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Ministry of Health and Care Services

Strategy

# Joint efforts against cancer

National cancer strategy 2025–2035

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# Foreword

### by the Minister of Health and Care Services

This strategy is intended to lay the foundations for further improving the high quality of Norwegian cancer care.

I am proud of our strong public health service. Despite the fact that more people are diagnosed with cancer, more make a full recovery. Many people with cancer live longer and with a better quality of life than cancer patients in the past. This is due to a combination of prevention, earlier diagnosis and more, better and more personalised treatments for different forms of cancer.

The main cause for the growing number of new cancer cases in Norway is that both the population and the proportion of elderly people in the population are growing. The risk of cancer increases with advancing age. Three in four newly diagnosed cancer patients are women and men over 60 years of age. The number of new cases will continue to rise in the years ahead. By 2040, there will be more than 50,000 new cases a year. This will require us to ensure that the high quality of Norwegian cancer care is further improved.

Lack of personnel is a major challenge for health and care services in general. The growing demand for personnel will affect the municipal health and care services the most. Demographic trends mean that we will have to find new solutions to ensure an adequate supply of qualified personnel for our public health and care services. These solutions must be found in collaboration with patient organisations, scientists, business and industry and, not least, the services' employees themselves.

The Government is now launching a new national cancer strategy that outlines its ambitions for cancer prevention and care for many years to come. The new ten-year strategy builds on the five focus areas from the current cancer strategy *Living with Cancer 2017–2022.* The cancer strategy sets out guidelines for the public administration, health and care services and other sectors that could have a bearing on attainment of the strategy's goals.



The cancer strategy Joint efforts against cancer 2025–2035 contains five focus areas:

- 1. Norway will be a leading country in cancer prevention and early detection
- 2. Norway will be a leading country in providing good patient pathways
- 3. More user-centred cancer care
- 4. More people will survive and live longer with and after cancer
- 5. The best possible quality of life for cancer patients and their next of kin

These focus areas reflect the priorities set out in the EU's Beating Cancer Plan, and we wanted to further specify them into what I have chosen to call ten-year goals. These areas will be particularly important to progress in cancer prevention and care, help to ensure that fewer people develop cancer and help cancer patients to survive and live longer with the best possible quality of life. The Government wanted to structure its strategy in this way so that ten years from now, we will be able to measure whether we have succeeded in achieving the desired results. A lot of important work taking place on cancer has been mentioned in previous cancer strategies and will be developed further, even if it is not explicitly mentioned in the present strategy. This strategy focuses on the new initiatives to be launched over the coming decade.

Through joint efforts, we will contribute to giving cancer patients the best possible life and ensure that the good quality of Norwegian cancer care is further improved.

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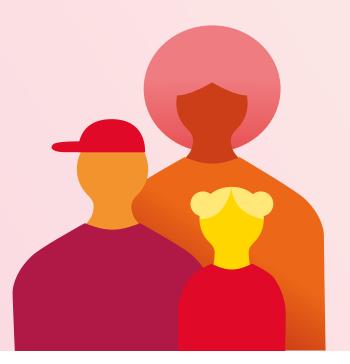
Jan Christian Vestre Minister of Health and Care Services

### **Foreword** by the Norwegian Cancer Society

Cancer affects us all – whether as patients, next of kin, colleagues, healthcare professionals or members of society at large. In recent decades, we have made remarkable progress in cancer prevention, diagnosis and treatment. Today, three in four people diagnosed with cancer survive, which is twice as many as 50 years ago. These figures are the result of a great deal of new knowledge and effort that have given many more people more time with their nearest and dearest.

Still, we are now facing a new reality. More than 38,000 new cancer diagnoses are made in Norway each year, and this figure is expected to increase year on year as the population ages. This will increase pressure on health services that are already stretched and challenge us to be innovative, act faster and cooperate better. At the same time, we are entering a time of untold opportunities. Research is gathering momentum, and artificial intelligence is providing us with tools that will revolutionise both diagnosis and treatment. The future has never looked brighter for cancer treatment opportunities, but it will require us to provide the best possible conditions for research and innovation communities, retain and invest in highly skilled healthcare professionals, and ensure equitable access to the best forms of treatment available for all cancer patients. We have therefore set ourselves some ambitious goals for the coming decade.

Cooperation is our most important asset in the work to achieve the goals set out in the present strategy. When we share knowledge, resources and experience, we create the solutions required. Public, private and non-profit partners must join



forces to develop new forms of treatment and reduce geographical differences. International collaboration allows us to access world-leading innovations and research networks that can lift Norwegian health services to a higher level.

At the national and local levels, we must ensure seamless transitions between the municipal health service and hospitals to ensure that no patients fall through the cracks. We must achieve the same in the transition between the health services and the labour market to ensure that more people with cancer are able to continue to work. And most importantly: We must listen to the patients and their next of kin. Their experiences, voices and needs must serve as our compass as we set our course towards the cancer care of the future.

This cancer strategy is about hope, action and joint efforts. Together, we can reduce the prevalence of cancer, ensure early diagnosis and offer treatment and follow-up of the highest quality to all who need it. The Norwegian Cancer Society is ready to do everything in our power to promote this joint effort to combat cancer, and we are pleased that the new strategic collaboration with the Ministry of Health and Care Services makes this possible. Together, we can give future cancer patients and their next of kin what they deserve, which is the Cancer Society's vision: A life without cancer.

Ingrich Sterstachold Koss

Ingrid Stenstadvold Ross

# We need a new cancer strategy

Our welfare state provides universal access to knowledge, healthcare and assistance in different circumstances in life. Good health services should be available to everyone in Norway when needed, and this includes cancer care. That is why it is important that we have a strong public health service of high quality that is accessible and have the shortest possible waiting times. This health service must be good enough to be the first choice both for patients and for healthcare professionals.

Three in four newly diagnosed cancer patients are women and men over 60 years of age. We need to be prepared for the increase in cancer cases that the aging population will bring. This will require an increase in capacity in the fields of pathology, radiology, surgery, radiotherapy and pharmaceutical treatment, among others. The growing number of cancer cases and the age composition of the population will also require more capacity and expertise to be developed in the hospitals as well as in municipal health and care services. This will require good cooperation and coordination between the different health service levels, the higher education sector, the healthcare industry and the voluntary sector to address patients' needs and provide predictability and a sense of security for patients and next of kin.

The increasing number of cancer cases is among the most important public health challenges facing us. This is a challenge we share with the EU countries. In 2023, more than 327,000 persons living in Norway had cancer or had previously had cancer. This represents an increase of more than 100,000 people over a ten-year period. More than 38,000 new cancer cases are diagnosed each year, and about 40 percent of us will have been diagnosed with cancer at least once by our eightieth birthday. The number of new cancer cases will continue to increase in the years to come. Calculations by the Cancer Registry of Norway shows that in ten years, 45,000 new cases per year will be registered. By 2040, there will be more than 50,000 new cases a year.

As the number of older people living with cancer and the number of older people suffering from dementia increase, there will also be an increasing number of people suffering from both these conditions. The health service will have more difficult assessments to make when it comes to individual adaptation of cancer treatment and how treatment is to be administered. Patient follow-up must be adapted to take account of the fact that dementia impairs the patient's cognitive understanding and ability to communicate, both regarding pain and other complaints and when it comes to cooperating on diagnosis and treatment.

While more people are diagnosed with cancer, there are also more who make a full recovery, and many cancer patients live longer and enjoy a higher quality of life than cancer patients in the past. This is caused by a combination of earlier diagnosis and an increase in , better and more personalised treatments for different forms of cancer. For some forms of cancer, developments have resulted in the vast majority of patients surviving, and even patients with advanced cancer can have a good prognosis. For other forms of cancer, however, there have been few therapeutic breakthroughs. Pancreatic cancer and liver cancer are examples of cancers that only a small percentage of patients make a full recovery from.

