

In addition, an experienced UMC Utrecht scientist has received a Vidi subsidy from NWO of € 800,000. With this he will be able in the next five years to develop an own, innovative line of research and set up a study group. The research will look at whether **genetic disorders might explain a serious sensitivity to staphylococcus infection**. An article based on research on this topic has already been published on May 19, 2022 in *Science*.

The Dutch Cancer Society (KWF) is investing more than € 10 million in eighteen studies in Utrecht that will be launched in 2022.

KWF investment in 18 studies on cancer

The Dutch Cancer Society (KWF) is investing more than € 10 million in eighteen studies in Utrecht that will be launched in 2022 at UMC Utrecht and the Hubrecht Institute. These studies are expected to improve cancer treatment and find solutions on questions like: how can we improve the treatment of mouth cancer, and how can we improve children's quality of life after brain-tumor treatment by developing a smart watch to monitor hormone balance?

Another project that received € 5.3 million in total from KWF is **DARE-NL**, a new national platform for the development of highly promising cell and gene therapies. More patients will thus be able to benefit from the life-saving potential of these therapies. UMC Utrecht is the trigger of this platform and is receiving over € 1.6 million of the total subsidy.

Better implantable artificial kidney

In the research project KIDNEW scientists are developing a proof of concept for three breakthrough technologies that should make it possible to have an implantable artificial kidney with a more effective kidney-replacement therapy than that which is currently available. This means that patients will not need immunosuppressants, and the better implantable artificial kidney will also cost less than current kidney-replacement therapy. In the short to medium term, the filter and/or tubuli unit that is being developed in

the project can be used outside the body (extracorporeal) as a replacement for or in addition to the current dialysis. Scientists at UMC Utrecht and Utrecht University are collaborating within KIDNEW with experts in the field of chip technology (Imec), optical detection (Optofluid Technologies), blood-compatible coatings (CNRS), and membrane technology (Me-Sep). In 2022 KIDNEW received a HORIZON IEC subsidy of over € 3.2 million.

Better treatment of rare genetic metabolic diseases

A researcher at UMC Utrecht received a **prestigious ERC Starting Grant of € 1.5 million** for five years. The grant will be used to improve the treatment of rare genetic metabolic diseases in children. These diseases are caused by a small error (mutation) in the DNA. The first step towards a better treatment is therefore also to correct the mutation in the DNA.

Gender differences in arteriosclerosis

Cardiovascular diseases are the cause of 51% of deaths in women, and 42% in men in Europe. Heart attacks more often go unnoticed in women than in men. This comes from a lack of knowledge in women with cardiovascular diseases due to the fact that for many years, few women were the object of scientific research. A researcher at UMC Utrecht together with a researcher from the University of Virginia received a Leducq grant of € 7.5 million from the Leducq foundation. The grant was awarded to the consortium for **research on gender differences in arteriosclerosis**. UMC Utrecht is the EU coordinator of this international network.

Influence of intestinal bacteria on immunotherapy

Health~Holland received nearly € 800,000 in the scope of a public-private cooperation of UMC Utrecht, Artizan Biosciences (US) and MicroViable Therapeutics (Spain). In this way we want to figure out **how intestinal bacteria can be used to improve immunotherapy against cancer** and limit the side effects of the treatment.

Open science

One of the guiding principles of research at UMC Utrecht is the transition to Open Science; a 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 study phases. In this we work together with Utrecht University.

In 2022 we set up an Open Science team together with Utrecht University. It is a cross-disciplinary group of researchers and other research professionals, chaired by the dean, who ensure that various Open Science topics are further developed and implemented. One of the activities of the team is an ongoing Open Science roadshow to inform and motivate researchers to organize Open Science symposiums and debates.

In 2022, a total of 85% of our scientific publications were published with Open Access.

Open Access scientific publications

An important aspect in Open Science is the free Open Access publication of scientific articles. This makes our scientific research results accessible to everyone online and helps maximize their dissemination. In 2022, a total of 85% of our scientific publications were published with Open Access (79% in 2021).

New academic profiles

In 2022 we used new academic career profiles for the appointment of nine new associate professors. The profiles are Implementation Researcher, Clinical Researcher, Exploratory Researcher, Methodology & Technology Researcher, Academic Educator, and Valorization Researcher. These profiles are in line with our focus on Open Science and our talent program 'Research Development Program'. To go with it, we have an accompanying assessment system (Recognition and Appreciation) where the breadth of academic activities and individual as well as team operations are valued, the accent is put on quality rather than quantity, and all aspects of Open Science and academic leadership are stimulated. UMC Utrecht is one of the pioneers of this broader appreciation of researchers.

Open science

In the past year, an international research team led by UMC Utrecht received a European Horizon subsidy of € 2 million to conduct a study on Open Science, the movement that strives for scientific research that is more open. The study (OSIRIS) looks at the positive and negative impact of Open Science measures and addresses the question of how effective existing Open Science measures are. As coordinator, UMC Utrecht is receiving nearly a quarter of the earmarked funds (€ 470,000).

Quality of research

UMC Utrecht strives for socially robust scientific research in which society participates, and that makes use of the best and most appropriate methods. We strive to make a significant impact in this way, both for our patients and regionally and (inter)nationally. Excellent quality and compliance with laws and regulations are the basis for this.

New rules for drug and medical-device trials

The Medical Device Regulation (MDR) on medical-device trials and the Clinical Trial Regulation (CTR) on drugs trials came into force in 2021. Also in 2022, based on our own and countrywide insights, we continued to develop and improve the procedures established for research in this regard. This also prepares us for the fact that from 2023, we will be required to submit new drug trials under the CTR via the central Clinical Trials Information System portal (CTIS).

Quality manual for research

At the start of 2022 we published the quality manual for research on human subjects.

The manual gives researchers and research assistance a quick and clear overview of the steps and working instructions for each research phase. In 2022 we also extended the manual to research without human subjects, for instance pre-clinical studies. The quality manual is continuously updated and improved with new templates and working instructions.

Electronic consent

From July 1, 2022, it will be permitted, under certain conditions, to electronically sign the "consent form" for participation in scientific research under the Medical Research Involving Human Subjects Act (WMO). In 2022, we made preparations for this to safely start in 2023 and in ways allowed by law.

Continuous improvement

As part of research quality assurance, UMC Utrecht has an internal audit program that uses tracers to examine 1) research itself and 2) research leadership (the role and responsibilities of leadership within the division). In 2022, we conducted the research tracers thematically, focusing on data management and privacy. In leadership tracers, we not only looked at quality, but also our ambitions in terms of Open Science, diversity and inclusiveness, and patient participation. In the first half of 2023 we are evaluating the outcome of these tracers.

Diversity and inclusiveness in research

At UMC Utrecht, we believe it is important for our researchers to take the diversity of the patient population into account in their research before and during the study. Knowing for whom research findings are applicable or not, and what differences there are in disease profiles and treatments between populations, are prerequisites for good research and good care.

At the end of 2021 we published our **Gender Equality Plan** on our website and in 2022 we developed a **policy** to facilitate inclusive research. In it we included the input of the Research Café. In the coming years we will continue to support our research staff to promote diversity and inclusiveness in research. For example by organizing events, offering concrete guidelines and tools, and facilitating relevant training and courses.

[Read more about diversity and inclusiveness at UMC Utrecht.](#)

Research Café

In February 2022 the tenth edition of the Research Café for research staff focused on diversity and inclusiveness in research. Those who attended talked about questions like: what can researchers do to promote diversity in research, and how can the UMC Utrecht Research Office support them? The input from this event was used to develop our policy for inclusive research.

Collaborating with patients in research

At UMC Utrecht, many researchers are already collaborating with patients. For others it is still a new and unknown terrain. In 2022, in coordination with researchers and patients among others, we therefore developed an e-learning course for researchers. This e-module focuses on the start of the research: writing about collaboration with patients in a research proposal. The e-module is already being used a lot, also in education. In 2022, as of July, 35 employees completed the e-module. An e-module on collaboration during research projects is coming soon. Read more about how we collaborate with **patients**.



Our students

Along with care and research, education is one of our three core tasks. Our aim is to prepare our students well for healthcare and the society of the future. This takes shape under the name The New Utrecht School. The New Utrecht school stands for: inter-professional learning and multidisciplinary education in a diverse and inclusive environment.



Our
patients

Our students

Our research

Our
colleagues

Our students in numbers



4.024

students
enrolled in the
Medical faculty



220

nursing students
(160 HBO, 60 MBO)



1.012

university degrees



58

nurses graduated
(44 HBO, 14 MBO)



297

students
graduated in medicine
(incl. SUMMA Master's)

Appreciation of our education

Our bachelor course in Medicine in 2022 once again received the excellence label as a top-quality training course from the *Keuzegids universiteiten (selection guide to universities)*, an independent comparison between university bachelor programs that helps young people make the right choice of study.

In 2022 our bachelor course in Medicine once again received the Excellence label as a top-quality training course.

Student satisfaction

- For 87% of our courses, 80% or more of the students indicate that they are 'satisfied' or 'very satisfied' with the course as a whole.
- For 17% of our courses, 55% or more of our students/respondents indicate that they are 'very satisfied'.

(source: Focusdashboard)



The New Utrecht School

The New Utrecht School stands for cooperation between disciplines in the training of (future) care and health professionals. Some of the activities in 2022 in terms of inter-professional and multidisciplinary education:

BITT Challenge: patient-centered solutions

In 2022 we integrated the **BITT (BIO-TECH-MED NUTRITION INTERDISCIPLINARY TEAM TRAINING) Challenge** of the EWUU alliance (Eindhoven University of Technology, Wageningen University & Research, Utrecht University, and University Medical Center Utrecht) in our SUMMA master's program as a compulsory part of the curriculum. In the challenge, students from the medical research master's program SUMMA, master's programs in Biomedical Sciences (UU), master's programs of TU Eindhoven, and master's programs in Nutrition and Health (WUR) in get together in small groups to look for patient-centered solutions for the (bio)medical, technical, and/or nutritional challenges that patients encounter due to their disease.

Interdisciplinary optional project on Nutrition and Prevention

Within the EWUU alliance, the Medical training program, in collaboration with Wageningen University & Research, has developed an interdisciplinary optional project on Nutrition and Prevention. Within existing compulsory courses, students from the various universities involved in 2022 collaborated on a class assignment on the importance of nutrition in healthcare. Many diseases can be avoided through healthier eating and lifestyle. Mutually increasing our knowledge is therefore also essential for healthier care.



Innovative Long-COVID Challenge

In October 2022 the innovative, interdisciplinary Long-COVID Challenge for Medical and Biomedical Sciences students was organized. Too little biomedical research has been done so far on the causes of Long-COVID, and no solutions have yet been found for patients. Therefore, over four hundred students of Medicine and Biomedical Sciences have been called upon to think and work with us to take the research and solutions for Long-COVID a step further to finally help patients. Never before at UMC Utrecht have so many students taken part in innovative multidisciplinary education. **The most promising idea** that was chosen was a proposal for a laboratory study to see whether the interaction between auto-antibodies and immune cells play a role in the development of Long-COVID symptoms. The students will be elaborating this idea in 2023.

Planetary Health Impulse Team (PHIT)

In 2022, a Planetary Health Impulse Team (PHIT) was put together. This diverse team of staff members who are involved in education and sustainability was appointed to give an impetus to and integrate the topic of sustainability in program curricula. In 2023 PHIT will be working on a plan of action for each program. Sustainability was also the theme at the faculty dinner, which could take place again this year.

The New Utrecht School book

In 2022, in collaboration with Utrecht University and the Utrecht School of Arts, we published a book on **The New Utrecht School as in interdisciplinary platform**. In the book, innovators from a wide variety of disciplines sketch their modern, impactful and sustainable approach for a future-proof health sector.

Diversity and inclusiveness

As described in our vision of The New Utrecht School, we want to offer a diverse and inclusive learning environment. In 2022 we developed a number of specific activities to this end.

Student wellbeing

In 2022 we also paid extra attention, because of the consequences of the coronavirus pandemic among others, to increasing students' wellbeing. Where possible we focused on students' development in keeping with The New Utrecht School.

For example in 2022, together with Utrecht University, we organized **training and workshops on student wellbeing and development**. In this way we want to stimulate students to develop skills like autonomy and self-reflection that are needed in the society of the future. In 2022 for the first time we also put out a questionnaire among Medical students to establish to what extent they feel that they know themselves and have a sense of belonging. The results of this survey are expected in the first quarter of 2023.



Inclusive introduction

In 2022 we organized an inclusive introduction to try and ensure that every student - regardless their background, gender, religion, or possible disability - would feel welcome and be able to get off to a good start in their studies. Besides the regular introduction, students were for example able to take part in the **KICK-start program**, a 2-day program prior to the regular introduction. In this program, future students receive extra information on what exactly studying will entail, what they can expect, and what kind of help and support is available. In this way we contribute to making them feel welcome and at home.

As in 2021, all first-year students are attributed a mentor in the first year, to whom they can go with all their questions. Besides practical matters, the well trained mentor also pays attention to the social aspect: connecting with others and with the program/faculty. In this way we help to create a community and give students a feeling of belonging to it.

