



NATIONAL CANCER REGISTRY السجل الوطني للسرطان

NATIONAL CANCER REGISTRY

السجل الوطني للسرطان في لبنان
تقرير ٢٠٠٣

CANCER IN LEBANON 2003



REPUBLIC OF LEBANON
MINISTRY OF PUBLIC HEALTH



البرنامج الوطني
للأمراض غير الإنتقالية
National Non-Communicable
Diseases Programme



World Health
Organization



**MINISTRY OF PUBLIC HEALTH
NATIONAL CANCER REGISTRY
CANCER IN LEBANON 2003**

Prepared by:

Dr. Salim M. Adib, MD, DrPH (salim.adib@usj.edu.lb)

Mr. Joey Daniel, BS, MPH

TABLE OF CONTENTS

FOREWORD FROM THE MINISTER OF PUBLIC HEALTH-----	3
PARTICIPATING ORGANIZATIONS-----	4
CONTRIBUTORS-----	5
1. INTRODUCTION-----	7-9
1.1. Objectives of the National Cancer Registry-----	7
1.2. Review of activities-----	7-8
1.3. Population of Lebanon-----	9
2. RESULTS-----	10-13
2.1. Completeness of counts -----	10
2.2. Demographic characteristics of cancer cases-----	10
2.3. Geographic distribution of cancer in 2003-----	11
2.4. Anatomical cancer sites in adults and children-----	12
2.5. Pathology of selected cancer types-----	12
2.6. Incidence rates in males in 2003-----	13
2.7. Incidence rates in females in 2003-----	13
2.8. Age-specific and age-adjusted rates for all in 2003-----	13
3. EDITORIAL COMMENTS-----	14-16
3.1. Epidemiological features of cancer in Lebanon in 2003 -----	14
3.2. Managerial issues regarding NCR-----	15
3.3. Practical implications for sustained and improved NCR activities-----	16
REFERENCES-----	16

TABLES-----	17-34
1. Population of Lebanon by mohafazats and cazas in 2003-----	17
2. Age distribution of the population of Lebanon in 2003 and of the World Standard Population used for age-adjustment-----	18
3. Demographic characteristics of incident cancer cases in Lebanon 2003 (N=7888)-----	19
4. Differences in ages by gender for selected cancer types in Lebanon 2003-----	20
5. Incident cancer cases by area of residence, Lebanon 2003 (N = 3115)-----	21-22
6. Cancer sites by gender, Lebanon 2003 (N=7,888)-----	23-25
7. Sites of pediatric cancers, Lebanon 2003 (N=237)-----	26
8. Pathology of selected cancer types. Lebanon 2003-----	27-29
9. Cancer incidence rates in males, Lebanon 2003-----	30-31
10. Cancer incidence rates in females, Lebanon 2003-----	32-33
11. Age-specific cancer incidence rates (all sites) in the Lebanese population	34

FIGURES

1. Administrative Lebanon by Mohafazat (governorates)-----	6
2. Age-pyramid of the Lebanese population in 2003-----	35
3. Age distribution of incident cancer cases in Lebanon 2003 (N=7888)-----	36

APPENDICES

1. Hospitals and pathology centers providing cancer 2003 data -----	37
2. Physicians and pathologists providing cancer 2003 data -----	38-42
3. NCDP Cancer Form -----	43



MINISTRY OF PUBLIC HEALTH
REPUBLIC OF LEBANON

وزارة الصحة العامة
الجمهورية اللبنانية

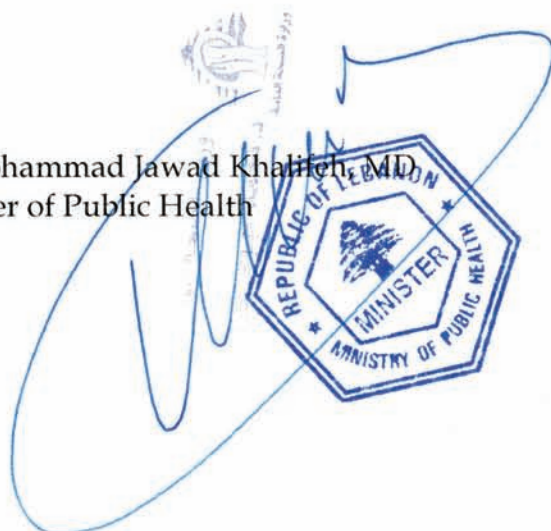


FORWARD MINISTER OF PUBLIC HEALTH

There is no need to remind the public of the importance of more active surveillance of cancer in Lebanon. Data from 2003 clearly indicate that the incidence of this very serious health issue is increasing faster than expected. The Ministry of Public Health (MOPH) is determined to support a sustainable process for complete, valid, consistent and timely registration of all new cases of cancers diagnosed in Lebanon. This surveillance system should lie at the core of the over-arching National Cancer Control Program which is currently under construction with the participation of various medical and non-medical concerned stakeholders. The aim of that Program is to advance agendas for effective prevention, early detection, efficient treatment services, holistic management and resource development to limit the burden of cancer in this century.

MOPH is pleased to notice that the National Cancer Registry has continued its mission, despite scarce financial support and limited human resources. This achievement so far has been the fruit of the dedication of a few individuals from the medical and academic sectors. Those collaborators were never discouraged by the slow administrative response to their pressing concerns, and they deserve to receive more help in fulfilling their task in the future. MOPH intends to promptly seize the momentum of this second annual report to continue and improve its support for those collaborative efforts so aptly represented in the National Cancer Registry.

Dr. Mohammad Jawad Khalifeh, MD
Minister of Public Health



PATING ORGANIZATIONS



Italian Cooperation in Lebanon



Lebanese Society of Medical Oncology (LSMO)



World Health Organization- Beirut Office



Lebanese Society of Pathology (LSP)



Lebanese Society of Hematology (LSH)



Lebanese Cancer Society (LCS)

LEBANESE
EPIDEMIOLOGICAL



ASSOCIATION

Lebanese Epidemiological Association (LEA)

CONTRIBUTORS

The National Cancer Registry (NCR) in Lebanon is an institution of the Ministry of Public Health (MOPH). A decree 230/1 issued by H.E. Dr. Mohammad Jawad Khalifeh in May 2005 re-established an NCR Committee to oversee its activities. The committee is formed essentially of representatives of cancer-related scientific societies (ex officio) and some invited experts. Activities of NCR have been made possible through successive grants from the Italian Cooperation Program in Lebanon, and a partial grant from LSMO.

NCR Committee (2005-2006)

Officers

Dr. Assaad Khoury	Director of MOPH Department of Preventive Medicine, President
Dr. Ali Shamseddine	LSMO President, Vice-President
Dr. Salim Adib	LEA Secretary, Secretary-General