Today, nearly three in four people diagnosed with cancer survive for five years of more. For the period between 2019 and 2023, a total of 77.6 percent of men and 77.4 percent of women were alive five years after having been diagnosed with cancer compared to corresponding population groups of men and women without the same cancer (relative survival). The highest five-year survival rate during the period 2019–2022 was for testicular cancer, at 98.5 percent, followed by prostate cancer at 95.7 percent, melanoma at 95.7 percent for women and 90.3 percent for men, thyroid cancer at 95.1 percent for women and 90.3 percent for men, and 92.5 percent of women with breast cancer were still alive five years after their diagnosis.

The World Health Organization estimates that between 30 and 50 percent of all cancer cases could be prevented by lifestyle changes. National, regional and local authorities, municipal health and care services and the different specialist health services, as well as civil society and business and industry, must all focus their attention and expertise on measures to promote healthy lifestyles in the population. The population must be informed about factors that could reduce the risk of cancer and be motivated to change their habits. The most important single factor is to refrain from using tobacco, as smoking causes the most new cases of cancer. A lifestyle where people protect themselves from sunburn, maintain a normal body weight, engage in sufficient physical activity, have a healthy diet and drink alcohol in moderation can also prevent cancer.

# **Principles for the strategy**

The starting point for the strategy is that the health service's principles for prioritisation apply to cancer, including in connection with the introduction of personalised medicine methods, and that the development of this field will contribute to sustainability in health and care services, cf. the National Strategy for Personalised Medicine 2023–2030.

Healthcare professionals are the most important resource in our public health service. There is fierce competition for personnel between the specialist health service, municipal health and care services and privately funded providers of health and care services. The challenges that the personnel shortage brings will be most keenly felt by the municipal care services. Demographic developments will require new solutions. There is a requirement in place for personnel consequences to be assessed as part of the basis for making decisions regarding measures that fall within the scope of the Ministry of Health and Care Services' sector responsibility. The Government will continue its work to ensure a sufficient supply of qualified personnel for public health and care services through three focus areas:

- support for efforts to promote a good working environment and good working conditions
- appropriate division of tasks and competence development measures to promote the efficient organisation of work processes
- support work to ensure access to the appropriate expertise by means of recruitment, qualification and competence-raising

The goals set out in the strategy are to be put into concrete terms and implemented by the health authorities and the health and care services within the limits of their own areas of responsibility, budgets, personnel resources and other framework conditions. Efforts in other areas could also have a bearing on the achievement of the strategy's goals. This applies in particular to preventive work and work to promote healthy lifestyle choices in the population.

Research communities, government agencies, business and industry, user organisations and regional health authorities and local health trusts collaborate through Cancer Mission Hub Norway to establish a national hub that can mobilise these actors to collaborate across disciplines and sectors and ensure coherence with national, regional and local cancer-related measures. This hub is an important part of Norway's follow-up of the EU Cancer Mission and the Beating Cancer Plan.

### Follow-up

The Ministry of Health and Care Services has assigned operational responsibility for following up the strategy to the Norwegian Directorate of Health. The work will be coordinated by the Partnership against Cancer, which consists of the Norwegian Cancer Society, the Norwegian Association of Local and Regional Authorities (KS), the four regional health authorities, cancer patient organisations, the Cancer Registry of Norway and the Norwegian Directorate of Health. The Norwegian Directorate of Health will lead this partnership.

In addition, a strategic partnership will be established between the Ministry of Health and Care Services and the Norwegian Cancer Society. The plan is to hold annual meetings where a selected focus area from the strategy will be raised and goal achievement in this area discussed in each meeting. The strategic partnership will discuss objectives for the year ahead and consider adjusting the work if obstacles to achieving the ten-year goals arise or if any of the goals are achieved early on in the strategy period. The Norwegian Cancer Society will involve the Cancer Mission Hub Norway both before and after meetings in order to involve a broad alliance of business and industry players, health and care services, scientists etc. in the work of following up the strategy. The Norwegian Directorate of Health will contribute to the preparations, attend meetings and contribute in the follow-up.

#### Box 1.1 Previous cancer plans and strategies

National Cancer Plan (1999–2003)

The report *Nasjonal strategi for arbeid innenfor kreftomsorgen – kvalitet, kompetanse og kapasitet,* ('National Strategy for Work within Cancer Care – Quality, Expertise and Capacity' – in Norwegian only), 2004

National Cancer Strategy (2006–2009), extended to 2011

Nasjonal cancer strategy (2013–2017) *Sammen mot kreft.* ('Together against Cancer' – in Norwegian only). The Norwegian Directorate of Health followed up the strategy with a National Action Plan for Cancer (2015–2017).

National cancer strategy (2018–2022) *Leve med kreft,* ('Living with Cancer' – in Norwegian only), extended to 2024

# **National goals**

#### Box 1.2 Overview of ten-year goals set out in the cancer strategy

### Focus area 1: Norway will be a leading country in cancer prevention and early detection

- Facilitate that people born after 2010 are growing up to be tobacco-free and nicotine-free and offer help to give up smoking
- Eliminate cervical cancer and other cancers caused by HPV
- Offer more precise screening programmes with high uptake with the aim of introducing screening programmes for lung cancer and prostate cancer, among others
- Cancer is to be diagnosed at an earlier stage than today for cancers where this has a bearing on the prognosis
- Reduction of work-related cancer through strengthening of systematic HSE work

### Focus area 2: Norway will be a leading country in providing good patient pathways

- All cancer patients should have access to a comprehensive cancer centre or a cancer centre
- All cancer patients will be included in the Cancer pathway home

#### Focus area 3: More user-centred cancer care

- All cancer patients who want it and their next of kin will be offered an individual digital overview of the patient pathway and digital follow-up at home
- Cancer patients will have access to tools for participation and shared decisionmaking, and data from these tools will be used to improve the service provided
- Change from calendar-based check-ups to check-ups as needed in cases where this is safe and in the best interests of the patient



#### Focus area 4: More people will survive and live longer with and after cancer

- All patients will get the right treatment and follow-up at the right time by means of good prehabilitation and good prioritisation
- If relevant for the choice of treatment, all cancer patients will be offered genetic testing as part of the development towards making Norway a leading country in the field of precision medicine
- A health catapult initiative will be established
- · Norwegian cancer research will be world-leading
- The number of cancer patients taking part in clinical trials will be doubled

### Focus area 5: The best possible quality of life for cancer patients and their next of kin

- All cancer patients who so wish will be able to combine their treatment with work or education
- Comprehensive support for next of kin will be provided as part of cancer care

#### Focus area 1

### Norway will be a leading country in cancer prevention and early detection



A considerable proportion of cancer cases can be prevented by targeting known risk factors. The report *Kreft i Norge – hvor mange tilfeller kan forebygges* ('Cancer in Norway – how many cases can be prevented?' – in Norwegian only) (2023) estimated that 13,000 cases a year, or more than one in three cancer cases, are preventable. This can be achieved if the population refrains from using tobacco and alcohol, avoids sunburn and sunbeds, eats a healthy diet, engages in sufficient physical activity, maintains a normal body weight and follows national vaccination programmes. Many environmental factors can cause cancer to develop, including exposure to ultraviolet radiation, radon, asbestos and outdoor air pollution.

Exposure to carcinogens in the workplace is an important cause of work-related cancer. Good and systematic HSE work and preventive measures are important in order to prevent work-related cancer.