Observership program for refugee students



https://www.youtube.com/watch?v=Q4dc_yEZHto

In the summer of 2022 we organized an **Observership program** for five refugee students. The program consisted of a week-long (Medical) Summer School, and for six weeks after that, the students went to classes three days a week in the departments of Surgery, Pediatrics, and Gynecology. The remaining two days of the week, they followed an alternating program that included clinical skill training, evidence-based medical assignments, and master classes in various disciplines. Four of the five students were thus able to graduate with the 10 ECTs (European Credit Transfer System) that they obtained. The fifth student had already graduated.

Outreach activities

To be available for each other, we also spent a lot of attention to outreach activities in 2022. Over five hundred children from the age group 6 to 8 for example took part in the **Summer School Junior** and got to see how much fun and fascinating science is. Thanks to the traveling DNA lab the children could do various little experiments and activities on the subject of DNA. During the UMC Utrecht - U-talent bachelor lectures afternoon in 2022, about eighty interested school children had the chance to attend short subject lectures and ask all their questions on the topics to lecturers and students in Medicine and Biomedical Sciences. In 2022 some fifteen secondary and pre-university (HAVO and VWO) pupils whose parents had not studied also took part in the **U-talent-UP program**. The pupils had lectures in Biomedical Sciences, Medicine, Bioinformatics, and Pharmacology, among others. In the scope of **JINC Baas van Morgen (Boss of the Future)**, 17-year-old VMBO pupil Harun Mohamed took on the job of Executive Board member Remco van Lunteren for a day. He could thus experience what it's like to manage a training hospital.

Research on experiences in inclusiveness

In 2022 we did a **study on experiences of in- and exclusion among Medical students**. It appeared that there is still much room for improvement to make Medical training programs more inclusive, so that students will be better prepared to work with a diverse patient population. Doctors and lecturers could thus be made even more aware of the importance of inclusiveness, course material could be made more diverse, and research populations could be more diverse as well.

Inclusive curriculum toolbox

In 2022, based on focus groups with students and in collaboration with Utrecht University, we launched a **toolbox** for lecturers and curriculum planners to make education more diverse and inclusive and create a safe class environment. The toolbox for instance includes rules and guidelines to make language more inclusive, include various perspectives in education (material), and get rid of stereotyping in case studies. The toolbox is divided into the five topics 'learning goals, course material, teaching and learning activities, the role of the lecturer, and testing', and emerged from the research project 'Developing an Inclusive Curriculum and Learning Environment' of Utrecht University together with UMC Utrecht.

Developments in education

A number of developments took place in 2022 in the field of education that we would like to highlight:

Two new programs started in 2022.

New programs started

In September 2022 the new **bachelor's in Care, Health and Society** started. This interdisciplinary bachelor's program is offered by the faculties of Science, Veterinary Medicine, and Medicine. The new **master's in Medical Humanities** also started. This interdisciplinary master's program is offered by the faculties of Medicine and Humanities.

Curricula revised

To update our our Medicine, Biomedical Sciences, and Clinical Medical Science programs and keep pace with developments in society and technology, we started in 2022 with preparations to revise the curricula of these programs. To do this, we are conducting focus discussions and pitch and inspiration sessions with students, lecturers and internship trainers. The aim is in 2024 to have a blueprint ready for the reforms.

Implementation of CZO Flex Level

In line with the countrywide education project **CZO Flex Level** we started in in 2022 with EPA-based courses in the fields of Acute Care and Intensive Care. We also worked further on the implementation of EPA-based courses in the field of Medical Support. The education project contributes to being prepared for healthcare demands of the future. (Continued) training courses recognized by the Board of healthcare training programs (College Zorgopleidingen or CZO) for specialized nurses and medical-support healthcare professionals are being updated and made more flexible to give healthcare professionals more career options by being trained more efficiently and being more flexibly deployable.

Virtual Reality (VR) in education

Virtual Reality teaching can be used as an alternative for and addition to skill-based and practical education and responds to the need to make the safe practice of specific skills within education accessible and to prepare students better for new situations. In 2022 we developed three VR apps (scenarios), namely:

- VR Sterile Lab (Biomedical Sciences program), where students can practice working in sterile lab conditions to prepare them for real laboratory work.
- VR Preparing an OR for Surgery (Surgical Nurse and Nurse Anesthetist training programs), where the procedure 'preparing an OR for surgery' can be practiced repeatedly as preparation for OR practice.
- VR Neighborhood Internship (Medical training program), in which students are prepared for an internship in the neighborhood and made aware of the patient context with a patient in a consulting room and in a home situation.

Quality of education

Professionalization of lecturers

In 2022 we developed the Basic Teaching Qualification (BKO), Clinical Teaching Qualification (KKO) and 'Individual guidance of students in the workplace' further. For this we gathered inter-professional feedback and implemented it in the training programs. The first two groups of lecturers also started with the Clinical Teaching Qualification (KKO) program, and we appointed dedicated evaluators (with a link to the clinic) and developed supporting documents for this purpose. In 2022 the first nine KKO certificates were issued, and we started with a new group of fourteen participants.

Quality funds

By converting the basic grant for students, an extra amount of approximately € 1.2 million becomes has been made available for the Medical faculty of UMC Utrecht each year from 2020 until 2024 to further improve the quality of education. In 2019 we drew up a long-term plan with students and lecturers on how we will spend these quality funds. In 2022, we used the quality funds among other things to focus more on student wellbeing and made more coaches and psychologists available for students. We also implemented innovations in education and worked on further professionalization of lecturers. At the end of 2022, in coordination with students and lecturers, we adjusted the plan for 2023 and 2024..



NPO resources for Medicine

In 2022, in accordance with the spending plan, we spent the resources via the National Education Plan (NPO) for Medicine (over € 750,000 in total) on: providing training for new internship supervisors, expanding a license for digital education in surgical specialties (one-time), developing new internship placements, hiring new staff (six doctors in clinical education (AKOs), and secretarial support per block of internships.

A lot of focus was therefore put on facilitating internships. At the end of 2022, waiting times for internships had been eliminated completely. However, in 2022, fewer students also did internships, as a relatively large group took a break in 2022 due to effects of the corona pandemic. We expect that more students will once again want to do internships in 2023.

Collaborating with patients in education

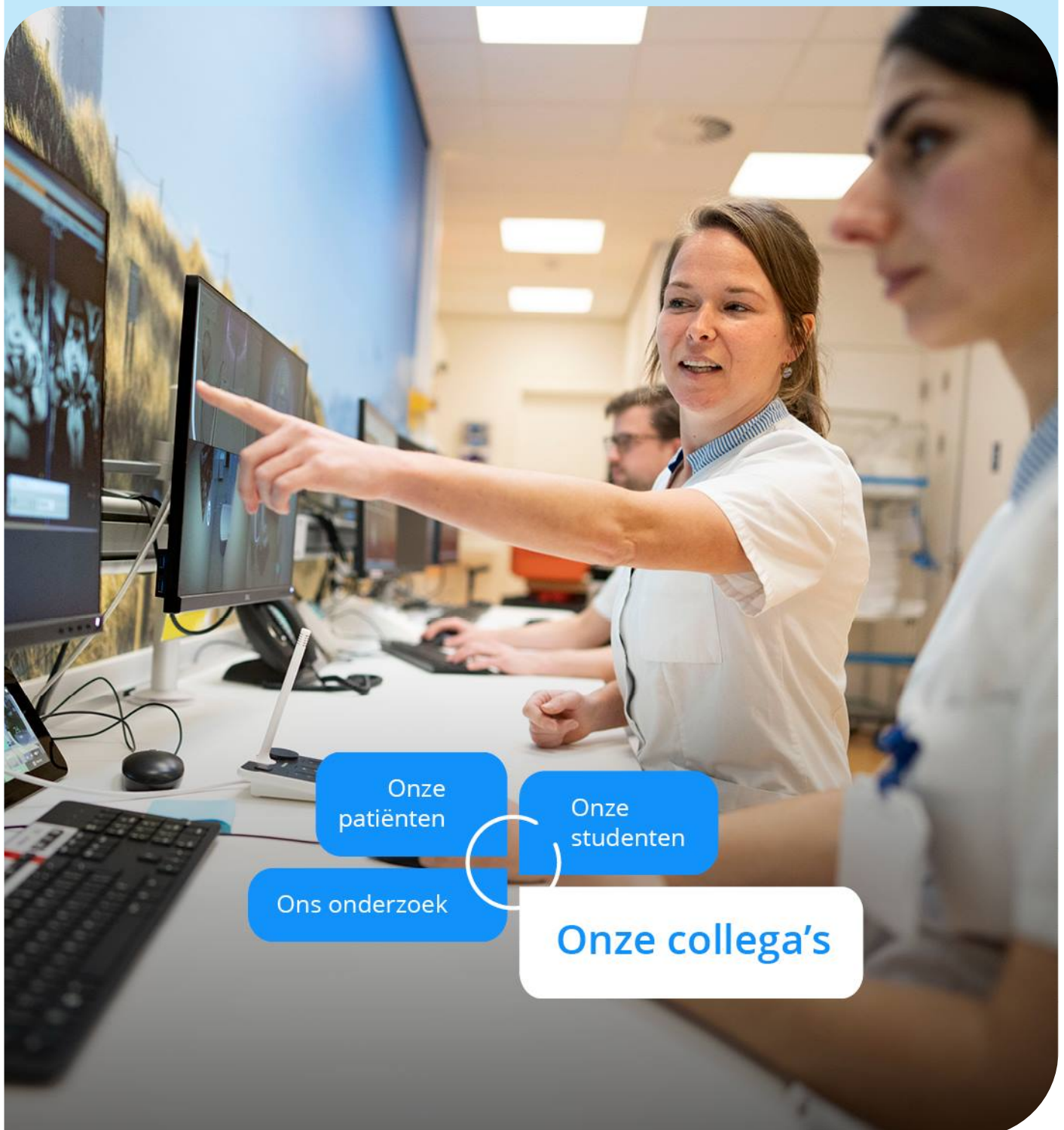
To reinforce and improve our education, we use the unique experience expertise of patients. An active and involved patient community has already been established where patients take on various roles. In 2022, in the Clinical Medical Sciences program, two patient lecturers for example taught as well as structured the course material. And for the revision of the curriculum for bachelor's program in Medicine, we arranged for a patient to become an official member of the curriculum revision committee.

In addition, the Central Training Committee (COC) established a Patient Participation Working Group in 2022 to also teach specialists and doctors in training the importance of collaborating with patients. UMC Utrecht employees who serve on the Patient Participation Working Group of the Dutch Medical Education Association (NVMO) co-authored the article '**Twelve tips for patient involvement in health professions education**'. The article mentions several examples of how UMC Utrecht makes use of cooperation with patients in education.

We also took targeted actions in the pharmacotherapy learning line in 2022 to explicitly include the voice of the patient. Following brainstorming sessions with the patient sounding-board group on education, one of the choices we made was to record videos in patients' homes of how they experience taking medication. One patient is closely involved in making these videos. Our aim is in 2023 to have the experiences of twelve patients on video. Read more about how we **collaborate with patients** at UMC Utrecht.

Our colleagues

Our core tasks - care, research and education - can only be performed if we have the input of all 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.



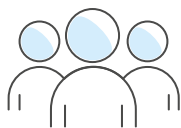
Onze
patiënten

Onze
studenten

Ons onderzoek

Onze collega's

Our colleagues in numbers



12.039

colleagues



3.368

male (28%)



8.671

female (72%)

Appreciation of our colleagues

UMC Utrecht conducts three employee-experience surveys a year. With these surveys we want to find out to what extent UMC Utrecht is a good place to work.



In 2022, an average 48.7% of our colleagues at UMC Utrecht rated their job satisfaction with 8 or more. In 2021, it was 49.7%. The overall appreciation (score) of colleagues in 2022 was 7.3 (7.3 in 2021).

Quote: "48.7% of our colleagues in 2022 give working at UMC Utrecht a score of 8 or more."

It is important for our colleagues to be able to (continue) grow(ing). Growth possibilities are therefore an important part of being a good place to work. In 2022, 69.8% of our colleagues said that they were able to grow in their job. In 2021, it was 68.9%.

Developments for our colleagues

2022 saw a number of significant developments for our colleagues, namely:

UMC CLA 2022-2023

The 2022-2023 UMC CLA became effective on January 1, 2022. This CLA brought improvements for all UMC employees in terms of remuneration, vitality, generation policy, schooling, and professional growth.

It was also agreed in the CLA that the CLA partners would coordinate with each other in 2022 regarding wage increases for all employees before 2023. In the fourth quarter of 2022, NFU and labor unions met repeatedly to negotiate about this. At the end of 2022 an agreement on wage increases was reached, namely that all employees would get a 6% pay rise on January 1, 2023, and 4% in November 2023. These salary increases are positive for our people, but will also bring considerable financial challenges for our organization in the coming years.

UMC Utrecht Helpline 'Together through the winter'

In October 2022, UMC Utrecht and the Staff Provident Fund together set up a Helpline for all colleagues who are in danger of encountering financial problems due to high inflation and energy costs. Via the UMC Utrecht Helpline, colleagues were able to ask questions, share their concerns, ask for help and advice, and receive financial support. The helpline was a temporary initiative, but even after the winter, colleagues can continue to call on the Staff Provident Fund for support with medical, psychological, social and financial problems. In 2022, 44 colleagues were in touch with the helpline and received help.

