



# Cancer burden in Lebanon

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# Outline

- Lebanon Healthcare System.
- Cancer Epidemiology
- Cancer Economic Burden.
- Government Initiatives to combat Cancer and its burden.

# Lebanon HC in a nutshell

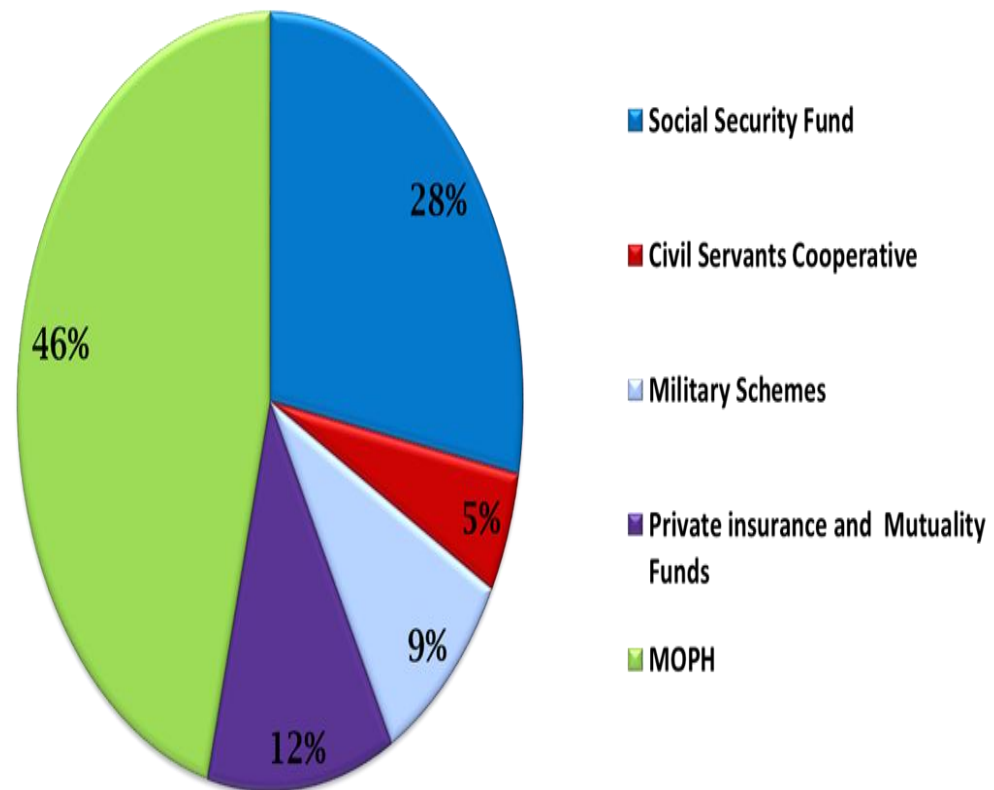
- A 10452 sq.km. country on the Mediterranean Sea, .
- Estimated population of 4 M inhabitants.
- Life expectancy is 80 years
- Health spending as % GDP has fallen from 12.7% (1998) to 6.91% (2015) (MOPH health reform).
- Out of- pocket spending as a share of total health spending has fallen: 60% (1998) to 37% (2012) (with increase financial risk protection)