Prevention and health promotion work will be crucial in determining how many people develop cancer in the years to come, and measures must target the general population as well as high-risk groups. Information and communication measures can help to raise the population's knowledge and awareness of risk factors for cancer as well as the health benefits associated with healthy lifestyle choices. There are significant social inequalities in the populiation's lifestyle habits and cancer prevention will therefore also help to reduce social inequalities in health. Social inequalities in cancer diagnosis and treatment will be reduced. The health service must make active efforts to prevent cancer by supporting people in making lifestyle changes and coping with health issues.

Norway has committed to meet the World Health Organization's target of reducing premature deaths from the non-communicable diseases cancer, cardiovascular disease, diabetes and chronic respiratory diseases by one third by 2030 compared

to 2015. Over the coming years, Norway will also be leading a major EU project on prevention of cancer and other non-communicable diseases, the Joint Action Prevent Non-Communicable Diseases (JA PreventNCD), which will provide new knowledge about effective measures.

### Efforts to reduce risk factors

Tobacco smoking is the single most important risk factor for cancer and will be discussed in more detail under the ten-year goals.

Overweight and obesity bring an increased risk of 13 different forms of cancer. Cancer prevention measures targeting overweight and obesity will therefore become important over the coming decade, for example in the form of measures to promote a healthier diet and an increase in physical activity in line with the national recommendations. The 2024 Children and Media survey (Norwegian Media Authority) shows that 30 percent of children and young people spend more time on screen than they would like. This could displace physical activity.

Much is known about the link between dietary factors and the risk of developing different forms of cancer. Some foods and nutrients increase the risk of developing cancer, while others reduce it. A diet in line with the national dietary recommendations will help to reduce the risk of many cancers.

Regular physical activity will reduce the risk of many forms of cancer, help to increase survival and prevent cancer from recurring. A national target has been set of reducing physical inactivity by 15 percent by 2030, but Norway has a long way to go to achieve this as far as children and young people are concerned. Recent knowledge shows that an activity level consistent with national recommendations will promote physical and mental health and, not least, increase the number of disability-adjusted life years (DALYs) in a lifetime perspective while providing protection against several forms of cancer. Cancer patients should be offered appropriate physical activity/exercise as part of their treatment.

Exposure to ultraviolet radiation (UV exposure) from the sun and sunbeds is the most important external cause of skin cancer. Short-term intense exposure causing sunburn and significant exposure over time will both increase the risk. Following the sun protection recommendations will reduce the risk. The Norwegian Radiation and Nuclear Safety Authority (DSA) has revised its national UV and skin cancer strategy with effect from 2024. The purpose of the strategy is to reduce the increase in all types of skin cancer caused by exposure to UV radiation from the sun or sunbeds by 25 percent by 2040 compared to 2018.

Alcohol consumption is one of the most important risk factors for death and loss of disability-adjusted life years. It is a well documented fact that even a low level of alcohol consumption will increase the risk of several types of cancer, and spreading this knowledge in the population will be a key measure in the time ahead. The continuation of a comprehensive and solidarity-based alcohol policy with effective measures will contribute to reduce the population's total alcohol consumption, but it will prove challenging to achieve the target of reducing harmful alcohol consumption by 20 percent by 2030.

It is well known that various environmental factors can cause cancer to develop, including ultraviolet radiation, radon, asbestos and outdoor air pollution. Environmental toxins such as persistent organic compounds (chemicals whose breakdown in the environment is very slow) and heavy metals such as mercury, cadmium and lead are subject to strict regulation and monitoring for the purpose of protection against negative impact on nature, health and the environment. The new 2024 national radon strategy aims to reduce the population's exposure. It is hoped that information and new incentives will encourage more people to measure and reduce high radon levels.

For people who have already been diagnosed with cancer, their lifestyle can have an effect on their treatment, quality of life and the risk of recurrence or new cancer occurring. It is important to integrate measures to promote systematic lifestyle improvement during treatment and rehabilitation. Healthcare professionals should discuss the importance of lifestyle with their patients at an early stage as well as in the course of their treatment.

### Ten-year goal 1

### Facilitate that people born after 2010 are growing up to be tobacco-free and nicotine-free and offer help to give up smoking

Preventing new generations from becoming addicted to nicotine is crucial in order to reduce the number of cancer cases in future. A variety of different measures could help to achieve this goal, cf. the Government's 2023 tobacco control strategy. There is also a need to do more to help people to give up smoking.

Tobacco smoking is a primary or contributory cause of at least 15 different forms of cancer. Smoking causes about 5,000 deaths a year in Norway alone, and it remains the single most important cause of illness and premature death. Tobacco smoke contains at least 70 carcinogenic substances, and more than 80 percent of all lung cancer cases are linked to smoking. It has been calculated that if the current smoking habits persist, 95,000 persons in Norway could develop cancer by 2045. In recent years, we have seen a worrying increase in smoking among young men, and 24 percent of people aged 16–24 years are now occasional smokers.

The use of *snus*, e-cigarettes and other tobacco and nicotine products brings serious health risks. Surveys indicate that the use of snus continues to increase among young people. Thirty percent of people aged between 16 and 24 years use snus, while the corresponding proportion in the age group 25–34 years is

37 percent. We see an increase in the use of e-cigarettes and other new tobacco and nicotine products among young people. Social media contribute to exposure and accessibility, also for under-18s. We do not yet have sufficient knowledge about the long-term effects and possible cancer risks associated with these new products.

The Norwegian Act relating to Prevention of the Harmful Effects of Tobacco sets out an overall long-term vision for a tobacco-free society. In 2023, the Government presented an ambitious national tobacco strategy as part of the white paper on public health. One of the main goals of this strategy is to lower the proportion of daily tobacco users to less than five percent in all age and educational groups. This target is to be achieved by introducing a new national smoking cessation programme, limiting the availability of tobacco products and extending protection against passive smoking, among other measures. Another main goal is to ensure that children born in 2010 and later does not use tobacco and nicotine products.

The vast majority of people who try to give up smoking, fail, but their chance of success increases many times with an evidence-based smoking cessation method (medication and counselling). During the period 2020–2023, the Norwegian Directorate of Health conducted a pilot smoking cessation project in Vestre Viken health trust in which participants received free smoking cessation medication and counselling at healthy life centres. The evaluation showed excellent results and thus forms a potential basis for developing a national programme.

### Ten-year goal 2

### Eliminate cervical cancer and other cancers caused by HPV

Cervical cancer and other cancers caused by human papillomavirus (HPV) infection can be eliminated by consistently high uptake of vaccination among both boys and girls. High uptake in the national cervical cancer screening programme will help to identify cervical precancer and prevent it from developing into cancer. This will require us to work to promote high vaccination programme uptake and implement low-threshold testing and follow-up in the screening programme.

It has been estimated that 15 percent of cancer cases worldwide are virus-related. The most widely known viruses that can contribute to cancer developing are the hepatitis B virus, which can cause liver cancer, and the human papillomavirus (HPV), which can cause cancer of the cervix, vaginal mucous membranes, vulva, penis, anus and anal canal, as well as different types of cancer in the head and neck.

More than 600 new cases of HPV-related cancer are diagnosed in Norway each year, of which about 300 cases are cervical cancer. The number of head and neck cancer cases in particular has increased in recent years. The greatest increase is seen in mouth and neck cancers in men.

HPV vaccination prevents infection and disease. All boys and girls are currently offered HPV vaccination at the age of 12 as part of the Norwegian child vaccination

programme. As it takes between 10 and 30 years to develop cancer after being infected with HPV, it could take many years to see a reduction in the number of cancer cases due to the preventive effect of vaccination.

HPV infection and cervical precancer can be identified through the Norwegian Cervical Cancer Screening Programme and prevented from developing into cancer. There is no screening programme for other HPV-related cancers.

The EU aims to eliminate all cancer caused by HPV. Norway will also work towards this ambitious goal by ensuring consistently high HPV vaccination uptake among boys and girls alike.