Hybrid working

In 2022, 78% of all colleagues at UMC Utrecht worked (partially) from home. In 2021 we decided to switch to 'hybrid working'. Hereby we stimulate connection between colleagues, regardless of the time and place, whereby we connect worlds. Most of these colleagues who do 'hybrid' working have an office or research job.

To connect hybrid-working colleagues with each other in an optimal way, we supported them in 2022 in terms of 'bricks, bytes and behavior'. We ensured that the office ('bricks') was an inspiring place to get together, that stimulates knowledge-sharing and cooperation. In our strategic development outlook for accommodation we ensured that office spaces are laid out in such a way that they can be used efficiently, flexibly, and geared towards activity. And, to make sure that colleagues can work effectively from home, besides the necessary hard- and software ('bytes'), we also offered training on how to use it smartly. As for how we work (together) ('behavior'), we established frameworks in which we work autonomously. And via interactive workshops we help teams with how to make good work agreements and work together optimally in a hybrid way. 41 teams followed the workshop In 2022. Hybrid working contributes to creating a good place to work, and to achieving our goal of creating the healthcare of tomorrow.

Future-proof nursing

At UMC Utrecht we invest in the development of the nursing profession with the program '**Future-proof Nursing**'. This is done for, by, and with our nurses. Through the program, we are ensuring that the composition of our nursing teams - with more time and space for research, development, innovation and education - will match the future demand for care. In addition to strengthening the nursing profession, we also want to strengthen nursing leadership, by improving the positioning and say of our nurses. This means that nursing knowledge and opinion is included for example in major programs, such as **the Healthcare of Tomorrow**, innovations and decision-making at many levels in the hospital.

In 2022 we translated the national job profiles for directional nurses and combination positions from NFU into job descriptions for UMC Utrecht, and developed corresponding development programs for these positions. We also organized for instance a UMC Utrecht-wide traineeship program for nurses, with nine nurses starting in September 2022. We also held meetings for new nurses to support them on issues they encounter as novices and to remove potential obstacles. 25 nurses took part in this.

In addition, we started an Innovation Lab in 2022. Colleagues work here on innovative solutions for small and larger practical challenges that nurses face every day. In one of our divisions we also set up an 'academic workplace' where colleagues do scientific research on nursing issues.

Recruiting New colleagues

Like all UMCs and many other organizations, UMC Utrecht is also suffering from the tight labor market and finding it difficult to properly fill all vacancies. In 2022 we therefore focused on developing creative solutions for finding new employees and optimizing our systems and processes for an optimal candidate experience. We posted 1,145 vacancies (FTE) in 2022 and hired 1,247 applicants.



Optimizing data-driven recruitment

In 2022 we optimized recruitment marketing and data-driven recruitment. With these optimizations implemented, we managed to increase the number of applicants slightly to 15,309 in 2022 (14,751 in 2021).

Recruitment processes and candidate experience optimized

Based on various projects, we worked on the optimization of our (recruitment) processes and candidate experience. One major project here was the overhaul of our **'Working at' website**. With over 2.2 million page views annually, this is an important resource for job applicants. A central aspect of the new website layout is the candidate experience in finding information, suitable vacancies - for example a position in **the OR** or in **the pharmacy** - and a clear application procedure for each vacancy, for example that of **administrative assistant for general-practitioner training**. (Potential) job applicants can also get a clear impression of what exactly the position entails, by reading **the many stories that colleagues have shared**. These stories can also be seen through our social media channels, for instance **Facebook** and **Instagram**.

A cup of coffee Utrecht style!



- Laat in het formulier hieronder je gegevens achter.
- Je ontvangt een appje om een belafpraak met een van onze recruiters te maken.
- We bellen (met een bakkie koffie of thee erbij natuurlijk)!
- Was het een fijn en nuttig gesprek? Dan brengen wij jou in contact met een van de afdelingen in ons ziekenhuis!
- Enthousiast? Hopelijk zien we jou de volgende keer in het echt voor een bakkie!



To get in touch with potential new employees in an approachable manner, we thought of and set up a creative recruitment tool in 2022 called 'Een bakkie doen!' (which literally means 'Let's have a cup of coffee together!'). The results are successful with 150 from the nurse target group who registered and 18 who accepted in the second half of the year. Current colleagues are also making use of the option to go for 'a cup of coffee together', whereby the tool also contributes to internal mobility and retention.

Labor-market communication sharpened up

In 2022 we sharpened up our labor-market communication strategy and recruitment based on the priorities that were fixed according to our Connecting Worlds strategy. The focus of our recruitment activities has as a result become more focused on designated critical professions emerging from programs, such as the Future-proof Nursing program. To add force to this, we hired a strategic labor-market communication specialist and developed innovative videos that we will use for our recruitment in 2023.

Flex pool for nurses, healthcare supporters and students

Within our nurse flex pool, we set up a 'Corona pool' during the covid pandemic. In 2022 we were able to dismantle the Corona pool. Several nurses from this pool went on to a permanent position at UMC Utrecht. In addition some thirty healthcare supporters from the flex pool also found a place in one of our regular teams.

From the nurse flex pool, we deployed over seventy flex nurses by 2022 and were able to offer twelve nurses a traineeship within our Future-proof Nursing program. After the traineeship, these new colleagues all found a follow-up position at UMC Utrecht. Following this successful start of the traineeship program, we started to recruit the next batch of trainees at the end of 2022.

Via our student pool, over 700 students find a regular job in our hospital each year. In 2022, we also specifically looked for students who could be employed for administrative assignments for longer than three months. As a result, we were able to build a pool of over 60 students and make the first successful matches. We also remain a valued party for the healthcare network in the region in posting (medical) students. For example, even after the corona crisis, we continued collaborations in 2022 with GP practices and the National Coordination Center for Patient Spread (LCPS), among others.

Language 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 through education and training, career coaching, or advice on mobility.

Developing each person's talent

We want to support our employees in their career and personal development and increase awareness of sustainable employability. This is why we offer our employees various tests, exercises and online training courses in personal and professional growth via our digital portal LEV (Career Development and Vitality). Topics include career development, vitality & health, and happiness at work. Employees can also have a discussion with an e-coach. We further offer a wide range of online training courses from Goodhabitz. These courses are short, to-the-point, and easily applicable to everyday practice. In 2022, 2,279 employees made use of LEV (1,194 in 2021) and 4,725 employees made use of the Goodhabitz online courses (3,478 in 2021).

To give employees more direction and ownership in their personal development, in 2022 we also organized the Personal Leadership training course through the NL Leert Door subsidy. 66 colleagues made use of this.

In 2022 we started with three talent programs for scientists.

Development of highly talented academics

In 2022 we started with three talent programs for scientists, to support them in building and giving meaning to their academic career:

- The PhD Boost Program, aimed at PhD students in the second or third year of their thesis.
- The UHD Program, for UHDs/Associate Professors who can take the next step within two years.
- The New Professor Program, for Professors in the first five years of their appointment.

In addition, three new programs have started in our Research Career Development Program for Post-docs and UDAs/Assistant Professors who can take the next step within two years. In total, 148 employees took part in these talent-development programs in 2022 (24 in 2021).

In the appointment process for UHDs/Associate Professors in 2022, we launched a pilot with six career profiles derived from the ambitions around Recognize & Appreciate and Open Science for scientists.

Leadership development

At UMC Utrecht we want to continue professionalizing leadership and stimulate cooperation within our organization. With the Connecting Leaders leadership program, we facilitate our leaders to work on the development of desired leadership competencies aligned with the different phases of their leadership career (Onboarding, Professional, and Advanced).

In 2022, a total of 271 leaders started or finished the Connecting Leaders program. These include 87 leaders for the Onboarding program, 56 for the Professional program, and 128 for the Advanced program. The leadership programs receive positive feedback and are regularly evaluated and updated in collaboration with various training agencies.

A new addition in 2022 was the "360° feedback" component. We offer each leader once every four years a "360° feedback" as part of their leadership development.

And, after a successful pilot of the "Influencing without formal authority" training for functional leaders in 2021, we extended the pilot for three groups in 2022. In total, 62 leaders participated in this pilot training in 2022. Finally, in 2022 we translated our vision of leadership and leadership competencies into leadership dimensions, which give a deeper meaning to the pillars that leaders are responsible for within UMC Utrecht.

Vitality and sustainable employability

UMC 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.



Special attention for nocturnal workers

In 2022, we launched the Energetic@night pilot to give extra support to our approximately 200 colleagues who work in our hospital every night. Studies show that people who do night shifts stand a greater risk of developing mental and physical ailments. It goes without saying that we want employees who work irregular hours to be able to work as safely, healthily, vitally and motivated as our colleagues with regular schedules - and that we also want to be a good place to work at night. Energetic@night helps nocturnal workers to find and maintain a good balance between work and rest, which is often especially challenging for this group of colleagues. So far we have had positive feedback from nocturnal workers taking part in the pilot, saying for example that they feel fitter.

In 2022 we have special attention to our approximately 200 colleagues who work at night.

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 in-house counselors. This offer was also available in 2022. In total, over 257 colleagues made use of it (over 250 in 2021), and our in-house counselors conducted about 1,088 conversations.

Sick leave

Despite our actions to boost vitality and prevent absenteeism, sick-leave figures were high in 2022. The average percentage of sick leave was 6.33% compared to 5.57% in 2021. It is obvious that the high absentee rate is related to COVID-19 and the work pressure that was felt. 43% of the employees who reported sick and who consulted the in-house physician suffered from overexertion, burn-out, or other psychic ailments. 18% still had (long) COVID. The overall average percentage at UMC Utrecht is lower than the average absenteeism percentage in health and social care (average of 7.1% in 2022, source CBS).

Relocation

It is important for us that everyone at UMC Utrecht should be in the right place. In 2022, we went through a relocation process with 142 colleagues. Of these, 74 found another job at UMC Utrecht, and 18 found a job elsewhere. In total, 24 were integrated in WW and 20 in WIA.

Diversity and inclusiveness

UMC Utrecht strives to be an inclusive employer. An inclusive culture with inclusive onboarding, inclusive leadership and a representative workforce are some of the factors that are important here. To add extra impetus to it, we appointed a full-time Diversity & inclusiveness policy advisor in 2022. Read more [about diversity and inclusiveness at UMC Utrecht](#).

To get an understanding of employees' experience of inclusiveness at UMC Utrecht, we carried out the Dutch Inclusiveness Monitor (NIM) in the fall of 2022. Approximately 30% of our employees filled it in. The results show that groups who are in the majority at UMC Utrecht experience the environment as more inclusive than those who are in minority groups. For example, based on a migrant background, or whether or not they have a leadership role.

To be a more inclusive employer, we undertook various activities in 2022.

Participation-law jobs

In 2022 we established a new organizational structure to increase the intake and support of employees under the Dutch Participation Act. We appointed an external job coach and have started to create jobs within our divisions and departments and to recruit candidates. Unfortunately no numbers are available for participation jobs and employees in 2022 due to reduced administrative capacity. Furthermore in 2022 we helped with the setting up of a wide **USP Inclusive employee network** at Utrecht Science Park (USP).



https://www.youtube.com/watch?v=-_G3Qr_Cexk

LGBTQIA+

We want to state clearly that there is room for everyone at UMC Utrecht and that we want to give everyone equal opportunities and equal treatment. During Pride month, we conducted various actions to focus specifically on diversity and inclusiveness when it comes to sexual orientation and gender identity.

For example, to encourage and support dialog on this issue in the organization, we handed out rainbow key cords with a card giving tips and guidelines on Coming-Out Day. A colleague also shared her story and vision of inclusiveness at work in an article. And of course, we hoisted the Pride flag. These actions were received very positively by our colleagues and will be repeated in 2023. In 2022 we also explored to find out whether there was interest among employees in an LHBTIQA+ employee network.



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. Our bias training courses explain what bias is, what forms of bias there are, and how these can affect us and our work. In 2022 we delivered bias training courses to colleagues, including many who are involved in education. There were more than 180 participants in total within these groups. We therefore achieved our target. A colleague also started in 2022 with a study of the impact of bias training. Besides these bias training courses, employees can also request tailored training and follow courses and modules on the Goodhabitz platform, such as 'Mastering your prejudices', 'Cultural diversity', and 'Tribes of the future'. We also have a Diversity and Inclusiveness module as part of our leadership program, Connecting Leaders.

Net number of female colleagues remained very high in 2022.

Female talent

UMC Utrecht actively pursues a policy on female talent, in healthcare as well as research and education. The total number of female colleagues remained very high in 2022. 72% of our colleagues are female (the same percentage as in 2021). In 2022, the percentage of women at management level and diversity management (incl. the Executive Board) rose to 54% (39.5% in 2021). The number of female professors went up in 2022 to 32% (31% in 2021).

Our partners

UMC Utrecht strives to be an inspiring partner that brings different worlds together and creates **powerful cooperation** at an international, national and regional level. By building ties and working together, we turn scientific research and education into products and services and innovation with added value for society.



International cooperation

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

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 2022 for example we further strengthened our ties with KU Leuven. The first PhD students to follow a dual PhD program could thus get started. They are doing their research both in Leuven and in Utrecht, and will receive a degree from Leuven as well as Utrecht. We also assessed the results of projects that were financed through grants from UMC Utrecht internationalization committee. One of the results is a study by a UMC Utrecht researcher in cooperation with KU Leuven that led to the establishment of a spin-off called **TargED**. TargED develops a biological drug to improve the treatment of microvascular thrombosis and acute ischemic stroke.

