





#### **The Country Cancer Profile Series**

The European Cancer Inequalities Registry is a flagship initiative of the Europe's Beating Cancer Plan. It provides sound and reliable data on cancer prevention and care to identify trends, disparities and inequalities between Member States and regions. The Country Cancer Profiles identify strengths, challenges and specific areas of action for each of the 27 EU Member States, Iceland and Norway, to guide investment and interventions at the EU, national and regional levels under the Europe's Beating Cancer Plan. The European Cancer Inequalities Registry also supports Flagship 1 of the Zero Pollution Action Plan.

The Profiles are the work of the OECD in co-operation with the European Commission. The team is grateful for the valuable inputs received from national experts and comments provided by the OECD Health Committee and the EU Expert Thematic Group on Cancer Inequality Registry.

#### **Data and information sources**

The data and information in the Country Cancer Profiles are based mainly on national official statistics provided to Eurostat and the OECD, which were validated to ensure the highest standards of data comparability. The sources and methods underlying these data are available in the Eurostat Database and the OECD Health Database.

Additional data also come from the World Health Organization (WHO), the International Agency for Research on Cancer (IARC), the International Atomic Energy Agency (IAEA), the Institute for Health Metrics and Evaluation (IHME) and other national sources (independent of private or commercial interests). The calculated EU averages are weighted averages of the 27 Member States unless otherwise noted. These EU averages do not include Iceland and Norway. Purchasing Power Parity (PPP) is defined as the rate of currency conversion that equalises the purchasing power of different currencies by eliminating the differences in price levels between countries.

Disclaimer: This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of the Member countries of the OECD. This work was produced with the financial assistance of the European Union. The views expressed herein can in no way be taken to reflect the official opinion of the European Union This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Note by the Republic of Türkiye: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Türkiye recognises the Turkish Republic of Northern Cyprus (TRNC) Until a lasting and equitable solution is found within the context of the United Nations, Türkiye shall preserve its position concerning the "Cyprus issue

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Türkiye. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

#### ©OECD 2023

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at https://www.oecd.org/termsandconditions.

#### **Contents**

1. HIGHLIGHTS	3
2. CANCER IN MALTA	4
3. RISK FACTORS AND PREVENTION POLICIES	7
4. EARLY DETECTION	10
5. CANCER CARE PERFORMANCE	12
5.1 Accessibility	12
5.2 Quality	15
5.3 Costs and value for money	16
5.4 COVID-19 and cancer: building resilience	17
6. SPOTLIGHT ON INEQUALITIES	18

# Summary of the main characteristics of the health system

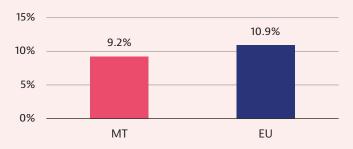
#### **LIFE EXPECTANCY AT BIRTH (YEARS)**



#### SHARE OF POPULATION AGED 65 AND OVER (2021)



#### **HEALTH EXPENDITURE AS A % OF GDP (2020)**

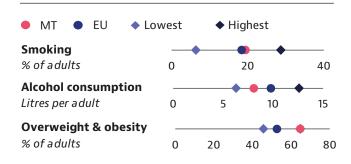


Source: Eurostat Database.

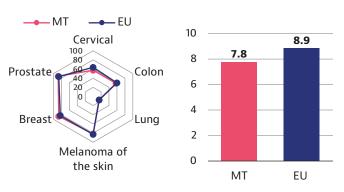
## 1. Highlights

### Malta **■** EU 527 Cancer incidence (2020) 569 203 Cancer mortality (2019) 247

#### Age-standardised rate per 100 000 population



#### • MT - Total • EU - Total • Low income High income 80% 66% 60% 40% 33% 31% 20% Cervical cancer **Breast cancer** Colorectal screening screening cancer screening % of women % of women % of population aged 50-74 aged 15+ aged 50-69



Five-year net survival rate by cancer site, 2010-14

Number of radiation therapy centres per 100 000 population, 2007-22

#### **Cancer in Malta**

An estimated 2 400 new diagnoses of cancer were expected in Malta in 2020 - an increase by 30 % since 2017. Cancer mortality rates decreased significantly between 2011 and 2019, including for lung and colorectal cancers, which cause the most cancer-related deaths per capita in Malta.

#### Risk factors and prevention policies

Behavioural risk factors for cancer such as obesity, smoking and alcohol consumption contribute significantly to Malta's cancer risk profile. Rates of obesity and overweight are the highest in the EU, and prevalence of smoking and alcohol consumption remain high.

#### **Early detection**

Malta runs three robust screening programmes for breast, cervical and colorectal cancers. All three programmes began in the last 15 years, and have grown to serve their entire respective age cohorts in line with EU guidelines. However, screening coverage rates slightly lag behind EU averages.

#### Cancer care performance

Cancer care is largely accessible to anyone who needs it thanks to the comprehensive range of services and treatments that are free to most people. While the country has difficulty ensuring a sufficient workforce of cancer clinicians, delays in care – particularly after diagnosis – are infrequent. The country's five-year cancer net survival rates are close to the EU averages, and are higher than the EU averages for breast and prostate cancers.

### 2. Cancer in Malta

#### Per capita cancer incidence rates for both men and women are below the EU averages

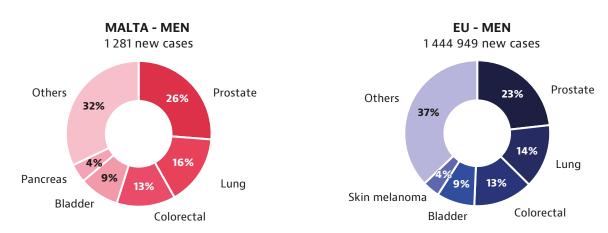
According to European Cancer Information System (ECIS) of the Joint Research Centre based on incidence trends from pre-pandemic years, nearly 2 400 new diagnoses of cancer were expected in Malta in 2020 (Figure 1), a rise from 1800 new cancer diagnoses in 2017. This increase is attributed to behavioural risk factors such as

smoking and poor diet, environmental factors and increased longevity.

Consistent with patterns seen across the EU, more men than women were expected to be diagnosed with cancer. In Malta in 2020, the age-standardised rates across all types of cancer were expected to be 464 new cases per 100 000 women and 619 new cases per 100 000 men. For both men and women, incidence is lower in Malta than the EU averages.