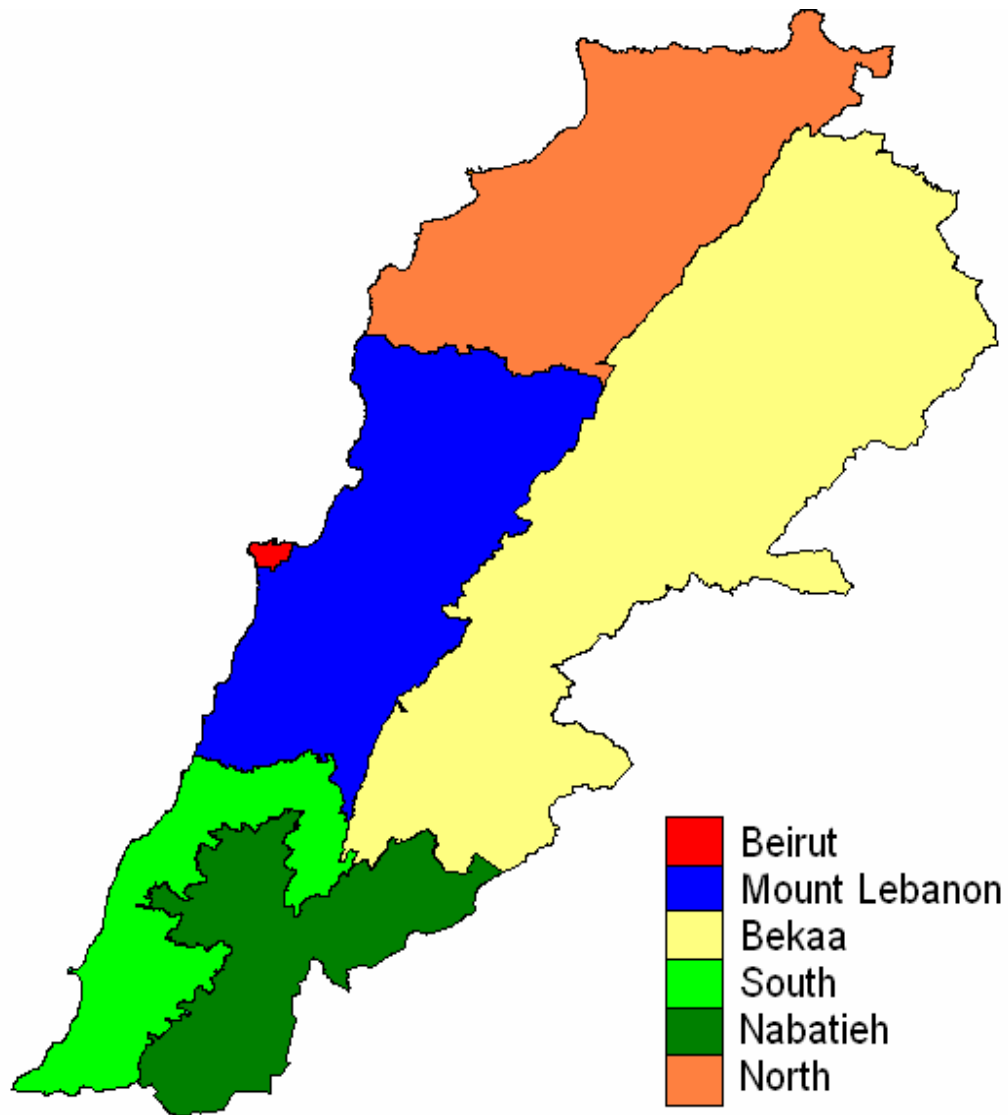
Members

Dr. Antoine Checrallah	LSP Representative
Dr. Azzam Dandashi	Parliament Committee on Health
Dr. Jawad Mahjour	WHO Representative in Beirut
Dr. Georges Saadé	NCDP Director
Dr. Marwan Ghosn	LSMO past-President
Dr. Michel Daher	LCS Secretary-General
Dr. Miguel Abboud	Director, Children's Cancer Center
Dr. Muhieddine Seoud	Gynecologist
Dr. Nabil Chamseddine	LCS President
Dr. Oussama Jradi	LSH President
Ms. Peggy Hannah	Director of MOPH Health Education Unit

NCR Technical Team (2003-2006)

Mr. Ahmad Hawi	Field coordinator (past)
Dr. Antoine Checrallah	Pathology advisor
Ms. Eiman Shehab	Administrative assistant
Dr. Georges Aftimos	Pathology advisor
Dr. Georges Saadé	Coordinator "capture" system
Dr. Hoeida Al-Amin	Medical advisor
Ms. Jessica Said	Data manager, "recapture" system (part-time)
Mr. Joey Daniel	Field coordinator (current)
Ms. Roula Hakim Ziadeh	Data manager, "capture" system
Ms. Viviane C. Sassine	Data manager, "recapture" system (part-time)
Dr. Salim Adib	Team coordinator

Figure 1
ADMINISTRATIVE LEBANON BY MOHAFAZAT
(GOVERNORATES)



1. INTRODUCTION

1.1. Objectives of the National Cancer Registry

The National Cancer Registry (NCR) is an information system designed for the collection, storage, management, and analysis of data on cancers throughout Lebanon. The major purposes of the Registry are:

- to establish and maintain a cancer incidence reporting system;
- to be an informational resource for the investigation of cancer and its causes;
- to provide a primary source of unbiased population-based cases for investigators seeking to conduct case-control or cohort studies, clinical trials and survival analysis.
- to provide information to assist public health officials and agencies in the planning and evaluation of the National Cancer Control Program.

1.2. Review of recent activities

NCR was officially restarted in 2002 under Minister Sleiman Frangieh. It produced its first report "Cancer in Lebanon 2002" (www.leb.emro.who.int) in early 2003. That first report was based uniquely on passive, routine surveillance procedures. This system is managed by the National Non-Communicable Diseases Program (NCDP). Passive reporting originates from the Drug Dispensing Center (DDC), managed by the Ministry of Public Health (MOPH). DCC provides cancer drugs free of charge to patients with no health coverage, estimated at 50% of the population. All eligible cancer patients who elect to use the DDC services have to bring a completed report form (Annex 1) which is then received and entered at NCDP. NCDP has also been receiving an annual report of cancer cases diagnosed through UNRWA medical services.

Reports emanating from other public health agencies should be received by the capture system as well. However, while reporting from the Army and Internal Security Forces medical units has been consistent and presumed complete, it has been much less so from the National Social Security Fund (NSSF) and the Government Employees Cooperative. Thus it appears that the passive system alone cannot ensure a complete reporting of all cancer cases in Lebanon.

An active more complete surveillance process, the “recapture system” had to be added to complete the National Registry. To that “recapture system”, the passive system could be used for validity checks. A decree 511/1 from the PH Minister in June 2002 (Annex 2) was used as the legal framework to start elaborating this system. Thus a protocol of understanding was formulated in mid-2003 between NCDP and the Lebanese Society of Medical Oncology (LSMO) to actively obtain cancer information directly from health facilities. Activities were delayed throughout 2004 for reasons related to erratic management of NCDP, which had been entrusted to the WHO Office in Beirut. The managerial problems started clearing up in 2005, thus allowing a restart of efforts leading to this present report.

LSMO has spearheaded a coalition with the Lebanese Society of Pathology, the Lebanese Cancer Society and other medical societies, to gather data. Coordination efforts by LSMO were led by Dr. Marwan Ghosn as past president and since 2006 by Dr. Ali Shamseddine as current president. The coalition for the NCR was officially recognized in 2005 by a decree 230/1 from the PH Minister Mohammad Jawad Khalifeh creating an oversight Committee for the National Cancer Registry in Lebanon (Annex 3). Funds provided by LSMO and the Italian Cooperation in Lebanon allowed the hiring of additional data collectors for the capture system. Those collectors retrieved data from all registered independent and hospital-based pathology laboratories, and from

some hematology laboratories with leukemia diagnosis capability. It has also received data from hospital-based cancer registries of the Makassed Hospital, AUB Medical Center and affiliated Children's Cancer Center, the Hotel-Dieu de France, and St-George University Medical Center in Beirut. Cooperation from all centers was generally available and easy.

This "Cancer in Lebanon 2003" report consists of the reconciliation of data from the two surveillance sources. Duplicates have been carefully expunged, as well as cases which had been diagnosed prior to January 1, 2003. Cases reported as residing outside Lebanon (Syria, Jordan, etc...) were also removed from the count. Cases residing in Lebanon were all included regardless of their nationality. We believe that the coverage of this report surpasses 90% of all incident cases in Lebanon in 2003, although part of cases reported may have been prevalent ones diagnosed in earlier years.

1.3. Population of Lebanon

In the absence of an accurate census of the Lebanese population, incidence calculations in this report were performed using figures used by MOPH Epidemiological Surveillance Program (ESP). Those figures have been derived from the Central Agency for Statistics (CAS) survey 1997 and regional distributions from a survey conducted by the Ministry of Social Affairs (MOSA) in 1996, and adjusted for national growth rates proposed by UNPD for that period (Epinews, 2005). They are the best-estimates of the Lebanese population inclusive of permanent residents and Palestinian residents. ESP figures for distribution by districts: 25 cazas in 5 mohafazats; are presented in table 1. Table 2 presents the distribution of the population by age-groups. In 2003, the population of Lebanon was estimated at 4,449,573, of which 50.5% were females, 29% were children aged less than 15 and 7% were senior citizens aged 65 or more. Figure 2 shows the age-pyramid in Lebanon in 2003.

2. RESULTS

2.1. Completeness of count

This report involves 7,888 cases diagnosed during 2003, of which 3400 (43%) were obtained through the passive “capture” system, and the other 57% from the active “recapture” system. Extrapolation from the 1998 LCEG (Shamseddine et al., 2004) and the NCR report in 2002 indicates that cases collected by NCDP account for 40%-50% of the actual total of cancer cases in Lebanon. Consequently the expected number of cases in 2003 was between 6800 and 8500 cases, with an approximate average of 7,555 cases. This expected figure compares favorably with the observed one and suggests a near complete accounting for all incident cancers diagnosed in Lebanon in 2003.

2.2. Demographic characteristics of cancer cases

Of 7,888 cases, 51.3% were in women (4047 cases) and 49% (3841 cases) in men. Pediatric cases in patients less than 15 years of age accounted for 3.3% of the total. The overall age-distribution showed the usual ascending trend after 40 (Figure 3). Mean age of cases was 57.1 years (SD=17.7; median 60 years), with a significant difference on average ($p<0.05$) between men (59.3 ± 18.3 years) and women (55.1 ± 16.8 years). The median age at diagnosis for women was 56 years versus 64 for men. Details are shown in Table 3.

The younger age of diagnosis in women compared to men has been a consistent finding in the past decade. It can be largely attributed to the predominance of breast cancer, a cancer located in an external organ, therefore likely to be detected relatively earlier than cancers of inner organs which predominate in men. The median age for breast cancer diagnosis in women was 53 years, compared to 60 in the 28 recorded breast cancer cases in males (1.6% of all breast cases) ($p=0.02$).

In almost all other cancers, diagnosis occurred predominantly after 60 years. Apart from breast cancers in women, exceptions included non-Hodgkin's lymphomas (NHL) at a median age of 59, Hodgkin's lymphomas (HL) at a median age of 31.5 years, and leukemia of all types at 41 years. No significant differences in median age at diagnosis were found in any of those cancer types. Details regarding age at diagnosis by gender for most frequently diagnosed cancer types are presented in table 4.