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. For the first time since COVID-19 courses could once again resume on site in 2022: two in Sicily (a certificate course for senior researchers), the Summer School in Utrecht, and the Merlion School in Singapore. The courses are highly appreciated by the participants. The Eureka Institute also welcomed a new partner, namely San Raffaele in Milan. Other Eureka Institute partners are: UMC Utrecht, Duke/ NUS, Stanford, Toronto, Miami, Arizona, United Emirates, Drexel University, Cancer Research UK, and the National Federation for Emergency Medicine.

CHARM-EU European University Alliance

UMC Utrecht participates 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.

UMC Utrecht coordinates the Health Challenges & Solutions course within the accredited CHARM-EU master's program 'Global Challenges for Sustainability', and forms an active part of the Research Hubs network within this course. **Nature** magazine focused on this topic in November 2022. Within these Research Hubs, students in 2022 worked together in an interdisciplinary way on the question of how the world should deal with future pandemics like the coronavirus pandemic.

In 2022, besides the universities of Barcelona, Budapest, Montpellier, Dublin and Utrecht that were already participating, three new universities joined CHARM-EU, namely Vaasa (Finland), Würzburg (Germany), and Ruhr West (Germany). And through the 2022 Erasmus+ European Universities Call, CHARM-EU received a **subsidy of € 12.8 million**.

ECRAID

The ECRAID (European Clinical Research Alliance on Infectious Diseases) foundation came into being on January 1, 2022 with an international supervisory board. Together with the foundation, UMC Utrecht started with the first activities to establish a sustainable, financially independent clinical research network for all of Europe in the field of infectious diseases and antibiotic resistance. ECRAID ensures a coordinated approach in Europe for the efficient and development and implementation of clinical research on intervention in the field of infectious diseases.

Global Health

As UMC Utrecht, together with Utrecht University, we contribute to the improvement of health for everybody. We do this at a regional and national level, but also internationally. Through **Global Health** we work on research and education programs in collaboration with hospitals and knowledge institutions in low- and middle-income countries on all continents. We work on sustainable and fair solutions for complex health issues around the world. To do this, we focus on a number of topics such as the impact of environment and surroundings, chronic diseases, and mother and child care.

In 2022 we strengthened our strategy and cooperation with Anton de Kom University in Suriname, and paid a **visit to Suriname**. Surinamese and Dutch students and specialists in education can now do part of their training in both countries. In addition, the **study on what is needed to improve health equality in the world based on fairness principles** was completed in the scope of the two-year Prince Claus Chair. Thereby we were able to further structure our portfolio of research on equity and fair cooperation in healthcare, and organize the first Summer School on Global Ethics and Equity. Planetary Health and exposome research (the effect of environmental factors on health) has also become a focal point in our research and education projects. Together with partner institutions in Ghana, we are studying the effect of environmental exposure on cardiovascular health, and with the EWUU Knowledge Alliance, we are developing transdisciplinary education aimed at health challenges today and in the future.

National cooperations

We also work at a national level with various partners, and further strengthened our cooperations in 2022.

Ministry of Defense

In the scope of our collaboration with the Dutch Ministry of Defense, we are continuing to give shape to our Complex Acute Care accelerator and disaster response. UMC Utrecht is for example a partner of the **Central Military Hospital (CMH)** and the Major Incidents Hospital. To strengthen our strategic cooperation, we organized two vision sessions in 2022. This led to a plan of action to establish a combined knowledge center for civil-military trauma care. We also looked at cooperation in the field of talent management.

The Major Incidents Hospital offers guaranteed, short-term capacity for the intake of military and civil victims of accidents and disasters.

Watch the video about the Emergency Hospital exercise.

In 2022, together with the Ministry of Defense, we carried out a major-incident drill in **the Major Incidents Hospital**. Minister Kuipers of the Ministry of Health, Welfare and Sport also visited the Major Incidents Hospital, and Secretary-General of Defense Van Craaikamp was taken on a guided tour of the Major Incidents Hospital, following a visit to the Central Military Hospital (CMH) in Utrecht. At the minister's request in early April we set up the **Major Incidents Hospital for the first intake of medical evacuees from Ukraine**. Fortunately there was in the end no need to use the facility.

Employees of the Ministry of Defense also once again gave us support in 2022 to create supraregional capacity for COVID-19 patients. UMC Utrecht was therefore again able to take over corona patients from hospitals across the Netherlands that had reached the limits of their capacity.

In 2022 we updated and once again confirmed our longstanding cooperation agreed with the Princess Máxima Center.

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 2022 we updated and once again confirmed our longstanding cooperation with the Princess Máxima Center.



A noteworthy milestone in this cooperation was the **opening** of the **intra-operative MRI-OR** by Health, Welfare and Sports Minister Kuipers. Together with the Princess Máxima Center in 2022 we furthermore provided medical assistance to approximately 60 little Ukrainian refugee patients in the combined OR and Intensive Care. We also worked on three studies, for which a joint research fund was set up. These included a study on the use of sound vibrations in the treatment of serious brain tumors in children and adults, a study on immunotherapy for various types of tumors, and a study on theranostics, a combination of therapy and diagnosis, for children with cancer.

We are also working with the Princess Máxima Center on the Oncode-PACT project, for which the Dutch National Growth Fund gave a **grant** in 2022. And in October 2022, together with Dynamics of Youth from Utrecht University, we did a live radio broadcast on 'Next Generation Radio' from the Children's Theater at Wilhelmina Children's Hospital on how we can together make a difference for young cancer patients through healthcare and research.

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 the **EWUU 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.



<https://www.youtube.com/watch?v=0vkoqhpgCpo>

In 2022 EWUU awarded **three subsidies of € 50,000** to innovative, multidisciplinary studies that stimulate and give shape to sustainable cooperation between institutions. UMC Utrecht is cooperating actively in all three studies. Via eduxchange.nl we offer nearly 300 courses so that students can access education at a partner institution in a clear and simple way. We also started with the expansion of this offer with EWUU minors/packages. In 2022 we also started to develop combined innovative master's programs that will focus on the EWUU topics 'Preventive Health' and 'Circular Society' and that are based on existing innovative teaching concepts such as Challenge Based Learning.

Merger of Medical Ethics Review Committees (METC)

As of 2021 new European requirements apply to research with drugs, medical advices and in vitro diagnostics, with additional requirements in terms of quality, reporting and lead times. As of 2022, this also has consequences for research reviews. Medical Ethics Review Committees (METC) will have to professionalize further to meet these new requirements. This will demand cooperation between partners. To anticipate this, the METC of UMC Utrecht and the Princess Máxima Center (METC Utrecht) requested cooperation with the METC of Antoni van Leeuwenhoek/Dutch Cancer Institute which specializes in oncological research for adults. On January 1, 2022 this cooperation led to the merger of METC Utrecht and the METC of AVL/NKI to form **METC NedMec**.

The merger will ensure quality, a future-proof approach, and independence. METC NedMec has a strong oncological profile and operates countrywide. METC NedMec not only does reviews for researchers in member institutions, but also for various other researchers and (government) institutions in healthcare.

Regional and local cooperation

Of course, besides international and national cooperation, our regional and local collaborations are essential for healthcare, research and education. In the Dutch Integral Healthcare Agreement (IZA), cooperation is central. Various worthwhile developments took place at regional level in 2022.

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 following institutions take part in Oncomid: Sint Antonius Hospital, Diaconessenhuis, Meander Medical Center, Rivierenland Hospital, Tergooi MC, and Gelderse Vallei Hospital. In 2022, Beatrix Hospital also joined. Together, we provide oncological care in the region, an area with about 2,000,000 people. We also 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 transmurale care.

Citrien 2.0/Regional oncology networks

In 2022, within the national program Citrien 2.0/Regional Oncology Networks (2019-2022) we worked in our own region (Oncomid) on the finalization and ownership of various projects on the following topics: Suitable treatment plan, Oncology dataset, Digital exchange, and Value-driven financing. In 2022 the Citrien program once again also gave a huge acceleration to developments within Oncomid and regional tumor working groups. This has led to more countrywide collaboration and sharing of knowledge and innovations.

In this way, in 2022, we set up a regional information service for patients with ovarian cancer. Nursing and medical specialists from the various institutions worked together on this with the Olijf Foundation, kanker.nl, and patients from our focus group. We also developed a visual representation for patients with ovarian cancer to be displayed in consultation rooms, in cooperation with the same parties and their regional tumor working group for gynecology, the oncology network West-Nederland (RO-West). In addition, we developed a visual representation for patients with melanoma to put up in the consultation room, in cooperation with the regional tumor working group for melanoma and the Melanoma Foundation.

Furthermore in 2022 we set up a transmurale expert team in which mandated healthcare professionals who participate in it, share first- and second-line initiatives with each other. For multidisciplinary consultation on colorectal cancer, which is implemented in Vitaly within the program Data Sharing Midden-Nederland, we have developed a standard dataset. To support the wide implementation of the multidisciplinary (MDO) consultation platform Vitaly, project staff members financed by the Citrien fund have been deployed. Lastly, in 2022 we took a first careful step to gain insight in the financial consequences of networking on diagnostics and the treatment of patients with ovarian cancer.

In 2022 the coalitions between Health Hub Utrecht started to materialize plans for the big transition.

Health Hub Utrecht

UMC Utrecht is an active member of **Health Hub Utrecht**: a 'regional innovation ecosystem for health and happiness' that unites healthcare professionals, researchers, policymakers, designers and entrepreneurs from the Utrecht region. 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.

To be able to make the big transition together, the coalitions started in 2022 to materialize the plans for going from phase 1, 'Starting Together', to phase 2, 'Making Progress'. The principle behind these plans is cooperation between the various fields and organizations to create added value together.

Transmural Contact and Coordination Center (TCC)

In 2022 the Transmural Contact and Coordination Center (TCC) UMC Utrecht was set up. The purpose of this in-house center is to coordinate and optimize transmural cooperation between specialists at UMC Utrecht and general practitioners in the region. The TCC 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.

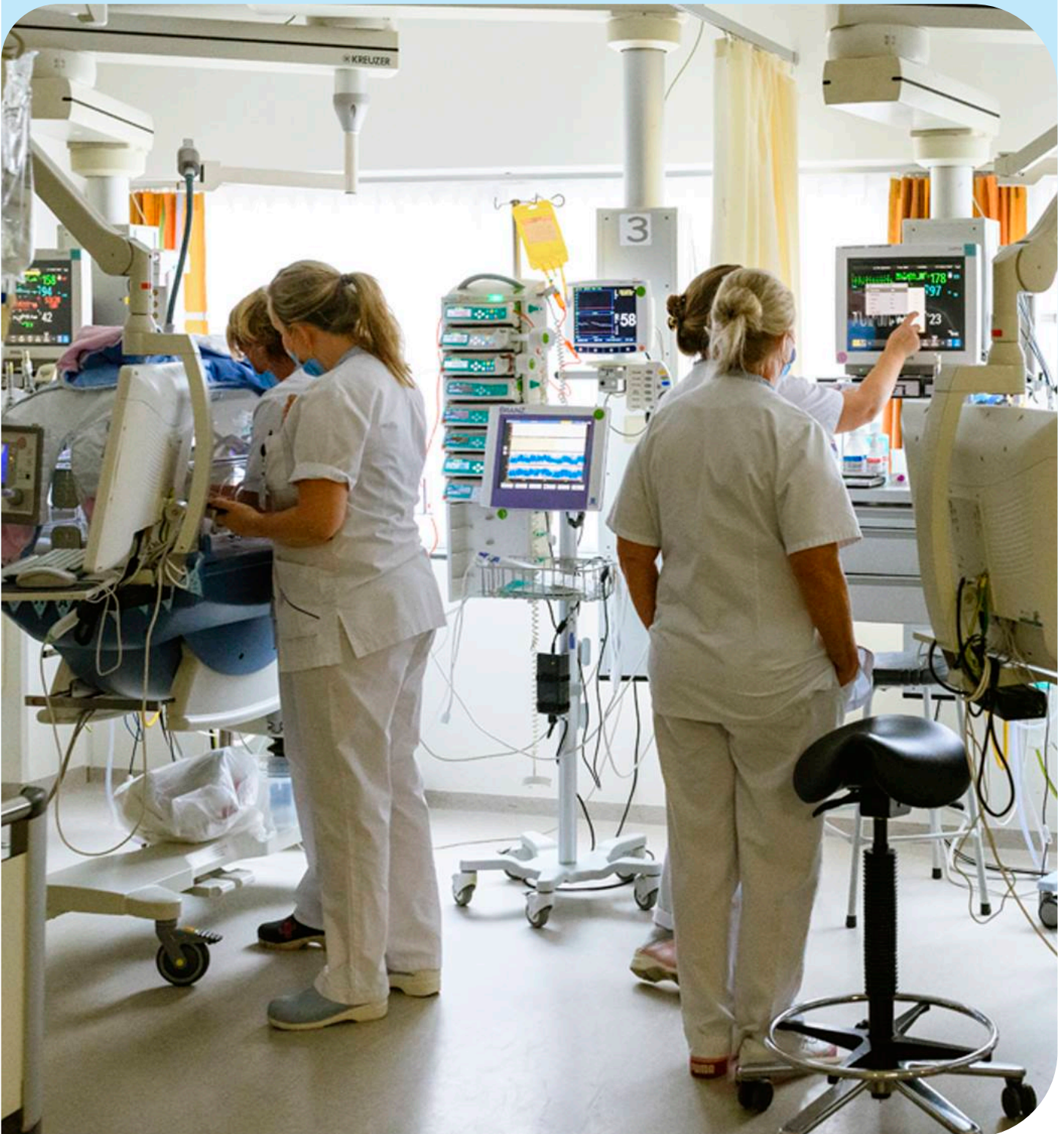
TCC UMC Utrecht is a member of the Dutch Federation of Medical Coordination Centers (FMCC) and the network of hospital relationship managers. Via these umbrella organizations, countrywide action is taken to improve transmural care, cooperation between hospitals and general practitioners, and the implementation of countrywide initiatives (e.g. referral appointments and coordination (or disruption) of care).