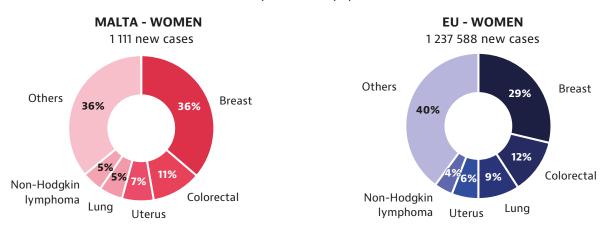
Figure 1. Nearly 2 400 new cancer diagnoses were expected in Malta in 2020

#### Distribution of cancer incidence by sex in Malta and the EU



#### AGE-STANDARDISED RATE (ALL CANCER)

Malta 619 per 100 000 population EU 686 per 100 000 population



#### AGE-STANDARDISED RATE (ALL CANCER)

Malta 464 per 100 000 population EU 484 per 100 000 population

Note: Corpus uteri does not include cancer of the cervix. These estimates were created before the COVID-19 pandemic, based on incidence trends from previous years, and may differ from observed rates in more recent years. Source: European Cancer Information System (ECIS). From https://ecis.jrc.ec.europa.eu, accessed on 09/05/2022. © European Union, 2022.

The main cancer sites among men and women are for the most part consistent with the pattern across the EU. Among Maltese women, breast cancer was expected to be the most common (36 %), followed by colorectal (11 %) and uterus (7 %) cancer. Among men, prostate cancer was expected to be the most common (26 %), followed by lung (16 %) and colorectal (13 %) cancer.

Malta has relatively low incidence of gastric (stomach) and melanoma cancers. Only 11.7 new cases of melanoma per 100 000 population were expected per year, compared to the EU average of 22.9 new cases per 100 000. Gastric (stomach) cancer incidence rates (15.7 new cases per 100 000 population) are much closer to the EU average (15.8 per 100 000). Incidence of paediatric cancers in Malta is also low: in 2020, this estimated rate was roughly 9.4 new cases per 100 000 people aged 0-14 years in Malta, which is the third lowest rate in the EU (Box 1). In 2013, according to the most recently collected data available, the estimated number of new rare cancer cases in Malta was 527 (Box 2).

#### Cancer mortality rates in Malta are among the lowest in the EU

Cancer mortality rates saw a sizeable decrease between 2011 (247 deaths per 100 000 population)

#### Box 1. The survival rate for childhood cancer has more than doubled since the 1960s

In Malta, around 25 children, adolescents and young adults (up to the age of 24 years) are diagnosed with cancer every year. For children aged 0-14 years, the most common cancers are leukaemia, brain and spinal tumours, lymphomas, soft tissue sarcomas and neuroblastomas, which together account for 80 % of all childhood cancers (Ministry for Health, 2017). Those aged 15-24 years mostly develop lymphomas and carcinomas, germ cell tumours and brain and central nervous system tumours. As of 2017, the five-year survival rate for this subpopulation in Malta was 81.2 %, which is higher than the EU average of 78.4 %. Maintaining a workforce of paediatric oncologists poses a challenge for Malta (see Section 5.1), however. Only 1-2 oncologists work to care for the country's

and 2019 (203 deaths per 100 000) (Figure 2). Mortality rates across the EU decreased during this time by 10 % among men and 5 % among women, but Malta experienced greater reductions (22 % among men and 14 % among women). In 2019, cancer across all sites was the cause of 24 % of deaths in Malta, which is roughly consistent with the EU average of 23 %.

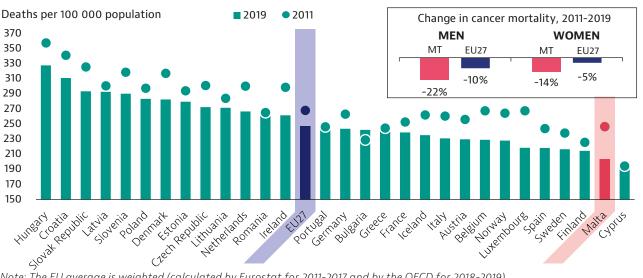


Figure 2. Malta had the second largest decrease in per capita cancer mortality in 2011-2019 in the EU

Note: The EU average is weighted (calculated by Eurostat for 2011-2017 and by the OECD for 2018-2019). Source: Eurostat Database.

Malta saw reductions in mortality rates for most main cancer types during 2011-2019 (Figure 3). One of the largest decreases was in deaths due to lung cancer, which has the highest mortality rate of all cancers in Malta. The rate fell from 43 per 100 000 people in 2011 to 31 per 100 000 people in 2019 – a 28 % change. Similarly proportioned decreases in mortality occurred for colorectal (-31 %) and breast

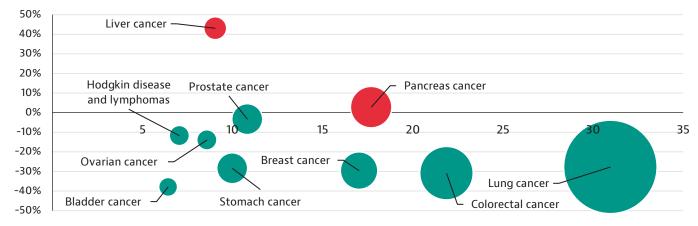
(-28 %) cancers. Only two of the ten cancers with the highest mortality rates saw increases. Mortality related to liver cancer increased from 6 deaths per 100 000 population in 2011 to 9 deaths per 100 000 in 2019. Mortality due to pancreatic cancer stayed relatively level, increasing by 3 % during the eight-year period.

In 2019, gastric (stomach) cancer accounted for an overall mortality rate of 10 per 100 000 population and skin melanoma accounted for an overall

mortality rate of 3 per 100 000 population, similar to the EU averages.

Figure 3. Lung, colorectal and breast cancer mortality rates were high, but declined in 2011-2019

Change in cancer mortality, 2011-2019 (or nearest year)



Age-standardised mortality rate per 100 000 population, 2019

Note: Red bubbles signal an increase in the percentage change in cancer mortality during 2011-2019; green bubbles signal a decrease. The size of the bubbles is proportional to the mortality rates in 2019. The mortality of some of these cancer types is low, hence, the percentage change should be interpreted with caution. Bubble sizes for mortality rates are not comparable between countries. Source: Eurostat Database.

#### Malta adopted a second National Cancer Plan in 2017

The 2017 National Cancer Plan outlined three broad priorities for progress in cancer care: reducing cancer incidence, improving cancer survival, and improving cancer patients' experience and quality of life. Reducing incidence relies heavily on preventive strategies such as promoting healthy lifestyle adoption, increasing health literacy of citizens and clinicians alike to improve the likelihood of early diagnosis, and more rigorous screening. Improvements to survival rates and the patient experience involve strengthening care integration, coordination and patient rehabilitation. The National Cancer Plan aligns with the Europe's Beating Cancer Plan, which sets out a new EU approach to tackling the entire disease pathway (European Commission, 2021).