2.3. Geographic distribution of cancer in 2003

Only 39.5% of reported cases were linked to a mohafazat or caza of residence, rendering all attempts to measure cancer incidence by district highly invalid. Furthermore, even if counts by districts were complete, adequate denominators are not available. Figures presented in table 1 are those of the population "registered" in a given district. They do not reflect the actual number of residents in that district. It is well known that rural areas have been slowly depopulated by internal migration to urban and suburban areas, as well as by external migration. Short of an exhaustive census, it will not be possible to speculate on the real population size of every caza in Lebanon. On the other hand, there are no reasons to believe that the "place of residence" variable was missed differentially across districts. Consequently, the relative proportions of cancer locations could still be computed in a relatively unbiased and representative manner. As expected, the highest case-loads were reported in the mohafazat of Beirut and surrounding Metn and Baabda cazas. These districts are part of the Greater-Beirut area, where more than 50% of the population of Lebanon is concentrated. In all other districts, relative proportions of cancer cases were largely similar to the relative distribution of the registered population in those districts. Details are shown in table 5.

2.4. Anatomical cancer sites in adults and children

Anatomical cancer sites are presented by gender in table 6. The five most frequently diagnosed cancer sites in males in 2003 were: prostate (18%), lung (16%), bladder (15%), colo-rectum (8%) and lymphomas (7%). In females these were: breast (42%), colo-rectum (7%), ovary (5%), lymphomas (5%) and lung (4.5%). Bladder cancer was still relatively important in women (3.5%) though at a lower level than in men. Breast remains the most commonly diagnosed cancer in Lebanon, albeit at higher rates than hitherto described. About 4 in 10 of all cancers diagnosed in women is now a breast cancer, 1 in 5 (22%) for the entire cancer case-load. It is followed by bladder (9%), prostate (8.5%), colo-rectum (8%) and lymphomas of all types (6%). Cancers with unspecified or ill-defined sites constituted 1.3% of the total case-load in 2003 (n=115).

In all, 237 cancers were recorded in children less than 15 years old (3.3% of the total case-load). About 1/3rd of every pediatric cancer were leukemias, followed by brain and bone cancers. The average age of children with cancers was 7.6 years (SD=4.0) with a median of 8 years. Table 7 presents the details of pediatric cancer sites in 2003.

2.5. Pathology of selected cancer types

Table 8 presents available pathology data for most frequently recorded cancers: breast, lung, prostate, colo-rectum, bladder, leukemia, NHL, HL, stomach and larynx. The pathology of skin cancers reported to NCR are also presented in this table. Only skin melanomas were included in the analysis of this database.

2.6. Incidence rates among males in 2003

The crude incidence rate of cancer among males in Lebanon in 2003 was estimated at 174.3 new cases per 100,000. The age-adjusted incidence rate was estimated at 169.34 per 100,000. The highest cancer-specific incidence rates were found for prostate (C61), lung and bronchi (C33-34), bladder (C67), colon and rectum (C18-20) and NH lymphoma (C82-85). Details are presented in Table 9.

2.7. Incidence rates among females in 2003

The crude incidence rate of cancer among females in Lebanon in 2003 was estimated at 180.1 new cases per 100,000. The age-adjusted incidence rate was estimated at 176.81 per 100,000. The highest cancer-specific incidence rate was by far that of breast cancer (C50) followed by lung and bronchi (C33-34), colon and rectum (C18-20), ovary (C55) and NH lymphoma (C82-85). Details are presented in Table 10.

2.8. Age-specific and age-adjusted rates for all in 2003

As expected, the age-specific incidence rates (ASIR) increase with age in both sexes. While incidences at older age are higher in men, the rise is steeper in women. The overall crude incidence rate for all ages and sexes in 2003 was estimated at 177.3 new cases per 100,000, and after age-adjustment at 173.52 per 100,000 (Table 11).

3. EDITORIAL COMMENTS

3.1. Epidemiological features of cancer in Lebanon in 2003

The population-based LCEG account of cancer cases obtained in 1998 put the total number at 4388 cases (Shamseddine et al., 2004). The absolute number found in 2003 is 7,888 cases or an increase of about 80%. The number of cases recaptured through the passive system validates the 2003 counts. One may argue that the increase is an artifact, due to more complete case reporting in 2003. However, this argument cannot explain alone the increase in cases. In the absence of a major population increase, one is forced to consider that cancer incidence is rising in reality and not only because of better detection and diagnosis in the last decade.

The comparison of incidence rates with 1998 is not immediately feasible since the ways used to estimate the denominators has changed. Those used in 2003 are also those used by the MOPH Epidemiological Surveillance Program to calculate the incidence of infectious diseases and selected rates in the National Cardio-Vascular Registry. Those denominators are therefore now the norm to be used in future years, taking in account the annual growth rate of the population. These are all estimates however, and cannot replace the valid population description which can only be obtained from a general census of the Lebanese population. With NCR providing consistent annual reports, upward trends surmised since the early 1990s will be asserted with more accuracy. LCEG 1998 showed that cancer incidence in Lebanon was higher than in other neighboring Arab countries. This is still confirmed with these data. For example, in 2002, Jordan reported 4187 for a population of 5,300,000 (compared to the estimated 4,500,000 in Lebanon) (NCR-Jordan, 2002). Reasons for these discrepancies should be addressed separately through inter-Arab studies.

The general distribution of cancer sites, and ages at diagnosis for men and women in 2003 have been consistent with previous reports in LCEG 1998 and NCR 2002. There are no gender differences in cancer occurrence, and half of the 2003 cases were diagnosed at 60 or younger. Special attention should be focused on breast cancer which remains the most frequently diagnosed malignancy in Lebanon. Also to be debated is the relative frequency of colo-rectal cancer which requires the setting up of national guidelines for early detection. Two other frequently diagnosed cancers are associated with smoking: lung and bladder, and their prevention as well as that of other cancers such as those of the larynx and oral cavity should be a strong argument for stringent tobacco control policies. Finally, more attention should be devoted to the increasing detection of prostate cancer and the decreasing ages of lymphomas in Lebanon.

3.2. Managerial issues regarding NCR

NCR operations have been negatively affected since 2003 by a number of managerial issues:

i. Unclear organizational structure:

The recapture system has been clearly established within NCDP, an MOPH program run by the WHO representation in Lebanon. The capture system necessitated the willing participation of clinical sources of data as well as flexible means to fund additional activities. Currently, the situation has been clarified. NCR is clearly an activity of MOPH conducted through NCDP with oversight from an appointed Committee. Partners represented in that Committee can seek, manage and disburse additional funds necessary for the Registry which may not be available through NCDP budget.

ii. Inefficient operations

Data collection relies on completed paper forms which have to be downloaded manually into the database. In some instances, forms obtained are not standard NCR forms and several requested variables are missing which need to be completed case-by-case. Even when data from hospital-based registries are available electronically, they are not always readily readable into the NCR system. These operations are time-consuming. Progress on electronic readability and completeness in 2006 will improve the efficiency of the process

3.3. Recommendations for sustained and improved NCR activities

- i. Providing consistent funding for NCR activities
- ii. Supporting activities towards longitudinal follow-up and survival of cancer cases
- iii. Enshrining NCR operations within an overall National Cancer Control Program for Lebanon

REFERENCES

- Epidemiological Surveillance Program. Population estimations. Lebanon 2003 and 2004. Lebanese Epidemiological Newsletter 2005; 8:15.
- National Cancer Registry. Incidence of cancer in Jordan 2002. Amman 2002
- National Cancer Registry- Lebanon 2002. Site www.leb.emro.who.int
- Shamseddine A, Sibai AM, Geahchan N, Rahal B, El-Saghir N, Ghosn M, Aftimos G, Chamseddine N, Seoud M, et al. Cancer incidence in post-war Lebanon: Findings from the first national population-based registry 1998. Annals of Epidemiology 2004; 14:663-668.

TABLE 1
POPULATION OF LEBANON BY MOHAFAZATS AND CAZAS IN 2003

MOHAFAZAT and CAZA	n	%
BEIRUT	566,495	12.71
MOUNT-LEBANON	1,651,402	37.11
Aley	141,932	3.19
Baabda	532,270	11.96
Chouf	171,459	3.85
Jbeil	92,425	2.08
Kesrouan	181,255	4.07
Metn	532,062	11.96
NORTH-LEBANON	967,752	21.75
Akkar	285,468	6.42
Batroun	51,571	1.16
Becharre	25,018	0.56
Koura	69,976	1.57
Minieh/Dinnieh	141,383	3.18
Tripoli	322,742	7.25
Zghorta	71,593	1.61
SOUTH-LEBANON	383,612	8.62
Jezzine	21,696	0.49
Saida	175,823	3.95
Tyre	186,093	4.18
NABATIEH	304,320	6.84
Bent Jbeil	78,354	1.76
Hasbaya	28,807	0.65
Marjayoun	60,685	1.36
Nabatieh	136,473	3.07
BEKAA	576,992	12.97
Baalbeck	230,196	5.17
Hermel	57,784	1.30
Rashaya	35,272	0.79
West Bekaa	80,646	1.81
Zahleh	173,094	3.89
TOTAL	4,449,573	100.0

TABLE 2
AGE-DISTRIBUTION OF THE POPULATION OF LEBANON IN 2003 (1) AND OF THE WORLD STANDARD
POPULATION USED FOR AGE-ADJUSTEMENT (2)