TRIJN - Regional cooperation organization

UMC Utrecht is a member of the **Regional Cooperation Organization (RSO) TRIJN** and thus contributes to ensuring the right care in the right place. This is done by cooperating with healthcare stakeholders from the Utrecht region, such as hospitals, regional GP organizations, nursing and care homes and home-care organizations (VVTs), pharmacists, and diagnostic laboratories. The focus is on projects in the field of digital data exchange and healthcare communication with inhabitants/patients. In 2022 we cooperated on setting up and implementing regional transmural agreements on the referral of patients. In addition, we cooperated on quality and (patient) safety in the scope of a platform for transmural incident reporting (TIM: 'Transmuraal Incidenten Melden').

Our organization

To address the changing demands of society and perform our core tasks of healthcare, research and education effectively, it is essential to have efficient, inclusive and sustainable management, and to ensure that our accommodation meets the physical requirements for the healthcare of tomorrow.



Our organization in numbers



946.313 KG
recyclable waste
(43%)



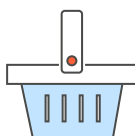
1.254.414 KG
non-recyclable waste
(57%)



11.700.478 m³
gas procurement



14.585.157 kWh
green electricity procurement



42%
sustainable procurement



45,4%
sustainable energy

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

Our strategic development outlook for accommodation focuses on various components, such as outside areas, public areas, outpatient clinics, clinics, offices, labs, and the renovation of the maternity center at Wilhelmina Children's Hospital (WKZ).

We will be conducting these programs in six phases over the next fifteen years. That way we will remain 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. With this strategic development vision we are of course in line with the application of the **Healthcare of tomorrow** and the need for our healthcare, research and education that ensues from it.

Some of the highlights in terms of accommodation in 2022 were:

Opening of the MRI OR

In the fall of 2022 we opened the new intra-operative MRI operating room for children with brain tumors at Wilhelmina Children's Hospital.



En dat vereist enorme voorbereiding ook van het team
en enorme discipline om dat heel goed te doen.

<https://www.youtube.com/watch?v=dK33wPmg27Q>

CT scanner at the new Emergency Care (SEH)

To be of even better assistance to patients who need emergency care, we have refurbished our Emergency Care unit (SEH). In October 2022 we were able to open the new Emergency Care unit. Thanks to the renovation of the Emergency Care unit, we now have a state-of-the-art unit where caregivers can give patients the best possible complex acute care.

The new Emergency Care unit is equipped with a CT scanner, with which we can diagnose patients even faster and safer and thereby ensure that they receive the right care even quicker. What's more, the CT scanner can be used for two trauma rooms. With the arrival of the CT scanner we are able to meet the amended requirements of the new Quality Framework for an Emergency Care Chain for a level 1 trauma center.

Renovation of the Hijmans van den Bergh building

The Hijmans van den Bergh building at UMC Utrecht houses many of the Medical Faculty's education activities as well as our Education Center. Due to tighter safety requirements for floor construction in the building, the floors however need to be renovated first. In 2022 we started with the renovations that will take fifteen months in total.

In April 2022 we relocated all activities in the Heijmans van den Bergh building to **various education premises and to the Administrative Building**. The relocation went very well and both students and lecturers are satisfied with the premises and facilities. The return to the Heijmans van den Bergh building, both for education and staff, is scheduled for the summer vacation of 2023.

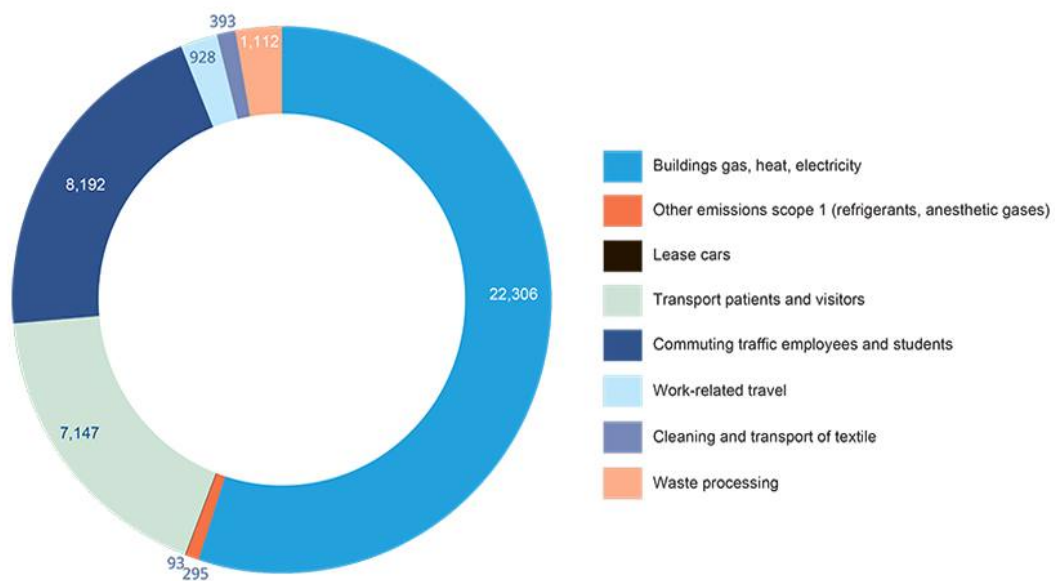
Sustainability

At UMC Utrecht we work daily to improve people's health. To ensure a healthy life for our patients and a healthy society - now and for the generations to come. 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.

Sustainability is embedded in our organizational strategy Connecting Worlds as one of our seven amplifiers. Our actions are aimed at creating a **healthy work environment, being CO₂-neutral by 2050, and being fully circular in 2050**. We are therefore deploying organization-wide initiatives and many employees are cooperating (pro)actively to upscale and accelerate our efforts to become more sustainable via the Network for green healthcare professionals and various Green Teams.

UMC Utrecht applies Socially Responsible Procurement and Circular Procurement, as well as sustainable procurement. This means that UMC Utrecht, besides the price of products, services or works, also looks at the impact of purchases on the environment and social aspects.

In 2022 our overall CO₂ footprint was 40,466 tons. CO₂ emissions broke down as follows:



During Sustainability Week in October 2022, our spotlight was on **sustainable initiatives and developments at UMC Utrecht**.



<https://www.youtube.com/watch?v=1AILcPhIjjA>

Some other highlights in 2022 were:

The signing of the Green Deal 3.0 for sustainable healthcare

At the beginning of November 2022, on behalf of UMC Utrecht and all other university medical centers in the Netherlands, NFU (Dutch Federation of University Medical Centers) signed the **Green Deal 3.0 for sustainable healthcare**. We hereby commit, together with the Ministries of VWS, EZK, BZK and I&W, to increase efforts to reduce the environmental footprint of healthcare. This updated version of the agreement includes two **new pillars: Education and Awareness**. Planetary health becomes part of our six training programs in the Medical faculty.



<https://www.youtube.com/watch?v=Yn3YXe9xNMg>

Useful application of infectious hospital waste in striving towards circularity

In 2022 we managed to become the first hospital in the Netherlands to make infectious specific hospital waste, such as needles, bandages, and laboratory waste, circular. Thanks to the new **Sterilwave**, specific hospital waste is now disinfected by microwaves and ground into tiny particles. The residual product is used as a replacement for sawdust in the cement industry. Since waste is now ground, our waste volume has been reduced by about 40%, resulting in less waste transport. Each year a lot less plastic containers are incinerated, fewer trees need to be chopped down for sawdust in the cement industry, and CO2 emissions are reduced.

Our waste volume from infectious hospital waste has been reduced by about 40%.

Collective HCS installation at Utrecht Science Park

In January, together with Utrecht University, Hogeschool Utrecht, SSH Student Housing, and Stichting Internationale School, we signed a declaration of intention to jointly create a **collective heat/cold storage system**. With this installation all buildings at Utrecht Science Park (USP) will in the future be heated and cooled in a sustainable way. A collective HCS installation is a big step towards the goal of a natural gas-free USP in 2040. If everything goes according to plan, the construction of the HCS system will start at the beginning of 2024.

Sustainable coffee

At the beginning of 2022 we reduced the number of coffee vending machines at UMC Utrecht and in the meanwhile all our appliances have been refurbished. All our **coffee is now also organic and fair-trade**. In addition, we now prevent waste since the vending machine does not automatically give a disposable cup, and it is no longer possible to fill jugs. Finally, we have partnered with a Utrecht-based company that ensures that all of our coffee grounds are used as soil to grow oyster mushrooms.

Less waste at the Urology OR


At the Urology OR, the OR Green Team ensured that new protocols were developed by 2022, reducing the use of materials such as scrubs, gloves and covers. This creates less waste and allows us to work in as sustainable and circular a way as possible, without being to the detriment of care and safety for patients. Based on the new protocols, in a trial as much as 6 kg less material was used in one day.

Diversity and inclusion

Within UMC Utrecht we want an inclusive culture where people are working who together reflect society. We strive to be a home where patients, staff and students feel recognized and where there is room for people with talents who add value to good healthcare, education and research. Factors like gender, cultural or social background, personality, ideology, work capacity or age may not stand in the way. We want to motivate all employees and students, challenge them and let them explore their talents, attract top talent, and offer an innovative environment where everyone can enjoy challenging themselves and working together in an optimal way. Everyone should feel welcome with us and get involved to work together towards our goal.

To achieve a more diverse and inclusive organization, we developed an implementation plan in 2022 and consulted internally with the various partners. In it, we focus both on being an **inclusive employer** and on **diversity and inclusiveness** in education, **research** and **healthcare**.

In 2022 we developed an implementation plan to achieve a more diverse and inclusive organization.



Affordable care

Program for Transformation Deal on Expensive Drugs

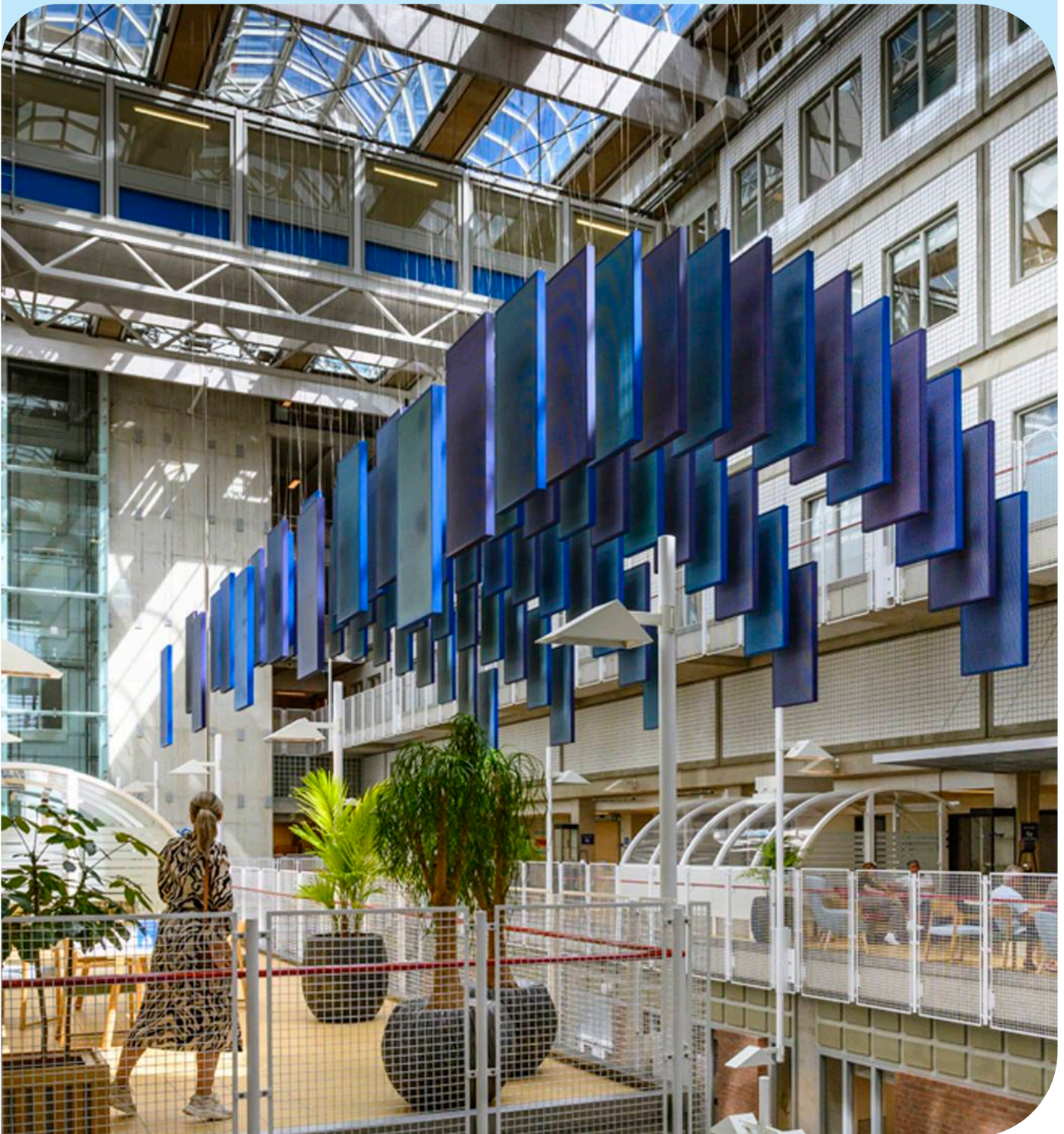
Together with other UMCs in the Netherlands, UMC Utrecht is taking part in the countrywide NFU program to achieve savings on the prescription of expensive drugs. Think for example of remedies for atopic eczema or leukemia, or immune therapy for various types of cancer. Through dialog with patients and based on research, medical specialists will determine in this program whether a lower dosage can be prescribed and/or whether longer intervals can be allowed between applications. They may also opt for a less expensive drug or more effective combinations.

