

## THE CANCER BURDEN OF THE RESIDENTS OF THE MALTESE ISLANDS

This document gives a brief presentation of the cancer burden in the Maltese Islands. The figures and graphs show the current volume of demand for cancer diagnosis, treatment, rehabilitative and palliative services. It offers an illustration of the challenges that Malta is facing in this important and continuously increasing sector of health care provision. This information may also be used to give an indication of the expected increase in demand in the near future.

More detailed information on the cancer burden from selected cancer sites/ types, from 1995-2005, by single year, age groups and gender, can be accessed from the cancer registry's web page at: <http://www.sahha.gov.mt/pages.aspx?page=91>.

### A. Incidence

The following table shows the number of new cases diagnosed in the 5-year period from 2001-2005 of the most common cancer sites and types, their gender ratios and the annual average incidence. The latter figure gives an indication of the annual burden of new cases that are diagnosed and receive initial treatment, rehabilitation and palliative care.

*Table 1:* The thirteen most common cancer sites/ types by gender, cases registered from 2001-2005 (excluding non-melanocytic skin cancers, NMS)

Cancer site/ type	Total number of new cases registered between 2001-2005			Male: Female ratio	Average annual incidence		
	Female	Male	Total		F	M	T
Breast	1084	12	1096	1:90	217	2	219
Colorectum	383	465	848	1:0.8	77	93	170
Lung	100	502	602	1:0.2	20	100	120
Prostate	-	622	622	-	-	124	124
Body of uterus	278	-	278	-	56	-	56
Urinary bladder	52	222	274	1:0.2	10	44	54
Stomach	96	163	259	1:0.6	19	33	52
Lymphoma*	100	132	232	1:0.8	20	26	46
Pancreas	108	111	219	1:1	22	22	44
Ovary	167	-	167	-	33	-	33
Cutaneous malignant melanoma	87	78	165	1:1	17	16	33
Kidney	42	92	134	1:0.5	8	18	26
Thyroid	105	21	126	1:5	21	4	25
All cancers (excl. NMS)	3270	3317	6587	1:1	654	663	1317

Source: Malta National Cancer Registry, Dept. of Health Information, Malta

\* excludes Hodgkin's Disease

Table 2 compares the age-standardized incidence rates using the European Standard Population (EASR), for Malta and selected EU15 countries for selected common cancer sites. The selected EU15 member states include: Italy (geographical neighbour), UK (cultural and lifestyle legacies; Malta was an ex-colony), France (mainland Europe) and Sweden (Scandinavia). The EU average is also being included.

*Table 2:* EASRs for the incidence of selected common cancer sites; cases registered for 2005 for Maltese residents, and for 1998 (estimates) for Italy, UK, France and Sweden and the EU15 average

Cancer site	Malta 2005	Italy 1998	UK 1998	France 1998	Sweden 1998	EU15 average 1998
Breast, females	101.2	87.9	94.7	107.7	114.0	92.0
Colorectum, males	49.4	54.4	50.0	55.7	45.9	54.7
Colorectum, females	27.3	35.5	33.5	34.6	35.0	35.9
Lung, males	44.3	83.7	72.2	74.0	30.9	74.0
Lung, females	9.6	13.2	34.5	11.0	18.2	17.3
Prostate	70.4	52.8	61.0	87.1	115.0	67.6
Body of uterus	24.3	16.5	14.4	16.2	23.6	15.4
Stomach, males	15.9	26.6	18.1	14.5	11.5	20.2
Stomach, females	6.2	13.2	7.5	5.5	5.4	9.5
Ovary	11.0	11.7	17.8	13.0	15.6	14.4
All cancers (excl. NMS), males	334.5	425.6	381.3	465.8	371.2	412.1
All cancers (excl. NMS), females	288.8	286.0	316.5	288.7	337.8	289.9

Source:- Malta National Cancer Registry, Dept. of Health Information, Malta  
 - EUCAN, Cancer Incidence, Mortality and Prevalence in the European Union, European Network of Cancer Registries, International Agency for Research on Cancer, Lyon, 2003

## B. Mortality

Table 3 shows the most common causes of cancer deaths reported between 2001-2005, by gender, gender ratios and annual average mortality. The latter gives an indication of the annual burden of cases that need treatments for advanced cancers, recurrences and spread of malignant disease and palliative and terminal care.

