

V. Non communicable diseases (NCDs)

5.0 Introduction

NCDs are the main leading causes of mortality and morbidity in EMR. However they are costly for treatment and rehabilitation. Economy conditions in many EM Countries are not enough to cover the standard treatment and even may not be available in many EM Countries. For that the main issues should be focused on primordial and primary prevention.

Health services today will not be able to meet the challenges of non-communicable diseases (NCDs) without a detailed knowledge of the prevalence, incidence and severity of these diseases. In Palestine, no or weak national data is available on the overall incidence and prevalence of cardiovascular diseases (CVD), hypertension diseases, Diabetes Mellitus (DM) and accidents. In general we depend on mortality data to estimate the impacts of these diseases. The current system counts mainly the visits of the patients to PHC centers, which does not reflect the real prevalence and incidence. Besides, there is no classification by age or gender. Neither is there any information on disabilities resulting from any of the chronic diseases. Additionally, there is fragmentation in reporting and managing system regarding NCDs in general and DM in specific. This lack of information leads to:

- Inability to estimate the direct and indirect cost; resources required e.g. drugs, policy; and decision-making regarding prevention and treatment.

Cancer Registry centers (CRCs) in both Gaza and Beitjalla play important role in reporting and classifying the available data on cancer morbidity. In the meantime, data on cancer mortality is available via PHIC. Cooperation between CRC and PHIC in MOH is needed to unify the reporting system and provide better saving and security of cancer data.

The data about accidents is available in all emergency departments of hospitals, although there is no unified system to collect, analyze and interpret this data. Police directorate provides information on accidents morbidity while PHIC in MoH provides the data on mortality. Coordination between the two systems is highly needed.

There are real efforts being done on the national level to organize and implement a unified strategy for the prevention and control of NCDs in Palestine, despite of deficient statistical data and the prevailing political situations, which are affecting negatively all aspects of

our lives. To achieve this important role, PCIS and hospital information system (HIS) should be deployed in the hospitals and the main PHC centers.

5.1 Routine Morbidity Data from Hospitals and PHC centers

There is no routine morbidity data from hospitals and PHC centers. Even if any, morbidity data is insufficiently documented in the medical files. This problem is usually explained by the insufficient patient-doctor contact time, which is due to overcrowded clinics preventing health professionals from proper file documentation. Therefore, computerized information system in both hospitals and PHC centers is required.

The collection of routine morbidity data from hospitals and PHC centers are required proper utilization of already exists NCD clinical guidelines, in addition to continuous developing and improving their utilization.

5.2 Diabetes Mellitus (DM)

According to WHO global estimate and the epidemic nature of diabetes; prevalence of diabetes is expected to increase in Palestine and figures should be revised to have more realistic estimation which enables health providers to be aware of the size of the problem so more effective health strategies can be adopted.

5.2.1 Prevalence of DM

The prevalence of DM in Palestine was based on a study conducted in 2000 in cooperation with Al Quds University and MOH. The preliminary results indicated that the prevalence DM in Palestine is about 9% in 2000. It is around the reported prevalence rate in Egypt and Tunisia (9%) and less than in Saudi Arabia (12%) and Oman (13%).

The gap between the expected prevalence rates of DM and cases under supervision reflects under registration and underreporting and also requires special efforts to accelerate early case-finding activities in order to avoid high cost of treating the complications and disability consequences of the disease. Also this will give more realistic estimation of the prevalence for appropriate evaluation of the problem.

5.2.2 New cases of Diabetes mellitus in West Bank clinics

In 2005, out of total 2,741 new reported cases of diabetes in the West Bank diabetic clinics, out of them 28.2% was among age group of (55-64), 41.0% among

age group of 35-54 years, 6.3% among age less than 35 years, 24.4% among age 65 years and over.

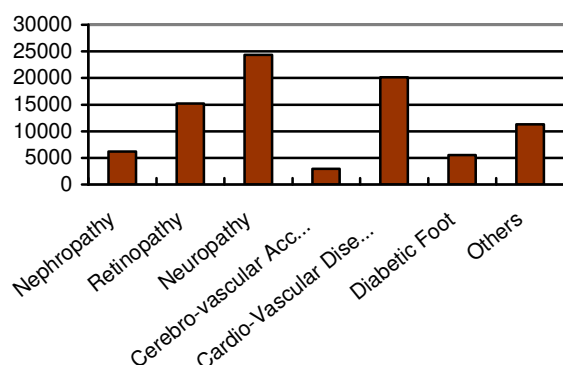
5.2.3. Distribution of diabetic (type II) cases by management in the West Bank health clinic:

1. About 28.6% of diabetics' cases were managed by insulin treatment.
2. About 5.0% were treated with a combined therapy (insulin and OHA).
3. About 64.7% of diabetics' cases were managed by tablets.
4. Diet control (exclusively managed by lifestyle modification) was 1.7%

5.2.4 Visits to diabetes mellitus clinics

In 2005, 145,291 visits were reported to the governmental PHC-specialized diabetic clinics distributed as 89,875 visits in the Gaza Strip compared with 55,416 visits in the West bank.