AGE-GROUPS (years)	MALES (n, %)	FEMALES (n, %)	TOTAL (n, %)	STANDARD (n, %)
0-4	196,002 (8.9)	182,669 (8.1)	378,671 (8.5)	120,000 (12.0)
5-9	231,856 (10.5)	219,615 (9.8)	451,471 (10.1)	100,000 (10.0)
10-14	243,273 (11.0)	228,012 (10.1)	471,285 (10.6)	90,000 (9.0)
15-19	230,893 (10.5)	218,082 (9.7)	448,976 (10.1)	90,000 (9.0)
20-24	219,206 (10.0)	212,707 (9.5)	431,913 (9.7)	80,000 (8.0)
25-29	182,583 (8.3)	201,107 (8.9)	383,690 (8.6)	80,000 (8.0)
30-34	168,548 (7.7)	194,453 (8.7)	363,001 (8.1)	60,000 (6.0)
35-39	134,075 (6.1)	154,588 (6.9)	288,663 (6.5)	60,000 (6.0)
40-44	110,721 (5.0)	125,486 (5.6)	236,207 (5.3)	60,000 (6.0)
45-49	92,308 (4.1)	99,513 (4.4)	191,820 (4.3)	60,000 (6.0)
50-54	86,693 (3.9)	89,617 (4.0)	176,310 (4.0)	50,000 (5.0)
55-59	78,908 (3.6)	84,618 (3.8)	163,526 (3.7)	40,000 (4.0)
60-64	75,017 (3.4)	77,603 (3.5)	152,620 (3.4)	40,000 (4.0)
65-69	64,086 (3.0)	67,102 (3.0)	131,188 (3.0)	30,000 (3.0)
70-74	44,049 (2.0)	44,941 (2.0)	88,990 (2.0)	20,000 (2.0)
≥75	44,049 (2.0)	44,941 (2.0)	88,990 (2.0)	20,000 (2.0)
TOTAL	2,202,481 (100)	2,247,092 (100)	4,449,573	1,000,000 (100)
%	49.5	50.5	100	100

SOURCES:

1. Epidemiological Surveillance Program- Ministry of Public Health- Republic of Lebanon
2. National Cancer Registry in Jordan. The age-group distribution by sexes is equal in the standard population

TABLE 3
DEMOGRAPHIC CHARACTERISTICS OF INCIDENT CANCER CASES
IN LEBANON 2003 (N = 7888 cases)

VARIABLE	N	%
GENDER		
Men	3841	48.7
Women	4047	51.3
AGE-GROUPS		
< 15	237	3.3
15-19	90	1.3
20-24	87	1.2
25-29	126	1.8
30-34	185	2.6
35-39	340	4.7
40-44	455	6.4
45-49	604	8.4
50-54	636	8.6
55-59	712	9.9
60-64	821	11.5
65-69	928	13.0
70-74	864	12.1
≥ 75	1077	15.0
Total*	7163	100
MEAN AGE IN YEARS BY SEX (SD, median)**		
Men	59.3	(18.7; 64)
Women	55.1	(16.8; 56)
All	57.1	(57.1; 60)

* Some data are missing

** p< 0.01

TABLE 4
DIFFERENCES IN AGES BY GENDER FOR SELECTED CANCER TYPES
IN LEBANON 2003

TYPES	AGE (mean in years, SD)	Median	p-value
Breast (n=1587)			
Males	60.0 (13.0)	61.5	0.02
Females	54.0 (13.0)	53	
All	54.1 (13.0)	53	
Lung (n=810)			
Males	62.8 (12.5)	64	0.56
Females	62.2 (12.8)	64	
All	62.6 (12.6)	64	
Bladder (n =723)			
Males	65.2 (11.8)	66	0.68
Females	64.8 (11.8)	65	
All	65.2 (11.8)	66	
Prostate (n=676)			
Males	69.9 (8.8)	71	---
Colorectal (n=513)			
Males	61.5 (15.2)	64	0.28
Females	62.9 (14.8)	62	
All	62.2 (15.0)	65	
Non-Hodgkin's lymphoma (n=336)			
Males	54.9 (19.3)	60	0.90
Females	55.1 (19.1)	59	
All	55.0 (19.2)	59	
Hodgkin's lymphoma (n=122)			
Males	38.3 (20.3)	31.5	0.39
Females	35.3 (15.7)	32	
All	37.2 (18.8)	31.5	
Leukemia all types (n=319)			
Males	39.1 (25.8)	40.5	0.99
Females	39.1 (25.8)	40.5	
All	39.1 (25.7)	41	

TABLE 5
INCIDENT CANCER CASES BY AREA OF RESIDENCE, LEBANON 2003
(N = 3115)*

MOHAFAZA AND CAZA	n	%**	Population % **
BEIRUT	587	18.8	12.7
MOUNT-LEBANON			
Metn	467	15.0	12.0
Baabda	328	10.5	11.9
Kesrouan	178	5.7	4.1
Chouf	114	3.7	3.8
Aley	90	2.9	3.2
Jbeil	70	2.2	2.1
Unknown Caza	26	0.8	---
Subtotal	1273	40.9	37.1
NORTH-LEBANON			
Tripoli	204	6.5	7.2
Akkar	103	3.3	6.4
Zghorta	62	2.0	1.6
Koura	61	2.0	1.6
Batroun	36	1.2	1.1
Minieh/Dinnieh	28	0.9	3.2
Becharre	12	0.4	0.6
Unknown Caza	17	0.5	---
Subtotal	523	16.8	21.7
SOUTH-LEBANON			
Saida	172	5.5	4.0
Tyre	135	4.3	4.2
Jezzine	21	0.7	0.5
Unknown Caza	1	0	---
Subtotal	328	10.5	8.7
NABATIEH			
Nabatieh	98	3.1	3.0
Bent Jbeil	56	1.8	1.7
Marjayoun	30	1.0	1.4
Hasbaya	13	0.4	0.7
Unknown Caza	0	0	---
Subtotal	197	6.3	6.8

Table 5 (continued)

MOHAFAZAT AND CAZA	N	%**	Population % **
BEKAA			
Baalbeck	108	3.5	5.2
Zahleh	85	2.8	3.9
West Beqaa	31	1.0	1.8
Rashaya	14	0.4	0.8
Hermel	11	0.4	1.3
Unknown Caza	9	0.3	--
Subtotal	247	7.9	13.0
TOTAL	3155	100	100

* Total excludes cases with missing data (n=4733)

** Relative proportions. No incidence rates were calculated in the absence of real figures for population residence all over the Lebanese Republic

TABLE 6
CANCER SITES BY GENDER, LEBANON 2003 (N=7,888)

PRIMARY SITES (ICD-10)	MALES n (%)	FEMALES n (%)	ALL n (%)
Lip (C00)	16 (0.4)	11 (0.3)	27 (0.3)
Tongue (C01-02)	13 (0.3)	9 (0.2)	22 (0.2)
Oral cavity (C03-06)	19 (0.5)	8 (0.2)	27 (0.3)
Salivary glands (C07-C08)	3 (0.1)	2 (0)	5 (0)
Tonsils (C09)	4 (0.1)	1 (0)	5 (0)
Pharynx (C10-14)	21 (0.5)	19 (0.5)	40 (0.5)
Esophagus (C15)	20 (0.5)	5 (0.1)	25 (0.3)
Stomach (C16)	121 (3.2)	104 (2.6)	225 (2.8)
Small intestine (C17)	12 (0.3)	4 (0.1)	16 (0.2)
Colon (C18)	225 (5.8)	228 (5.6)	453 (5.7)
Junction - Rectum (C19-C20)	88 (2.2)	73 (1.8)	161 (2.0)
Anus (C21)	4 (0.1)	4 (0.1)	8 (0.1)
Liver & intrahepatic bile ducts (C22)	36 (0.9)	31 (0.8)	67 (0.8)
Gallbladder (C23-24)	28 (0.7)	28 (0.7)	56 (0.7)
Pancreas (C25)	66 (1.7)	54 (1.3)	120 (1.5)
Other digestive sites (C26)	17 (0.4)	12 (0.3)	29 (0.4)
Nose & middle ear (C30)	21 (0.5)	6 (0.1)	27 (0.3)
Sinuses (C31)	5 (0.1)	1 (0)	6 (0)
Larynx (C32)	109 (2.8)	26 (0.6)	135 (1.7)
Trachea - Lung & bronchus (C33-34)	614 (16.0)	261 (4.5)	875 (11.1)
Thymus (C37)	3 (0)	4 (0.1)	7 (0)
Other thoracic sites (C38-39)	21 (0.5)	8 (0.2)	29 (0.3)
Bone & cartilage (C40-41)	35 (0.9)	12 (0.3)	47 (0.5)
Skin melanoma (C43)*	30 (0.8)	36 (0.9)	66 (0.8)

Table 6 (continued)