# Lebanon Healthcare financing System: A pluralistic System with fragmented financing



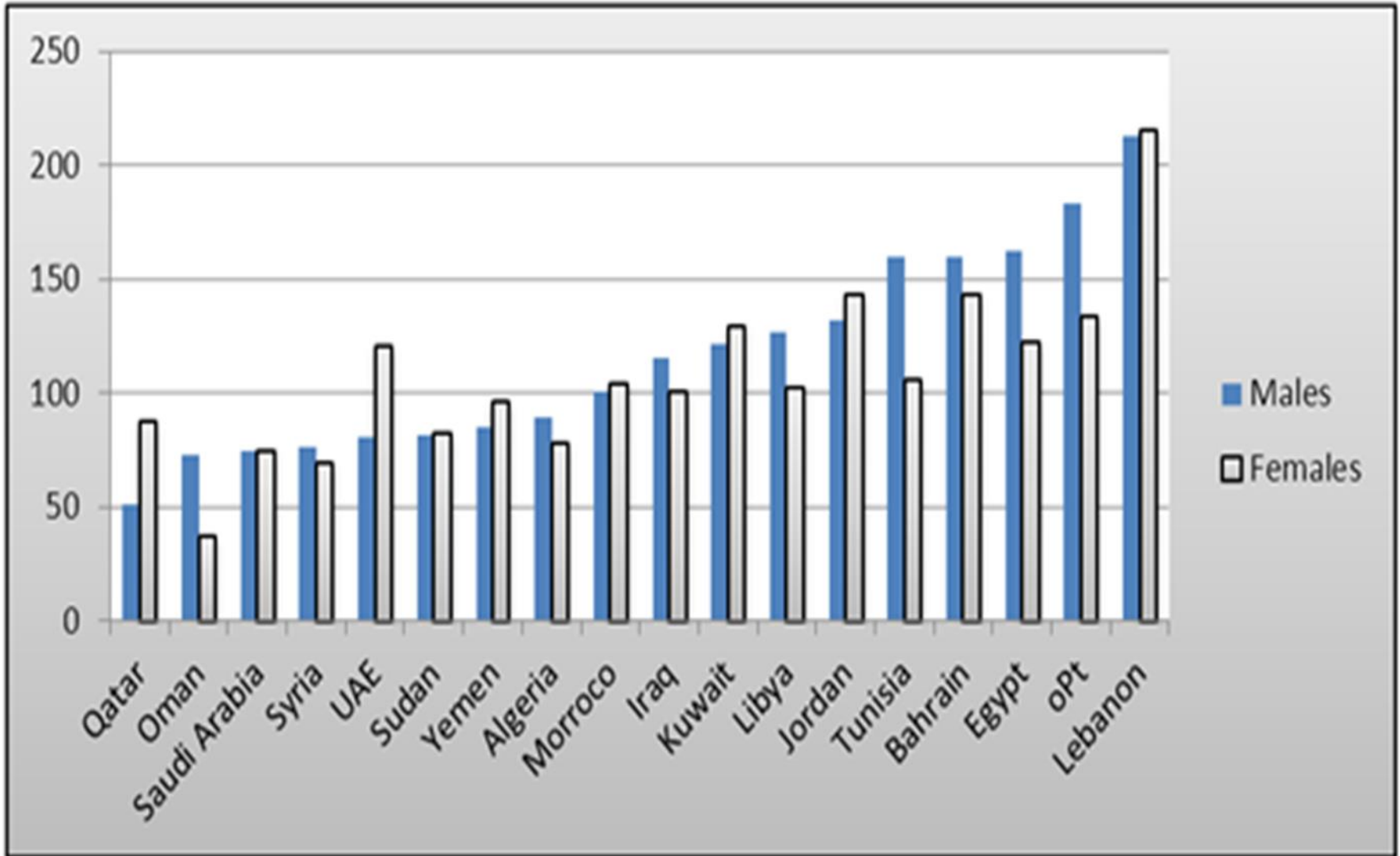
- Six public funds exist in Lebanon that cover almost half of the population.
- The other half is entitled to coverage provided by the Ministry of Public Health (MOPH).
- A strong private sector and active civil society organizations.
- Diversity leading to System resilience; it also weakens the Ministry of health authority.