Graph (28) Distribution of Visits to Diabetes mellitus clinics according to complications among Diabetic Patients, in WB, 2005

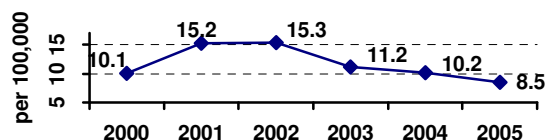


5.2.5 Mortality of diabetes mellitus

In Palestine: DM did not report as one of the 10th leading cause of death among Palestinians. It constituted 3.1% of total population deaths.

321 persons died with mortality rate of 8.5 per 100,000 (149 males, with a rate of 7.8 per 100,000 males and 172 females, with mortality rate of 9.3 per 100,000).

Graph (29) Trend of reported DM mortality rate (100,000) during the period 2000-2005



In Gaza Strip: 205 persons died with mortality rate of 14.8 per 100,000 (3.6 per males and 15.8 per females).

In West Bank: 116 persons died with mortality rate of 4.9 per 100,000 (4.4 per males and 5.4 per females).

Under-diagnosis and under reporting of chronic diseases in Palestine is resulted from the lack of proper hospital and clinic information system.

5.3 Cardiovascular diseases (CVDs)

Cardiovascular diseases (CVDs), principally heart diseases is the first leading cause of death among population in Palestine in the year 2005.

5.3.1 Cardiovascular diseases mortality indicators

Mortality rate per 100,000 of cardiovascular diseases was:

• All heart diseases	56.8
• Rheumatic HD	0.7
• Ischemic H.D	36.4
• Pulmonary HD	1.6
• Other heart diseases	18.1
• CVA	29.8
• Essential hypertension	13

5.3.2 Cardiovascular diseases include the following:

• All heart diseases (Ischaemic, Rheumatic, Pulmonary and Other Heart diseases), Hypertensive disease, Cerebrovascular disease and other circulatory diseases.

• In 2005, 3,799 persons died from cardiovascular diseases (1,956 males and 1,843 females), with a proportion of 36.7% of total deaths, with a rate of 101/100,000 population.

• Mortality among males was higher than females (51.5% in males Vs 48.5% in females).

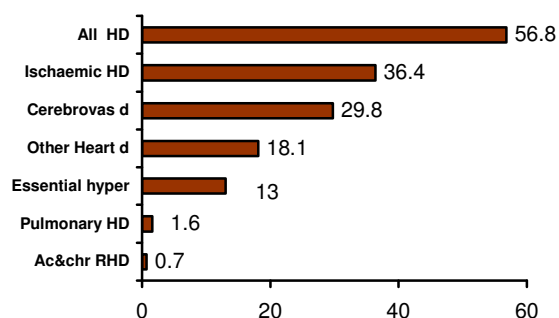
5.3.3 All heart diseases:

Includes ischaemic, rheumatic, pulmonary and other heart diseases

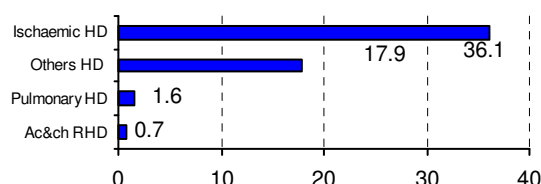
Heart diseases are the first leading cause of death among general population. There were 2,138 persons died among both sexes with a proportion of 30.2% in males and 25.9% in females of total cardiovascular diseases mortality.

Mortality among males was more predominant than females (55.3% in males Vs 44.7% in females), with a rate per 100,000 in males 62.0 and in females 51.5.

Graph (30) Mortality rate of all cardiovascular diseases in Palestine, 2005 (per 100,000)



Graph (31) Proportional heart diseases mortality



Out of total cardiovascular diseases, heart diseases are ranking as following:

1. Ischaemic heart disease is the leading cause of all heart diseases mortality, (36.1%), with a rate of 36.4/100,000;
2. Other heart diseases constitute 17.9%, with a rate of 18.1/100,000;
3. Pulmonary heart disease mortality constitutes (1.6%), with a rate of 1.6/100,000.
4. Rheumatic heart disease (0.7%), with a rate of 0.7/100,000.