The hepatitis B and C viruses can also cause cancer. Vaccines and treatments are available for both these viruses. Vaccination of persons in the group at elevated risk of infection should be continued, as should the national programme for antiviral treatment against hepatitis C.

There is also a known link between certain bacteria and cancer, for example stomach cancer (the bacterium Helicobacter pylori). Diagnosing and treating infection with such bacteria could help to minimise the risk of cancer. We can also expect to gain more knowledge in future about other cancers caused by microbes.

The Norwegian Cervical Cancer Screening Programme has introduced self-sampling. More than half of all cases of cervical cancer diagnosed in Norway are found in women who have not followed the recommended cervical screening programme. Moreover, cancer in women who rarely or never attend cervical screening is more often diagnosed at a more advanced stage than in women who follow the recommended screening programme. Self-sampling is introduced in an attempt to increase participation in the Norwegian Cervical Cancer Screening Programme and thus lower the number of women who develop cervical cancer in the long term.

### Ten-year goal 3

### Offer more precise screening programmes with high uptake with the aim of introducing screening programmes for lung cancer and prostate cancer, among others

During the strategy period, more personalised screening programmes will be offered in line with EU initiatives. It is a goal to be able to use artificial intelligence (AI) and identification of targeted biomarkers and genetic risk factors both to diagnose cancer at an early stage and in the assessment of cancer patients. AI technology has the potential to increase the benefits and reduce the disadvantages of screening. Lung and prostate cancer are the cancers currently looked into, but AI and health technology developments could also make it relevant to other cancers. Three national screening programmes have so far been established in Norway: CervicalScreen Norway (the Norwegian Cervical Cancer Screening Programme), BreastScreen Norway and the ColorectalScreen Norway. The purpose of the screening programmes is to identify precancer or early-stage cancer so that it can be treated to prevent cancer from developing. The cancer screening programmes plan to increase the benefits and reduce the disadvantages of participation, among other things by employing personalised strategies and artificial intelligence. This will help to ensure that people participate in modern, safe and cost-effective programmes. The national cancer screening programmes are subject to constant follow-up, and quality-raising measures are implemented as required.

It is a goal to increase participation in the national screening programmes. Spreading general knowledge about cancer screening, as well as about its effects and the benefits and disadvantages of participation, is an important public health mission. Good knowledge and information are important in order to allow those invited to make an informed decision and to help to increase participation. The information provided must be adapted to different levels of health literacy, cultural understanding and individual preferences. Information should be published in different languages and accommodate the need for cultural adaptation. Healthcare professionals play a key role in this information work.

In order to increase participation in cancer screening programmes, equitable access to national screening programmes regardless of sociodemographic differences must be facilitated. It is important to lower financial and cultural barriers that could contribute to social inequality in screening programme uptake.

It is a goal for the screening programmes to offer a higher degree of personalisation during the strategy period in line with EU initiatives. It is a goal to be able to use artificial intelligence (AI) and identification of targeted biomarkers and genetic risk factors both to diagnose cancer at an early stage and in the assessment of cancer patients.

The screening programmes are developed taking into account new knowledge, and necessary adaptations are made to make screening easily accessible and ensure good uptake. When the introduction of new national cancer screening programmes is proposed, a knowledge base must be prepared in which research is summarised, costs and effects are analysed and the ethical, legal, organisational, health-related and personnel-related consequences are assessed. The Norwegian Directorate of Health assesses and makes recommendations regarding changes to the screening programmes and the establishment of new programmes in cooperation with the relevant parties. The Ministry of Health and Care Services is responsible for considering cases in connection with its annual budget processes.

The EU will take major cancer-related initiatives in the years ahead, including in screening. Norway will contribute actively to the European cancer prevention and screening work and participates in this work through EU4Health, JA PreventNCD, JA screening (EUCanScreen) and JA SAMIRA.

#### Lung cancer screening

Norway has no screening programme for lung cancer. Key challenges include selection criteria and investigation capacity. The Norwegian Directorate of Health will look into the possibility of introducing lung cancer screening during the strategy period. Scientific studies, experience from the Norwegian trial at Akershus University Hospital in which 1,000 people were screened for lung cancer, the introduction of such screening in the UK and revised EU recommendations will all form important parts of the basis for its report.

#### Prostate cancer screening

Most countries, including Norway, has not introduced population-based screening for prostate cancer. Several studies have shown that PSA-based screening programmes could reduce mortality from prostate cancer in the population. No studies have so far been able to demonstrate increased overall survival with PSA screening, however, but then the studies were not designed to examine this issue.

In September 2022, the European Commission issued a recommendation to consider introducing screening for more forms of cancer, including prostate cancers, and several European pilot projects are under way.

### Ten-year goal 4

### Cancer is to be diagnosed at an earlier stage than today for cancers where this has a bearing on the prognosis

Cancer should be diagnosed at an earlier stage if this has a bearing on the treatment options and prognosis, without using limited investigation capacity on examinations that are not expected to be particularly useful. We regularly have to update recommendations on early diagnosis methods in the cancer patient pathways to keep up with medical and technological developments. Measures to ensure appropriate referrals, including from GPs, are important to ensure that patients are referred to hospital when there is reason to suspect cancer.

Early symptoms and signs of cancer are often vague and similar to short-term complaints that will clear up without treatment, or they resemble the early stages of other diseases or complaints. Many common symptoms and complaints that people see their GP for could be caused by cancer, but in most cases, there are other, far more likely, causes. Immediate hospital investigation of any situation where cancer is a possibility would overstretch the hospitals' investigation capacity and delay the investigation of other, more likely, causes. Such a practice would also delay the investigation of other patients with suspected cancer who have a much higher probability of actually suffering from cancer.

The potential importance of early detection varies between cancers and should be made clear in the patient pathways. Screening is introduced or considered in cases where a significantly better treatment outcome is expected if cancer is detected at an early stage, preferably before signs and symptoms arise. Early diagnosis has a bearing on the prognosis for a number of cancers. Examples include colorectal and lung cancer.

The most important measures for ensuring early diagnosis will be:

- high screening programme uptake
- investigation and treatment in accordance with defined patient pathways when patients are referred to the specialist health service with suspected cancer, with patient pathways being regularly updated to take account of developments relating to the type of cancer in question
- continuous follow-up of the stage at which patients are diagnosed with cancer, with interventions if the distribution is unfavourable or develops in an unfavourable direction in all or parts of Norway

### Ten-year goal 5

## Reduction of work-related cancer through strengthening of systematic HSE work

Exposure to carcinogenic factors in the workplace is an important cause of workrelated cancer. Such factors include chemicals, radiation and other factors such as night shift work. Historically speaking, many employees have been exposed to carcinogens, and although a lot of progress has been made, we still need to strengthen efforts to prevent work-related cancer.

It is a goal to reduce work-related cancer by strengthening systematic HSE work. A report entitled *Work today and in the Future* was recently issued by a Nordic expert group of which the Norwegian Labour Inspection Authority is a member, and the report states that 46 percent of all work-related deaths in the Nordic countries are caused by cancer following exposure to carcinogenic factors in the workplace. Work-related cancer accounts for more than 120,000 new cases and 100,000 deaths per year in the EU (European Agency for Safety and Health at Work). The most common forms of cancer are mesothelioma, lung cancer and cancer of the nose and sinuses.

Around 325,000 Norwegian employees work in jobs where they could be exposed to carcinogens. About two thirds of them state that they can see or smell dust, fumes, smoke, gas or chemicals at work, according to the National Occupational Health Surveillance (NOA). This applies to employees working in male-dominated industries and jobs such as construction and manufacturing, plumbers, electricians, mechanics and carpenters/joiners. In addition, the International Agency for Research on Cancer (IARC) has classified night shift work as probably carcinogenic in relation to breast cancer in women.