# Cancer Current and Projected Incidence in Lebanon and Burden



# Cancer incidence in Lebanon is the highest compared to neighboring countries

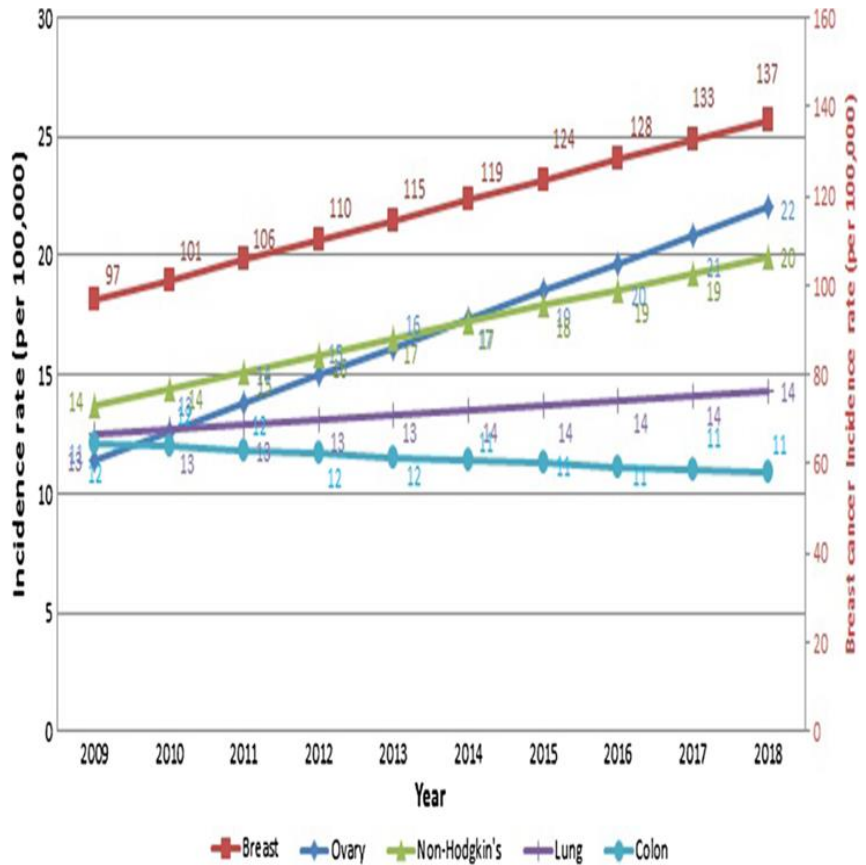




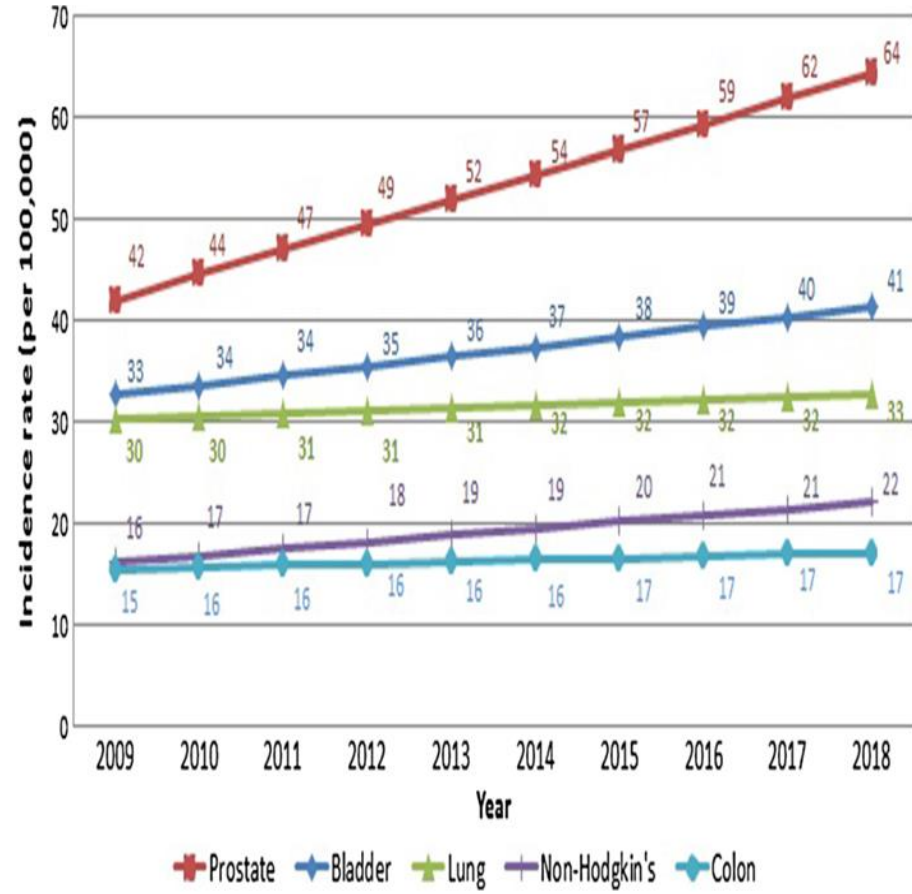
# Increase in cancer incidence leading to increase in burden: 10Year Projection 2009-2018