1. Rheumatic heart disease

- Rheumatic heart disease is one of the least leading causes of heart diseases mortality (0.7%), with a rate of 0.7 per 100,000 population.
- Mortality among females is higher than males (28.5% in males Vs 71.5% in females).

2. Ischaemic heart disease

- Ischaemic heart disease is the leading cause of cardiovascular mortality (36.1%) with a rate of 36.4 per 100,000 population.

- Mortality among males is higher than in females (57.7% Vs 42.3%), with a rate per 100,000 in males 41.5 and 31.2 in females.

3. Pulmonary heart disease

- Of all heart diseases mortality, pulmonary heart disease is the second least of leading causes of heart diseases mortality and constitutes (1.6%) of total cardiovascular diseases mortality, with a rate of 1.6/100,000 population.
- Mortality is almost equal among females and male with a rate per 100,000 (1.6 in males Vs 1.6 in females)

4. Other heart diseases

- Other heart diseases constitute 17.9% of total cardiovascular mortality, with a rate of 18.1 per 100,000.
- Mortality among males is more than females with a rate per 100,000 (18.6 males Vs 17.6 in females).

5.3.4 Hypertension disease Mortality

- Hypertension disease is the eight-leading cause of deaths in total population (4.8%), while it was the ninth leading deaths in males and females (2.7% and 3.8%) of males and females deaths respectively.
- Hypertension disease is the fifth-leading cause of cardiovascular diseases deaths; 12.9% of the total cardiovascular mortality, with a rate of 13.0 per 100,000.

5.3.5 Cerebrovascular diseases Mortality

- Cerebrovascular disease was one of highest-leading cause of death in general population (11%), with rate (29.8 per 100,000 of population), the third in males (9.9%) and the second in females (12.4%).
- It represented the third leading cause of death of total cardiovascular mortality (29.5%), with a rate of 29.8 per 100,000.

5.4 Cancer, ICD10 (C00-C99)

5.4.1 Cancer morbidity

According to cancer registry centers (CRS) in West Bank and Gaza Strip, epidemiology of cancer morbidity indicated the following:

5.4.2 Cancer reported cases

The total reported new cases were 1,623 (1,168 in the west bank, and 455 in Gaza Strip), with an incidence rate of 43.1 per 100,000 population, (49.2 per 100,000 in the West Bank, 32.7 per 100,000 in Gaza Strip).

Distribution by sex showed that incidence rate for male was 37.7 per 100,000 with proportion of 44.8% of total reported cases, and incidence rate among female was 48.3 per 100,000 with proportion of 55.2% of total reported cases.

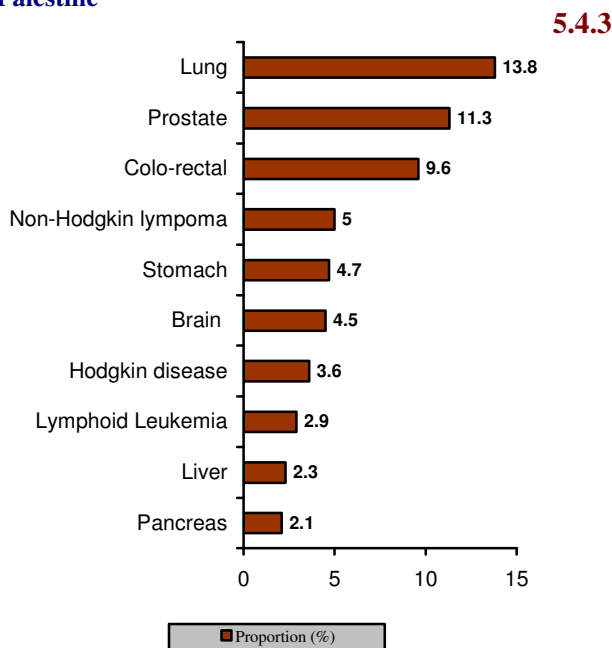
The most common malignancies in total population:

Breast cancer occupied the first type of cancer among population (17.3%) with an incidence rate of 7.5 per 100,000 population.

The most common adult male malignancies

Lung cancer occupied the first type of male cancer; which constitute 13.8% of total males' cancer with an incidence rate of 5.2 per 100,000 males.