PRIMARY SITES (ICD-10)	MALES	FEMALES	ALL
Mesothelium & soft tissue (C45-49)	47 (1.2)	58 (1.4)	105 (1.3)
Breast (C50)	28 (0.7)	1710 (42.3)	1738 (22.0)
Vulva & vagina (C51-52)	-- --	34 (0.8)	34 (0.4)
Cervix uteri (C53)	-- --	91 (2.3)	91 (1.1)
Corpus uteri (C54)	-- --	112 (2.8)	112 (1.4)
Ovary (C55)	-- --	190 (4.7)	190 (2.4)
Other genital sites & placenta (C56-57)	-- --	47 (1.2)	47 (0.5)
Penis (C60)	5 (0.1)	-- --	5 (0)
Prostate (C61)	676 (17.6)	-- --	676 (8.5)
Testis (C63)	83 (2.2)	-- --	83 (1.0)
Other male genital sites (C63)	3 (0.1)	-- --	3 (0)
Kidney (C64)	82 (2.1)	59 (1.5)	141 (1.7)
Calices & ureters (C65-66)	1 (0)	2 (0)	3 (0)
Bladder (C67)	583 (15.2)	140 (3.5)	723 (9.1)
Other urinary sites (C68)	4 (0.1)	6 (0.1)	10 (0.1)
Eye & adnexa (C69)	15 (0.4)	9 (0.2)	24 (0.3)
Meninges & brain (C70-71)	103 (2.7)	57 (1.4)	160 (2.0)
Other central nervous system sites (C72)	7 (0.2)	9 (0.2)	16 (0.2)
Thyroid (C73)	33 (0.9)	97 (2.4)	130 (1.6)
Other endocrine sites (C74-75)	7 (0.2)	3 (0.1)	10 (0.1)
Other ill-defined sites (C76)	17 (0.4)	17 (0.4)	34 (0.4)
Unspecified lymph nodes (C77)	30 (0.7)	25 (0.6)	55 (0.6)
Unspecified sites (C80)	25 (1.1)	15 (0.3)	26 (0.3)

Table 6 (continued)

PRIMARY SITES (ICD-10)	MALES	FEMALES	ALL
Hodgkin's lymphoma (C81)	80 (2.1)	50 (1.2)	130 (1.6)
Non Hodgkin's lymphoma (C82-85)	192 (5.0)	166 (4.1)	358 (4.5)
Multiple myeloma & related types (C90)	93 (2.4)	70 (1.6)	163 (2.0)
Lymphoid leukemia (C91)	124 (3.2)	79 (2.0)	203 (2.5)
Myeloid leukemia (C92)	53 (1.4)	38 (0.9)	91 (1.1)
Other leukemia (C93-95)	17 (0.4)	8 (0.2)	25 (0.3)
Other lymphatic/hematopoietic types (C96)	1 (0)	1 (0)	2 (0)
TOTAL**	3841 (100)	4047 (100)	7888 (100)

* All other skin cancers (C44) not included in the registry (see separate analysis in table 8)

** Excluding all in-situ cancers. Totals have been rounded up to 100%.

TABLE 7
SITES OF PEDIATRIC CANCERS, LEBANON 2003
(N = 237)

PRIMARY SITES	n	%
Leukemia	82	34.5
Meninges and brain	33	13.9
Bone & cartilage	21	8.8
Kidney	14	5.9
Non-Hodgkin's lymphoma	13	5.5
Soft/connective tissues	8	3.4
Eye	7	2.9
Testis	7	2.9
Hodgkin's lymphoma	7	2.9
Lung and trachea	6	2.5
Others	40	16.8
Total	238	100.0

TABLE 8
PATHOLOGY OF SELECTED CANCERS. LEBANON 2003

TYPES*	N	%
Breast		
Infiltrating duct carcinoma	1403	82.6
Lobular carcinoma	109	6.4
Adenocarcinoma NOS	88	5.2
Carcinoma NOS	40	2.4
Infiltrating mixed duct & lobular carcinoma	17	1.0
Others	42	2.4
Total	1699	100
Lung		
Adenocarcinoma NOS	496	56.7
Small cell carcinoma	134	15.3
Squamous cell carcinoma	121	13.8
Carcinoma NOS	35	4.0
Large cell carcinoma	18	2.1
Mucoepidermoid carcinoma	16	1.8
Others	55	6.3
Total	875	100
Bladder		
Transitional cell carcinoma NOS	583	80.7
Papillary carcinoma NOS	49	6.8
Adenocarcinoma NOS	41	5.7
Carcinoma NOS	33	4.6
Squamous cell carcinoma	7	1.0
Others	10	1.2
Total	723	100
Prostate		
Adenocarcinoma NOS	655	96.9
Carcinoma NOS	7	1.0
Others	14	2.1
Total	676	100
Colorectum		
Adenocarcinoma NOS	529	92.8
Carcinoma NOS	12	2.1
Mucinous adenocarcinoma	11	1.9
Others	18	3.2
Total	570	100

Table 8 (continued)

TYPES	N	%
Leukemia		
Acute lymphoblastic leukemia	116	37.1
Chronic lymphocytic leukemia	56	17.9
Acute myeloid leukemia	53	16.9
Chronic myeloid leukemia	31	9.9
Acute leukemia NOS	10	3.2
Leukemia NOS	7	2.2
Lymphoid leukemia NOS	6	1.9
Hairy cell leukemia	6	1.9
Chronic leukemia NOS	4	1.2
Others	30	7.8
Total	312	100
Non-Hodgkin's lymphoma		
Malignant lymphoma NOS	293	81.9
Malignant lymphoma, large cell, diffuse NOS	20	5.6
Malignant lymphoma, follicular NOS	9	2.5
Burkitt's lymphoma NOS	5	1.4
Others	31	8.6
Total	358	100
Hodgkin's lymphoma		
Hodgkin's lymphoma NOS	88	68.2
Nodular sclerosis	20	15.5
Mixed cellularity	10	7.8
Lymphocytic depletion	3	2.3
Others	8	6.2
Total	129	100
Stomach		
Adenocarcinoma NOS	176	65.4
Adenocarcinoma, intestinal type	55	20.4
Signet ring cell carcinoma	16	5.9
Sarcoma NOS	9	3.3
Others	13	5.0
Total	269	100

Table 8 (continued)

TYPES	N	%
Larynx		
Squamous cell carcinoma	89	65.9
Adenocarcinoma NOS	36	26.7
Mucoepidermoid carcinoma	7	5.2
Carcinoma NOS	2	1.5
Others	1	0.7
Totals	135	100
Skin**		
Basal cell carcinoma	285	70.0
Squamous cell carcinoma	108	26.5
Others	14	3.5
Totals	407	100

NOS: Not otherwise specified

* Totals do not correspond to previous counts because of missing data

** All except melanomas are excluded from the database.

TABLE 9

CANCER INCIDENCE RATES AMONG MALES IN LEBANON 2003

PRIMARY SITES	n	AGE-SPECIFIC RATES per 100,000									CRUDE RATES	ASR
		UN	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75+		
Oro-pharynx (C00-C14))	67	13	0	0.2	0.9	0.4	7.8	15.6	7.4	6.8	3.0	2.82
Stomach (C16)	142	12	0.4	0.7	0.6	5.7	8.4	20.8	33.3	56.8	6.4	6.40
Colon (C18)	208	25	0.3	0	2.6	5.3	12.8	27.3	51.8	86.3	9.4	9.00
Rectum (C19-C20)	84	5	0	0	1.4	2.9	7.8	11.0	18.5	36.3	3.8	3.94
Liver (C22)	36	4	0	0.2	0.3	0.8	2.2	1.9	14.8	11.4	1.6	1.54
Gallbladder (C23- 24)	28	1	0	0	0	0	1.7	3.9	10.2	15.9	1.3	1.32
Pancreas (C25)	66	4	0	0	0	1.2	7.8	9.1	21.3	18.2	3.0	3.16
Larynx (C32)	109	12	0	0	0.3	2.0	8.4	14.3	28.7	52.2	4.9	4.83
Lung & bronchus (C33-34)	614	52	0.7	0.2	0.9	11.8	52.0	102.6	154.4	240.6	27.9	28.27
Bone & cartilage (C40-41)	35	4	0.6	2.4	1.1	1.2	0.6	1.9	2.8	4.5	1.6	1.35
Skin melanoma (C43)	30	2	0.1	0.7	0	1.2	3.9	2.6	5.5	9.1	1.3	1.40
Connective tissue (C45-49)	29	3	0.9	0.7	0.3	0.8	1.7	1.3	6.5	4.5	1.3	1.23
Prostate (C61)	676	79	0	0.2	0.3	0.8	12.8	75.4	251.5	413.2	30.7	28.46
Testis (C62)	83	2	1.0	3.1	7.1	8.6	5.0	1.9	0.9	2.3	3.8	3.68
Kidney (C64)	82	5	0.7	0.2	0.9	2.9	6.7	11.7	19.4	22.7	3.7	3.83
Bladder (C67)	583	80	0.1	0	2.3	9.0	28.5	86.4	162.8	254.3	26.5	24.71

Table 9 (continued)

PRIMARY SITES	n	AGE-SPECIFIC RATES per 100,000									CRUDE RATES	ASR
		UN	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75+		
Meninges & brain (C70-71)	103	2	2.8	2.2	3.7	7.8	7.8	9.7	7.4	6.8	4.7	4.85
Thyroid (C73)	33	3	0.1	0.4	1.1	2.0	2.8	3.2	3.7	9.1	1.5	1.46
Hodgkin's lymphoma (C81)	80	2	0.7	3.6	6.6	2.5	5.0	3.9	7.4	11.4	3.6	3.51
NH lymphoma (C82-85)	192	10	1.3	1.6	2.6	13.5	11.2	22.1	38.8	63.6	8.7	8.87
Multiple myeloma (C90)	93	2	0.4	0.7	1.4	2.5	5.6	13.0	25.0	38.6	4.2	4.42
Leukemia (C91-95)	189	15	7.7	3.8	2.0	8.6	12.3	14.3	22.2	20.4	8.6	8.37
All other sites	283	46	1.5	1.3	3.1	6.1	26.8	37.0	51.8	77.2	12.4	11.91
All cancers	3841	370	19.8	22.2	39.3	97.6	239.7	491.1	946.0	1462.0	174.3	169.34

