

THE LANCET **Oncology**

Supplementary appendix

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ONLINE APPENDIX

In this online appendix, we provide detailed methodology and data sources used for the estimation of the costs of cancer in the European Union.

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A. Methodology and data sources

Health care utilisation

Dependant on the availability of data, the methods used to estimate cancer-related healthcare resource use fell in one of the following categories, in order of priority:

A. National cancer-specific data: Cancer-specific healthcare data were available for the whole population;

B. Survey/sample cancer-specific data: Cancer-specific healthcare data were available for a representative sample of the population either as the proportion of overall healthcare utilisation that was due to cancer or as healthcare utilisation rates per patient with cancer, e.g. annual outpatient visits per cancer patient;

C. National data but not cancer-specific: All-cause healthcare resource use data were available but not due to cancer. We estimated cancer-specific resource use by multiplying all-cause national data by the proportion of ambulatory visits due to cancer out of all ambulatory visits, if available. If cancer-related ambulatory information was not available, we used the proportion of hospital discharges due to cancer out of all discharges to allocate national healthcare utilisation;

D. No national data: we derived national utilisation data for all diseases from similar countries and allocated it into cancer using the approach defined in (C).

The methods used and respective data sources are reported in **Table A.1** and are discussed in greater detail in the following sections.

Primary care

Country-specific overall visits to primary care due to all conditions were obtained for all countries.¹⁻²⁸ To the total number of primary care visits we applied the proportion of primary care that was attributable to cancer using the following:

- 1) In Finland, data were available on the number of consultations per cancer patient²⁹ which was multiplied by the total number of prevalent cases in the country.³⁰
- 2) In Austria,³¹ Cyprus,⁴ Denmark,³² Slovenia,³³ Sweden,³⁴ and the UK³⁵ published data were available on the proportion of primary consultations due to cancer.
- 3) In France,³⁶ data on ambulatory care expenditure by disease group were used to derive the number of visits due to cancer by applying the respective proportion of expenditure, out of all ambulatory expenditure, to the total number of primary care visits.⁹
- 4) In Germany³⁷ and the Netherlands,^{38,39} data on ambulatory healthcare expenditure was available by disease group and cancer-attributable healthcare usage was derived by dividing cancer expenditure by the respective unit costs.³⁹⁻⁴¹
- 5) In Spain, the proportion of cancer-related outpatient visits out of all outpatient visits was available⁴² and was applied to the total number of primary care visits.²⁵
- 6) In the remaining 16 countries, the proportion of hospital discharges due to cancer⁴³ out of all discharges was applied to the total number of primary care visits.

The proportion of primary care cancer visits due to cancer type was available for Germany,³⁷ the Netherlands³⁸ and the UK.³⁵ For all other countries, we evaluated the proportion of total cancer visits due to breast, lung, prostate and colorectal cancer from the proportion of cancer-related hospital discharges due to each cancer out of all cancer hospital discharges⁴³ and applied these to the total number of cancer-related primary care visits.

Outpatient care

Country-specific overall visits to outpatient care due to all conditions were obtained for all countries.^{1,3-12,14-16,18,21-24,26,44-55} To the total number of outpatient care visits we applied the proportion of care that was attributable to cancer using the following:

- 1) In Cyprus,⁴ Denmark,⁵⁶ Finland,⁵⁶ France,³⁶ Slovenia,³³ Spain,⁴² Sweden,⁵⁶ and the UK⁵⁷ published data were available on the proportion of primary consultations due to cancer.

- 2) In Germany³⁷ and the Netherlands,^{38,39} data on outpatient healthcare expenditure by disease group was used to derive the number of visits due to cancer and its four subtypes by dividing expenditure by the unit costs of an outpatient visit.³⁹⁻⁴¹
- 3) In the remaining 17 countries, the proportion of overall hospital discharges due to cancer⁴³ was applied to the total number of outpatient visits.

The proportion of outpatient care cancer visits due to cancer type was available for Germany,³⁷ the Netherlands³⁸ and Spain.⁴² For all other countries, we evaluated the proportion of total cancer visits due to breast, lung, prostate and colorectal cancer from the proportion of cancer-related hospital discharges due to each cancer out of all cancer hospital discharges⁴³ and applied these to the total number of cancer-related outpatient care visits.

Accident & Emergency care

Country-specific overall visits to A&E due to all conditions were obtained for 20 countries.^{1,4,6-8,17,45,50,52,53,58-70} National all-cause attendance figures were not available in 7 countries (Czech Republic, Greece, Latvia, Lithuania, Luxembourg, Slovenia, and Sweden) and A&E rates were derived from similar countries and applied to them. Therefore, for: 1) Czech Republic we used estimates from Slovakia;⁶⁸ 2) Latvia and Lithuania we used estimates from Estonia;⁷ 3) Luxembourg we used estimates from Belgium;⁵⁸ 4) Sweden we used estimates from Denmark;⁷¹ and 5) Greece and Slovenia we used estimates from a previous multicountry regression.⁷² To the total number of emergency care visits we applied the proportion of care that was attributable to cancer using the following:

- 1) National data on A&E visits were available for Denmark^{73,74} and Germany.⁶¹
- 2) Data on the proportion of A&E visits due to cancer were available for the UK,⁵⁷ based on results from a Scottish report.
- 3) In France³⁶ and the Netherlands,³⁸ data on outpatient expenditure by disease group were used to derive the number of A&E visits due to cancer, by applying the respective proportions of expenditure to the overall number of A&E visits.^{60,64}
- 4) For the remaining 22 countries, all-cause A&E visits were obtained and allocated into cancer using the proportion of overall hospital discharges due to cancer.⁴³

The proportion of emergency care cancer due to cancer type was available for Denmark,^{73,74} Germany⁶¹ and the Netherlands.³⁸ For all other countries, we evaluated the proportion of total cancer A&E visits due to breast, lung, prostate and colorectal cancer from the proportion of cancer-related hospital discharges due to each cancer out of all cancer hospital discharges⁴³ and applied these to the total number of cancer-related emergency care visits.

Hospital inpatient care

National data were available on cancer (including cancer type)-related days in hospital and day-cases in all countries,^{75,76} except Estonia, where we obtained age and gender-specific rates of cancer-related inpatient days from Latvia^{75,76} and applied these to the Estonian population in 2009.⁷⁷

Table A.1. Sources used to obtain healthcare resource use, by category and country.

| Country | Primary care | Outpatient care | A&E | Inpatient care |
|-------------|---------------|-----------------|------------------|----------------|
| Austria | B 1,31,77 | C 1,31,77 | C 1,31,77 | A 75,76 |
| Belgium | C 2,43,77 | C 43,44,77 | C 43,58,77 | A 75,76 |
| Bulgaria | C 3,43,77 | C 3,43,77 | C 43,59,77 | A 75,76 |
| Cyprus | B 4,78 | B 4,78 | C 4,78 | A 75,76 |
| Czech Rep. | C 5,43 | C 5,43 | D 43,68,77 | A 75,76 |
| Denmark | B 6,32,74 | B 6,56,74 | A 6,73,74 | A 75,76 |
| Estonia | C 7,43 | C 7,43 | C 7,43 | D 75,76 |
| Finland | B 8,29,30 | B 8,56 | C 8,56 | A 75,76 |
| France | C 9,36 | B 9 | C 36,60 | A 75,76 |
| Germany | A 10,37,77 | A 10,37,77 | A 61 | A 75,76 |
| Greece | C 11,43,77,79 | C 11,43,77,79 | D 43,72,77 | A 75,76 |
| Hungary | C 12,43 | C 12,43 | C 43,62 | A 75,76 |
| Ireland | C 13,43 | C 43,45 | C 43,45 | A 75,76 |
| Italy | C 11,43,74,77 | C 11,43,74,77 | C 43,63,77 | A 75,76 |
| Latvia | C 14,43,46 | C 14,43,46 | D 7,14,43,46 | A 75,76 |
| Lithuania | C 43,80 | C 43,81 | D 7,43,82 | A 75,76 |
| Luxembourg | C 16,43,74 | C 16,43,74 | D 43,58,77 | A 75,76 |
| Malta | C 17,43 | C 43,47,77 | C 17,43 | A 75,76 |
| Netherlands | A 18,38 | A 18,38 | C 38,64,77 | A 75,76 |
| Poland | C 19,43 | C 43,48 | C 43,65 | A 75,76 |
| Portugal | C 20,43 | C 43,49 | C 43,66,77 | A 75,76 |
| Romania | C 21,22,43,77 | C 21,22,43,77 | C 43,67,83 | A 75,76 |
| Slovakia | C 23,43,77,84 | C 5,23,43,77,84 | C 43,68 | A 75,76 |
| Slovenia | A 24,33 | A 24,33 | D 33,43,72,77 | A 75,76 |
| Spain | C 25,42 | B 42,50 | C 42,50 | A 75,76 |
| Sweden | B 26,34 | B 26,56 | D 56,71,74,77 | A 75,76 |
| UK | B 27,28,35 | B 52,55,57 | B 52,53,57,69,85 | A 75,76 |

A. National cancer-specific data: Cancer-specific healthcare data were available for the whole population;

B. Survey/sample cancer-specific data: Cancer-specific healthcare data were available for a representative sample of the population either as the proportion of overall healthcare utilisation that was due to cancer or as healthcare utilisation rates per patient with cancer, e.g. annual outpatient visits per cancer patient;

C. National data but not cancer-specific: All-cause healthcare resource use data were available but not due to cancer. We estimated cancer-specific resource use by multiplying all-cause national data by the proportion of ambulatory visits due to cancer out of all ambulatory visits, if available. If cancer-related ambulatory information was not available, we used the proportion of hospital discharges due to cancer out of all discharges to allocate national healthcare utilisation;

D. No national data: we derived national utilisation data for all diseases from similar countries and allocated it into cancer using the approach defined in (C).