In line with these priorities, the 2017 National Cancer Plan set out extensive structure, process and outcome indicators. Specific topics for these indicators include awareness and action regarding lifestyle, with particular focus on raising awareness among vulnerable populations to reduce socioeconomic inequalities; coordination between care teams; and access to care and quality of care during the entire cancer care journey. The Plan also outlined efforts for patient-centred cancer research, registration and surveillance; increasing the health care workforce pipeline and training, facility equipment and capacity; and system governance, funding and expenditure.

Development of the 2017 National Cancer Plan involved greater participation from clinicians, patients and families and patient organisations than its predecessor. Soft goals are in place to include patients and families even more thoroughly in the next National Cancer Plan.

### Malta is working to improve quality and outcomes continuously along the entire cancer

Notable progress was achieved in the past decade in strengthening the national cancer programme and cancer care strategy. Robust screening programmes for breast, cervical and colorectal cancers were implemented and expanded to meet EU guidelines for age cohorts and frequency of screening. Malta also implemented a fast-track system with a specially created electronic platform to monitor waiting times. Colonoscopy waiting times were reduced from 9 months to 1.5 months over the past five-ten years, thanks in part to this fast-track system. The Sir Anthony Mamo Oncology Centre, Malta's only dedicated cancer care site, opened in 2013 as both a specialised hospital for oncology and haemato-oncology and a teaching hospital, providing training to the next generation of cancer clinicians. Numbers of multidisciplinary cancer care teams also increased over the past 10 years. Previously, dedicated teams were only in place for breast cancer, but now most of the major cancer types have specific, multidisciplinary teams to care for patients.

#### Box 2. Rare cancer patients are routinely referred to care outside Malta

Barriers to treating rare cancers include limited interest by pharmaceutical companies in developing new therapies, a small pool of clinical studies because of the low number of patients, and few available tissue banks and other treatment resources, all of which mean that Malta has limited opportunity to implement meaningful change. Other challenges relate to quality of care, including late or incorrect diagnosis and lack of access to country has more opportunity to make progress. To address access to treatment and care, Malta runs

the National Highly Specialised Overseas Referrals Programme for patients who require treatment abroad because of a need for specialised equipment or interventions not available nationally. Yearly, almost half of all referrals through the programme are for patients diagnosed with neoplastic disease, and most of these are rare types of tumours. However, the Ministry for Health acknowledges the burden placed on families that need to leave Malta for treatment, and continues to explore opportunities to develop specialised treatment at national care centres.

# 3. Risk factors and prevention policies

#### Behavioural risk factors are major drivers of cancer

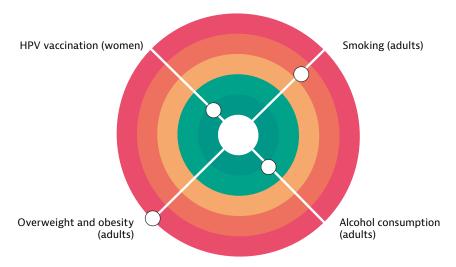
A decade ago, public conversations about cancer prevention were minimal, owing to stigma and fear. Over time, public awareness campaigns such as Pink October (for breast cancer) and Blue November (for prostate cancer) helped to shift the attitude to one of receptivity and active engagement around the importance of prevention.

The Ministry for Health's campaigns have started to focus on the "red flags" of cancer, such as unexplained weight loss, coughing and bleeding,

and on raising awareness about when individuals should refer themselves for screening or make an appointment with a general practitioner.

Behavioural risk factors for cancer such as overweight, obesity and smoking are relatively higher in Malta than in the EU (Figure 4). While researchers and health care providers understand the role of socioeconomic factors such as income, education and immigration status, Malta has not yet started to study the effect of these risk factors

Figure 4. Smoking, overweight and obsesity are key cancer risk factors and public health issues in Malta



Note: The closer the dot is to the centre, the better the country performs compared to other EU countries. No country is in the white "target area" as there is room for progress in all countries in all areas. Eurostat data for air pollution does not include Malta. Source: OECD calculations based on the European Health Interview Survey (EHIS) 2019 for smoking and overweight/obesity rates, OECD Health Statistics 2022 and WHO Global Information System on Alcohol and Health (GISAH) for alcohol consumption and WHO for human papillomavirus (HPV) vaccination (through the WHO/UNICEF Joint Reporting Form on Immunization) (2020).

#### Smoking rates are slightly higher than the EU average

Smoking rates in Malta have stayed roughly the same over the past decade. In both 2014 and 2019, 19 % of the population smoked daily, which is close to the EU average of 18 %. The education gradient is clear: only 12 % of Maltese people with higher

education levels smoked daily in 2019, compared to nearly 23 % of those with lower education levels (Figure 5). The gaps in smoking prevalence between people on higher (17 %) and lower (22 %) incomes, and between women (nearly 17 %) and men (nearly 22 %) were much smaller.

Figure 5. The education gap in proportion of daily cigarette smokers is larger than the EU average



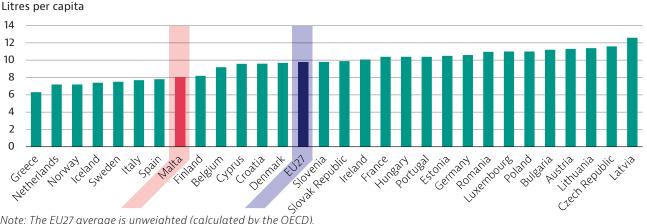
Note: The EU average is weighted (calculated by Eurostat). Source: Eurostat Database (EHIS). Data refer to 2019.

#### Average alcohol consumption is lower in Malta than the EU average, but it has increased over time

As in many EU countries, alcohol consumption in Malta is a public health issue, and levels have increased over the past two decades. In 2000, the average consumption rate in Malta was 5.9 litres of pure alcohol on average per year, while in 2020 it was 8.1 litres of alcohol per capita per year (Figure 6). Consumption rates remain consistently below the EU average, which was 9.8 litres per capita per year in 2020.

To address this issue, in 2018 the Ministry for the Family, Children's Rights and Social Solidarity published a National Alcohol Policy with the goal of reducing harmful use of alcohol. The Policy has three main objectives: to address underage drinking, to minimise the amount of alcohol intake by those who choose to drink, and to reduce drink driving. It also designates specific organisations and institutions to be responsible for the development and implementation of the Policy.

Figure 6. Malta's alcohol consumption rate is in the bottom third among EU countries



Note: The EU27 average is unweighted (calculated by the OECD). Sources: OECD Health Statistics 2022; WHO GISAH.