Effective prevention of work-related cancer requires systematic HSE work that includes mapping, risk assessment and measures to minimise exposure. This could entail eliminating chemicals, substituting dangerous chemicals, establishing closed systems, ventilation and personal protective equipment. The Norwegian Labour Inspection Authority will intensify its efforts to prevent work-related cancer in the time ahead. Since work-related cancer can be caused by exposure to a great number of different factors, the Norwegian Labour Inspection Authority has chosen to focus on five factors that are common in Norwegian workplaces. The factors selected are quartz dust (respirable crystalline silica), asbestos, diesel exhaust, welding fumes and radon. Other policy instruments, such as providing guidance, cooperation with industries at the national level, cooperation at the European level and regulatory development, will also be used to strengthen work to prevent exposure to carcinogenic chemicals.

Knowledge about and understanding of causal relationships enables targeted HSE work in enterprises and regulatory risk-reducing measures imposed by the authorities. The National Institute of Occupational Health in Norway, occupational medicine departments and occupational health services are all important partners in the Norwegian Labour Inspection Authority's work to monitor and prevent cancer. The institute's priority areas include research and dissemination of knowledge about chemical and biological factors.



#### Focus area 2

### Norway will be a leading country in providing good patient pathways



Cancer patients constitute a large and heterogenous group ranging from people who need a lot of help to people who are largely self-sufficient. It is a goal that all of them should receive good follow-up during and after their cancer treatment, and that patients should be included in a cancer patient pathway when there is reason to suspect that they have cancer.

Cancer patients often go through a complex process involving contact with hospitals, their GP and other municipal health and care services. Achieving safe and secure services in a patient pathway requires good logistics and communication within and between the different treatment facilities and treatment levels in order to provide a coherent service.

Much of the long-term comprehensive follow-up of patients living with cancer will be based in the municipal health and care services. Many will be in need of services provided by the specialist health service and other welfare sectors at the same time. Persons with extensive and complex needs may be entitled to an individual plan and a coordinator. The Norwegian Directorate of Health's guide concerning users with extensive and complex needs provides recommendations on how to organise follow-up for this user group. The contact physician scheme is followed up by the specialist health service.

Well organised, standardised patient pathways with recommended timeframes, cancer patient pathways, are intended to help to raise quality in Norwegian cancer care and improve predictability for patients. Patient pathways with recommended timeframes have been implemented in the health service for 26 different types of

cancer. The purpose of the cancer patient pathways is to provide a well organised, comprehensive and predictable pathway for cancer patients, with no delays to their assessment, treatment and rehabilitation unless on medical grounds.

All cancer patients will be covered by the cancer pathway – home. The patient pathway is intended to help to ensure good structure and logistics in the health service as well as security and predictability for persons living with cancer and for people who have completed their cancer treatment.

The quality of patient pathways is followed up at all service levels based on relevant activity and quality data, as well as increased use of the national quality registries for cancer. National action programmes for cancer will be updated regularly with new knowledge and decisions in the *Nye metoder* ('New methods') national system for managed introduction of new methods in the specialist health service, and they will contain information about adapted treatment for elderly patients, rehabilitation and late effects.

### Ten-year goal 6

### All cancer patients should have access to a comprehensive cancer centre or a cancer centre

The goal is for all patients to be met by a health service that maintains high standards for prevention, diagnosis, treatment, follow-up, up-to-date knowledge and skills, and research. Good and precise diagnosis and investigation of cancer are crucial in order to be able to provide optimum treatment adapted to suit the individual patient. That is why all patients, regardless of their sex and where they live, should when necessary have access to all the expertise available at the regional level and equitable access to a comprehensive cancer centre (CCC) or a cancer centre (CC), or to a network of healthcare providers coordinated by a CCC/CC.

Radiology and pathology capacity is a bottleneck for the assessment and follow-up of cancer patients, as well as for research. Increased use of precision diagnostics, personalised treatment and clinical research will bring an increase in the number of tissue samples being collected and analysed. At the same time, radiology is used more in the diagnosis, treatment and follow-up of cancer patients, as well as in clinical research. This development will require good knowledge, good prioritisation of personnel resources and more use of digital aids and artificial intelligence in the years to come.

Elements of cancer treatment can be decentralised without compromising quality by linking hospitals by means of common procedures, identical or equivalent equipment, shared information systems and structured regional cooperation on individual patients. In this way, most of the assessment and follow-up work can be carried out locally, while the major hospitals can provide more advanced treatments (surgery, radiotherapy and particularly complicated pharmaceutical treatments). Structured collaboration must be established in order to ensure that the experts based at the regional hospitals are involved as relevant, regardless of where a patient lives, that it is clear which patients are to be treated where, and that the hospitals involved discuss individual patients in cases where there is room for doubt regarding which treatment facility should treat the patient.

All patients, regardless of their sex and where they live, should when necessary have access to all the expertise available at the regional level and equitable access to a comprehensive cancer centre (CCC) or a cancer centre (CC), or to a network of healthcare providers coordinated by a CCC/CC. In order to be accredited as a comprehensive cancer centre (CCC), the institution or collaborating entities must be able to meet set requirements for diagnosis and treatment to be provided to patients in all phases of the patient pathway. This applies to all services from prevention via screening, diagnosis and treatment to services for cancer survivors and end of life care for patients in need of palliative services. It includes equitable access to experimental treatment, and it requires the institution to engage in clinical and translational research activities as well as innovation in cancer treatment and diagnosis. In addition to patient treatment and research, a CCC's area of responsibility also extends to continuing education and cancer specialisation courses for various healthcare professionals. The requirements for accreditation as a cancer centre (CC) are less strict than for a CCC in terms of such aspects as activity volume, highly specialist diagnostic infrastructure and research activity. A CCC is required to have a significantly higher volume of research activity than a CC, but is also subject to more requirements concerning types of basic research.

Oslo University Hospital Trust was accredited as a comprehensive cancer centre (CCC) in 2017 and re-accredited in 2023. So far, it is the only accredited centre in Norway. Akershus University Hospital Trust and Vestre Viken Hospital Trust are preparing to start the accreditation process to become cancer centres (CC). The other three regional health authorities in Norway have all started the process towards establishing a CCC.

### Ten-year goal 7

## All cancer patients will be included in the cancer pathway – home

The national patient pathways are now a well established feature of cancer treatment, and the national goals for these pathways will be continued. However, we see a need for additional efforts in the coming decade to ensure that all cancer patients are also covered by the cancer pathway – home in order to ensure good quality of life, health and coping, and to make sure that patients do not feel unsafe in connection with transitions between the different levels of the health service. This is becoming increasingly important as more people survive cancer.

The cancer pathway – home is intended to help to ensure good structure and logistics in the health service as well as security and predictability for persons living with cancer and for people who have completed their cancer treatment. The cancer pathway – home focuses on mapping patient needs in areas other than the actual cancer treatment, as well as follow-up after treatment. The pathway consists of

three interaction points, one appointment with the specialist health service and two at the municipal level at 3–4 months and 12–18 months, respectively, after the time of diagnosis.

These interaction points are interviews with the patient and, if relevant, their next of kin, and includes mapping the patient's needs. All patients diagnosed with cancer are included in this pathway, regardless of whether or not they are already covered by a diagnosis-specific cancer patient pathway and of whether the intention of their treatment is curative or palliative. Patients who suffer a relapse are also included in the patient pathway.