Healthcare unit costs

For all countries, health care resource use was valued using country-specific unit costs, which fell in one the following categories, in order of priority:

A. Directly obtained from sources such as national fee schedules, published studies, national reports, World Health Organisation, etc.;

B. Derived from national expenditure figures (e.g. primary care, outpatient care, inpatient care) using the respective total activity levels. For example, cost per inpatient day was estimated by dividing the total inpatient expenditure by the total number of inpatient days;

C. Derived from the predictions of linear regression analyses of the unit costs of countries with available data. For: 1) outpatient care unit costs, we used the coefficients from the regression of outpatient unit costs on healthcare expenditure per capita; 2) A&E unit costs, we used the coefficients from the regression of outpatient unit costs on the number of hospital beds per capita and healthcare expenditure per capita; and 3) Inpatient bed day unit cost, we used the coefficients from the regression of inpatient unit cost on curative beds per capita, and healthcare expenditure per capita.

Sources of unit costs per country and resource use category are reported in **Table A.2**.

Table A.2. Sources used to obtain healthcare unit costs, by category and country.

| Country | Primary care | Outpatient care | A&E | Inpatient care |
|-------------|---------------------|---------------------|---------------------|-------------------------|
| Austria | A ^{86,87} | A ^{86,87} | A ^{39,88} | B ^{75,76-89} |
| Belgium | A ⁹⁰ | A ⁹⁰ | A ⁹⁰ | A ⁹¹ |
| Bulgaria | B ^{3,89} | B ^{3,89} | C | B ^{75,76-89} |
| Cyprus | A ⁹² | A ⁹² | C | C |
| Czech Rep. | A ⁹³ | A ⁹³ | C | A ⁹³ |
| Denmark | B ⁷¹ | B ⁷¹ | A ^{39,94} | A ^{39,95} |
| Estonia | B ⁷ | A ⁷ | B ⁷ | B ⁷ |
| Finland | A ^{39,96} | A ⁵⁶ | A ^{39,97} | A ⁵⁶ |
| France | B ⁹ | B ⁹ | A ⁹⁸ | B ^{75,89} |
| Germany | A | A | A ^{39,99} | B |
| Greece | A ^{39,100} | A ^{39,101} | A ^{39,100} | A ^{39,102} |
| Hungary | A ^{39,103} | A ^{39,62} | A ^{39,103} | A ^{39,62} |
| Ireland | A ^{39,104} | A ^{39,104} | A ^{39,104} | B ^{39,105-106} |
| Italy | A ^{39,107} | A ^{39,108} | A ^{39,109} | A ^{39,110} |
| Latvia | B ⁴⁶ | B ⁴⁶ | C | B ¹⁴ |
| Lithuania | B ¹⁵ | B ¹⁵ | C | B ¹⁵ |
| Luxembourg | A ¹¹¹ | A ¹¹¹ | A ¹¹¹ | B ^{75,89} |
| Malta | B ¹⁷ | C | A ^{39,112} | A ^{39,112} |
| Netherlands | A ^{39,41} | A ^{39,113} | A ^{39,41} | A ^{39,113} |
| Poland | A ^{39,107} | A ^{39,114} | C | A ^{39,114} |
| Portugal | A ¹¹⁵ | B ¹¹⁶ | B ¹¹⁶ | B ¹¹⁶ |
| Romania | A ^{39,117} | A ^{39,117} | C | B ^{75,89} |
| Slovakia | A ^{39,117} | A ^{39,117} | C | B ^{75,89} |
| Slovenia | A ^{39,117} | A ^{39,117} | A ^{39,112} | B ^{75,89} |
| Spain | A ^{39,118} | A ^{39,118} | A ^{39,118} | A ^{39,118} |
| Sweden | A ¹¹⁹ | A ^{39,56} | A ^{39,120} | A ^{39,120} |
| UK | A ¹²¹ | A ¹²² | A ¹²² | A ¹²² |

Medication expenditure

Medication expenditure consisted of the sum of retail and hospital sales of antineoplastic agents and endocrine therapy (ATC codes L1 and L2), and by country which were obtained from the IMS Health database. For Estonia, Greece, Luxembourg and Portugal, only retail sales data were available. Hospital sales in these countries were derived by applying the ratio of hospital to retail sales from similar countries. Therefore, for: 1) Estonia we used estimates from Latvia; 2) Greece and Portugal we used estimates from Spain; and 3) Luxembourg we used the average ratio from Belgium and France. For Cyprus, total sales on antineoplastic and immunomodulating agents (ATC code L) were available but not broken down by the respective sub-codes.^{89,123} Hence, expenditure on L1 and L2 drugs in Cyprus was estimated by applying the proportion of L1 and L2 sales out of all L sales from Greece. As no pharmaceutical sales data were identified for Malta, we converted Italian sales on antineoplastic agents to a cost per prevalent cancer and multiplied the resulting value by the number of prevalent cancers in Malta.¹²⁴ Finally, only Germany and the Netherlands provided information on the proportion of cancer-related medicine expenditure on the different types of cancer. Hence, the proportion of

pharmaceutical expenditure on cancer due to the four types of cancer was averaged across the two countries (i.e. 4% for colorectal, 4% for lung, 21% for breast and 22% for prostate cancer) and applied to total L1 and L2 sales in the remaining countries.

Non-health care utilisation

Informal care

We estimated the hours of informal care provided due to cancer using Wave 2 and Wave 3 of the SHARE survey¹²⁵ which collected data on 32,000 individuals resident in 13 EU countries in 2006 (Austria, Belgium, Czech Republic, Denmark, France, Germany, Greece, Ireland, Italy, Netherlands, Poland, Spain and Sweden). For countries not in SHARE, we combined data from similar countries that were in SHARE to obtain estimates for the 14 remaining countries. Therefore, for: 1) Bulgaria, Estonia, Hungary, Latvia, Lithuania, Romania, Slovakia and Slovenia we used pooled data from the Czech Republic and Poland; 2) For Finland we used pooled data from Denmark and Sweden; 3) for Cyprus, Malta and Portugal we used pooled data from Greece, Italy and Spain; and 4) for Luxembourg and the UK we used pooled data from Austria, Belgium, France, Germany, Ireland, and the Netherlands.

Hours of informal care for severely limited cancer patients were estimated by adding the age and sex-specific products of:

- 1) Prevalence of cancer, and each cancer under study, in the population: obtained from wave 2 of SHARE by logistic regression analysis after adjusting for age, gender, and country of residence;
- 2) Probability of being severely limited in daily activities due to cancer: obtained from wave 2 of SHARE by logistic regression after adjusting for age, gender, presence of cancer, presence of other health conditions, and country of residence;
- 3) Probability of receiving informal care due to cancer: obtained from wave 2 of SHARE using two logistic regressions (one for care from inside household and another for care outside the household) and adjusting for age, gender, presence of cancer, presence of other health conditions, and country of residence; and the
- 4) Hours of informal care received: obtained from wave 2 of SHARE by ordered logistic regression (almost daily, almost weekly, almost every month or less often) after adjusting for age, gender, presence of cancer, limitations in daily living, presence of other health conditions, and country of residence. These were converted into hours using the information from SHARE on the number of unpaid care hours (either daily, weekly, monthly or annually) patients with cancer received.

While informal care for severely limited cancer patients was informed by cancer participants in SHARE, the informal care for terminally ill patients was informed by participants that provided care to these patients. Hence, hours of informal care for terminally ill cancer patients was estimated by adding the age and sex-specific products of:

- 1) Number of cancer deaths;¹²⁶ and the
- 2) Probability of receiving informal care in the year before dying from cancer: Participants in wave 3 of SHARE were asked to report whether they had provided unpaid care for anyone who had died in the last year, including the age of the person to whom care was provided and the health conditions from which that person was suffering. The probability of providing informal care for a cancer patient was estimated using a logistic regression analysis and adjusting for age, gender and country; and the
- 3) Hours of informal care received: obtained from wave 3 of SHARE using an ordered logistic regression (less than one month, between one and 3 months, between 3 and 6 months, between 6 and 11 months, or for the full year) after adjusting for age, gender, presence of cancer, and country of residence. These were converted into hours using the information from SHARE on the number the hours of unpaid care provided each day.