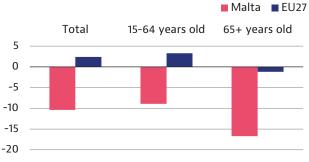
#### Almost two thirds of people aged 15 years and over are overweight

Malta has some of the highest rates of overweight or obesity in the EU, and these have increased over time. Among people over the age of 15 years, nearly 65 % were considered overweight or obese in 2019, up from just under 60 % in 2014, which is 23 % higher than the EU average of 53 %. These high rates are also linked to relatively poor quality of diet and low levels of exercise. Vegetable consumption decreased between 2014 and 2019 across many demographic groups, while it increased on average across the EU for the same groups (Figure 7). In 2014, 40 % of Maltese people reported consuming vegetables at least once a day. This number decreased to 30 % in 2019 – a change of more than 10 percentage points. The EU average increased by more than 2 percentage points from 48 % to 51 % during this period. This pattern of decreasing vegetable consumption was present regardless of age, sex or education level, although the reductions were largest among people aged 65 years and over, women and people with lower education levels.

Physical activity levels were also relatively poor in Malta, and decreased between 2014 and 2019. Only 12 % of individuals reported spending at least 150 minutes on moderate physical activity per week, which puts Malta third from the bottom among EU countries, and far below the EU average of 33 %. Several policies have been implemented as a response to the population's dietary and physical activity habits. Notably, the government approved legislation to regulate food available in schools, and provided additional funding for educational campaigns and exercise facilities.

#### Figure 7. Vegetable consumption decreased in Malta between 2014 and 2019

Percentage point change in vegetable consumption



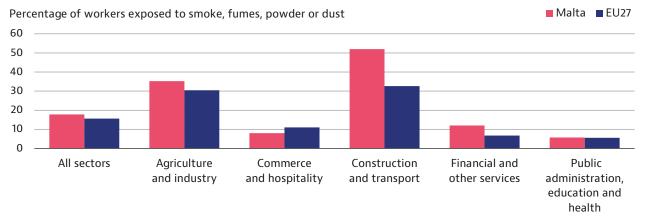
Note: The EU27 average is weighted (calculated by Eurostat). Source: Eurostat Database (EHIS). Data refer to 2019.

#### Those working in construction and transport are at higher risk of exposure to cancer-causing factors

Some cancer risks involve factors outside the control of the individual, including exposure to occupational pollutants or environmental causes such as the sun's ultraviolet radiation. However, personal and systematic solutions are available to prevent unnecessary exposure. For example, using sun protection and avoiding sunbeds are advisable actions to decrease the risk of skin cancer. However, only 50 % of Maltese individuals reported using sunscreen regularly for outdoor leisure activities (Department of Health Information and Research, 2016). Among people who work outside in the sun, only 10 % reported regular use of sunscreen.

Regarding exposure to chemical products or substances, Malta has among the highest rates in the EU of construction and transport employees who are exposed to breathing in smoke, fumes, powder or dust at least one quarter of the time that they are working, at 52 % in Malta compared to the EU average of 33 % (Figure 8).

Figure 8. Half of construction and transport workers reported exposure to chemical substances



Note: The EU27 averages are unweighted (calculated by the OECD). These percentages represent the proportion of workers in each sector who are exposed to chemical products or substances for at least 25 % of their time on the job. Source: Eurofound European Working Conditions Survey.

### 4. Early detection

#### Malta runs three national screening programmes

The three programmes for breast, cervical and colorectal cancers were started within the last 15 years. They began with age cohorts significantly smaller than EU recommendations, but over time these were expanded gradually. Today, Malta invites the recommended target age groups for each programme, although the proportions of self-reported uptake still lag behind the EU averages.

Generally, most people have easy access to free services such as cancer screening. Discrepancies related to geographical location – such as living in an urban versus a rural area – are small compared to larger EU countries. Screening access varies most by income level, which is Malta's highest priority in combination with disparities related to education level in terms of health inequity.

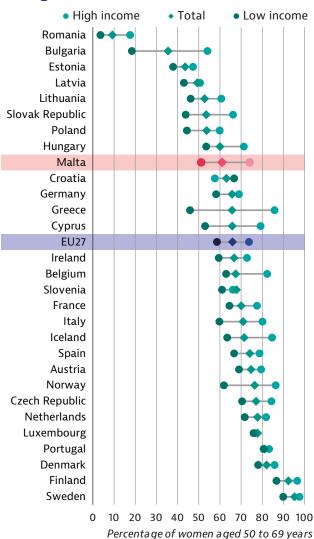
Malta has several goals as it continues to improve its cancer screening programmes. Among them are expanding each programme to include high-risk people outside the regular age cohorts, increasing national capacity to identify and manage these high-risk people, addressing inequalities in access and uptake, conducting assessments to better understand non-participation, and developing partnerships with international cancer screening networks and research collaborations. The Ministry for Health is also committed to researching what is needed to implement new screening programmes for lung and prostate cancers and how to best support patients after screening, which is the first step to launching the new programmes.

#### Participation in breast cancer screening is below the EU average

Malta's breast cancer screening programme was the first of the country's three programmes to be implemented, in 2009. At its introduction, the programme invited women aged 50-60 years for an examination every three years. Since then, screening has expanded to include women aged 50-69 years every two years, in line with EU guidelines. Screening is conducted via the country's two mammogram machines at the National Screening Centre in Valletta. In 2019, 61 % of women aged 50-69 years in Malta reported having had a mammogram within the last two

years (Figure 9), which is below the EU average of 66 %. The biggest discrepancy in uptake of breast cancer screening is by income: more women on higher (almost 74 %) than lower (51 %) incomes reported having a mammogram in the last two years, while the EU averages were also 74 % among those on higher incomes but 59 % among those on lower incomes.

Figure 9. Breast cancer screening uptake is lower among women on lower incomes

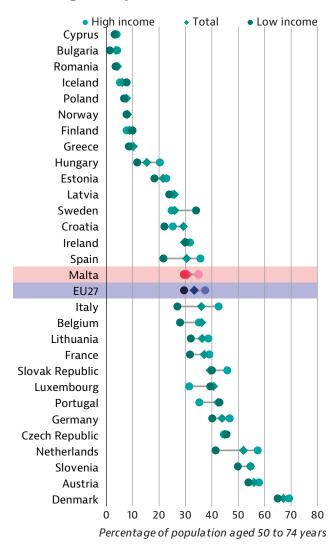


Note: The EU average is weighted (calculated by Eurostat). The figure reports the percentage of women aged 50 to 69 years who reported receiving a mammogram in the past two years. Source: Eurostat Database (EHIS). Data refer to 2019.