ASR: Age-standardized rates

UN: Number of cases where the age is unknown

TABLE 10
CANCER INCIDENCE RATES AMONG FEMALES IN LEBANON 2003

PRIMARY SITES	n	AGE-SPECIFIC RATES per 100,000									CRUDE RATES	ASR
		UN	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75+		
Oro-pharyngeal (C00-C14))	44	4	0.3	0.9	0	2.1	2.1	6.2	6.2	15.6	2.0	1.85
Stomach (C16)	127	11	0.2	0.5	0.8	6.0	12.7	14.8	28.6	40.1	5.7	5.79
Colon (C18)	211	29	0.2	0.7	1.3	4.3	15.3	27.7	49.1	86.8	9.4	8.97
Rectum (C19-C20)	67	5	0	0	0.5	0.7	5.3	6.8	17.9	37.8	2.3	2.93
Liver (C22)	31	4	0	0	0.3	0.4	2.6	1.2	11.6	11.1	1.4	1.27
Gallbladder (C23- 24)	28	3	0.2	0	0.3	0	1.6	3.7	2.7	24.5	1.2	1.20
Pancreas (C25)	54	0	0	0	0.3	0	4.2	6.8	20.5	24.5	2.4	2.56
Larynx (C32)	26	3	0	0	0	0.4	4.2	4.3	5.4	2.2	1.2	1.17
Lung & bronchus (C33-34)	261	13	0.2	0	0.5	7.9	20.6	40.7	64.3	102.4	11.6	11.87
Bone & cartilage (C40-41)	36	4	2.7	1.6	0.5	0	2.1	1.2	1.8	0	1.6	1.60
Skin melanoma (C43)	19	4	0	0.2	0.5	0.7	3.2	0.6	2.7	0	0.8	0.72
Connective tissues (C45-49)	34	6	0.6	0.5	1.0	1.1	3.2	1.2	10.9	4.4	1.5	1.62
Breast (C50)	1710	149	0.5	0.5	15.2	123.9	237.4	207.1	223.1	253.7	76.1	76.15
Vulva & vagina (C51-52)	34	2	0	0	0.3	1.1	3.7	2.5	8.9	15.6	1.5	1.28
Cervix uteri (C53)	91	4	0	0.2	0.3	3.9	13.2	13.6	18.7	13.4	4.0	4.29
Corpus uteri (C54)	112	11	0	0.5	0.5	2.5	14.3	15.4	24.1	24.5	5.0	4.96
Ovary (C55)	190	13	0	0.5	4.0	8.6	18.0	21.0	36.6	57.9	8.5	8.32
Kidney (C64)	59	7	1.4	0.5	0.3	2.1	2.6	4.9	14.3	11.1	2.6	2.43
Bladder (C67)	140	22	0	0	0.3	1.8	8.4	19.7	31.2	64.5	6.2	5.61

Table 10 (continued)

PRIMARY SITES	N	AGE-SPECIFIC RATES per 100,000									CRUDE RATES	ASR
		UN	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75+		
Meninges & brain (C70-71)	57	3	2.2	0.7	2.8	2.9	3.7	1.8	6.2	2.2	2.5	1.73
Thyroid (C73)	97	16	0.2	1.2	2.3	8.6	10.4	4.4	7.1	13.2	4.3	3.41
Hodgkin's lymphoma (C81)	50	6	0.3	2.8	2.8	2.5	2.1	3.3	1.2	0	2.2	1.82
NH lymphoma (C82-85)	166	12	0.6	2.3	3.5	4.6	10.0	21.6	32.1	51.2	7.4	7.08
Multiple myeloma (C90)	70	2	0	0.5	1.0	2.5	7.4	8.0	14.3	26.4	3.1	2.25
Leukemia (C91-95)	123	5	4.8	2.3	1.5	3.2	6.4	10.6	14.3	33.4	5.5	5.41
All other sites	210	29	2.2	1.6	3.3	6.8	15.6	26.5	35.7	40.1	9.3	8.24
All cancers	4047	367	16.5	17.9	43.7	198.5	427.7	477.7	684.6	961.3	180.1	176.81

ASR: Age-standardized rates

UN: Number of cases where the age is unknown

TABLE 11
AGE-SPECIFIC CANCER INCIDENCE RATES (per 100,000) IN THE LEBANESE POPULATION IN 2003

AGE-GROUPS*	MALES		FEMALES		TOTAL	
	n	ASIR	n	ASIR	n	ASIR
0-14	133	19.8	104	16.5	237	18.21
15-24	100	22.2	77	17.9	177	20.09
25-34	138	39.3	173	43.7	311	41.65
35-44	239	97.6	556	198.5	795	151.46
45-54	429	239.7	809	427.7	1238	336.29
55-64	756	491.1	771	477.7	1527	483.0
65-74	1023	946.0	767	684.6	1790	812.97
≥75	644	1462.0	432	961.3	1076	1209.12
TOTAL	3841	174.3	4047	180.1	7888	177.3
ASR	---	169.34	---	176.81	--	173.52

ASIR: Age-specific incidence rate per 100,000

ASR: Age-standardized rate per 100,000

* Only cases with known age were included in each ASIR, while all cases were included on the total

FIGURE 2
AGE-PYRAMID OF THE LEBANESE POPULATION IN 2003 (N=4,449,573)

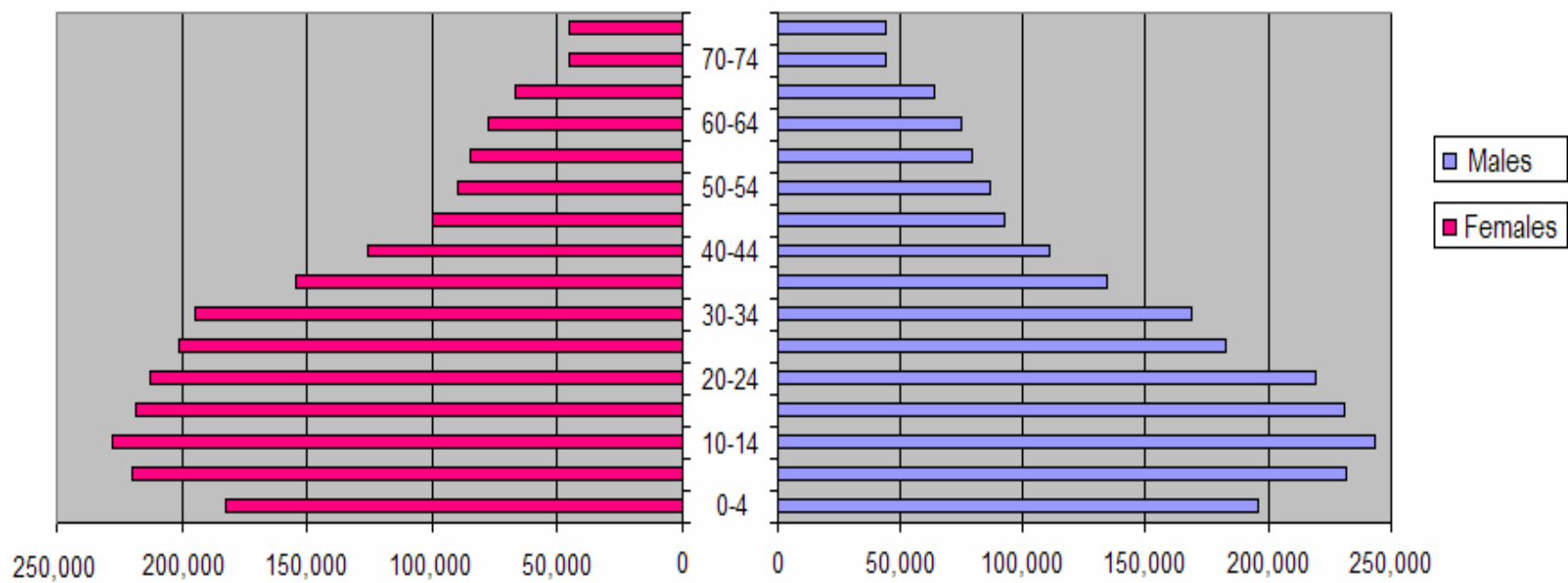
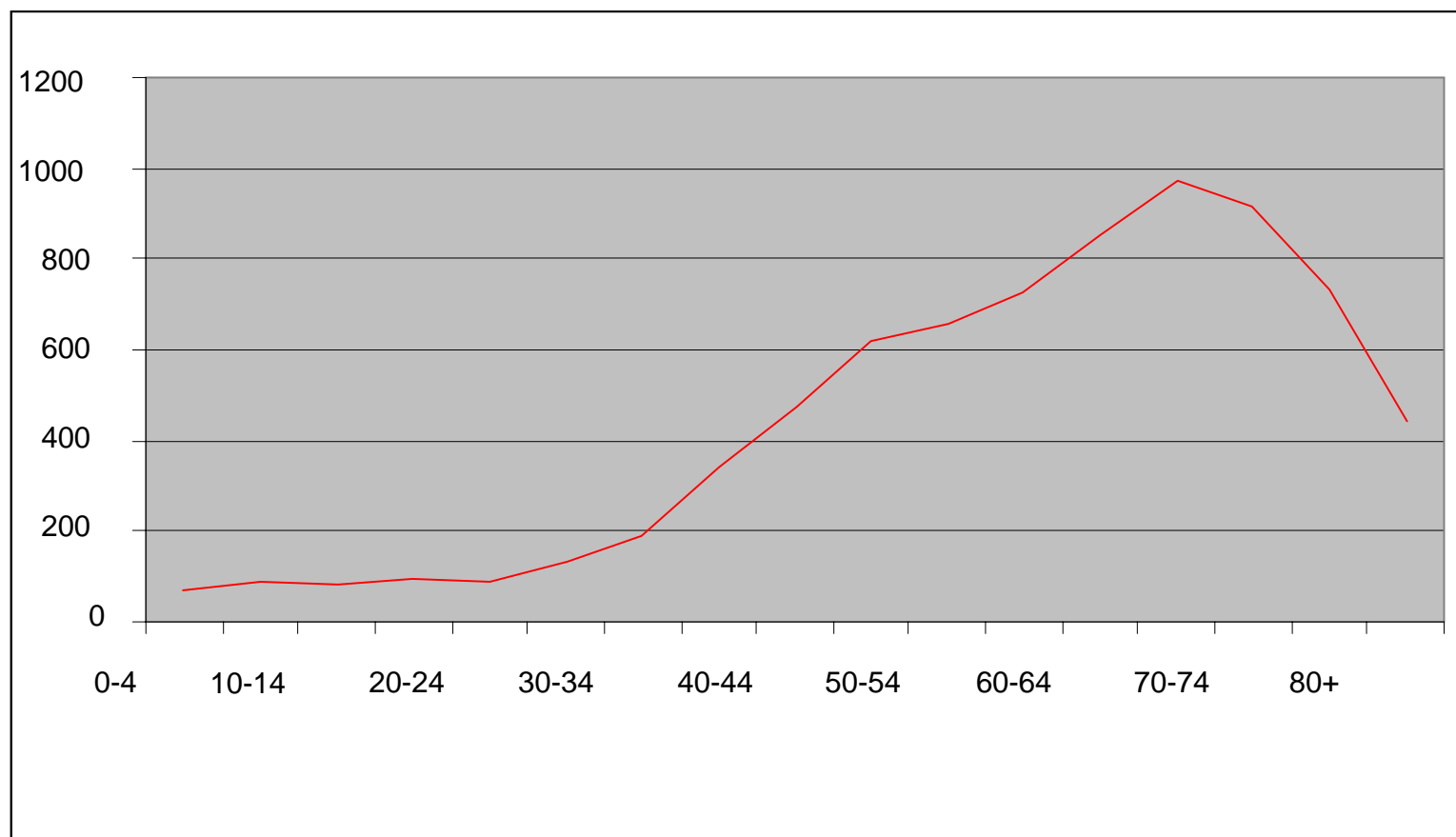