Participants in SHARE were asked about the relationship between carer and person being cared (e.g. spouse, sibling, offspring, parent friend etc...). We assumed that spouses, siblings and friends providing the care would be of similar age to the patient, therefore carers of patients aged 65 years or more were assumed to be retired, and those carers of patients aged less than 65 years were assumed to be of working-age. If care was being provided by either the patients' children or their children's spouses, then it was assumed that these informal carers would be under 65 years of age. Using gender-specific economic activity and unemployment rates for each country,¹²⁷ we then determined the proportion of these carers who were employed or unemployed/economically inactive.

The mean net hourly wage rate was applied to informal care provided by those carers in working age and who were economically active and in employment.¹²⁸⁻¹³³ Annual earnings were adjusted to hourly wage rates, assuming there were 230 working days each year, and each day consisted of 8 hours of work. For those carers in retirement, unemployed, or economically inactive, the national hourly minimum wage was applied.¹³⁴ For those countries with no official minimum wage rate (Cyprus,¹³¹ Denmark,¹³⁵ Finland,¹³⁶ Germany,¹³⁶ Italy¹³⁶ and Sweden¹³⁶), the worst paid sector in the economy was proxied as a minimum wage.

Mortality losses

For all countries we assumed an initial working age of 15. Age and gender specific deaths due to cancer, and due to each of the four cancer types, were obtained for all countries from EUROSTAT.¹²⁶ The number of potential working years lost was then estimated as the difference between the age at death and maximum age of retirement (which we set at 79 years of age). However, this estimate would overestimate the total working years lost as not everyone will be economically active (i.e. either working or actively searching for work) or employed. Therefore, age- and gender-specific unemployment and activity rates for each of the 27 countries were applied to the potential foregone earnings due to premature mortality.¹²⁷ The total number of working years lost was then multiplied by gender-specific average annual earnings.¹²⁸⁻¹³³

Morbidity losses

The costs associated with lost productivity due to morbidity were the costs associated with absence of work due to cancer. Morbidity losses could occur due to: individuals taking absence from leave for a defined period of time; or due to individuals being declared incapacitated or disabled due to their condition, and therefore leaving the labour market.

Temporary absence from work due to sickness

Country-specific overall annual days of sickness leave due to all conditions was obtained for all countries.^{7,24,26,74,133,137-155} To this we applied the proportion of sickness leave that was attributable to cancer, which was available in Austria,¹³⁷ Belgium,¹³⁸ Czech Republic,¹⁴⁰ Estonia,¹⁵⁶ France,¹⁵⁷ Germany,¹⁵⁸ Italy,¹⁵⁹ Luxembourg,¹⁴⁹ Netherlands,¹⁶⁰ Poland,¹⁵² Slovenia,¹⁶¹ Spain,¹⁶² and Sweden.¹⁶³ For Finland¹⁶⁴ and the UK,¹⁶⁵ we used the proportion of overall permanent absence from work due to cancer.

For countries where we could not establish the proportion of sickness leave attributable to cancer, we used proportions from other countries. Therefore, for: 1) Bulgaria, Hungary and Romania we used estimates from Poland;¹⁵² 2) Cyprus, Greece and Portugal we used estimates from Spain;¹⁶² 3) Denmark we used estimates from Sweden;¹⁶³ 4) Ireland we used estimates from the UK;¹⁶⁵ 5) Latvia and Lithuania we used estimates from Estonia;¹⁵⁶ 6) Malta we used estimates from Italy;¹⁵⁹ and 7) Slovakia we used estimates from the Czech Republic.¹⁴⁰

Except for Austria,¹³⁷ the Czech Republic,¹⁴⁰ France,¹⁶⁶ Germany,¹⁵⁸ and the UK¹⁶⁵ where the proportion of sickness leave/incapacity attributable to colorectal, lung, breast and prostate cancer was available, for all other countries the proportion of cancer-specific absent days from work due to colorectal, lung, breast and prostate cancer was obtained by assuming that this would be the same as the proportion of overall days in hospital due to each of these four cancers in the working age population.⁷⁵ We hypothesised that the higher the number of days spent in hospital, the higher the number of working days lost due to illness.

Permanent absence from work due to incapacity or disability

Country-specific information on the numbers of working-age individuals receiving incapacity or disability benefits and not being able to work due to all conditions was obtained for all countries.^{16,17,24,26,137,138,143,151,153,164,166-180} To this we applied the proportion that was attributable to cancer, which was available in Finland;¹⁶⁴ France;¹⁶⁶ Slovenia;¹⁶¹ and the UK.¹⁶⁵ For Austria,¹³⁷ Belgium,¹³⁸ Czech Republic,¹⁴⁰ Estonia,¹⁵⁶ Germany,¹⁵⁸ Italy,¹⁵⁹ Luxembourg,¹⁴⁹ the Netherlands,¹⁶⁰ Poland,¹⁵² Spain¹⁶² and Sweden¹⁶³ we applied the proportion of sickness leave that was attributable to cancer. For countries where we could not establish the proportion of sickness leave attributable to cancer, we used proportions from other countries using the methodology to estimate temporary absence from work due to sickness.

For those countries where the proportion of sickness leave/incapacity attributable to colorectal, lung, breast and prostate cancer was unavailable, the proportion of cancer-specific incapacity cases due to colorectal, lung, breast

and prostate cancer was obtained by assuming that this would be the same as the proportion of overall days in hospital due to each of these four cancers in the working age population.⁷⁵

Valuing absence from work

The mean annual earnings identified when estimating informal care and mortality costs were converted to mean daily earnings. The product of working days lost and mean daily earnings provided the productivity losses associated with cancer, after adjusting for the ‘friction period’.

Table A.3. Sources used to obtain morbidity losses, by country

| Country | Temporary absence from work | Permanent absence from work |
|----------------|------------------------------------|------------------------------------|
| Austria | 137 | 137 |
| Belgium | 75,138 | 75,138 |
| Bulgaria | 75,127,139,152 | 75,77,152,167 |
| Cyprus | 75,127,133,162 | 75,77,162,171 |
| Czech Rep. | 140 | 140,168 |
| Denmark | 75,141,163 | 75,127,163,169 |
| Estonia | 7,75,156 | 75,156,170 |
| Finland | 75,142,164 | 75,164 |
| France | 74,127,157,166 | 166 |
| Germany | 127,143,158 | 143,158 |
| Greece | 75,133,162 | 75,162,171 |
| Hungary | 75,144,152 | 75,152,172 |
| Ireland | 75,127,145,165 | 75,165,173 |
| Italy | 75,127,146,159 | 75,159,174 |
| Latvia | 75,147,156 | 75,156,175 |
| Lithuania | 75,148,156 | 75,156,176 |
| Luxembourg | 75,127,149 | 16,75,149 |
| Malta | 75,127,150,159 | 17,75,159 |
| Netherlands | 75,127,151,160 | 75,151,160 |
| Poland | 75,152 | 75,152,177 |
| Portugal | 75,127,153,162 | 75,153,162 |
| Romania | 75,127,152,154 | 75,152,167 |
| Slovakia | 127,140 | 140,178 |
| Slovenia | 24,75,161 | 24,75,161 |
| Spain | 74,75,127,162 | 75,162,179 |
| Sweden | 26,75,163 | 26,75,163 |
| UK | 127,155,165 | 165,180 |