The results of the program are positive, both for patients and financially. Lower dosages or longer application intervals often cause less discomfort for patients, while the same or sometimes even better treatment results can be achieved. The best care does not always have to be the most expensive. In 2022, UMC Utrecht was the coordinator for new treatment protocols for atopic eczema and hemophilia. The total savings in 2022 by all seven UMCs together amounted to approximately € 20 million. Since the new protocols were followed only for part of 2022, even more savings will be made in the coming years.

We shall also continue to investigate in the coming years whether further savings can be made on the prescription and administering of expensive drugs. In this way we contribute actively to curbing the high annual cost of healthcare in the Netherlands.

Our finances

What are the financial results for 2022 and how have we dealt with (financial) risks to protect our reputation and continuity?



Impact of COVID-19 on our finances

The umbrella organizations of hospitals, UMCs and health insurers together made national agreements for 2022 to offer compensation to hospitals and UMCs for providing COVID-19 care. These agreements are in addition to the regular agreements that are signed bilaterally each year between hospitals, UMCs and health insurers. And in addition to the agreements that UMC Utrecht made with health insurers for 2022. The national agreements are a solution for risks related to COVID-19 that cannot be solved bilaterally. They offer a guarantee for care continuity. The compensation is for IC days and nursing days of COVID-19 patients, an availability compensation for the upscaling of IC beds, and compensation for extra costs due to the delivery of COVID-19 care. Agreements were also made for financial compensation of lost productivity due to the delivery of COVID-19 care. Finally, a hardship clause gives hospitals and UMCs a guarantee that there will be no financial result below zero due to insufficient compensation for COVID-19 care. With the national agreements in 2022, and the similar agreements made for the COVID-19 years 2020 and 2021, the uncertainties due to COVID-19 in the settlement of the 2020, 2021 and 2022 (claim) years have been limited.

All stakeholders, such as hospitals, health insurers, the safety region and the Ministry of Health, Welfare and Sports, worked hard in the past three years on a basis of trust. And they reacted fast to mitigate the different financial risks that COVID-19 had brought for healthcare, education and research. This is good to see. As a result, however, we did have to deal with stacking arrangements from 2020, 2021 and 2022 when preparing the 2022 financial statement. And with uncertainties about the details of the arrangements and the use and accountability of funds received. We took account of these uncertainties in drawing up the financial statement.

Besides our core tasks - healthcare, education and research - our underlying operational management and (strategic) programs/projects have also been 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. Some activities could still proceed in whole or in part in 2022 (including the Tomorrow's Care movement). Other programs/projects had to be postponed. The latter include projects related to the implementation of our Strategic Accommodation Plan (SAP).

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). The figures for 2021 were adjusted for the sake of comparison.

	Operating income	Staff costs	Net profits
2022	1,539.10	801.9	20.1
2021	1,485.40	777.6	6.6
2020	1,391.80	742.8	9.6

	Group equity	Provisions	Total assets
2022	461.4	52.7	1,088.40
2021	441.1	45	1,005.90
2020	408.2	36.2	906.7

	Return on equity	Capital ratio	Liquidity
2022	1.30%	42.30%	1.59
2021	0.40%	43.80%	1.63
2020	0.70%	45.00%	1.64

Financial results

Our operating income was once again higher than in previous years (increase of approximately € 54 million (3.6%)). This increase is partially due to higher proceeds from care services (e.g. Indexation and expensive drugs) and partially to an increase in other revenue (externally funded research projects and higher revenue from consolidated entities). Healthcare revenues in 2022 contrary to previous years were influenced to a limited extent by COVID-19. The settlement of the subsidy from the Ministry of Health for the upscaling of IC related to COVID-19 over the years 2020, 2021 and 2022 made a positive contribution of € 4.7 million on operating income.

As opposed to the increase in operating income, there were also higher costs. Our staff costs went up 3.1% from the previous year (increase of approximately € 24.3 million). The increase in staff costs is mainly due to CLA developments. On balance, these developments have led to a consolidated result of € 20.1 million. This is approximately € 13.5 million more than the consolidated result for 2021 and approximately € 9.1 million more than the budget for 2022. This result is due especially to a cumulation of incidental income and expenses that came out positively in terms of balance. Compared to the budget therefore, the following incidental income was realized: availability contribution from the Ministry of Health for ICU capacity € 4.7 million and COVID-19-related special revenues from previous years € 5 million.

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 annual increases in the cost of expensive drugs underline the importance of all projects and initiatives undertaken to mitigate this increase. An important initiative in this regard is the agreement reached by NFU with health insurers on transformation funds.

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). The balance of cash and cash equivalents at the end of 2022 was € 368 million. We expect that with the implementation of our strategic accommodation plan (SOH) it will become essential to attract additional funding as of 2026.

Consolidated participating interests had a negative impact on our result on balance of about € 5 million. This effect is mainly explained by the WKZ fund's losses on its investments due to negative developments in stock and bond markets during 2022.

Risk control

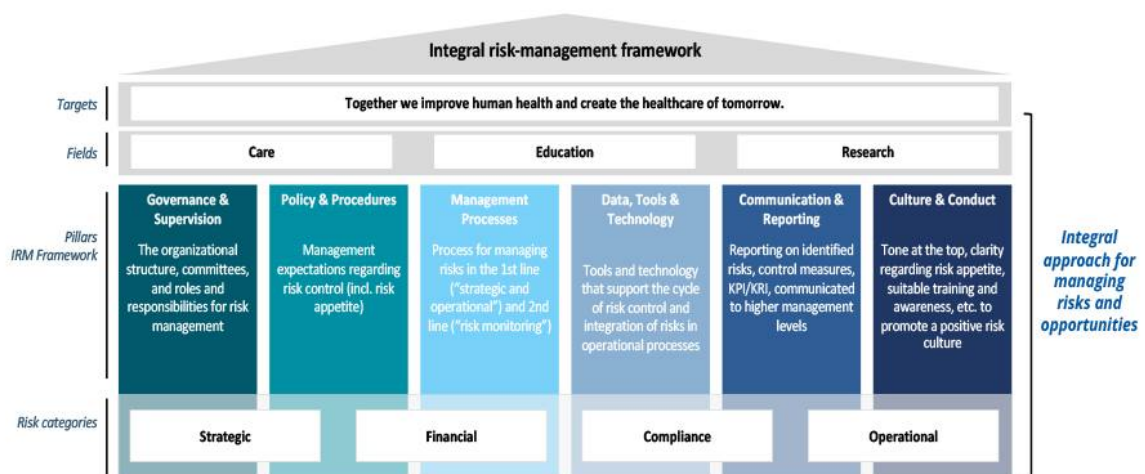
Risk appetite

Partly because of our social role and the financing of our core activities with public money, we are obliged to manage these risks adequately and to be conservative when it comes to risk appetite. We still applied this conservatism generically in 2022. In 2023, as part of the further structuring of the integrated risk management framework, we will assess the appropriateness of formulating a differentiated risk appetite.

Organization & Governance

In 2022, we continued the trajectory we started in 2020 to take risk management to a higher maturity level. The focal points integrity, uniformity, and alignment of risk control with existing procedures therefore remained unchanged. The Risk & Compliance Manager who was appointed in 2021 had the primary task in 2022 to bring together all risk management activities at strategic, tactical and operational levels in an integrated framework based on the COSO-ERM framework. The framework looks like this:

Integral Risk Management Framework



In accordance with the principles of the COSO-ERM framework and the three lines of responsibility, responsibility for risk management lies primarily with our divisions, boards 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. The Risk & Compliance Manager monitors the process and adjusts it where necessary. This enables 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.

To implement this framework, we are initially working from top to bottom. This means that, in addition to the strategic risk analyses conducted by the Executive Board, we have added a risk paragraph to the management contracts concluded between the Executive Board and the management teams of the various divisions and departments. In 2023, our main focus will be on implementing a PDCA (Plan, Do, Check, Act) cycle to achieve the ongoing nature of good risk management.

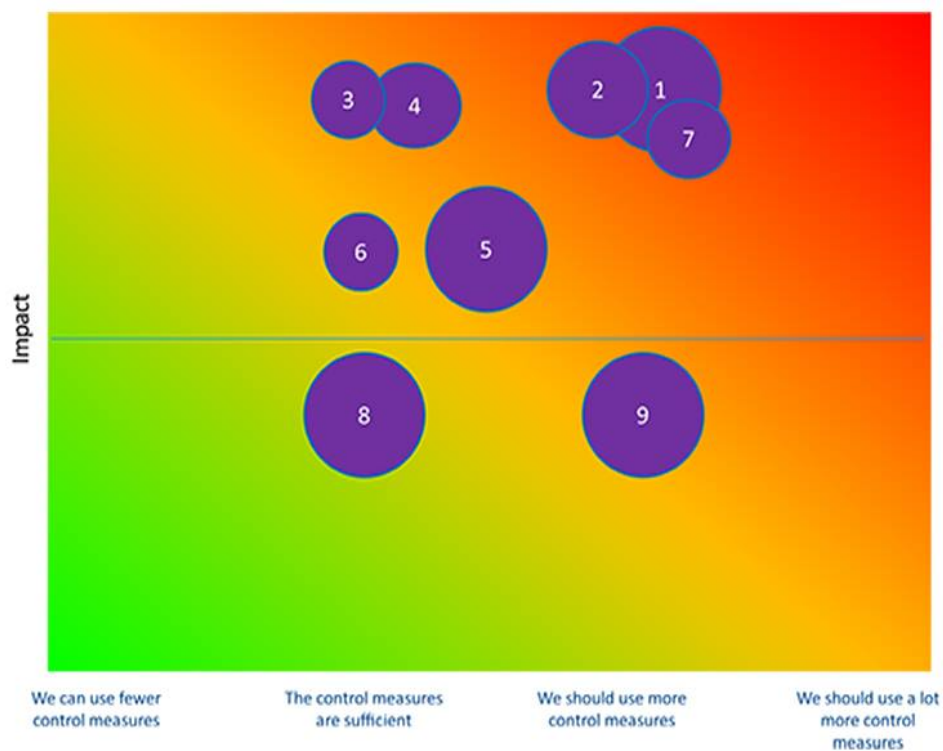
We also just about completed formalizing our tax control framework based on the same COSO-ERM framework in 2022. In 2023, we expect to sign a new Horizontal Surveillance Covenant, which is largely based on risk management.

In 2022 the Internal Audit department did a fraud-risk analysis and discussed the results of the investigation with the Executive Board. The main conclusion is that the key components are in place to achieve a good integrity climate in a formal sense. The greatest risks are conflicts of interest in the procurement of goods and services and in the funding of investigations. For both these indicated risks, action plans have been set up and it was agreed with Internal Audit that the progress of the action plans would be assessed further in 2023.

Risk overview

Strategic risks

The heat map below gives an overview of the main strategic risks at the end of 2022/beginning of 2023. The position on the heat map depends on the one hand on the potential impact that the risk has on reaching the organizational targets, and on the other hand, the estimate of whether there are enough control measures in place to mitigate the risk sufficiently. The size of the circles indicate the chances that a risk will occur.



Nummer	Omschrijving
1	Staff Availability: There is insufficient personnel with the right qualifications. As a result, the quality of primary (care) tasks is under pressure, and there is insufficient capacity to implement desired strategic changes.
2	Cross-Divisional Changes: Divisions primarily focus on their own organization. This makes strategic projects difficult and prevents the UMC Utrecht from presenting itself as a unified organization externally.
3	Healthcare Concentration: The UMC Utrecht fails to establish a clear profile in primary tasks and related collaborations or influence the choices made in that regard.
4	Compliance: The UMC Utrecht is at risk of not meeting internal and external laws, regulations, and guidelines.
5	Efficiency Objectives: Operational and support processes are insufficiently covered, leaving little room for essential innovation and resulting in exceeding financial frameworks for major projects.
6	Supply Chain: The UMC Utrecht encounters suppliers who are unable to deliver (or are too expensive) due to shortages. This causes delays or disruptions in essential (primary) processes and projects.
7	Cyber Incidents: The UMC Utrecht is highly automated, posing the risk of operational process disruptions due to internal and external factors (ransomware, unauthorized access to sensitive data).
8	Reputation Damage: The UMC Utrecht receives negative news coverage, becoming an unattractive healthcare provider for patients, an unattractive employer, and an unattractive partner to collaborate with.
9	Climate Change & Sustainability: The UMC Utrecht is at risk of not achieving its sustainability objectives.