FIGURE 3
AGE DISTRIBUTION OF INCIDENT CANCER CASES IN LEBANON 2003 (N=7888)



HOSPITALS AND PATHOLOGY CENTERS PROVIDING CANCER 2003 DATA

HOSPITALS

Abou Jawdeh
 Ain W Zain
 Rahal (Akkar)
 AUBMC
 Baabda
 Bahman
 Batroun
 Beit Chabab Institute
 Borji
 Bsalim
 Centre Hosp du Nord
 Dahr El Bachek
 Dalaa
 Dar El Hikma
 Geitawi
 Hamlin
 Hammoud
 Hayat
 Hayek
 Hilal
 Hotel-Dieu
 Hussein
 Hayek
 Islamic Tripoli
 Jabal Amel
 Joumblat
 Karam
 Khoury General (Zahleh)
 Labib
 Lebanese French (Zahleh)
 Libano-Canadien
 Makassed
 Mazloun
 Middle East
 Military
 Monla
 Mount Lebanon
 Najjar

Notre Dame du Liban
 Notre Dame du Secours
 Raad
 Rai
 Al-Rassoul Al-Aazam
 Rayan
 Rizk
 Ryak
 Sacré-Coeur
 Sahel Hospital
 Saida Medical Center
 Saint Charles
 Saint Georges (Ajaltoun)
 Saint George (Orthodox)
 Saint Joseph
 Saint Mark
 Sainte Therese
 Saydet
 Tal Chiha
 Tannourine
 Trad
 Zahraa

PATHOLOGY CENTERS

Albert Aoun
 Berjawi Laboratory
 Centre Saint Joseph
 Centre Saint Marc
 Cheib – South
 Cumberland
 Fadi Assi
 Ghawcheh Center
 Institut National de Pathologie
 LACP
 Mohammad Charafeddine
 MedGulf
 MediCard
 MedNet
 Moderne
 Mouin Soussy
 Moukadem Center
 Slim
 Scientific Center of Pathology

PHYSICIANS AND PATHOLOGISTS PROVIDING CANCER 2003 DATA

Abdel Majid Wehbeh	Antoine Jaklis	Chawki Awad
Abdel Wahab Ismail	Antoine Kassis	Chawki Cortbawi
Abdelghani Kibbi	Antoine Maalouf	Chawki Nohra
Abdul Majid Chahal	Antoine Nachanakian	Christina Khater
Adel Kadri	Antoine Nasrallah	Claudia Djambas Khayat
Adlette Inati Khoriaty	Antoine Zakhem	Daad Gholmieh
Adnan Atallah	Anwar Khabaz	Dani Abi Gerges
Adnan Awdeh	Aref Osman	Daniel Ebbas
Ahmad Dabbagh	Arwa Mgharbel	Diana Sassine
Ahmad Ibrahim	Asaad Rizk	Dolly Nehme Nasr
Ahmad Shaar	Assi Chahine	Doumit Bou Haidar
Alaa Sharara	Ayad Chatty	E. Boustany
Albert Chemaly	Ayman Harakeh	E. Choufani
Ali Abdel Sater	Aziz Aoun	E. Haddad
Ali Bazarbachi	Azzam Dandachi	E. Harb
Ali Hakim	Azzam Ziade	E. Nour
Ali Mohsen	B. Beayni	Edgard Gedeon
Ali Raad	B. Hajjar	Edward Chalouhi
Ali Shamseddine	B. Mohebati	Edward Saliba
Ali Shreim	Badr Takesh	Elena Amor
Ali Sweidan	Bahige Arida	Elias Fadel
Ali Taher	Bahjat Bahjat	Elias Mandour
Ali Yatime	Bassam Bassam	Elias Tueni
Ali Yehya	Bassam Romanos	Elie Abdel Hak
Amine Fakih	Bassem Shab	Elie Anastasiades
Amir Abdel Nour	Bechara Atiyeh	Elie Choufani
Amira Mansour	Bechara Haddad	Elie Massoud
Anas Mougharbil	Bechara Zgheib	Elie Nasr
Andre Rizk	Bou Sader	Elie Nemer
Antoine Abi Abboud	Boutros Hachem	Emile Brihi
Antoine Abillamaa	Breidi	F. Bitar
Antoine Abou Sleiman	C Gaza	F. Hassan
Antoine Checrallah	Camille Choueiry	F. Kerbaj
Antoine Choucair	Camille Saba	F. Mourad
Antoine Daher	Carlos Saade	F. Nasr
Antoine Germanos	Ch. Hamzeh	F. Samadi
Antoine Ghossain	Charles Haddad	F. Sweidan
Antoine Hanna	Charles Sfeir	

PHYSICIANS AND PATHOLOGISTS PROVIDING CANCER 2003 DATA (contd)

Fadi Bou Malhab	Georges Chahine	Houssam Bitar
Fadi Bou Zamel	Georges El Hajj	Houssein Farhat
Fadi Darwich	Georges Eter	Houssein Sadek
Fadi Estephan	Georges Jaalouk	I. Habshi
Fadi Farhat	Georges Ghanime	I. Hassanieh
Fadi Geara	Georges Ghazal	I. Kaddoura
Fadi Nasr	Georges Haidar	I. Kreidieh
Fadi Saadeh	Georges Nassar	Ibrahim Achkar
Fadi Wehbe	Georges Rouhana	Ibrahim Melki
Fadia Elias	Gh. Jamaledine	Ibrahim Nassreddine
Farid Ayoub	Ghassan Awar	Ibrahim Saikali
Farouk Awada	Ghassan Azar	Ibrahim Salti
Farouk Haidar	Ghassan Doghman	Ighad Kutoubi
Fawzi Hammoud	Ghassan El Hage	Ihab Jizi
Fayek Jamali	Ghassan Fadel	Ihsan El Husanieh
Fayez Abou Jaoude	Ghassan Ghawcheh	Imad Farhat
Fayez Bitar	Ghassan Ramadan	Imad Ghantous
Fayrouz Shamseddine	Ghassan Serhal	Imad El-Hajj
Faysal Hassan	Ghattas Khoury	Ismail Sukkarieh
Fouad Abi Aad	Ghazi Nsouli	Issam Chehade
Fouad Atik	Ghostine Moukarzel	Iyad El Chatti
Fouad Khoury	Gisele Gedeon	J. Abdel Baki
Fouad Rifai	H. Abou Ismail	J. Abdel Nour
Fouad Zaarour	H. Abou Ismail	J. C. Khairallah
G. Abi Saad	H. Alameddine	J. Halabi
G. Ammar	H. Haroun	J. Makdessi
G. Chehadeh	H. Khayat	J. Rebeiz
G. Ferzili	Habib Nader	J. Sawaya
G. Ghazal	Hamid Daaboul	Jaafar Hoteit
G. Haddad	Hanna Gaspar	Jaber Abbas
G. Jabbour	Hareth Rami	Jack Kazi
G. Jamaledine	Hassan Awada	Jad El Hassan
G. Khoury	Hassan Bou Melhem	Jean Biajini
G. Maalouf	Hassan Faour	Jean Mitri
G. Skaff	Hassan Fawaz	Jean Tisrini
G. Zaytoun	Hassan Khalil	Jean-Paul Aoun
Gabrielle Chami	Hassan Ramadan	Jihad Khoury
Gaby Kamel	Henri Ingea	Jihad Nassar
Georges Assaf	Hicham Abou Ismail	Joe Khatar
Georges Badawi	Hicham Daher	Joe Khoury
Georges Aftimos		