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B. Results

Table B.1 Average unit costs (€), by country, 2009

| Country | Mortality losses | | Morbidity losses | Informal care | | GP visit | Health care unit costs | | |
|-------------|------------------|---------|------------------|----------------------|--------------------------|----------|------------------------|-----------|---------------|
| | Yearly earnings | | Daily earnings | Hourly earnings | | | Outpatient visit | A&E visit | Inpatient day |
| | Males | Females | | Carers in employment | Carers not in employment | | | | |
| Austria | 34,982 | 21,520 | 125 | 16 | 10 | 45 | 58 | 121 | 446 |
| Belgium | 41,748 | 35,659 | 170 | 21 | 9 | 26 | 53 | 70 | 499 |
| Bulgaria | 4,181 | 3,357 | 17 | 2 | 1 | 6 | 17 | 27 | 74 |
| Cyprus | 25,333 | 20,307 | 100 | 13 | 6 | 15 | 21 | 44 | 284 |
| Czech Rep. | 12,108 | 9,096 | 47 | 6 | 2 | 9 | 14 | 71 | 187 |
| Denmark | 58,747 | 46,344 | 230 | 29 | 11 | 18 | 81 | 144 | 663 |
| Estonia | 11,602 | 8,254 | 43 | 5 | 2 | 16 | 44 | 116 | 166 |
| Finland | 39,000 | 31,908 | 154 | 19 | 11 | 62 | 240 | 252 | 656 |
| France | 34,146 | 25,118 | 130 | 16 | 9 | 33 | 125 | 85 | 843 |
| Germany | 46,697 | 35,654 | 181 | 23 | 10 | 22 | 81 | 105 | 545 |
| Greece | 31,935 | 21,611 | 121 | 15 | 6 | 23 | 53 | 57 | 378 |
| Hungary | 11,270 | 7,964 | 42 | 5 | 2 | 4 | 5 | 62 | 91 |
| Ireland | 45,405 | 33,073 | 173 | 22 | 10 | 49 | 168 | 203 | 826 |
| Italy | 29,325 | 23,735 | 118 | 15 | 7 | 22 | 71 | 72 | 643 |
| Latvia | 8,623 | 7,218 | 34 | 4 | 2 | 8 | 32 | 36 | 98 |
| Lithuania | 7,734 | 6,711 | 31 | 4 | 2 | 9 | 22 | 38 | 70 |
| Luxembourg | 57,576 | 47,363 | 231 | 29 | 11 | 36 | 56 | 72 | 830 |
| Malta | 17,647 | 14,712 | 72 | 9 | 4 | 32 | 50 | 98 | 325 |
| Netherlands | 45,163 | 33,738 | 174 | 22 | 9 | 39 | 109 | 148 | 531 |
| Poland | 10,334 | 8,404 | 41 | 5 | 2 | 13 | 53 | 30 | 185 |
| Portugal | 19,276 | 16,815 | 79 | 10 | 3 | 31 | 85 | 86 | 194 |
| Romania | 5,436 | 5,025 | 23 | 3 | 1 | 8 | 11 | 61 | 58 |
| Slovakia | 11,291 | 8,396 | 44 | 5 | 2 | 17 | 24 | 33 | 150 |
| Slovenia | 18,048 | 16,043 | 74 | 9 | 4 | 23 | 34 | 96 | 330 |
| Spain | 25,437 | 21,188 | 103 | 13 | 5 | 35 | 74 | 139 | 363 |
| Sweden | 36,246 | 29,721 | 144 | 18 | 12 | 115 | 381 | 237 | 468 |
| UK | 35,706 | 20,519 | 124 | 16 | 7 | 37 | 131 | 116 | 516 |

Table B.2. Cancer-related resource units per 1,000 population in the EU, by country, 2009

| Country | Mortality losses | | | | Morbidity losses | | Informal care | | | Healthcare contacts | | | |
|-----------------|------------------|-------------|--------------------|----------|-------------------|------------|----------------------|--------------------------|------------|---------------------|-------------------|------------|----------------|
| | Deaths | | Working years lost | | Working days lost | | Care hours | | | GP visits | Outpatient visits | A&E visits | Inpatient days |
| | M | F | M | F | | | Carers in employment | Carers not in employment | | | | | |
| Austria | 2.57 | 2.14 | 6 | 3 | | 131 | 1,542 | 4,339 | 89 | 111 | 22 | 201 | |
| Belgium | 2.87 | 2.04 | 4 | 2 | | 331 | 776 | 3,868 | 125 | 122 | 12 | 103 | |
| Bulgaria | 2.71 | 1.79 | 7 | 4 | | 206 | 1,092 | 2,218 | 225 | 95 | 8 | 100 | |
| Cyprus | 1.63 | 1.22 | 5 | 3 | | 65 | 726 | 1,714 | 27 | 60 | 37 | 53 | |
| Czech Rep. | 3.02 | 2.29 | 7 | 3 | | 337 | 1,172 | 2,393 | 305 | 516 | 19 | 145 | |
| Denmark | 2.81 | 2.59 | 5 | 4 | | 300 | 738 | 2,560 | 43 | 124 | 14 | 82 | |
| Estonia | 3.07 | 2.25 | 7 | 5 | | 585 | 1,454 | 2,705 | 359 | 163 | 44 | 120 | |
| Finland | 2.22 | 1.91 | 4 | 3 | | 94 | 544 | 1,882 | 63 | 114 | 15 | 132 | |
| France | 2.90 | 1.91 | 4 | 3 | | 275 | 788 | 3,064 | 54 | 22 | 4 | 68 | |
| Germany | 2.90 | 2.38 | 6 | 4 | | 149 | 1,675 | 3,945 | 392 | 255 | 3 | 218 | |
| Greece | 3.01 | 1.85 | 6 | 2 | | 63 | 661 | 3,719 | 221 | 209 | 39 | 137 | |
| Hungary | 3.82 | 2.73 | 8 | 4 | | 113 | 1,243 | 3,241 | 687 | 387 | 8 | 133 | |
| Ireland | 2.08 | 1.69 | 6 | 3 | | 82 | 702 | 2,218 | 148 | 40 | 14 | 113 | |
| Italy | 3.21 | 2.31 | 5 | 2 | | 20 | 1,917 | 8,920 | 366 | 107 | 27 | 107 | |
| Latvia | 3.04 | 2.28 | 8 | 6 | | 257 | 1,367 | 2,644 | 275 | 103 | 29 | 153 | |
| Lithuania | 2.94 | 1.98 | 7 | 4 | | 378 | 1,216 | 2,495 | 267 | 109 | 30 | 129 | |
| Luxembourg | 2.26 | 1.94 | 4 | 2 | | 158 | 742 | 2,820 | 230 | 260 | 16 | 129 | |
| Malta | 2.24 | 1.79 | 4 | 1 | | 39 | 761 | 3,444 | 57 | 49 | 11 | 48 | |
| Netherlands | 2.76 | 2.26 | 6 | 4 | | 247 | 1,082 | 3,962 | 264 | 139 | 5 | 154 | |
| Poland | 2.85 | 2.07 | 7 | 3 | | 246 | 1,427 | 3,512 | 259 | 182 | 13 | 88 | |
| Portugal | 2.80 | 1.82 | 12 | 5 | | 116 | 1,362 | 3,458 | 131 | 71 | 30 | 88 | |
| Romania | 2.67 | 1.74 | 11 | 5 | | 165 | 1,151 | 2,063 | 111 | 252 | 2 | 107 | |
| Slovakia | 2.55 | 1.84 | 6 | 3 | | 375 | 1,016 | 2,176 | 315 | 534 | 19 | 113 | |
| Slovenia | 3.21 | 2.44 | 8 | 4 | | 477 | 1,135 | 2,584 | 73 | 108 | 27 | 123 | |
| Spain | 2.79 | 1.66 | 5 | 2 | | 102 | 1,208 | 4,006 | 478 | 100 | 33 | 77 | |
| Sweden | 2.46 | 2.23 | 5 | 4 | | 358 | 824 | 2,363 | 44 | 69 | 18 | 94 | |
| UK | 2.72 | 2.37 | 6 | 4 | | 89 | 1,024 | 3,195 | 68 | 133 | 6 | 92 | |
| TOTAL EU | 2.87 | 2.13 | 6 | 3 | | 166 | 1,262 | 4,015 | 248 | 156 | 14 | 119 | |

Table B.3. Total healthcare costs of cancer (€) by category of resource use and per capita, 2009

| Country | Cancer-related healthcare costs per capita | | | | | Total healthcare |
|-----------------|--|-----------------|----------|----------------|-------------|------------------|
| | Primary care | Outpatient care | A&E | Inpatient care | Medications | |
| Austria | 4 | 6 | 3 | 90 | 41 | 144 |
| Belgium | 3 | 6 | 1 | 51 | 32 | 94 |
| Bulgaria | 1 | 2 | 0.2 | 7 | 6 | 16 |
| Cyprus | 0.4 | 1 | 1 | 15 | 27 | 45 |
| Czech Rep. | 3 | 7 | 1 | 27 | 19 | 57 |
| Denmark | 1 | 10 | 2 | 54 | 37 | 104 |
| Estonia | 6 | 7 | 5 | 20 | 8 | 45 |
| Finland | 4 | 27 | 4 | 86 | 29 | 151 |
| France | 2 | 3 | 0.3 | 58 | 47 | 110 |
| Germany | 9 | 21 | 0.4 | 119 | 33 | 182 |
| Greece | 5 | 11 | 2 | 52 | 40 | 111 |
| Hungary | 3 | 2 | 1 | 12 | 22 | 39 |
| Ireland | 7 | 7 | 3 | 94 | 28 | 139 |
| Italy | 8 | 8 | 2 | 69 | 28 | 114 |
| Latvia | 2 | 3 | 1 | 15 | 5 | 26 |
| Lithuania | 2 | 2 | 1 | 9 | 3 | 18 |
| Luxembourg | 8 | 15 | 1 | 107 | 52 | 184 |
| Malta | 2 | 2 | 1 | 16 | 18 | 39 |
| Netherlands | 10 | 15 | 1 | 82 | 22 | 130 |
| Poland | 3 | 10 | 0.4 | 16 | 7 | 37 |
| Portugal | 4 | 6 | 3 | 17 | 23 | 53 |
| Romania | 1 | 3 | 0.1 | 6 | 10 | 20 |
| Slovakia | 5 | 13 | 1 | 17 | 21 | 57 |
| Slovenia | 2 | 4 | 3 | 41 | 23 | 72 |
| Spain | 17 | 7 | 5 | 28 | 33 | 90 |
| Sweden | 5 | 26 | 4 | 44 | 25 | 105 |
| UK | 2 | 17 | 1 | 47 | 17 | 85 |
| TOTAL EU | 6 | 11 | 1 | 57 | 27 | 102 |