"For all risks, we have appointed or will appoint action holders who will work in collaboration with the Risk & Compliance manager to develop control measures. These measures aim to both reduce the likelihood of occurrence and minimize the impact to an acceptable level. We monitor the progress and effectiveness of these measures in a PDCA (Plan-Do-Check-Act) cycle. Some important and specific measures we have taken or will take include:

- Risk 1: Optimizing the operations of our central capacity center to maximize the utilization of available capacity.
- Risks 2 and 3: Establishing and implementing strategic projects, such as HiX standardization and the Strategic Development Vision for Housing (SOH), as described later in this chapter.
- Risk 4: Implementing a compliance framework to ensure ongoing compliance with laws and regulations.
- Risk 5: Strengthening the performance dialogue, as further described later in this chapter.
- Risk 6: We are exploring the best way to mitigate this risk.
- Risk 7: Increasing focus on IT general controls within our regular activities in this area.
- Risk 8: No specific actions have been outlined for this, as it is a consequential damage resulting from other areas of focus.
- Risk 9: We have appointed a sustainability program manager, tasked with coordinating sustainability initiatives.

(Expected) impact of risks on results or financial positions

The risks as mentioned did not have a material impact on the 2022 results and financial position at year-end. What the impact of these risks will be in the near future, is unclear. The consequences of the centralization of care and the agreements in the Integral Care Agreement are also still unclear. We can however say that these will only become visible in the medium term (three to five years). Price developments in the supply chain as well as rising costs due to new CLA agreements will have an immediate impact on our results and financial position if they are not sufficiently compensated. These issues therefore have our full attention in contract negotiations with health insurers.

Use of financial instruments

UMC Utrecht does not make active use of financial instruments. So-called "open positions," due to their risky nature, are not allowed under the treasury statute. Should we ever use a financial instrument, we would do so only to hedge an existing position. As of year end, there are no (material) positions.

Needless to say, we employ many control tools to manage these risks. We explain the main measures below.

Strategic projects

To deal with the uncertainties arising from the Integral Care Agreement and the related concentration of care, we rolled out several strategic programs and started the **Healthcare of Tomorrow movement** to prepare our organization for the future. In it we focus both on the question of which care we are going to deliver, and how we should deliver it. The teams working on these programs come from all levels of the organization, so that all the knowledge and expertise present in the organization can find a place and so that the results can be driven by all stakeholders. The risks regarding the implementation of the Strategic Accommodation Development (SOH) vision, partly due to the deteriorating financial outlook, will demand extra attention in the coming period

Knowledge security

As a leading research institute, we are aware of the knowledge security risks our organization faces. Our Research office, in cooperation with Utrecht University, has been paying attention to this for some time. In 2022, we took the first steps to further formalize procedures around knowledge security. The guiding principle here is the points of interest given from the National Knowledge Safety Guide.

Risk-control and monitoring system

An important step we will take in 2023 is to continue to build the comprehensive Risk & Compliance Framework. As in previous years, we are identifying actionees for this purpose who will:

1. Identify which control measures reduce the listed risks to what extent.
2. Identify what additional measures are needed to reduce risks to the desired level and evaluate existing measures for effectiveness.

We will continue to monitor the remaining risks in the aforementioned PDCA Cycle for:

- The continued implementation of measures.
- The degree of mitigation of risk in line with the desired risk appetite.
- Whether the estimate of the risks must be adjusted.
- Evaluate whether new risks should be added due to new circumstances.

In addition, the internal risk management and control system consists of the following, among others:

Performance Dialogue	We conduct performance dialogues on a weekly basis, discussing the status of patient experience, employee satisfaction, productivity, quality and safety, and impact at all levels of the organization using (strategic) KPIs. Visual dashboards provide insights into the status of each focus area and KPI at both central and departmental levels, facilitating monitoring and control.
Planning & Control Cycle/ Management Contracts	Our planning and control cycle begins with an annual update of the key internal and external opportunities and threats, derived from our strategy. Management contracts based on this information, which include a risk analysis and concrete actions using the OGSM methodology, along with the budget, form the basis for monthly monitoring of financial and non-financial performance, including risk management, and serve as a foundation for corrective measures. Divisions and departments include KPIs in their monthly reports in areas such as quality, safety, employees, and finances.
Policy & Guidelines	The UMC Utrecht has formal policies and guidelines in various areas, such as scientific research, quality and safety of care, data and system security, and finances. Where possible, we have embedded these policies in our systems to ensure optimal compliance through IT applications.
Targeted Control Instruments	<p>Quality and patient safety control is conducted through SAFER (Scenario Analysis of Failure Modes, Effects, and Risks). SAFER is a method for proactive (or predictive) risk analysis. We have consolidated guidelines and protocols related to quality and patient safety in one accessible location for all employees. Incident reporting is highly relevant, and we support it in multiple ways.</p> <p>For risk analysis in healthcare registration, we engage in a dialogue with health insurers on an annual basis through Horizontaal Toezicht Zorg to jointly identify high-risk healthcare processes. We establish control measures for these risks and, following an assessment by external auditors, provide accountability to the health insurers.</p>
Three Lines of Responsibility	Within the UMC Utrecht, we follow the "Three Lines of Responsibility" system for risk management. Our Internal Audit department has been operational for several years, working based on an annually updated organization-wide risk analysis and an audit annual plan. Using this risk analysis and annual plan, the department conducts audits and reports to the Board of Directors and the Supervisory Board. The second-line risk management function has been further formalized.
Informal Controls	<p>Risk management also includes promoting and ensuring desired and ethical behavior among employees and management, known as informal controls. Informal controls receive ongoing attention within the UMC Utrecht, including in the following areas:</p> <p>Recruitment of the most suitable employees with the right education and experience, provision of training and development throughout employees' careers, fostering a safe working environment to minimize risks and learn from mistakes when they occur.</p> <p>Informal controls are an implicit part of audits and recommendations from the third line (internal audit).</p>

Looking ahead at the financial situation in 2023

The main challenges in healthcare

In recent years we have seen an increasing demand for complex care. Due to an aging population combined with increasing medical capabilities, the demand for complex care will only continue to rise in the coming years. At the same time, we are experiencing a tremendous tightness in the labor market across the board and as a result are facing challenges both in terms of recruiting and retaining colleagues. Our healthcare professionals already experience the current workload as high, and the absentee rate is unfortunately considerable. In addition, our resources available for care are under pressure. In the already signed Integral Healthcare Agreement (IZA), it was agreed to limit healthcare spending. This will require significant transformation and means that we must:

- Prevent people from falling ill.
- Ensure that patients arrive at the right place fast.
- Organize care differently.
- Pay a lot of attention to engaging and retaining our (healthcare) staff.
- Implement innovations based on research.
- Offer differentiating education.

Transformation agreements and deployment of transformation resources

To provide appropriate care, the IZA places more emphasis than in the past on collaboration between health care parties, including across health care domains. To facilitate this, the IZA includes agreements on equal contracting for impactful care transformations. This allows us, as a healthcare provider, to submit transformation plans to health insurers, and if necessary request temporary transformation funds. These plans can tie in with our own initiatives for care transformation and/or with regional images and plans that will be drawn up.

Concerns regarding inflation and CLA increases

The increase in our costs in 2023 and future years will not keep pace with compensation to be realized on the income side. Combined with the increase in capital costs due to our aging buildings, this means we will be forced to make substantial financial adjustments in the coming years. We shall do this on the basis of the **Healthcare of Tomorrow movement**. In order to maintain our financially healthy position even in the short term, we will have to make the necessary choices throughout 2023 and in the budget for 2024 to redesign our operations differently, more effectively, and more efficiently.

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. We will be conducting all activities over the next fifteen years. 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 2026.

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).

Governance



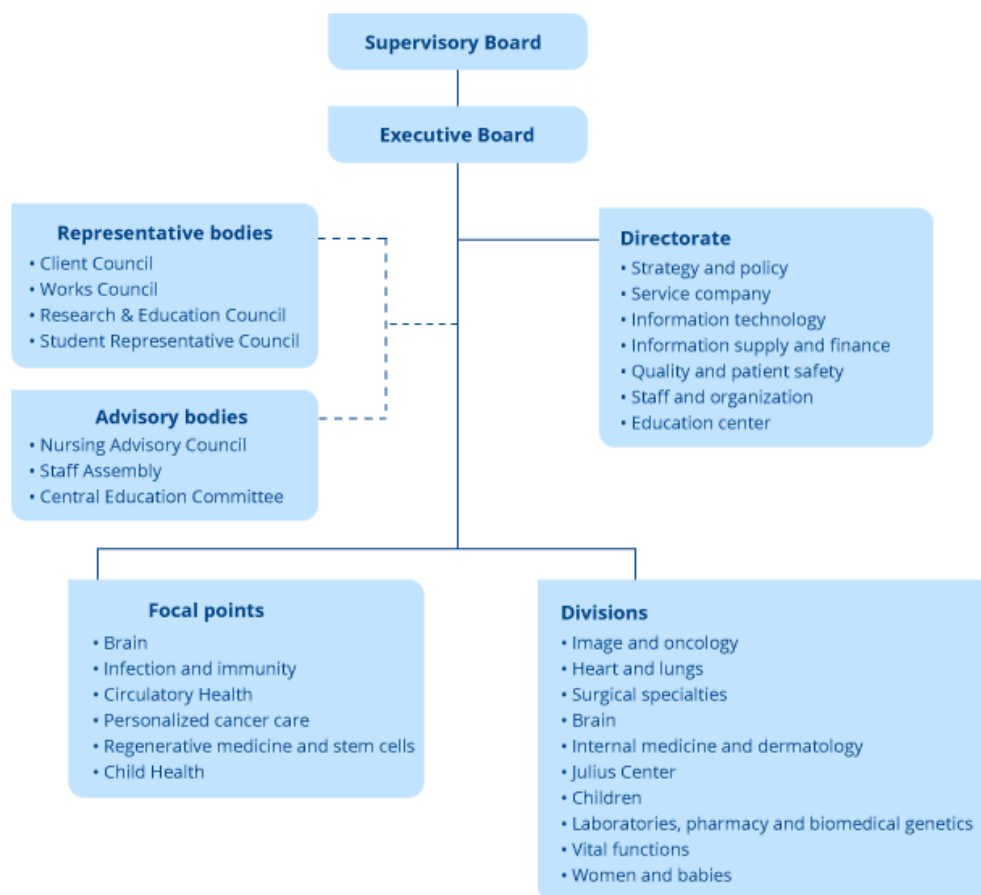
Management and structure

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).

UMC Utrecht organization chart



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 UMC Utrecht Holding B.V. 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 Healthcare. UMC Utrecht is registered at the Chamber of Commerce under KvK number 30244197 and company number 000023527250.

For the related parties, we refer to the accounting policies in the financial statements, where under 1.1.4.1 the associated legal entities and natural persons are listed.

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

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 Margriet Schneider became Chair of the Executive Board of UMC Utrecht and in this capacity gave shape to the renewal of the UMC.

Margriet Schneider held the following additional positions in 2022:

- NFU Chair (until June 1, 2022)/ Vice Chair (from June 1, 2022) (unremunerated, position-related)
- Chair of ROAZ Midden-Nederland (unremunerated, position-related)
- Board member of Oncomid (unremunerated, position-related)
- Health Hub Utrecht ambassador (unremunerated, position-related)
- Director of Koninklijke Hollandse Maatschappij der Wetenschappen (unremunerated)

- Chair of Bestuursstafel Gezond Utrecht (unremunerated, position-related)

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

Prof. Arno Hoes (1958) has been Dean and Vice-Chair of the Executive Board of UMC Utrecht since June 1, 2019. Arno Hoes is Professor of Clinical Epidemiology and General Practice at Utrecht University and was Division Chair of the currently Chair of the Julius Center for Health Sciences and Primary Care of the UMC Utrecht until June 1, 2019. 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 range of national and international clinical guidelines.

In 2022, 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) (unremunerated, work-related)
- Member of the Heart Failure Guidelines Task Force of the European Society of Cardiology (unremunerated, work-related)
- Member of the Supervisory Board of the Netherlands Center for One Health (unremunerated, position-related)
- Member of the Supervisory Board of Utrecht Holdings (unremunerated, position-related)
- Chair of the Supervisory Board, European Clinical Research Alliance on Infectious Diseases (ECRAID) (work-related, unremunerated)
- Chair of the Supervisory Board, anDREa B.V. (digital research environment) (unremunerated, position-related)
- Member of the editorial board, European Journal of Heart Failure (unremunerated, work-related)
- Member of the ESC Heart Failure editorial board (unremunerated, work-related)

Mr. J.W.R. (Remco) van Lunteren, member of the Executive Board

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 1, 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 2022:

- Member of the Supervisory Board of A15 Apotheek (unremunerated, position-related)
- Member of the Education & Patient Care Commission (unremunerated, 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 (unremunerated)
- Chair of the Supervisory Board of Speelklok Museum (unremunerated)
- Chair of the Association of Former Members of the Utrecht Provincial Council (unremunerated)

Ms J.C.E. (Josefien) Kursten, member of the Executive Board

Josefien Kursten (1973) became a member of the Executive Board of UMC Utrecht on January 1, 2022. In her role as Chief Financial Officer (CFO) on the Executive Board she is responsible for the finances and (sustainable) operational management of UMC Utrecht.