# The colorectal screening programme is gaining awareness among the target population

Malta's national screening programme for colorectal cancer was started in 2012. It originally targeted men and women aged 60-64 years every two years, and has since been expanded to include those aged up to 74 years. Between 2008 and 2014, examination with Faecal Occult Blood Tests increased nearly four-fold among people aged 60-69 years, and three-fold among those aged 70 years and over. In 2019, according to the EHIS, 30.6 % of people aged 50-74 years reported receiving colorectal cancer screening within the past two years, which is almost 3 percentage points below the EU average of 33.3 % (Figure 10). Screening rates were comparable between those with lower and higher education levels, but some disparities exist between groups on lower and higher incomes. The screening rate was lower among those on lower

Figure 10. Small disparities in colorectal cancer screening exist by income level



Note: The EU average is weighted (calculated by Eurostat). The figure reports the percentage of population aged 50 to 74 years who reported having a faecal occult blood test in the past two years. Source: Eurostat Database (EHIS). Data refer to 2019.

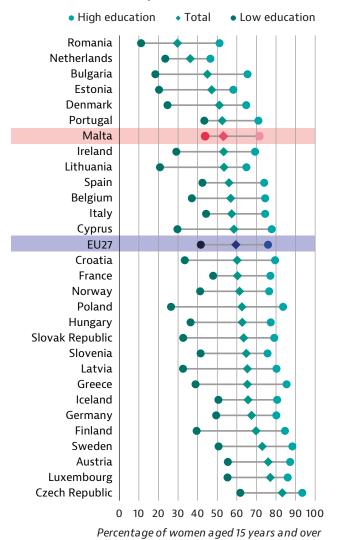
(29.5 %) than higher (34.9 %) incomes, although the gap was smaller than the EU average (29.4 % vs. 37.4 %). This discrepancy by income level is consistent with the pattern found for breast cancer screening.

# The cervical cancer screening programme is Malta's newest and most successful

Estimates predicted 13 new cases of cervical cancer in 2020, which translates to an age-standardised rate of 6 new cases per 100 000 women per year. This is the lowest incidence rate of all EU countries. The EU average is 13 new cases per 100 000 women per year.

Malta began its cervical smear test programme in 2015. For the first three years, screening was available to women aged 25-35 years every three years. Today, women aged 25-65 years are invited

Figure 11. Education-related inequalities exist in cervical smear test uptake



Note: The EU average is weighted (calculated by Eurostat). The figure reports the percentage of women aged 15 years and over who reported having a cervical smear test in the past three years. Source: Eurostat Database (EHIS). Data refer to 2019.

for a smear test every 3-5 years. These exams are conducted in any health centre across the country. In 2019, Malta achieved a cervical cancer participation rates of just over 53 %, which is below the EU average of 59 % (Figure 11). Disparities exist between women with different levels of education. The country made progress on reaching more

women with higher education levels, with the proportion of women reporting having a cervical smear test in the last three years rising from 63 % in 2014 to 72 % in 2019. By contrast, screening participation rates decreased slightly among women with lower education levels over the period, falling from 45 % in 2014 to 44 % in 2019.

### 5. Cancer care performance

### **5.1 Accessibility**

#### Most cancer care is free for most patients

Malta's National Health Service, financed through general taxation, provides almost universal coverage to all residents. Most services related to cancer care are free for all residents covered by the Social Security Act or a humanitarian exception. Oncology patients do not pay for costs related to diagnosis and treatment services, but do pay for pharmaceutical medicines that are not in the Government Formulary List, including many innovative drugs. According to the Social Security Act, medicines on the Government Formulary List require no cost-sharing for patients entitled to free care.

In the past few years, news articles have covered concerns about the growing cost of cancer care, including about several particularly expensive pharmaceutical drugs prescribed to treat aggressive breast cancer (Times of Malta, 2021).

#### Geographical access is not a major barrier to care in Malta

Malta is an archipelago of small islands, two of which are inhabited. The Sir Anthony Mamo Oncology Centre, which was constructed with funding from the European Regional Development Fund and opened in 2014, is located on the larger island of Malta, around 10 minutes outside of the country's capital and largest city, Valletta. Public transport is an option from most areas of either island. Centre-sponsored transport is also available upon request.

#### More research is needed on access and quality of cancer care for vulnerable groups

Disparities in access to and quality of cancer care exist in Malta. Epidemiological research by the

Ministry for Health has found that most differences in regions are driven by education level, which is often associated with income level. Another key disparity in care involves ethnicity and place of birth. Malta frequently functions as a point of entry to the EU; as such, there is a sizeable migrant and refugee population with physical health problems. Some programs exist to reach this group, including a workforce of community health workers called "cultural mediators" who are trained to work with migrant populations, and health promotion programmes in schools that reach the children of these families. While the Ministry for Health is aware of this discrepancy because it exists in other areas of health care, it has not yet started to study the impact of citizenship status, income, education level and other socioeconomic characteristics on cancer care. This is a research priority for the near

Further research into socioeconomic disparities in general remains a priority of the Ministry for Health. For example, the Ministry plans to include socioeconomic characteristics in the National Cancer Registry, as they are not currently represented. All databases in Malta are inter-operable thanks to the Maltese identification number system, but analysis linking the Registry and socioeconomic data from the National Statistics Office is not performed routinely, largely due to limited capacity.

#### The fast-track system has helped cancer care in Malta become more efficient

The Ministry for Health developed the Cancer Care Pathways Directorate in 2014 to promote advancement of high-quality cancer care and to provide support, coordination and fast-tracking of services. Referrals of potential cancer sent by primary health care clinicians are prioritised for a timely first appointment at the hospital.

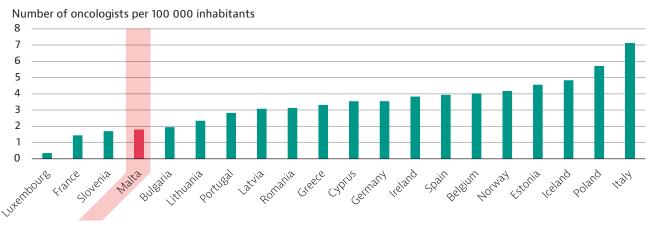
The system uses a specially designed electronic platform with a "traffic light" system of flags and alerts that vary according to the cancer type, all managed by designated staff.

The fast-track system has improved waiting times for patients – notably among people on lower incomes who may not have the option of choosing private health care for faster treatment. In 2017, the waiting time between the first consultation with a diagnosis and the first day of radiotherapy treatment was 36 days on average (Said et al., 2017). These waiting times were shortest for palliative radiotherapy (19 days) and longest for treatment of prostate cancer (62 days). In between were the waiting times for abdomen (33 days), head and neck (36 days), pelvis (38 days) and breast (51 days) cancers.