Table B.4 Costs of lung cancer (€ million) in the EU, by country, 2009

| Country | Healthcare costs | | | | | Productivity losses | | Informal care | TOTAL costs | |
|-----------------|------------------|-----------------|-----------|----------------|-------------|---------------------|--------------|---------------|--------------|---------------|
| | Primary care | Outpatient care | A&E | Inpatient care | Medications | Total healthcare | Mortality | | | Morbidity |
| Austria | 4 | 6 | 2 | 82 | 12 | 107 | 175 | 16 | 89 | 387 |
| Belgium | 4 | 8 | 1 | 63 | 12 | 88 | 286 | 68 | 114 | 555 |
| Bulgaria | 1 | 1 | 0.1 | 3 | 2 | 6 | 31 | 1 | 4 | 42 |
| Cyprus | <0.1 | 0.1 | 0.1 | 1 | 1 | 2 | 13 | 1 | 2 | 18 |
| Czech Rep. | 3 | 8 | 1 | 33 | 7 | 52 | 97 | 6 | 15 | 171 |
| Denmark | 1 | 8 | 1 | 35 | 7 | 52 | 236 | 46 | 57 | 391 |
| Estonia | 1 | 1 | 1 | 3 | 0.4 | 5 | 12 | 3 | 2 | 22 |
| Finland | 0.4 | 11 | 2 | 42 | 6 | 61 | 79 | 7 | 23 | 170 |
| France | 8 | 13 | 1 | 337 | 108 | 468 | 1,294 | 160 | 399 | 2,321 |
| Germany | 75 | 180 | 4 | 958 | 124 | 1,341 | 2,728 | 139 | 880 | 5,087 |
| Greece | 8 | 18 | 4 | 60 | 21 | 110 | 282 | 9 | 79 | 479 |
| Hungary | 4 | 3 | 1 | 21 | 8 | 37 | 130 | 10 | 22 | 200 |
| Ireland | 3 | 3 | 1 | 45 | 5 | 57 | 117 | 6 | 29 | 209 |
| Italy | 43 | 40 | 10 | 402 | 60 | 554 | 824 | 11 | 1,015 | 2,404 |
| Latvia | 0.4 | 1 | 0.2 | 3 | 0.4 | 5 | 16 | 2 | 3 | 26 |
| Lithuania | 1 | 1 | 0.3 | 2 | 0.3 | 5 | 19 | 2 | 4 | 29 |
| Luxembourg | 1 | 1 | 0.1 | 8 | 1 | 10 | 16 | 2 | 4 | 33 |
| Malta | 0.1 | 0.1 | <0.1 | 0.4 | 0.2 | 1 | 2 | 0.1 | 1 | 5 |
| Netherlands | 17 | 25 | 1 | 157 | 9 | 211 | 619 | 84 | 182 | 1,096 |
| Poland | 21 | 61 | 2 | 97 | 10 | 191 | 358 | 59 | 108 | 716 |
| Portugal | 3 | 4 | 2 | 15 | 9 | 33 | 237 | 8 | 35 | 313 |
| Romania | 2 | 7 | 0.3 | 15 | 7 | 32 | 166 | 9 | 16 | 222 |
| Slovakia | 3 | 9 | 0.4 | 11 | 4 | 27 | 33 | 3 | 7 | 70 |
| Slovenia | 0.4 | 1 | 1 | 8 | 2 | 12 | 33 | 7 | 6 | 58 |
| Spain | 25 | 11 | 7 | 125 | 54 | 222 | 738 | 48 | 249 | 1,258 |
| Sweden | 4 | 20 | 3 | 41 | 8 | 76 | 143 | 48 | 48 | 315 |
| UK | 10 | 105 | 4 | 304 | 38 | 461 | 1,238 | 56 | 424 | 2,179 |
| TOTAL EU | 242 | 544 | 51 | 2,874 | 515 | 4,227 | 9,922 | 813 | 3,817 | 18,779 |

Table B.5 Costs of colorectal cancer (€ million) in the EU, by country, 2009

| Country | Healthcare costs | | | | | Productivity losses | | Informal care | TOTAL costs | | |
|-----------------|------------------|-----------------|-----------|----------------|-------------|---------------------|--------------|---------------|--------------|---------------|-----|
| | Primary care | Outpatient care | A&E | Inpatient care | Medications | Total healthcare | Mortality | | | Morbidity | |
| Austria | 4 | 7 | 3 | 103 | | 14 | 132 | 60 | 13 | 63 | 268 |
| Belgium | 4 | 8 | 1 | 102 | | 14 | 129 | 67 | 53 | 66 | 315 |
| Bulgaria | 1 | 1 | 0.2 | 7 | | 2 | 11 | 11 | 3 | 4 | 30 |
| Cyprus | 0.1 | 0.2 | 0.2 | 2 | | 1 | 3 | 3 | 1 | 2 | 9 |
| Czech Rep. | 5 | 12 | 2 | 49 | | 8 | 76 | 47 | 1 | 16 | 141 |
| Denmark | 1 | 8 | 1 | 46 | | 8 | 64 | 106 | 59 | 36 | 266 |
| Estonia | 1 | 1 | 1 | 6 | 0.4 | 8 | 8 | 5 | 3 | 2 | 19 |
| Finland | 2 | 15 | 2 | 55 | | 6 | 80 | 35 | 7 | 19 | 141 |
| France | 11 | 17 | 2 | 508 | 125 | 664 | 308 | 189 | 301 | 1,461 | |
| Germany | 71 | 170 | 4 | 1,372 | 114 | 1,730 | 1,015 | 219 | 801 | 3,765 | |
| Greece | 6 | 13 | 3 | 51 | 19 | 92 | 48 | 8 | 33 | 181 | |
| Hungary | 5 | 4 | 1 | 20 | 9 | 39 | 39 | 6 | 18 | 101 | |
| Ireland | 4 | 4 | 2 | 55 | 5 | 69 | 63 | 6 | 19 | 158 | |
| Italy | 52 | 48 | 12 | 600 | 69 | 782 | 345 | 16 | 641 | 1,783 | |
| Latvia | 1 | 1 | 0.3 | 4 | 0.5 | 6 | 6 | 2 | 3 | 17 | |
| Lithuania | 1 | 1 | 1 | 4 | 0.4 | 7 | 6 | 4 | 4 | 21 | |
| Luxembourg | 1 | 1 | 0.1 | 8 | 1 | 11 | 5 | 2 | 3 | 21 | |
| Malta | 0.2 | 0.3 | 0.1 | 1 | 0.3 | 2 | 1 | 0.3 | 1 | 4 | |
| Netherlands | 19 | 28 | 2 | 212 | 14 | 276 | 236 | 86 | 121 | 719 | |
| Poland | 17 | 57 | 2 | 81 | 11 | 169 | 101 | 38 | 66 | 374 | |
| Portugal | 5 | 8 | 3 | 31 | 10 | 58 | 123 | 17 | 40 | 236 | |
| Romania | 2 | 8 | 0.3 | 18 | 8 | 37 | 48 | 11 | 14 | 110 | |
| Slovakia | 4 | 11 | 1 | 14 | 5 | 34 | 17 | 1 | 7 | 59 | |
| Slovenia | 0.4 | 1 | 1 | 11 | 2 | 15 | 15 | 7 | 6 | 43 | |
| Spain | 74 | 32 | 20 | 226 | 63 | 414 | 259 | 56 | 219 | 948 | |
| Sweden | 3 | 15 | 2 | 33 | 10 | 63 | 230 | 39 | 78 | 410 | |
| UK | 4 | 121 | 4 | 422 | 44 | 595 | 568 | 72 | 256 | 1,492 | |
| TOTAL EU | 298 | 593 | 70 | 4,040 | 565 | 5,566 | 3,769 | 921 | 2,837 | 13,092 | |