All the regional health authorities are working to establish a good structure for conducting the mapping interviews and following up the needs identified as described in the cancer pathway – home. Among other things, the Norwegian Directorate of Health will keep an eye on statistics showing how many patients in each region have completed a mapping of needs with the specialist health service. Not all patients want or need such an interview, but numbers are nonetheless expected to increase in the coming years. It is a natural choice for GPs to provide follow-up and conduct the interviews at the municipal level that form part of the patient pathway, but municipal authorities can decide to use other suitable healthcare professionals, such as a cancer nurse or coordinator.

#### Box 1.3 Cancer pathway – home

The cancer pathway – home is intended to help to ensure good structure and logistics in the health service as well as security and predictability for persons living with cancer and for people who have completed their cancer treatment. This patient pathway also applies to children.

The patient pathway is intended to contribute to:

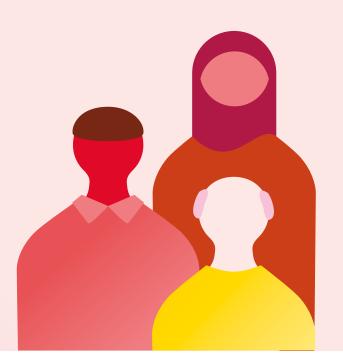
- more focus on quality of life, good health and coping
- more systematic identification of individual patient needs, meaning needs that are not directly related to the cancer treatment and follow-up, but concerns the patient's situation and what is important to the individual patient
- patient needs being followed up through clear communication to other service providers and assignment of responsibility for further follow-up
- less unwarranted variation in patient follow-up following a cancer diagnosis, regardless of where the patient lives
- coherent services across hospitals and municipalities
- better cooperation between the service providers that are in contact with the patient
- · more security for patients when transferred between service levels

Source: The Norwegian Directorate of Health

Pakkeforløp hjem for pasienter med kreft – Norwegian Directorate of Health website

#### Focus area 3

### Nore user-centred cancer care



Cancer patients and their next of kin should be given good opportunities to participate in treatment and follow-up. In order for patients to participate in and contribute to their own treatment, they need access to information and tools that enable them to do so. Individual health literacy will also influence how patients feel about participating in choosing their treatment. Digital solutions can contribute support for decision-making and choice of treatment. It is important to develop and offer information and communication options that take into account health literacy, language and culture, including the Sami language and cultural understanding. Information and communication options must also be provided for patients and next of kin who do not wish to or are unable to make use of digital solutions.

Shared decision-making must be a real possibility for cancer patients. This is particularly important in relation to patients with a short life expectancy and patients where alternative therapies are an option. The purpose of shared decisionmaking is to allow patients, in consultation with healthcare professionals, to make choices in accordance with their own values and preferences.

### **Ten-year goal 8**

### All cancer patients who want it and their next of kin will be offered an individual digital overview of the patient pathway and digital follow-up at home

The goal is to give patients and next of kin easy access to digital solutions that provide overview and strengthen their opportunity to play an active role in their own treatment as well as facilitate digital follow-up at home. These services will provide relevant information about the patient pathway, including diagnosis and treatment, but also potentially beneficial follow-up after treatment. It must become easier to share information with next of kin and communicate with both hospitals and the municipal health service through digital channels.

The goal is for decisions to be made in consultation with the patient and for good, quality-assured tools to be in place to make it easier for patients to familiarise themselves with any issues that might arise. Data from the consultations could also play an important role in improving services and allowing us to adapt to the patient's needs.

The digital platform Helsenorge.no is the main access point for information about Norway's public health and care services. The Helsenorge app and the website <u>Helsenorge.no</u> help to give the population better overview and access and enable people to take a more active role in following up their own health.

The Helsenorge website currently contains information about different forms of cancer, prevention, diagnosis and treatment. There is also information about cancer patient pathways and the cancer pathway – home. In addition, services providing access to one's own patient records from the specialist health service and access to information about prescription medication have been established. Helsenorge allows for digital dialogue between patients and GPs, and nearly 86 percent of Norwegian GPs used this service in 2024. It includes services for requesting repeat prescriptions, booking appointments and e-consultations. There are also services for digital dialogue with municipal care and nursing services, including notification and access for next of kin. The digital dialogue services for the care and nursing services are so far not available to the whole population. Approximately 50 percent of the population live in municipalities where this service has been introduced. Next of kin can access information based on consent.



Digital follow-up at home means that the health service can follow up patients in their own home. This technology makes it possible for patients, by agreement with the health service, to receive digital follow-up at home via selected welfare technology solutions and health apps that the patients use themselves or are helped to use. Measurements that the patients take themselves, for example heart rate, blood pressure or self-reporting questionnaires to map side effects of cancer treatment, are sent to healthcare professionals, who can respond and take action as appropriate. The data recorded by the patients themselves allow patient information to be shared across organisational boundaries. Digital follow-up based on information reported by the patients themselves means that patients can be followed up based on their individual needs rather than at fixed intervals set by the hospital. Various types of follow-up at home are being introduced in all the Norwegian healthcare communities and in many municipalities. A 2022 patient survey carried out by the Norwegian Cancer Society showed that cancer patients take a positive view of using digital health technology and that they want digital follow-up at home.

### Ten-year goal 9

### Cancer patients will have access to tools for participation and shared decision-making, and data from these tools will be used to improve the service provided

Needs and wishes differ from one person to the next. User participation in combination with good information and patient involvement in choosing their own treatment are important to individual patients as well as to the development of cancer care. Patients expect access to health information, more opportunities to do things for themselves and the opportunity to participate in and adapt treatment and follow-up to their own situation. Among other things, user participation means to offer shared decision-making and tools for shared decision-making, which is about providing sufficient and evidence-based information followed by a good communication process. It is important for patients to be given correct information about the expected effects and any side effects of their treatment, not least when it comes to palliative treatment when curative treatment is no longer an option. Patients must be given a genuine opportunity to reflect on their wishes for the end of their life.

Actual user participation requires the patient to have the ability and capacity to take in information. Patients' health literacy is very important in enabling them to understand and benefit from health-related information, advice and guidance provided by healthcare professionals. Norwegian health literacy surveys show that a high proportion (one in three people) have poor health literacy (Norwegian Directorate of Health). Service providers are responsible for ensuring that necessary and useful information is made available to all users, and healthcare professionals have a duty to adapt information to the patient's ability to understand what is said or written.

### Ten-year goal 10

### Change from calendar-based check-ups to check-ups as needed in cases where this is safe and in the best interests of the patient

The goal is for patients who use digital tools to feel a sense of increased participation, have fewer unnecessary hospital appointments and receive good and safe treatment for their cancer. More and more patients are followed up at home by means of digital questionnaires.

Hospitals will not schedule appointments at fixed intervals for patients with chronic conditions, but instead use a standardised questionnaire sent electronically to the patients. The digital solution allows for patients to receive follow-up when needed and avoid unnecessary hospital appointments. Needs-based outpatient clinic schemes with digital follow-up free up resources and make a great difference to the outpatient clinics' capacity. Answers are electronically scored and checked by a nurse and doctor as required. Patients can also submit the questionnaire at their own initiative if necessary.

However, there will be situations where doctors need to physically examine their patient and where planned intervals set by the doctor could help to identify relapses early, perhaps even before symptoms arise, and start treatment.

When more patients use digital communication, resources can be freed up that will make it easier for the health services to follow up patients who cannot use such tools. Experience from the Norwegian National Welfare Technology Programme shows that using digital tools saves health personnel's time, improves the quality of the service, improves coping and flexibility for patients, reduces stress and provides a more even workload distribution and better cooperation between healthcare professionals. One of the goals set out in Norway's National eHealth Strategy is to reduce digital exclusion by providing differentiated and individually adapted services, thus ensuring that the 'non-digital population' are given the same access to health services as people who use digital solutions.