#### Maintaining a sizeable workforce pipeline continues to be a challenge

Due to Malta's small population, maintaining the size of its oncologist and cancer-related workforce is challenging. However, the number of trainees undertaking speciality training in oncology has been increasing. Oncology training typically involves 1-2 years abroad, as Malta has limited capacity for training in some competencies and skills because of the small local workforce. Trainees are fully funded by the Maltese government, which eliminates one important barrier for students interested in pursuing specialisation. As of 2015, there were 1.8 oncologists per 100 000 population in Malta (Figure 12), a rise from 0.49 oncologists per 100 000 in 2008.

Figure 12. Malta ranks in the bottom quartile for number of oncologists per capita



Source: Eurostat Database. Data refer to 2016 (or nearest year).

#### Density of radiotherapy centres is on a par with the EU average

Malta has one radiotherapy centre at the Sir Anthony Mamo Oncology Centre, which has three radiation therapy units. This translates to a density of 0.8 units per 100 000 inhabitants, which is also the EU average. All the country's radiotherapy equipment is relatively new, between 5 and 10 years old. Malta's densities of equipment for computerised tomography (CT) scanners (2 per 100 000 inhabitants) and magnetic resonance imaging (MRI) machines (1.2 per 100 000 inhabitants) are lower than EU averages (2.4 CT scanners and 1.6 MRI machines per 100 000).

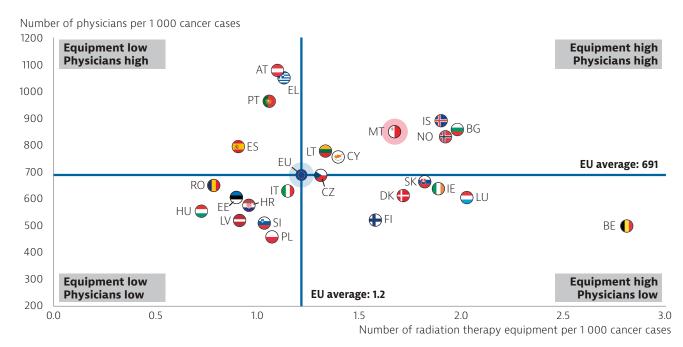
Considering Malta's physician workforce and number of radiation therapy equipment per 1 000 cancer cases (as opposed to per capita), the country performs very well compared to other EU countries (Figure 13). Only three other countries have higher densities for both measures.

#### Collaboration with EU peers is key to Malta's success in ensuring access to medicines

Malta has among the lowest proportion of oncology medicines approved and covered (46 % of 109 product/indication pairs used in five cancer sub-types) in the EU (Figure 14). However, 97 % of the 32 product/indication pairs included in the 21st WHO Model List of Essential Medicines are approved and covered, indicating that Malta appropriately prioritises medicines that are safe and cost-effective.

Malta is also among the slowest countries to approve and cover new oncology products and/ or indications. On average, the time from first marketing approval to coverage took more than 50 months, which is partly due to company launch strategies and partly due to Maltese procedures (Chapman, Paris, and Lopert, 2020).

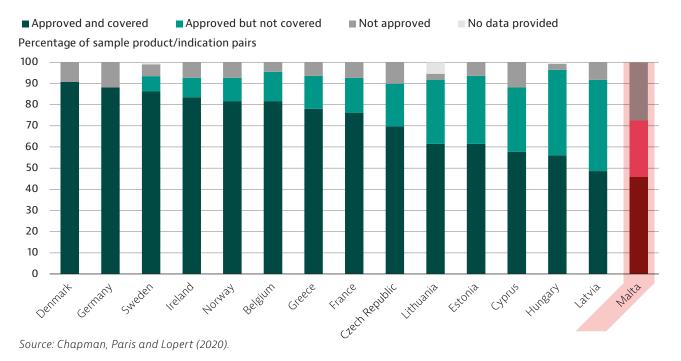
Figure 13. Malta performs well regarding density of physicians and equipment per cancer case



Note: EU average is unweighted (calculated by the OECD). Radiation therapy equipment from hospitals and providers of ambulatory care. Data refer to medical doctors (excluding nursing and caring professionals). Source: Eurostat and OECD Health Database (data refers to 2020, or nearest year).

The country faces considerable difficulty in ensuring access to innovative cancer medicines for its population due to its small market size, which limits its ability to negotiate prices with pharmaceutical companies. To address this, Malta makes use of managed entry agreements and pay-for-performance models, and is also a founder member of the Valletta Technical Committee (established by the Valletta Declaration), which unites 10 EU Member States in collaborating on a joint negotiation and procurement mechanism, information sharing and other partnership opportunities related to broadening the range of pharmaceutical options available to citizens.

Figure 14. Malta has the lowest share of oncology medicines approved and covered among EU countries



### **5.2 Quality**

#### Cancer survival rates have improved continuously

Malta recorded a substantial increase in five-year survival rates for lung, breast and prostate cancers between 2000-2004 and 2010-2014, bringing them close to the EU averages (Figure 15). Survival rates are higher than the EU averages for breast and prostate cancers, but lower for other cancer types, such as lung (14.9 % vs. 15 %) and oesophagus

(11.2 % vs. 13.7 %). The overall increase in cancer survival reflects improvements in cancer care and early diagnosis, with increased availability of effective services and innovative medicines. The relatively recent opening of the Sir Anthony Mamo Oncology Centre in 2013 will have a further impact on survival rates in the future. The new facility has encouraged increased investment in radiotherapy equipment, for example, and decreased the need for patients to receive treatment abroad.

Figure 15. Survival rates for breast and prostate cancer outperform the EU averages











**Prostate cancer** Malta: 88% EU24: 87%

**Breast cancer** Malta: 87% EU24: 83%

Malta: 57% EU24: 64%

**Cervical cancer** 

Colon cancer Malta: 58% EU24: 60%

**Lung cancer** Malta: 15% EU24: 15%

Note: Data refer to people diagnosed between 2010 and 2014. Source: CONCORD Programme, London School of Hygiene and Tropical Medicine.

#### Patient-centeredness is a key policy priority for the future of cancer care in Malta

In addition to fast-track services, the Cancer Care Pathways Directorate also provides for patients with a history of cancer services including follow-up after treatment, regular health needs assessments and clinical reviews. "Survivorship coordinators" offer assistance according to the needs identified, and organise training and programmes on adapting to life after cancer treatment. Patients with a history of cancer continue to be a key priority for the Ministry for Health, and feature heavily in the 2017 National Cancer Plan, including an emphasis on the right to return to work for the one third of cancer patients who are aged 64 years and under. However, few concrete steps have been taken to operationalise this priority. The Ministry has plans to bolster this, as well as the right to be forgotten (a right that gives individuals the ability to exercise control over their personal data, including health information, by deciding what should be accessible to the public), which has not yet figured in the country's cancer strategy.