Table B.6 Costs of breast cancer (€ million) in the EU, by country, 2009

| Country | Healthcare costs | | | | | Productivity losses | | Informal care | TOTAL costs | |
|-----------------|------------------|-----------------|-----------|----------------|--------------|---------------------|--------------|---------------|--------------|---------------|
| | Primary care | Outpatient care | A&E | Inpatient care | Medications | Total healthcare | Mortality | | | Morbidity |
| Austria | 4 | 6 | 2 | 74 | 72 | 158 | 43 | 15 | 66 | 282 |
| Belgium | 4 | 9 | 1 | 46 | 73 | 133 | 100 | 59 | 74 | 365 |
| Bulgaria | 1 | 1 | 0.2 | 6 | 9 | 18 | 7 | 3 | 5 | 33 |
| Cyprus | <0.1 | 0.1 | 0.1 | 1 | 5 | 6 | 5 | 1 | 2 | 13 |
| Czech Rep. | 3 | 7 | 1 | 23 | 41 | 74 | 20 | 21 | 21 | 137 |
| Denmark | 1 | 7 | 1 | 20 | 43 | 71 | 78 | 25 | 35 | 209 |
| Estonia | 1 | 1 | 1 | 4 | 2 | 10 | 5 | 6 | 3 | 23 |
| Finland | 5 | 19 | 3 | 45 | 33 | 104 | 50 | 9 | 25 | 188 |
| France | 15 | 24 | 3 | 289 | 634 | 965 | 437 | 760 | 336 | 2,497 |
| Germany | 102 | 243 | 2 | 1,217 | 777 | 2,342 | 913 | 618 | 1,073 | 4,946 |
| Greece | 5 | 11 | 2 | 43 | 130 | 191 | 43 | 6 | 34 | 274 |
| Hungary | 2 | 2 | 0.4 | 8 | 46 | 58 | 23 | 3 | 20 | 104 |
| Ireland | 3 | 3 | 1 | 32 | 27 | 66 | 43 | 6 | 22 | 137 |
| Italy | 44 | 41 | 10 | 193 | 349 | 636 | 292 | 9 | 609 | 1,546 |
| Latvia | 1 | 1 | 0.4 | 5 | 2 | 9 | 8 | 3 | 4 | 24 |
| Lithuania | 1 | 1 | 0.4 | 3 | 2 | 7 | 9 | 5 | 5 | 25 |
| Luxembourg | 1 | 1 | 0.1 | 6 | 5 | 13 | 3 | 2 | 4 | 22 |
| Malta | 0.1 | 0.1 | <0.1 | 0.3 | 2 | 2 | 1 | 0.1 | 1 | 5 |
| Netherlands | 18 | 26 | 1 | 216 | 47 | 309 | 206 | 51 | 140 | 705 |
| Poland | 11 | 33 | 1 | 58 | 56 | 160 | 64 | 40 | 70 | 333 |
| Portugal | 4 | 6 | 3 | 10 | 52 | 74 | 74 | 5 | 32 | 186 |
| Romania | 2 | 6 | 0.2 | 11 | 43 | 62 | 38 | 7 | 20 | 126 |
| Slovakia | 2 | 6 | 0.3 | 8 | 23 | 40 | 8 | 12 | 9 | 69 |
| Slovenia | 0.3 | 1 | 0.4 | 5 | 10 | 16 | 9 | 5 | 6 | 36 |
| Spain | 80 | 35 | 21 | 64 | 317 | 518 | 199 | 32 | 219 | 969 |
| Sweden | 5 | 24 | 4 | 23 | 49 | 104 | 90 | 27 | 59 | 279 |
| UK | 11 | 113 | 4 | 233 | 221 | 581 | 487 | 59 | 309 | 1,437 |
| TOTAL EU | 325 | 626 | 65 | 2,641 | 3,068 | 6,725 | 3,254 | 1,788 | 3,204 | 14,971 |

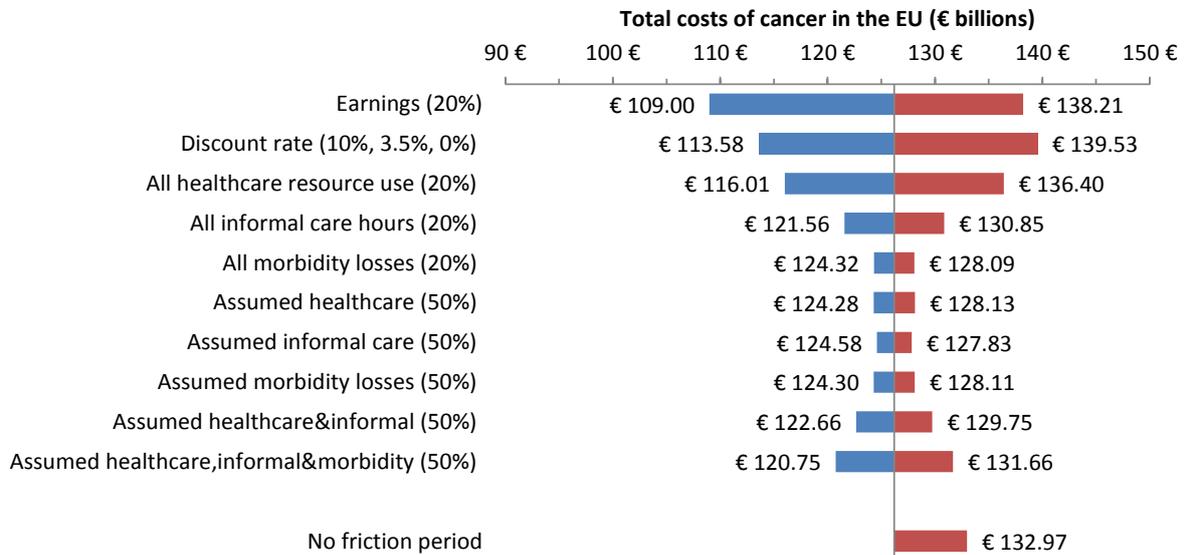
Table B.7 Costs of prostate cancer (€ million) in the EU, by country, 2009

| Country | Healthcare costs | | | | | Productivity losses | | Informal care | TOTAL costs | |
|-----------------|------------------|-----------------|-----------|----------------|--------------|---------------------|------------|---------------|--------------|--------------|
| | Primary care | Outpatient care | A&E | Inpatient care | Medications | Total healthcare | Mortality | | | Morbidity |
| Austria | 2 | 3 | 1 | 40 | 75 | 120 | 13 | 6 | 41 | 179 |
| Belgium | 2 | 5 | 1 | 31 | 75 | 115 | 16 | 26 | 43 | 200 |
| Bulgaria | 0.2 | 0.2 | <0.1 | 1 | 9 | 11 | 1 | 0.4 | 3 | 15 |
| Cyprus | <0.1 | <0.1 | 0.1 | 0.4 | 2 | 3 | 2 | <0.1 | 1 | 6 |
| Czech Rep. | 2 | 4 | 1 | 16 | 42 | 65 | 8 | 7 | 11 | 91 |
| Denmark | 0.3 | 4 | 1 | 14 | 45 | 64 | 24 | 18 | 26 | 131 |
| Estonia | 0.3 | 0.4 | 0.3 | 2 | 2 | 5 | 1 | 1 | 2 | 9 |
| Finland | 3 | 10 | 1 | 38 | 34 | 88 | 8 | 3 | 16 | 114 |
| France | 9 | 14 | 2 | 273 | 658 | 956 | 46 | 61 | 207 | 1,271 |
| Germany | 54 | 130 | 1 | 812 | 745 | 1,743 | 217 | 152 | 577 | 2,688 |
| Greece | 3 | 6 | 1 | 24 | 125 | 159 | 10 | 4 | 24 | 197 |
| Hungary | 1 | 0.5 | 0.1 | 3 | 48 | 52 | 3 | 1 | 10 | 65 |
| Ireland | 1 | 1 | 1 | 20 | 28 | 51 | 15 | 2 | 14 | 81 |
| Italy | 25 | 24 | 6 | 175 | 362 | 592 | 45 | 5 | 344 | 985 |
| Latvia | 0.2 | 0.4 | 0.1 | 2 | 2 | 5 | 2 | 1 | 2 | 9 |
| Lithuania | 1 | 1 | 0.3 | 3 | 2 | 6 | 2 | 3 | 3 | 14 |
| Luxembourg | 0.2 | 0.4 | <0.1 | 3 | 6 | 9 | 0.3 | 1 | 2 | 13 |
| Malta | <0.1 | <0.1 | <0.1 | 0.1 | 1 | 2 | 0.1 | <0.1 | 1 | 2 |
| Netherlands | 9 | 13 | 1 | 65 | 57 | 145 | 48 | 15 | 84 | 292 |
| Poland | 4 | 10 | 0.4 | 21 | 58 | 94 | 22 | 7 | 40 | 162 |
| Portugal | 2 | 3 | 1 | 6 | 54 | 65 | 29 | 3 | 24 | 121 |
| Romania | 1 | 2 | 0.1 | 3 | 45 | 50 | 7 | 2 | 10 | 69 |
| Slovakia | 1 | 2 | 0.1 | 3 | 24 | 31 | 2 | 4 | 5 | 41 |
| Slovenia | 0.2 | 1 | 0.4 | 5 | 10 | 16 | 4 | 3 | 4 | 26 |
| Spain | 49 | 22 | 13 | 41 | 330 | 455 | 27 | 12 | 132 | 626 |
| Sweden | 5 | 25 | 4 | 35 | 51 | 120 | 27 | 41 | 48 | 237 |
| UK | 5 | 51 | 2 | 126 | 229 | 413 | 153 | 13 | 203 | 783 |
| TOTAL EU | 181 | 332 | 38 | 1,762 | 3,119 | 5,433 | 732 | 391 | 1,875 | 8,431 |