#### Focus area 4

### Nore people will survive and live longer with and after cancer

The Government wants Norway to have one of the world's highest five-year survival rates following a cancer diagnosis. Norway should have the lowest cancer mortality, and cancer patients will be offered diagnostics, treatment, follow-up and rehabilitation of high international standard through our public health service. At the same time, it is important to avoid overtreatment, which could shorten the lives of cancer patients as well as lower their quality of life.

Early detection of cancer could save lives. We would like to shorten the time from new research documents a measure's effect until the findings benefit patients, provided that the measure complies with national applicable prioritisation criteria. New and better treatments help to increase cancer survival. The fact that more people survive and live longer with cancer also means that more people live with late effects of cancer treatment. However, new treatment methods could help to reduce the risk of side effects and late effects. Proton therapy will be offered in Oslo and Bergen starting in 2025, and patients from all regions will be guaranteed equitable access to proton treatment.

### Ten-year goal 11

### All patients will get the right treatment and follow-up at the right time by means of good prehabilitation and good prioritisation

The intention behind this goal is to ensure that the investigation and treatment of diagnosed cancer is provided with a content and at a pace that ensure the best possible outcome and reduce the burden associated with completing the planned course of treatment. New methods that meet the national prioritisation criteria will be made available as soon as possible. All patients diagnosed with cancer will be assessed and treated in accordance with the timeframe and medical content set out in the relevant patient pathway and, if applicable, national action plan. This rule will only be deviated from when required by individual considerations, for example other medical conditions or complications. In cases where no patient pathway or national action plan applies, an individual plan will be made for each patient based on the same principles. In case of incurable cancer, clear treatment goals are stipulated before treatment starts. There is also a plan in place for how to identify and follow up the benefits, side effects and, if relevant, subsequent loss of benefit in order to avoid overtreatment with pertaining side effects and strain for both the patient and their next of kin.

Prehabilitation, meaning measures taken before treatment, is considered and included in patient pathways and action plans for each form of cancer to the extent that such inclusion is evidence-based.

Priorities when new treatment methods are introduced will follow the applicable national prioritisation criteria. The process leading up to a decision to introduce a new method should be as swift as possible and should also include relevant suppliers and hold them accountable for ensuring a speedy process. Once the decision to introduce the new method has been made, the service will soon be informed through direct communication and by information about the new method being incorporated into the applicable national action plans. The decision can also be included as an appendix to the action plan to make it available to doctors treating patients as soon as possible on the Norwegian Directorate of Health's website (Helsedirektoratet.no).

Cancer treatment can affect the body's ability to eat and digest food and absorb nutrients. Many patients need individual follow-up in relation to food and nutrition. Cancer-related malnutrition and unwanted weight gain associated with treatment are preventable. Nutrition experts can help people suffering from cancer to improve their nutritional status.

Figures from the Norwegian Directorate of Health show that fewer than half of Norwegian hospitals have a nutritional strategy for their patients. As part of the work to follow up the cancer strategy, we need to make sure that all hospitals have such a strategy in place. Key guidelines include the national professional guidelines for preventing and treating undernutrition and the upcoming guidelines for food and meals in (healthcare) institutions.

In the course of work on the national strategy *God og riktig mat hele livet – Nasjonal strategi for godt kosthold og ernæring hos eldre i sykehjem og som mottar hjemmetjenester* ('Good and appropriate food throughout life – National strategy for good diet and nutrition among elderly in nursing homes and receiving home care service' – in Norwegian only), a model development programme for clinical nutritionists as a resource in the care services was established in 2020. From 2025, this model development programme will be expanded to cover all of the municipal health and care services. The scheme is intended to contribute to boosting preventive work and strengthening the follow-up of a number of target groups dealing with nutritional challenges in the municipalities.

### Ten-year goal 12

### If relevant for the choice of treatment, all cancer patients will be offered genetic testing as part of the development towards making Norway a leading country in the field of precision medicine

If relevant to the choice of treatment, it is important that cancer patients undergo good and precise investigation and diagnostic testing to ensure that the treatment administered is optimised and as well adapted to the individual patient as possible. The National Strategy for Personalised Medicine aims to make personalised medicine an integral part of the health service.

#### **Box 1.4 Genetic testing**

Genetic testing involves examining the DNA sequence of one or more genes from the tumour tissue to gain information that could enable better medical prevention and treatment. Such testing is mainly used to identify genetic changes that represent potential points of attack for pharmaceutical treatment or other personalised forms of treatment. Traditionally, the most commonly occurring cancers have been treated surgically, sometimes following radiotherapy or followed by pharmaceutical treatment and/or radiotherapy. This is now changing in that the sequence of treatment methods is personalised, for example by pharmaceutical treatment being administered before (and, if relevant, also after) surgery, or before or at the same time as radiotherapy. No two cancer patients have the exact same tumour, and a treatment that is effective for one patient could have little effect on another. Personalised treatment means providing patients with the most tailored treatment possible.

Genetic testing and other precision diagnostics will develop during the strategy period in terms of what can be analysed, how extensive the analyses can be and how quickly they can be done, as well as in our ability to interpret complex analysis results. At the same time, new treatment methods will emerge for which precision diagnostics will be crucial to determine when to use and when not to use the new methods. New personalised medicine measures must be considered based on the same prioritisation criteria as other new methods being considered for introduction in the publichealth service. Patients could need precision diagnostics at any stage. The determination of when precision diagnostics are relevant will be based on whether they will have a bearing on the choice of treatment, including, if relevant, participation in clinical trials. Broader availability of precision diagnostics could make Norway a more attractive country for clinical trials. Offering genetic testing to more patients is one of the flagship initiatives of the EU's Beating Cancer Plan.



### Ten-year goal 13

### A health catapult initiative will be established

The Norwegian Catapult programme is a scheme intended to assist the establishment and development of national multi-use centres for testing, piloting, simulation and visualisation. An initiative could contribute to more innovation, more rapid adaptation and improved competitiveness in the health sector.

#### Box 1.5 Catapult in the health sector

The Norwegian Catapult scheme was established in 2017 and is administered by the Industrial Development Corporation of Norway (SIVA) in collaboration with Innovation Norway and the Research Council of Norway.

So far, five centres have been established under the Catapult scheme:

- Manufacturing Technology Norwegian Catapult Centre (Sintef Manufacturing, NCE Raufoss), Raufoss – 2017
- Future Materials Norwegian Catapult Centre (Elkem AS i samarbeid med flere industriaktører og klynger på Sørlandet) – 2017
- Sustainable Energy Norwegian Catapult Centre (SMIA), Stord 2018
- Ocean Innovation Norwegian Catapult Centre (OIC), Bergen 2018
- DigiCat Norwegian Catapult Centre ÅKP Blue Innovation Arena AS, Ålesund – 2018

The Norwegian Catapult scheme was expanded with testing facilities in rural areas, and eight catapult nodes were named in autumn 2024. The catapult nodes will provide easier access to testing facilities and industrial expertise to enterprises all over Norway so that ideas can be developed more quickly, better and with less risk.

At these centres, enterprises will be able to test, simulate and visualise technologies, components, products, solutions, services and processes. The Government have high ambitions to establish a catapult initiative in the health sector and wants to strengthen the current catapult services to enable the health industry to benefit more from the scheme. Easy access to expertise, equipment and suitable premises is intended to smooth the way from concept stage to market introduction. There are three product categories in the health area: pharmaceutical production, digital health and medical equipment. The established catapult centres administered by the Industrial Development Corporation of Norway (SIVA) offer expertise, testing and verification in parts of these three product areas.

### Ten-year goal 14

### Norwegian cancer research will be world-leading

The goal for Norwegian cancer researchers to remain world-leading in some disciplines and succeed in the competition for national as well as international research and innovation funding is an important one. This is because research and innovation of high quality and relevance will provide new knowledge to the services about how to diagnose and treat cancer, and society will gain knowledge about the prevalence of cancer in the population as well as about how to prevent cancer. Researchers based in Norway will engage in broad international research cooperations, thus contributing to the international knowledge bank.