The 2017 National Cancer Plan also acknowledges the need for psychological support and care among people with a history of cancer. It outlines steps to improve access to such care, including

periodic screening for psychological distress and psychosocial needs, an integrated and interdisciplinary approach to care, training for health care professionals in psychosocial aspects, and development of a wide breadth of psycho-oncology services.

Palliative care is an additional area of focus, including development of more hospice beds in communities rather than in the hospital. One step outlined in the 2017 National Cancer Plan is an assessment at the national level to understand the volume and extent of unmet palliative and end-of-life needs. Some non-governmental organisations, such as Hospice Malta, currently do this work. In 2021, the organisation – which offers services free of charge - cared for 1 300 families, most of whom included a patient with cancer. The response to care delivered by the organisation is excellent, with 99 % of patients reporting satisfaction with service.

#### Other policy priorities include continuity of care and integration

The Cancer Care Pathways Directorate promotes continuity of care, particularly between ambulatory and inpatient settings for patients with cancer. New areas of collaboration include shifting some responsibilities from oncology outpatient

units or other specialists to primary health care clinicians in the public sector when appropriate, such as follow-up of stable patients following breast

#### The cancer data landscape is evolving, but investment is needed

The National Cancer Registry is developing a new database that will have access to many hospital information systems – including lists of pharmaceutical entitlements, pharmacy history, pathology information and discharge summaries. Malta employs a system that provides a unique identifier for each person, so diverse databases within and outside the health sector can be linked together relatively easily. For example, the new database will be connected to the Mortality Registry. To develop this vision further, however, more investment is needed to strengthen infrastructure and enhance human capacity to carry this work out routinely. The National Cancer Registry does not currently collect information related to patient-reported outcomes and experience measures. The Cancer Care Pathways Directorate plans to adopt such measures, but lacks the research capacity to monitor these indicators.

### 5.3 Costs and value for money

#### Malta spends the least in absolute amounts on cancer care among EU countries

Overall, the total cost of cancer in Malta was EUR 114 million in 2018. On a per capita basis, adjusted for purchasing power parity (PPP), Malta's total cancer costs of EUR 282 ranked below the EU average of EUR 326 (Figure 16). This is due in part to Malta's relatively small productivity loss due to morbidity and premature mortality, which

amounted to a total of only EUR 58 per person in 2018 – less than half the EU average of EUR 121 per person.

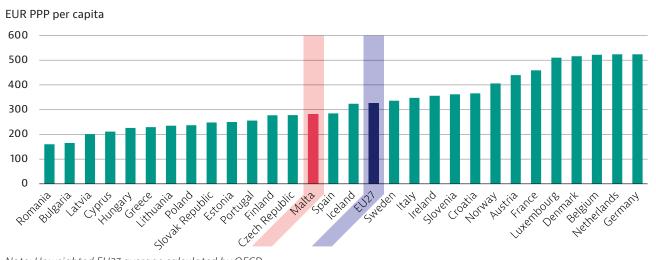
Malta's total expenditure on cancer care including medical staff, equipment, facilities and vaccines but excluding pharmaceutical drugs - was EUR 74 million. As a proportion of total cancer-related costs, per capita spending on care in Malta (EUR 155 in 2018) is similar to the EU average (EUR 154). Spending on care in Malta accounts for a larger share of all cancer-related costs compared to other EU countries. In Malta, this spending was nearly 65 % of all cancer costs in 2018.

While Malta spends more on cancer care as a proportion of all cancer-related costs relative to other EU countries, it spends less on preventive care. In 2019, Malta budgeted only 1.4 % of total health expenditure for preventive care, compared with the EU average of 2.8 %. This was among the lowest level of preventive care investment among all EU countries.

#### Non-governmental organisations play a role in reducing financial barriers among cancer patients

Out-of-pocket payments from patients contribute to the financing of cancer care. External sources of funding include non-profit institutions and charitable organisations, such as the Malta Community Chest Fund Foundation, which is an important contributor to funding for cancer medicines that are not on the Government Formulary List. It is a charitable organisation that organises fundraising activities for a broad list of social issues, including education of underserved children, civil society development and social justice democracy.

Figure 16. Per capita expenditure on cancer care in Malta is lower than in the EU



Note: Unweighted EU27 average calculated by OECD. Source: Hofmarcher et al. (2020).

# 5.4 COVID-19 and cancer: building resilience

# The COVID-19 pandemic disrupted around one guarter of cancer services

At the outset of the pandemic, Malta reduced elective health services, including those related to cancer such as some surgery, outpatient visits and screening appointments. The Sir Anthony Mamo Oncology Centre continued to offer services and treatment as much as possible, but patient attendance dropped notably. The number of first outpatient oncology visits with a specialist decreased for lung (-29 %), breast (-27 %) and prostate (-18 %) cancers, compared to pre-pandemic figures. Similarly, the number of oncology patients receiving treatment decreased in physiotherapy (-39 %), radiotherapy (-24 %) and psychology (-22 %) clinics. These falls reached their zenith around May 2020, when COVID-19 cases peaked locally.

The main hospital immediately restricted surgery to mostly emergency cases, but overall most cancer surgery was carried out. The main barrier for patients to access surgical services was assessed to be their own fear regarding safety.

Cancer screening services were also stopped as part of the pause on elective services. In March 2020, breast cancer screening halted for 15 weeks, while cervical and colorectal screening stopped for around 8 weeks, which led to increases in waiting lists for these services and some bottlenecks.

# During the pandemic, clinicians shifted to telemedicine when necessary

Malta's cancer care pathway did not utilise telemedicine before the onset of the pandemic, but follow-up visits were moved to telemedicine when possible, which helped mitigate the disruption to care for patients. However, it is not a priority among oncologists to continue providing care via telemedicine on a regular basis due to concerns about the impact on quality of care. Telemedicine is more likely to be utilised by primary health care clinicians, who are themselves taking on more follow-up oncology visits when appropriate.

# The pandemic disrupted ongoing data analysis and research processes, which are recovering slowly

Back-office functions within the Ministry for Health such as registry data processing and research initiatives – including projects focused on disparities in cancer care related to socioeconomic groups – slowed at the onset of the pandemic in spring 2020, as staff members were diverted to address the public health crisis. These teams have begun to return to their original offices full-time, but recovery and catching up on this lost time will continue.