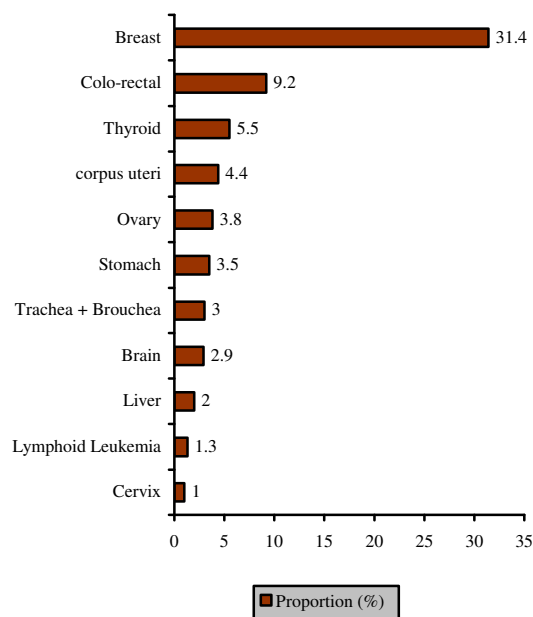
Graph (32) the most common types of Male Cancer Palestine



The most common adult female malignancy

Breast Cancer occupied the first type of female cancer (31.4%) with an incidence rate of 15.1 per 100,000 population.

Graph (33) the most common types of female Cancer, Palestine



Cancer mortality

In 2005, there were 1,048 persons died in Palestine from cancer with a mortality rate of 27.8 per 100,000. Since this figure was 27.4 per 100,000 population in the year 2000.

Trachea, Bronchus & lung cancer occupied the first leading cause of death from cancer deaths (15.4%), with a mortality rate of 4.3 per 100,000 population..

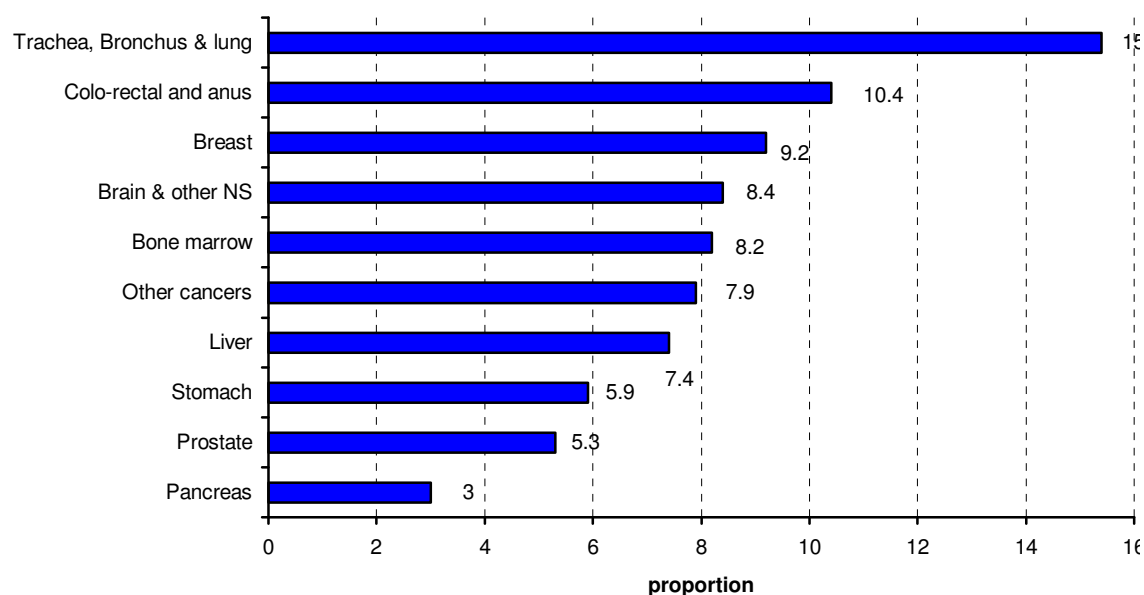
Among Palestinian males, Trachea, Bronchus & lung cancer was the first leading cause of cancer deaths (22.8%) with a mortality rate of 7.1 per 100,000 males.

Among Palestinian females, breast cancer was the first leading cause of cancer deaths (21.1%) with a mortality rate of 5.2 per 100,000 females.