Table B.8 Countries ranked in terms of cancer-related healthcare expenditure per capita

| Highest expenditure per capita | All cancers | All cancers | Lung cancer | Colorectal cancer | Breast cancer | Prostate cancer | Rank |
|---|--------------|----------------|----------------|-------------------|----------------|-----------------|------|
| | (unadjusted) | (PPP-adjusted) | (PPP-adjusted) | (PPP-adjusted) | (PPP-adjusted) | (PPP-adjusted) | |
| From lowest to highest healthcare cost per capita | Luxembourg | Germany | Luxembourg | Germany | Germany | Germany | 1 |
| | Germany | Luxembourg | Germany | Luxembourg | Greece | Greece | 2 |
| | Finland | Greece | Netherlands | Netherlands | Luxembourg | Luxembourg | 3 |
| | Austria | Finland | Greece | Czech Rep. | Netherlands | Finland | 4 |
| | Ireland | Netherlands | Poland | Austria | Finland | France | 5 |
| | Netherlands | Austria | Austria | Finland | Austria | Austria | 6 |
| | Italy | Czech Rep. | Finland | Slovakia | Slovakia | Sweden | 7 |
| | Greece | Slovakia | Slovakia | Estonia | France | Czech Rep. | 8 |
| | France | France | Czech Rep. | Italy | Czech Rep. | Spain | 9 |
| | Sweden | Spain | Ireland | UK | Estonia | Hungary | 10 |
| | Denmark | Italy | UK | Ireland | Spain | Slovakia | 11 |
| | Belgium | Sweden | Italy | Spain | Hungary | Slovenia | 12 |
| | Spain | UK | Hungary | Greece | UK | Netherlands | 13 |
| | UK | Slovenia | Slovenia | Poland | Sweden | Italy | 14 |
| | Slovenia | Ireland | Sweden | Slovenia | Slovenia | Belgium | 15 |
| | Czech Rep. | Estonia | Estonia | France | Ireland | Denmark | 16 |
| | Slovakia | Hungary | France | Belgium | Belgium | Ireland | 17 |
| | Portugal | Poland | Denmark | Hungary | Malta | UK | 18 |
| | Estonia | Belgium | Belgium | Denmark | Italy | Portugal | 19 |
| | Cyprus | Denmark | Spain | Malta | Poland | Estonia | 20 |
| | Hungary | Portugal | Latvia | Portugal | Denmark | Romania | 21 |
| | Malta | Malta | Romania | Sweden | Latvia | Malta | 22 |
| | Poland | Bulgaria | Portugal | Latvia | Portugal | Poland | 23 |
| | Latvia | Latvia | Malta | Bulgaria | Bulgaria | Bulgaria | 24 |
| | Romania | Romania | Lithuania | Romania | Romania | Latvia | 25 |
| | Lithuania | Cyprus | Cyprus | Lithuania | Cyprus | Cyprus | 26 |
| | Bulgaria | Lithuania | Bulgaria | Cyprus | Lithuania | Lithuania | 27 |

Figure B.1 Tornado plot of the results of the sensitivity analysis on the total costs of cancer in the EU, € billions, 2009



The horizontal axis represents the total costs of cancer in the EU. The categories/parameters being changed are displayed along the vertical axis. The horizontal bars represent the range in total costs associated with the specified change for each category/parameter, e.g. $\pm 20\%$ change in earnings across all EU countries or $\pm 50\%$ change in healthcare resource use in countries without direct cancer data. Blue bar represents reduction and the red bar represents increase in total costs of cancer associated with the value of the category being changed. The labels represent the upper and lower bounds of total costs of cancer for a given category/parameter. The base-case total costs of cancer (using the reported data, €126 billion) are indicated by a vertical line cutting through the horizontal bars.

Figure B.2 Total healthcare costs (€) per capita and by healthcare service category, 2009, adjusted for price differentials

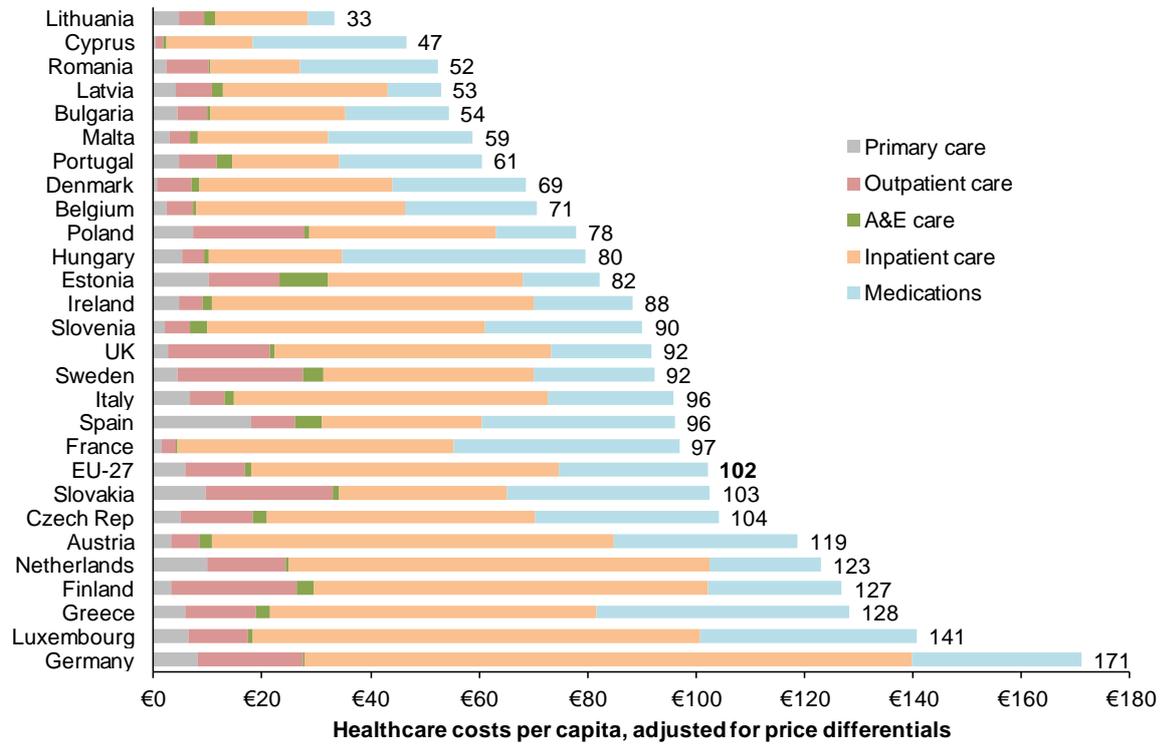


Figure B.3 Correlation between cancer healthcare expenditure (€) and national income (€, as measured using Gross Domestic Product – GDP)

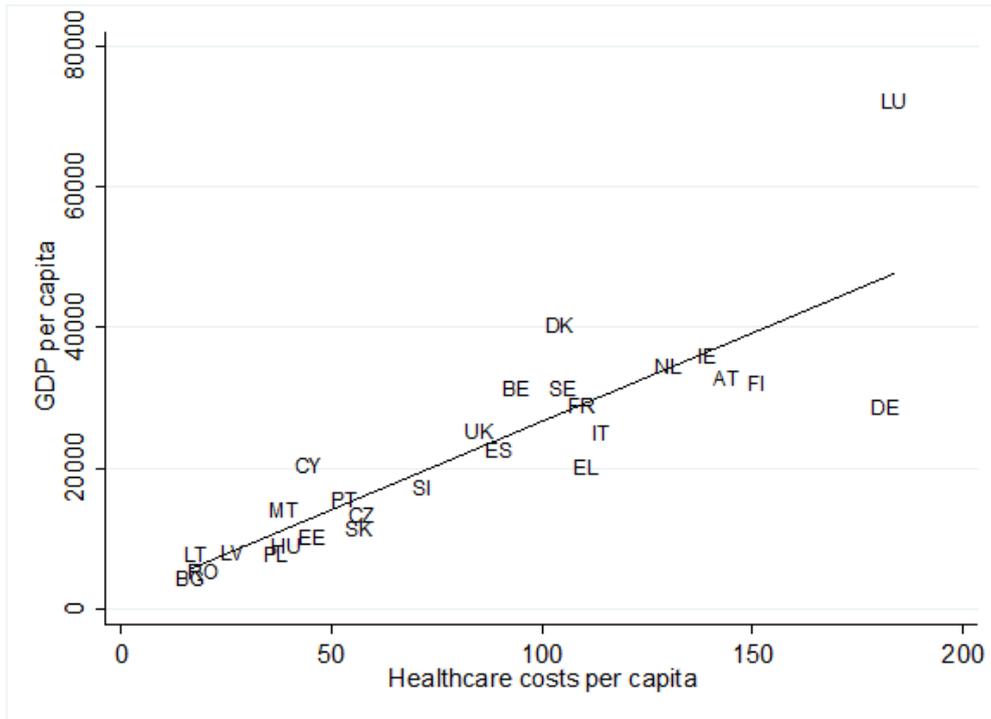


Figure B.4 Correlation between cancer healthcare expenditure (€) and cancer incidence (crude)