# 6. Spotlight on inequalities

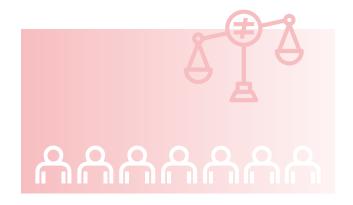
Malta's 2017 National Cancer Plan specifies the need to focus on progress for selected vulnerable groups, including children and young adults, people with high-risk lifestyle behaviours such as smoking, people working in high-risk occupational settings (such as the hospitality, sex and manufacturing industries) and groups exposed to socioeconomic pressures including low income or low educational attainment. Top priorities include increasing awareness of cancer and health literacy, reducing smoking rates and improving human papillomavirus vaccination rates among these vulnerable groups. However, the Ministry for Health acknowledges that there is much to learn about cancer care inequalities, including the main drivers of disparity and the full extent of impact.

- According to analyses performed by the Ministry for health, the main cause of disparities in cancer care outcomes relates to education level. Around 22 % of those with low education levels smoke cigarettes daily, compared to 12 % of those with high education levels. Conversely, only 7.2 % of those with low education levels exercise for 150+ minutes a week, while 20.3 % of those with high education do so.
- There are infrequent geographical barriers to accessing cancer care. The main island of Malta is home to the Sir Anthony Mamo Oncology Centre and the rest of Malta's health care system. It is mainly accessible via ferry for inhabitants of Malta's second largest island (Gozo). To begin to address this barrier, in 2019, financial support for travel costs related to cancer treatment became available.
- The three cancer screening programmes for breast, colorectal and cervical cancers were introduced within the last 15 years and continue to grow. Modest disparities exist in self-reported rates of screening among all programmes, particularly by income level. Those on low income levels report lower screening rates (51.1 % for mammograms, 51.4 % for cervical smear tests, and 29.5 % for Faecal Occult Blood Tests) than those with high income levels (74 %, 72.2 % and 34.9 %, respectively).

 Additional causes of disparities in cancer care and outcomes identified by the Ministry for Health relate to ethnicity and immigration status. Some programs such as the workforce of "cultural mediators" and school-based health promotion programmes exist, but the Ministry for Health acknowledges that more research is

The National Cancer Registry does not track socioeconomic characteristics. However, the infrastructure exists to link cancer-related databases with other sources of information on socioeconomic characteristics thanks to Malta's inter-operable data system. This work is not done routinely, as the Ministry for Health lacks the staff to organise, analyse and report on this topic.

Cancer care in Malta saw about one quarter of services disrupted due to the COVID-19 pandemic. An increase in telemedicine appointments helped to keep patients in touch with their cancer care teams during this time, as did shifting some responsibilities from specialists to primary health care clinicians. Even though telemedicine would likely be beneficial to overcome inequalities related to access to cancer care, it is unlikely to continue as a standard method for care delivery due to Maltese clinicians' preference for in-person visits.



### References

Chapman S, Paris V, Lopert R (2020), Challenges in access to oncology medicines: policies and practices across the OECD and the EU. Paris, OECD Publishing, https:// doi.org/10.1787/4b2e9cb9-en.

Department of Health Information and Research (2016), Melanoma facts you should know. Valletta, Department of Health Information and Research, https://deputyprimeminister.gov.mt/en/dhir/Documents/ Facts%20Sheets/Melanoma%20day%202016.pdf.

European Commission (2021), Europe's Beating Cancer Plan. Brussels, European Commission, https://ec.europa.eu/info/strategy/priorities-2019-2024/ promoting-our-european-way-life/europeanhealth-union/cancer-plan-europe\_en.

Hofmarcher T et al. (2020), The cost of cancer in Europe 2018, European Journal of Cancer, 129:41-9.

Ministry for Health (2017), The National Cancer Plan for the Maltese Islands 2017–2021. Valletta, Ministry for Health.

OECD (2013), Cancer care: assuring quality to improve survival, Paris, OECD Publishing, https://doi. org/10.1787/9789264181052-en.

OECD/European Observatory on Health Systems and Policies (2021), Malta: Country Health Profile 2021, Paris, OECD Publishing, https://doi.org/10.1787/ cd4b1ed7-en.

Said C et al. (2017), Audit of the radiotherapy waiting times for patients in Malta, International Conference on Advances in Radiation Oncology, Vienna, Austria, 20–23 June 2017, 19 https://inis.iaea.org/ collection/NCLCollectionStore/\_Public/51/006/51006529. pdf?r=1.

Times of Malta (2021), Expensive breast cancer treatment to be added to formulary, government pledges: https://timesofmalta.com/articles/view/process-started-for-expensive-breast-cancer-treatment-to-beadded-to.915264, accessed November 8, 2022.

#### **Country abbreviations**

Austria	AT	Denmark	DK	Hungary	HU	Luxembourg	LU	Romania	RO
Belgium	BE	Estonia	EE	Iceland	IS	Malta	MT	Slovak Republic	SK
Bulgaria	BG	Finland	FI	Ireland	ΙE	Netherlands	NL	Slovenia	SI
Croatia	HR	France	FR	Italy	IT	Norway	NO	Spain	ES
Cyprus	CY	Germany	DE	Latvia	LV	Poland	PL	Sweden	SE
Czech Republic	CZ	Greece	EL	Lithuania	LT	Portugal	PT		

### **European Cancer Inequalities Registry**

# **Country Cancer Profile 2023**

The European Cancer Inequalities Registry is a flagship initiative of the Europe's Beating Cancer Plan. It provides sound and reliable data on cancer prevention and care to identify trends, disparities and inequalities between Member States and regions. The Registry contains a website and data tool developed by the Joint Research Centre of the European Commission (https://cancer-inequalities.jrc.ec.europa.eu/), as well as an alternating series of biennial Country Cancer Profiles and an overarching Report on Cancer Inequalities in Europe.

The Country Cancer Profiles identify strengths, challenges and specific areas of action for each of the 27 EU Member States, Iceland and Norway, to guide investment and interventions at the EU, national and regional levels under the Europe's Beating Cancer Plan. The European Cancer Inequalities Registry also supports Flagship 1 of the Zero Pollution Action Plan.

The Profiles are the work of the OECD in co-operation with the European Commission. The team is grateful for the valuable comments and suggestions provided by national experts, the OECD Health Committee and the EU Expert Thematic Group on Cancer Inequality Registry.

Each Country Cancer Profile provides a short synthesis of:

- · the national cancer burden
- risk factors for cancer, focusing on behavioural and environment risk factors
- early detection programmes
- cancer care performance, focusing on accessibility, care quality, costs and the impact of COVID-19 on cancer care.

Please cite this publication as: OECD (2023), EU Country Cancer Profile: Malta 2023, EU Country Cancer Profiles, OECD Publishing, Paris, https://doi.org/10.1787/cff97a9a-en.

ISBN 9789264462298 (PDF) Series: EU Country Cancer Profiles