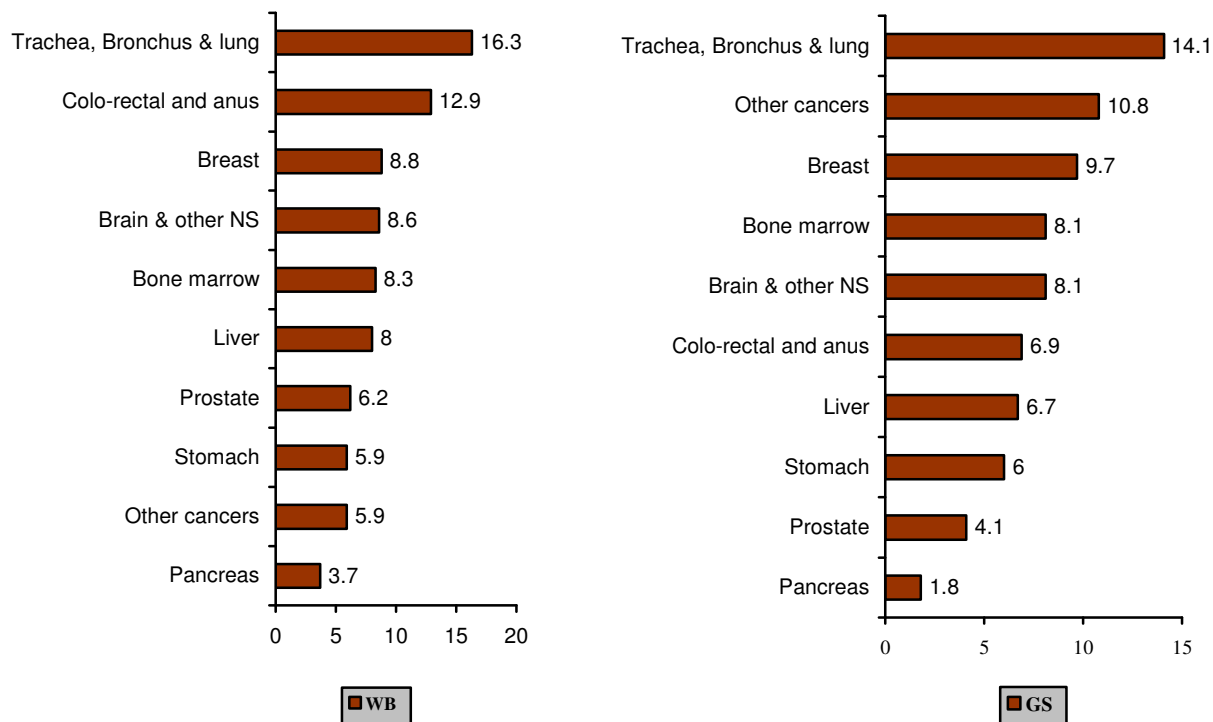
Table (95) Cancer mortality by region and sex in Palestine, 2005 per 100,000

ICD 10 code	Site	GS		WB		Palestine		
		No	Rate	No	Rate	No	Rate	female
C00-C14	Lip, oral cavity & Pharynx	3	0.2	4	0.2	7	0.2	.2
C15	Oesophagus	3	0.2	7	0.3	10	0.3	.2
C16	Stomach	26	1.9	36	1.5	62	1.6	1.2
C18-C21	Colo-rectal and anus	30	2.2	79	3.3	109	2.9	1.8
C22	Liver	29	2.1	49	2.1	78	2.1	1.6
C25	Pancreas	8	0.6	23	1.0	31	0.8	.7
C32	Larynx	6	0.4	11	0.5	17	0.5	.1
C33-C34	Trachea, Bronchus & lung	61	4.4	100	4.2	161	4.3	1.5
C50	Breast	42	3.0	54	2.3	96	2.6	5.8
C53-C55	Uterus	7	0.5	13	0.5	20	0.5	1.2
C56	Ovary	18	1.3	7	0.3	25	0.7	1.1
C61	Prostate	18	1.3	38	1.6	56	1.5	
C67	U. Bladder	20	1.4	19	0.8	39	1.0	.1
C70-C72	Brain & other NS	35	2.5	53	2.2	88	2.3	1.6
C82-C85	Non-Hodgkin's lymphoma	22	1.6	8	0.3	30	0.8	1.3
C90-C95	Bone marrow	35	2.5	51	2.1	86	2.3	2.3
	Other cancers	47	3.4	36	1.5	83	2.2	1.6
Total neoplasm, C00-C99		434	31.2	614	25.9	1048	27.9	24.5

Graph (34) Top ten Leading causes of cancer mortality in Palestine 2005 (proportion)



Graph (35) Top ten Leading causes of cancer mortality in Palestine by region (proportion)



Graph (36) Top ten Leading causes of cancer mortality in Palestine by sex (proportion)