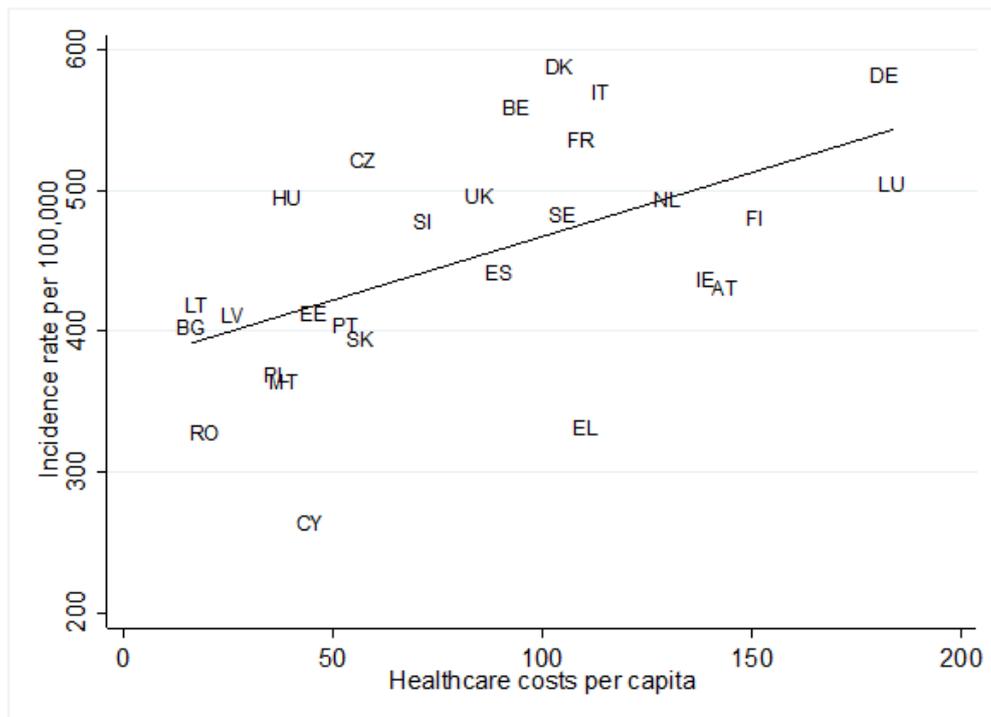


Figure legend: AT Austria; BE Belgium; BG Bulgaria; CY Cyprus; CZ Czech Republic; DE Germany; DK Denmark; EE Estonia; EL Greece; ES Spain; FI Finland; FR France; HU Hungary; IE Ireland; IT Italy; LU Luxembourg; LT Lithuania; LV Latvia; MT Malta; NL the Netherlands; PL Poland; PT Portugal; RO Romania; SE Sweden; SI Slovenia; SK Slovakia; UK United Kingdom.

Figure B.5 Total costs by cancer type, € million, 2009

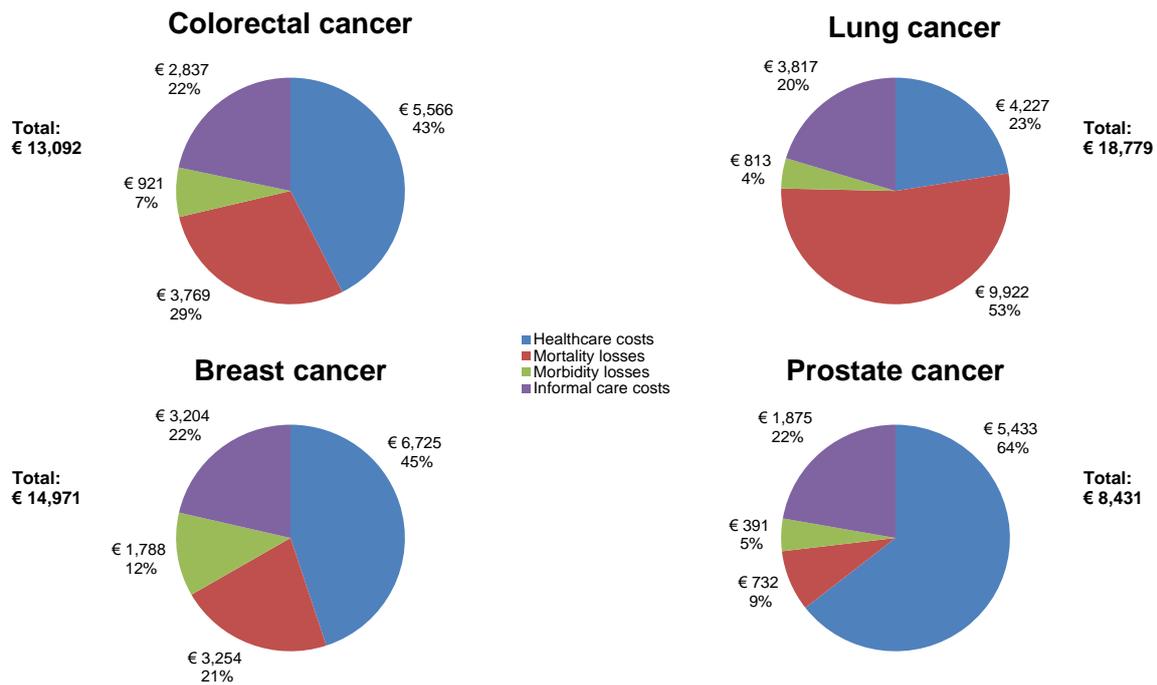


Figure B.6 Proportion of health care expenditure by category and cancer type, 2009

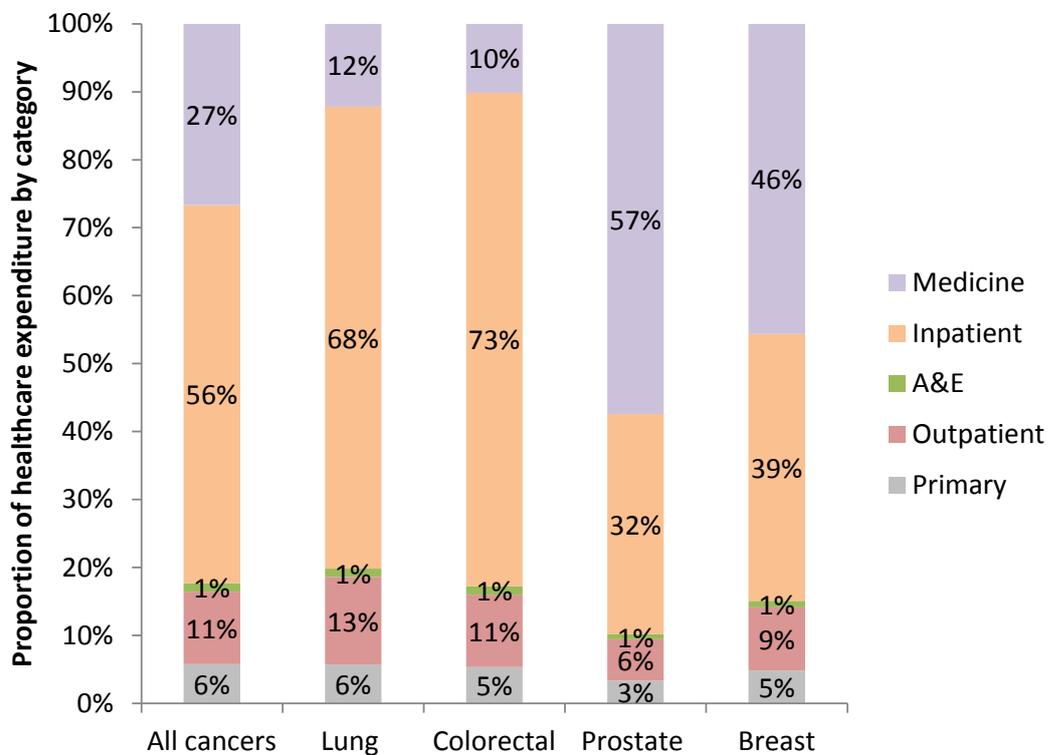


Figure B.7 Healthcare costs per capita (€) by cancer type and healthcare service category, 2009, adjusted for price differentials (PPP)