Josefien studied General Economics at Tilburg University. After graduating, she worked for more than 10 years in various ministries as financial policy advisor and manager. In 2008 she went over to the Dutch Healthcare Authority (NZa) where she filled various managerial positions. From 2016 to the end of 2021 she was head of regulation, and in this capacity oversaw the regulation of curative and long-term care. With her experience, Josefien contributes considerable expertise to keep qualitative care accessible and affordable.

Josefien Kursten held the following additional positions in 2022:

- Acceleration Board in Healthcare (unremunerated)
- Lecturer for Erasmus Center for Healthcare Management (unremunerated)
- General Board member Vereniging Samenwerkingsverband Uithofbeheer (unremunerated, work-related)
- Member of the Council of Members, SURF (unremunerated, work-related)
- Board member, DHD (unremunerated, work-related)

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 duties and powers are further elaborated in the board regulations and by-laws of the Supervisory Board.

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.

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

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

The composition of the Supervisory Board was modified in 2022. The second term of audit committee chair Peter Leijh ended on April 30, 2022. The Dutch Minister of Education, Culture and Science appointed Dave del Canho as member of the Supervisory Board of UMC Utrecht effective May 1, 2022. Dave del Canho took on the position of Chair of the Audit Committee.

The composition of the UMC Utrecht Supervisory Board in 2022 was as follows:

Ms C.E. (Caroline) Princen, Chair (second term, ending 02-28-2023)

- Member of the Governance and HR committee
- Member of the Defense committee

Primary post: CEO Nuts Groep

Caroline Princen held the following (additional) positions in 2022:

- Member of the supervisory board, Ordina
- Chair of the supervisory board, Perspectief

Prof. M. (Marianne) de Visser, Vice Chair (second term, ending 07-01-2024)

- Chair, Quality and Safety committee
- Member of the Education and Research committee

Former primary posts: Neurologist and former Chair of the Outpatient Division of Amsterdam University Medical Center, and Emeritus Professor of Neuromuscular Diseases at the University of Amsterdam.

Marianne de Visser holds the following additional positions:

- Member of the Scientific Council for Government Policy (WRR), The Hague
- Member of the Supervisory Board, Leyden Academy, Leiden
- Member of the Supervisory Board, Center for Human Drug Research, Leiden
- Board member, Voeding Leeft, Amsterdam
- Chair of the Board, Interest Group for Chronic Respiratory Support (VSCA)
- Board member, Genetic Engineering Committee (Bilthoven)
- Member of the Guidance Committee for Evaluation of the Health Council
- Chair of the Project Committee, Biotechnology Trend Analysis 2022

Mr D. (Dave) del Canho, general member (from May 1, 2022 (first term, ending 05-01-2026)

- Chair of the Audit Committee

Primary post: Managing partner at Del Canho & Engelfriet B.V.

Dave del Canho holds the following additional positions:

- Member of the Supervisory Board, Blue Sky Group
- Board Member of the Foundation Cor van Zadelhoff Fund
- Member of the Supervisory Board, Verzetmuseum (Dutch Resistance Museum)
- Chair of the Board, WKZ Fund

Mr A.H.P. (Aloys) Kregting, general member (second term, ending 12-01-2024)

- Member of the Audit Committee
- Chair of the Governance and HR committee

Primary post: Senior Vice President Global Enabling Services at ASML

Aloys Kregting holds the following additional position:

- Member of the supervisory board, Volksbank

Mr J.H. (Han) van Gelder, general member (first term, ending 10-1-2024)

- Chair of the Defense Committee

Primary post: Deputy Secretary General, Ministry of Finance

Prof. B.A.M. (Anne-Mei) The, general member (first term, ending 5-31-2025)

- Chair of the Education and Research committee
- Member of the Quality of Care and Patient Safety committee

Primary posts:

- Instigator and owner Tao of Care B.V.
- Co-instigator and owner of Dementie achter de voordeur B.V.
- Endowed professor of Longterm Care and Social Approach to Dementia, with a special focus on diversity, VU.

Ms The holds the following additional positions:

- Regent RCOAK (Rooms Catholyck Oude Armenkantoor Foundation), an equity fund
- Member of the Supervisory Board, In mijn buurt Foundation

Activities of the Supervisory Board

The Supervisory Board was briefed in 2022 on developments at UMC Utrecht and on the implementation of its policy.

In 2022, the Supervisory Board organized supervision through webinars, consultations with the Executive Board and employee representatives, newsletters, team-building, topic discussions, work visits, various reports, and a self-appraisal. The Chair of the Supervisory Board moreover participates in Chair discussions of the joint Supervisory Boards of UMCs, which take place twice a year.

The Supervisory Board also undertook various other activities in 2022, including:

- Six regular meetings (five times in person and once online) meetings with the Executive Board.
- Participation (partly in person, partly online) in committee meetings of the Supervisory Board.
- Two (online) consultations with the Works Council. One (online) consultation with the Client Council.
- In the scope of onboarding for one new member, introductory talks were held, work visits were conducted, and a master class was presented.
- Attendance of a digital week start, participation in digital tracers, and in-depth theme events.
- A few members attended the annual disaster exercise at the Major Incidents hospital.

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. In 2022, where 21 members were active, and 4 left the council. New elections will take place in 2024. 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 2: Children, Laboratories, Pharmacy & Biomedical Genetics, Women & Babies, Concern Staff Executive Board, Staff & Organization directorate, and Quality & Patient Safety directorate
- Committee 1: Brain, Internal Medicine & Dermatology, Julius Center, Images & Oncology, Information & Finance, Information Technology and the Education Center
- Committee 3: Facilitating 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 2022 were: Change Plan Primary Obstetrics, Change Plan The Facility Worker Unburdened, finances and the renovation of UMC Utrecht using the Strategic Accommodation Development Vision (SOH), the policy for employees with a positive PCR test, and the Healthcare of Tomorrow.

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, with rights based on the Dutch Higher Education and Scientific Research Act (WHW).

The O&O council consists of 18 members: nine UMC staff members (together forming the 'O&O committee') and nine students who form the **Student Representative Council (SRC)**. The Education and Research committee and the SRC meet and discuss separately every fortnight, and together every four weeks. The Education and Research committee, consisting of five Works Council members and four additional members who work as university lecturers or researchers, sit for a three-year term. The students sit for one year. New elections will take place in 2024 for the Education and Research council and the Works Council. SRC elections take place each year.

The daily board of the Education and Research council consists of two staff members and two students and is elected annually by the council. The chair of the Education and Research council as well as the chair(s) of the SRC are students. The daily board, together with the official secretary, coordinates the work of the Education and Research council and conducts agenda consultations with the dean and vice dean. There are three permanent committees: Education, Research, and Strategy & Finance, which prepare dossiers, hold informal meetings with the dossier holders, and consult with staff and/or students. Each O&O council member sits on one committee.

The O&O Council looks at UMC Utrecht's policy on university education and research. In 2022, the O&O Council consulted at least five times with the dean and vice dean of the Faculty of Medicine of Utrecht University on Education and Research topics.

In the 2021-2022 academic year, the SRC had two international members from the Graduate School of Life Sciences, and meetings were therefore held bilingually (NL/EN) with the help of an interpreter. Besides the language policy of the SRC, the following topics received special attention this year: the welfare of students and PhDs, quality funds, Research ICT, the composition of program committees, the Faculty Quality Guide for Education, the revision of the curriculum of the Medicine, Biomedical Sciences, and Clinical Health Sciences programs, hybrid education, the distribution of NPO funds for education and research, and the launch of two new programs: a Bachelor program in Care, Health and Society and a Master program in Medical Humanities, the main lines for the faculty budget, the UMC budget, and the temporary move due to the renovation of the Hijmans van den Bergh building.

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. The Client Council works on the basis of a longterm plan entitled 'More person, less patient: From patient participation to person-oriented care'. The Client Council each year publishes an **annual report** on the UMC Utrecht website.

The Client Council gathers monthly for a plenary meeting, which is joined every two months by a member of the Executive Board. Monthly consultations also take place with (the Chair of) the Executive Board and (the Chair of) the Client Council. The Client Council also meets annually with the Supervisory Board, and a member of the Supervisory Board nominated by the Client Council, regularly joins the plenary meeting. There were also smaller group (portfolio) consultations on specific topics. The Executive Board of UMC Utrecht asked the Client Council to advise on nine proposed decisions. Furthermore, at the request of the Client Council, the Executive Board decided to add a Patient Effect Paragraph (PEP) to every policy decision. The PEP describes the effect on patients and how patients were involved in reaching the decision. The Client Council promoted and supported the creation of the Patient Input Office to offer a course on patient participation in healthcare, education and research. At the request of the Client Council, a read-aloud button was also added to 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.

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 monthly with the Chair of the Executive Board.

The Staff Assembly for instance advised on major UMC Utrecht-wide trajectories like Quality Cooperation and the Healthcare of Tomorrow. 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 vitality and sustainable employability of medical specialists regularly came under discussion. The performance of Individually Functioning Medical Specialists (IFMS) within UMC Utrecht was also discussed by the Staff Assembly. In this regard, the Staff Assembly works closely with the P&O department.

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 addition, the VAR organizes nursing lunch forums eight times a year where an important nursing topic is presented and attendees can interact with each other. The VAR also has a weekly walk-in hour for all questions from nurses (both for review and for assistance).

The VAR daily management meets weekly, the broad representation with all VAR members meet monthly, and a reduced leadership team also meets monthly. Policy days take place twice a year, to which ambassadors are also invited. For information and inspiration on internal and external developments, speakers and members themselves are given the floor. The daily management is monthly in contact with the Chair of the Executive Board

In 2022, the VAR focused for instance on the positioning of nurses and the Future-proof Nursing program, the professionalization of nurses, nursing leadership, the promotion of nursing research, and professional pride. This all came together at moments like Care Day when the VAR organized workshops for all professionals and a career fair under the title 'The Resilient Professional'. The annual Nurse of the Year election also took place on this day. 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 the Major Incidents Committee.

Integrity

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 on scientific integrity, the Ombudsman and Confidential Matters office works with confidential counselors on scientific integrity at Utrecht University.

Ombudsman and Confidential Matters

In 2022, the Ombudsman and Confidential Matters office received 257 notifications (as opposed to 217 in 2021). Most of the notifications pertained to questions and issues regarding co-working problems (72), followed by reports of undesirable behavior (51) and notifications related to legal situations (38). The sharpest increase was in the relating to co-working problems (from 42 to 72), followed by notifications related to undesirable behavior and to legal situations (both increasing by 10).

The increase in notifications that had to do with co-working is partly due to remote working in certain job categories, the current work pressure, and a number of situations pertaining to insufficient leadership qualities. Public attention to the issue of transgressive behavior has not led to an explosion in the number of notifications in this regard. There was an increase in the sexual and/or moral harassment category, which was mostly related to moral harassment. There was also a slight increase in reports of discriminations. Employees seem to find their way to the Office of Ombuds and Confidential Affairs somewhat more readily when undesirable behavior occurs.

In 2022, the Executive Board made a call to managers in a statement on the intranet to talk to each other about the issue of transgressive behavior. Managers regularly enlisted the support of the Ombudsman and Confidential Matters office in this regard. In addition to regular presentations on the work of the Ombudsman and Confidential Matters office, the office gave 16 presentations or workshops on the subject of undesirable behavior in the workplace. During these meetings, substantive information was shared and the discussion about undesirable behavior within departments and teams was facilitated using various tools.

Whistleblower procedures

No whistleblower notifications were received in 2022.

Utrecht Holdings reports fraud and bribery

Utrecht Holdings, the Knowledge Transfer Office of Utrecht University and UMC Utrecht, reported irregularities involving three (former) employees. These involved suspicions of fraud and bribery in relation to share transactions of two former shareholdings of Utrecht Holdings in the period 2006–2018. An investigation showed that these (former) colleagues did not act in the interest of Utrecht Holdings. Utrecht Holdings suffered financially as a result.

Codes of conduct

Healthcare Governance Code

The UMC Utrecht Executive Board and Supervisory Board adhere to the principles of the new **Healthcare Governance Code of 2022** that came into force on January 1, 2022, as well as those of the previous Healthcare Governance Code of 2017. Because good management and good supervision are of great importance to guarantee good care.

The Healthcare 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.

At UMC Utrecht we also continue to focus on culture and behavior, values and standards, and employee participation and dialog. For example via our leadership program **Connecting Leaders**, dialog with **patients**, our **employee-participation** bodies, our **ombudsman and confidential matters**, and our work-experience survey in which we **ask employees about their experiences**, also in these areas.

Other codes of conduct

Besides the Healthcare 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 Healthcare:

- 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 (GMH)

Credits

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