Researchers based in Norway will take an active role in important EU cancer initiatives including the EU's Beating Cancer Plan and Cancer Mission. Cooperation with scientists from other countries could provide valuable insights that can help to optimise treatment of cancer patients across national borders and continents. Active participation by researchers from Norway at conferences and as international experts could form the basis for further cooperation with the health industry on clinical trials.

Norway's good health data puts the country at a considerable advantage in research, innovation and business development. The Government intends to facilitate easier, quicker and more secure use of data for treatment, research and quality improvement as well as for statistics and analyses. Bringing the Cancer Registry of Norway and the other national health registers together under the Norwegian Institute of Public Health is intended to help to strengthen this work. High-quality cancer statistics from population-based cancer registries in Europe will be crucial to achieving the goals set out in the EU's Beating Cancer Plan. The Cancer Registry of Norway at the Norwegian Institute of Public Health has been given the crucial role of leading the work to strengthen European cancer registries through the government collaboration Cancer Watch. This work will help to improve the overall quality of European cancer registries, harmonise data and make them more complete. At the same time, Cancer Watch will ensure that quality-assured statistics are made available more quickly on the European Cancer Information System platform.

### Ten-year goal 15

# The number of cancer patients taking part in clinical trials will be doubled

It is a goal to double the number of cancer patients included in clinical trials. A rough estimate indicates that this will make up about 15 percent, but the number of patients who take part in clinical trials will vary depending on which form of cancer they have. Participation in clinical trials gives patients the chance to test new treatments and help to develop new knowledge. The opportunity to engage in research and professional development is a source of motivation for healthcare professionals.

The Government has an ambition for clinical research to become an integral part of all patient treatment and clinical practice in a long-term perspective. The Government wants to continue the long-term focus on clinical trials and will develop the National action plan for clinical trials further in 2025.

For patients who may benefit, inclusion in clinical trials should be considered early in the course of their treatment. However, participation in clinical trials will be relevant in all phases of cancer. It is a goal to achieve the most equitable access possible to participation in clinical trials regardless of patients' type of cancer, age, sex, ethnicity and geography, see ten-year goal number 5 (on CCCs and CCs).



### Focus area 5

# Solution State State

Cancer treatment can be burdensome and affect physical as well as mental health. Rehabilitation measures that address the patients' physical, mental and social needs should be integrated into the course of treatment as far as possible.

Many will need help to cope with the psychosocial challenges associated with the disease. It is therefore important that psychosocial support expertise is available in the health service in order to provide good services to cancer patients and their next of kin. The regular GPs often see patients both during and after treatment and will often be in a key position to identify their patients' need. Hospitals that treat cancer patients should engage in interdisciplinary efforts to ensure good psychosocial follow-up services that can put people in touch with a social worker, chaplain, psychologist, cancer nurse etc.

For many patients, the support from their own network and being met by caring and supportive healthcare professionals at the hospital and in the municipal health service (including their GP) will be enough for them to cope and experience quality of life despite their disease. However, some patients will feel the need for additional mental health services, either at the municipal level or through referral to a psychologist or psychiatrist.

Rehabilitation and other follow-up include assistance and guidance in relation to what the patients themselves can do to improve their situation. There are a number of services offered by or in cooperation with voluntary organisations, patient and user organisations and peer support services, both at the municipal level and in the specialist health service. Many municipal authorities have healthy life centres, learning and coping services, and patients in some hospitals can make use of *Vardesenter* meeting places and *Pusterom* sports centres for cancer patients.

It is important that patients diagnosed with cancer are given the opportunity to continue to work during and after cancer treatment if they so wish. Adaptations must be made to allow these patients to return to work.

A great deal of patient care often falls on the next of kin. The care provided by family members and other loved ones constitutes a considerable resources from a societal perspective. However, the next of kin will have their own challenges and needs that must be taken into consideration. Children of patients with serious health problems are particularly vulnerable and at risk. For this reason, the health service is charged with contributing to the provision of necessary information and follow-up to underage children whose next of kin are seriously ill.

Many cancer patients will need palliative treatment at some point. Palliative care should be provided in collaboration between the GP, the specialist health service and the municipal health and care service, and must be tailored to the individual's needs and wishes. Next of kin will often play an important role in planning palliative treatment.

The need for palliative treatment should be considered throughout the course of the disease, not only when it comes to end of life care. Palliative treatment should be included in ordinary oncological care at the earliest possible stage along with other treatments intended to extend life. Patients can be referred to palliative teams and specialist departments if advanced palliative measures are needed.

According to the World Health Organization's definition, palliative care is to prevent and alleviate suffering through early identification, thorough mapping and treatment of pain and other problems, whether they be physical, psychological, social or spiritual/existential in nature. All treatment, nursing and care aim to provide the best possible quality of life for patients (adults and children) and their next of kin. The Norwegian action plan for palliative care in cancer care provides recommendations concerning palliative treatment and care for the specialist health service as well as the municipal health and care services.

### Ten-year goal 16

# All cancer patients who so wish will be able to combine their treatment with work or education

The goal is for all cancer patients who want to continue to work during and after cancer treatment to be supported in doing so, and for cancer patients to be able to combine their treatment with work or education. This is challenging for some, and adaptation will often be required to enable these patients to return to work. It is a goal for more patients of working age to remain active in the labour market during and after cancer treatment and to ensure that adaptations are put in place to allow for this. A study on return to work has been initiated in connection with the EU flagship initiative on better quality of life.

Every year, around 17,000 persons of working age are diagnosed with cancer. A survey conducted by the Norwegian Cancer Society's user panel shows that 66 percent of people who had a (part-time or full-time) job before being diagnosed with cancer have returned to work after treatment. Surveys also show that many want to live as normally as possible both during and after their treatment, including going to work. This places new demands on the health services and employers as well as society at large.

Information about the rights of and possibilities available to people who want to work despite long-term illness can be found on the Norwegian Labour and Welfare Administration's (Nav) website.



### Ten-year goal 17

# Comprehensive support for next of kin will be provided as part of cancer care

Next of kin are an important resource for the patient, but it is important that the health service takes into account that long-term illness requires the patient's next of kin to be involved. It is therefore a goal for the health and care services to involve and support the next of kin of people with cancer. For next of kin, this means being valued, looked after, listened to and involved insofar as the patient wishes and accepts such involvement.

Once a person has been diagnosed with cancer, that changes the life and situation of both the patient and their next of kin. A great deal of patient care often falls on the next of kin. The care provided by family members and other loved ones constitutes a considerable resource from a societal perspective. However, the next of kin will have their own challenges and needs that must be taken into consideration.

The Norwegian Directorate of Health's guide on dealing with next of kin describes how to involve and support next of kin, and it provides recommendations for best practice. The guide also describes the rights of next of kin and the duties of the health and care services.

Children of patients with serious health problems are particularly vulnerable and at risk. The health service must therefore help to provide age-appropriate information and follow-up as required to underage children whose next of kin suffer from a serious somatic illness.

Families with a seriously ill child who will need long-term and comprehensive or coordinated health and care services as well as other welfare services, are entitled to a children's coordinator pursuant to the Patient and User Rights Act Section 2-5.

Many seriously ill cancer patients want to spend as much time as possible at home for as long as possible. This wish should be accommodated through good cooperation between the patient, next of kin and the municipal and specialist health services. Hospital at home could be an option in some cases. Hospital at home is defined as a specialist service provided to persons who are in need of hospital treatment, but whose condition indicates that it is safe for them to receive treatment and follow-up in their own home.







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