PHYSICIANS AND PATHOLOGISTS PROVIDING CANCER 2003 DATA (contd)

Joseph Abou Atmeh	M. Kashmer	Michel Sabbagh
Joseph Azouri	M. Klink	Miguel Abboud
Joseph Hayek	M. Maamari	Minas Karaminassian
Joseph Helou	M. Mattar	Mireille Kattan
Joseph Kattan	M. Moussa	Mirna Chababi
Joseph Makdessi	M. Muallim	Mirna El-Hajj
Joseph Yammine	M. Natout	Mirna Germanos
Joudi Bahous	M. Rubeiz	Mohamad Abbas
K. Barada	M. Saadeh	Mohamad Ataya
K. Hemadah	M. Saleh	Mohamad Berjawi
K. Sinno	M. Saliba	Mohamad Bulbul
Kamal Bikhazi	M. Samara	Mohamad Charafeddine
Kamal Nassif	M. Sfeir	Mohamad Faour
Kamil Khoury	M. Sharraf	Mohamad Fayed
Karam Ayoub	M. Sidani	Mohamad Haidar
Karim Trad	M. Smayra	Mohamad Kaakour
Khaled El Saiid	M. Yassine	Mohamad Najjarine
Khaled Ghotmi	M. Zayour	Mohamad Nassar
Khaled Saab	Maarouf Hammoud	Mohamad Wehbi
Khalid Ibrahim	Maher El Hajj	Mouin Moubarak
Khalil Arnache	Maher Hussein	Mounir Khouri
Khalil Bedran	Maher Mahfouz	Moussa Dhaini
Khalil Berdran	Mahmoud Dhainy	Moussa Riachi
Khalil Haddad	Mahmoud Wehbeh	Moustafa Khalaf
Labib El Hajj	Majed Yazbeck	Moustafa Khalifeh
Leon Nakouz	Makram Abi Fadel	Muheidine Seoud
Lina Abbs	Marie Louise Koniski	Mustapha Dia
Lina Issa	Maroun Abou Jaoude	N. Afeiche
Louay Hajjar	Maroun Abou Nader	N. Aswad
M. Abboud	Marwan Ghosn	N. Fuleihan
M. Aoun	Marwan Masri	N. Hajjar
M. Barbir	Marwan Saab	N. Mufarrij
M. Batlouni	Mazen Taha	N. Nehme
M. Bissan	Mehsen Ballout	N. Rubeiz
M. Bitar	Melhem Azzi	Nabil Chamseddine
M. Dahdah	Michel Bikhazi	Nabil Haraké
M. Duheibi	Michel Daher	Nabil Harb
M. Ferzli	Michel Jabbour	Nabil Irani
M. Haddad	Michel Saadé	Nabil Kanj
M. Huballah	Michel Saadeh	

PHYSICIANS AND PATHOLOGISTS PROVIDING CANCER 2003 DATA (contd)

Nabil Khoury	Peter Noun	S. Bakri
Nabil Nader	Philippe Sanyour	S. Halabi
Nabil Ouweidat	Pierre Rizk	S. Hamzeh
Nabil Salhab	Pierre Sarkis	S. Helou
Nabil Yassine	Pierre Sfeir	S. Kanj
Nada Abdel Malak	Pierre Yared	S. Khoury
Nada El Saad	R. Abdayem	S. Mahmoud
Nada Makhoul	R. Chedid	S. Saghir
Nader Kassem	R. Haddad	S. Salem
Najem Sour	R. Haidar	Saad Bizri
Naji Afif	R. Hubayter	Saad El Ayoubi
Naji Amro	R. Karam	Saad Ghosn
Naji El Saghir	R. Khawli	Saadieh Sheikh
Najib Geahchan	R. Madi	Sabah Sabah
Nasser Abi Ghanem	R. Melki	Said Papas
Nasser Khalil	R. Moukadem	Salah Chahrour
Natalie Mrad	R. Sawaya	Salem Matar
Nedal Joumaa	R. Shehadeh	Salim Chammas
Nicolas Baaklini	R. Yazbeck	Salim Salhab
Nicolas Hajjar	Radwan Hussein	Salman Salman
Nicolas Kassatly	Radwan Zahreddine	Samar Muwakkit
Nizar Bitar	Raghid El Khoury	Sami Harajly
Nohad Hamadeh	Rahif Jalloul	Sami Kawwas
O. Awar	Ramadan Bshenaty	Samir Shehadi
O. Dajani	Ramez Houri	Selim Kanaan
O. Sabra	Rami Nasr	Selim Zeineh
Omar Houssein	Ramzi Finan	Sh. Zaynoun
Oussama Jradi	Rana Mikati	Sleiman Merhej
Oussama Mansour	Rania Abs Rustom	Soha Kanj
P. Hage	Raymond Sayegh	Souad Tbaich
P. Yared	Riad Akoum	Souhail Moubarak
Patricia Saliba	Riad Maalouf	Souhaila Lawand Daou
Paul Audi	Riad Sahily	Souheil Hojeily
Paul Gemayel	Rizkallah Massabni	Souheil Kobeissi
Paul Hajj	Robert Daou	Souheil Tohmeh
Paul Henry Torbey	Roger Bitar	Soumaya Chami
Paul Khoueiry	Roger Khater	Srour Diab
Paul Rassam	Roger Naaman	T. Abu Moussa
Paul Rizkallah	Roula Farah	T. Khneisser
Paul Salmé	Roy Nasnas	T. Zreik
	S. Abdel Samad	

PHYSICIANS AND PATHOLOGISTS PROVIDING CANCER 2003 DATA (contd)

Tanios Eid	Walid Alameh	Z. Tabbara
Tarek Saleh	Walid Mokadem	Zarohi Mikirian
Therese Helou	Walid Saghir	Zayan Kabalan
Therese Abounasr	Walid Salamoun	Ziad El Rassi
Tony Issa	Walid Salhi	Ziad Salem
Toufic Kikano	Wassim Wazzan	
U. Hadi	Wissam Abed Samad	
W. Daia	Y. El Zein	
W. Ghandour	Yasser Abu Murad	
W. Medawar	Yassine Mohamad	
Wael Lakkis	Youssef Comair	
Wafaa Aasi	Youssef Dagher	
Wajdi Abi Saleh	Youssef Fares	
Wajih Saad	Youssef Nasser	

NATIONAL TUMOR REGISTRY PATIENT INFORMATION		
(2) Identification Number □□□□□□□□□□□□	(1) اسم المريض اسم الاب اسم الأم اسم العائلة اسم العائلة قبل الزواج (للنساء)	
(4) □ ذكر □ أنثى	(3) تاريخ الميلاد: _____/_____/_____ سنة شهر يوم مكان الولادة: المدينة / القرية محافظة----- بلد ----- قضاء-----	
(5) عنوان الإقامة الدائم: المدينة / القرية----- محافظة----- بلد ----- قضاء-----		
(6) رقم التليفون :		
TUMOR INFORMATION		
(7) PRIMARY SITE (text)	(8) TOPOGRAPHY (right, left, anterior, etc..)	(9) ICD 10 □ □ □ ● □
(10) PATHOLOGY (text)	(11) ICD - O □ □ □ □ /□	(12) DATE OF DIAGNOSIS □□/□□/□□□□ D M Y
(13) TNM COMPONENTS T □ N □ M □ OR STAGE I □ a/b II □ a/b III □ a/b IV □ a/b		
TREATMENT INFORMATION		
(14) FINALITY OF INITIAL TREATMENT Curative □ Palliative □	(15) TYPES OF TREATMENT (all that apply) Surgery □ Chemotherapy □ Radiotherapy □ Immunotherapy □	(16) FOR FOLLOWING VISITS Relapse □ Remission □
(17) TREATING PHYSICIANS		
(18) PATHOLOGY CENTER		
(19) SIGNATURE AND NAME OF PHYSICIAN WHO COMPLETED THIS FORM Date:_____/_____/_____		

Serial Number (for administration only):.....

National Non - Communicable Diseases Program
Tel: +961 1 567404/ 405 - Fax: +961 1 566102
www.leb.emro.who.int, e-mail: wholeb_ncd@inco.com.lb