*Table 3:* The ten most common causes of cancer deaths by gender from 2001-2005

Cancer site	Total number of cancer deaths between 2001-2005			Male: Female ratio	Average annual mortality		
	Female	Male	Total		F	M	T
Lung	96	561	657	1:0.2	1921	112	131
Colorectum	210	223	433	1:0.9	42	45	87
Breast	338	3	341	1:113	68	0.6	68
Pancreas	115	121	236	1:1	23	24	47
Stomach	83	118	201	1:0.7	17	24	41
Prostate	-	179	179	-	-	36	36
All lymphomas	54	68	122	1:0.8	10	14	24
All leukaemias	46	68	114	1:0.71	9	14	23
Ovary	126	-	126	-	25	-	25
Urinary bladder	23	105	128	1:0.2	5	21	26
All cancers (excl. NMS)	1579	1986	3565	1:0.8	316	397	713

Source: National Mortality Registry, Dept. of Health Information, Malta

The following table compares the age-standardized mortality rates using the European Standard Population (EASR), for Malta and selected EU15 countries for selected common cancer sites.

*Table 4:* EASRs for mortality from selected common cancer sites; cases registered for 2005 for Maltese residents, and for 1998, for Italy, UK, France and Sweden and the EU average

Cancer site	Malta 2005	Italy 1998	UK 1998	France 1998	Sweden 1998	EU15 average 1998
Breast, females	28.1	26.0	33.0	27.8	24.6	28.3
Colorectum, males	22.5	25.0	26.6	26.3	21.4	26.9
Colorectum, females	15.5	15.6	16.9	16.0	15.3	17.4
Lung, males	49.9	74.7	65.9	69.0	32.2	68.3
Lung, females	6.8	11.9	30.3	10.5	17.8	15.5
Prostate	20.9	19.1	26.4	27.1	37.7	25.6
Body of uterus	4.8	3.2	2.6	3.0	3.1	2.9
Stomach, males	10.9	19.5	13.2	10.6	9.6	15.1
Stomach, females	5.1	9.4	5.7	4.2	4.4	7.3
Ovary	8.9	6.6	11.6	8.2	8.9	8.6
All cancers (excl. NMS), males	184.0	254.6	240.6	279.1	189.4	250.1
All cancers (excl. NMS), females	120.5	132.5	167.9	128.0	138.4	141.2

Source: - Malta National Cancer Registry, Dept. of Health Information, Malta

- EUCAN, Cancer Incidence, Mortality and Prevalence in the European Union, European Network of Cancer Registries, International Agency for Research on Cancer, Lyon, 2003

### C. Trends in Cancer Incidence

A study conducted recently using cancer incidence data from 1996-2005 showed that there are statistically significant increasing trends in incidence when all cancers are included together for both genders. Statistically significant increasing trends were also shown for the incidence of female breast, male colorectal cancer and prostate cancer. The graphs and associated statistical results are attached. The trend in cancer incidence is expected to continue increasing as the proportion of elderly people in the population continues to increase. Two-thirds of patients (66.4%) diagnosed with cancer from 2001-2005 were 60 years and older at the time of diagnosis.

### D. Cancer Survival

Table 5 shows the 5-year relative survival percentages for selected cancer sites (for cases diagnosed from 1998-2002) and the corresponding European average published in the EURO CARE-4 results\*.

*Table 5:* 5-year relative survival % for selected cancer sites in the EURO CARE-4 study results: survival of Maltese cases and EURO CARE pool

Cancer site	Maltese cases in EURO CARE-4 (1995-1999)	EURO CARE-4 pool (1995-1999)
Breast	75.9	79.5
Colorectum	51.2	53.5
Lung	8.7	10.2
Prostate	71.2	73.9
Ovary	30.4	34.2
Melanoma	82.7	85.4

Sources: Survival for eight cancers and all cancers combined for European adults diagnosed in 1995-1999: results of the EURO CARE-4 study; The Lancet Oncology (2007)

#### E. Utilization of the Oncology Dept. at Sir Paul Boffa Hospital

The Oncology Department of Sir Paul Boffa Hospital is the only facility in Malta that provides radiotherapy treatments. It is equipped with one linear accelerator machine (Linac), one cobalt unit and one superficial X-ray (SXR) treatment machine. The department can also provide radio-isotope treatments. The most commonly delivered radio-isotope is Iodine (I131). The majority of the chemotherapy given to cancer patients treated in Malta is also delivered in this department. The Oncology department is operated by two radiotherapy oncologists and their teams.

Table 6 shows selected operational indicators of this department from 2003-2005. This information was obtained from the monthly reports that each oncologist sends to the cancer registry. These reports contain information on the diagnosis and nature of initial treatments given to the new referrals to this department.

*Table 6:* Operational indicators for the Oncology Department, 2003-2005

Indicators	2003	2004	2005	Annual average, 2003-2005
No. of new referrals, males	310	359	391	353
No. of new referrals, females	370	450	448	423
No. of new referrals, total	680	799	839	773
No. of patients given Radiotherapy	473	564	566	534
* Linac	329	383	392	368
* Cobalt	104	138	144	129
* SXR	20	30	18	23
* Radio-iodine	8	13	12	11
No. of patients given Chemotherapy	177	201	172	183
No. of patients given Hormone therapy	177	256	213	215