Females Most common cancer

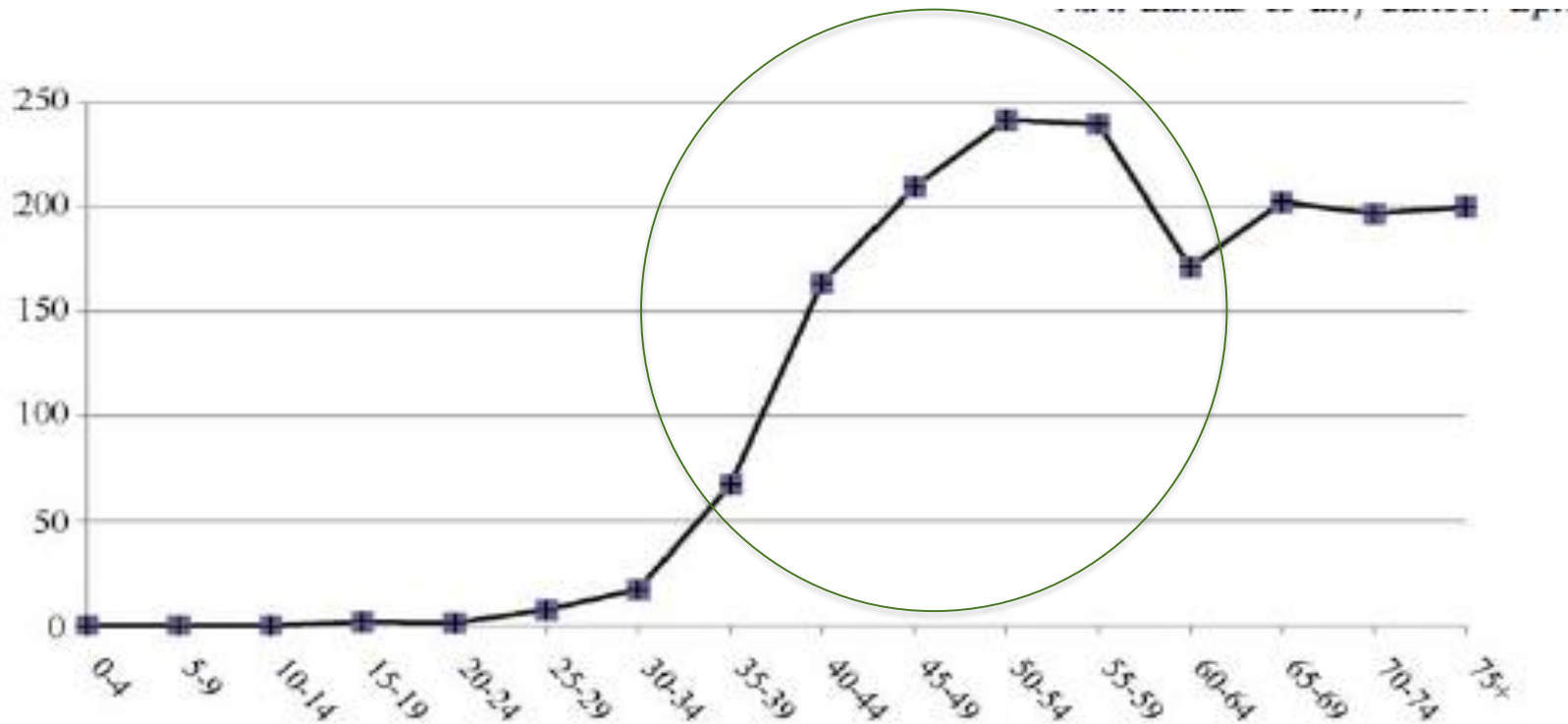


Males most common cancer



Shamseddine et al. Population Health Metrics 2014, 12:4

# Younger median ages at diagnosis.



Source: Lebanese Ministry of Public Health - Epidemiological Surveillance Program - National Cancer Registry. May 2009

**Fig. 3.** Age-specific incidence rates for female breast cancer, Lebanon 2004.



# Risk Factors

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# Behavioral Risk factors for NCDs in Lebanon (STEPS 2010)



<b>Risk factors (%)</b>	<b>Males</b>	<b>Females</b>	<b>Both</b>
Current cigarette smoking	46.8	31.6	38.5
Current narguileh smoking	23.3	21.6	22.4
Low level of physical activity	52.4	40.3	45.8
No vigorous physical activity	76.9	90.6	84.5
Never measured blood pressure	20.4	12.6	16.1
Never measured blood sugar	36.2	24.2	29.6
Overweight or obese	72.9	59.4	65.4
Overweight	44.2	32.9	38.0
Obese	28.7	26.5	27.4



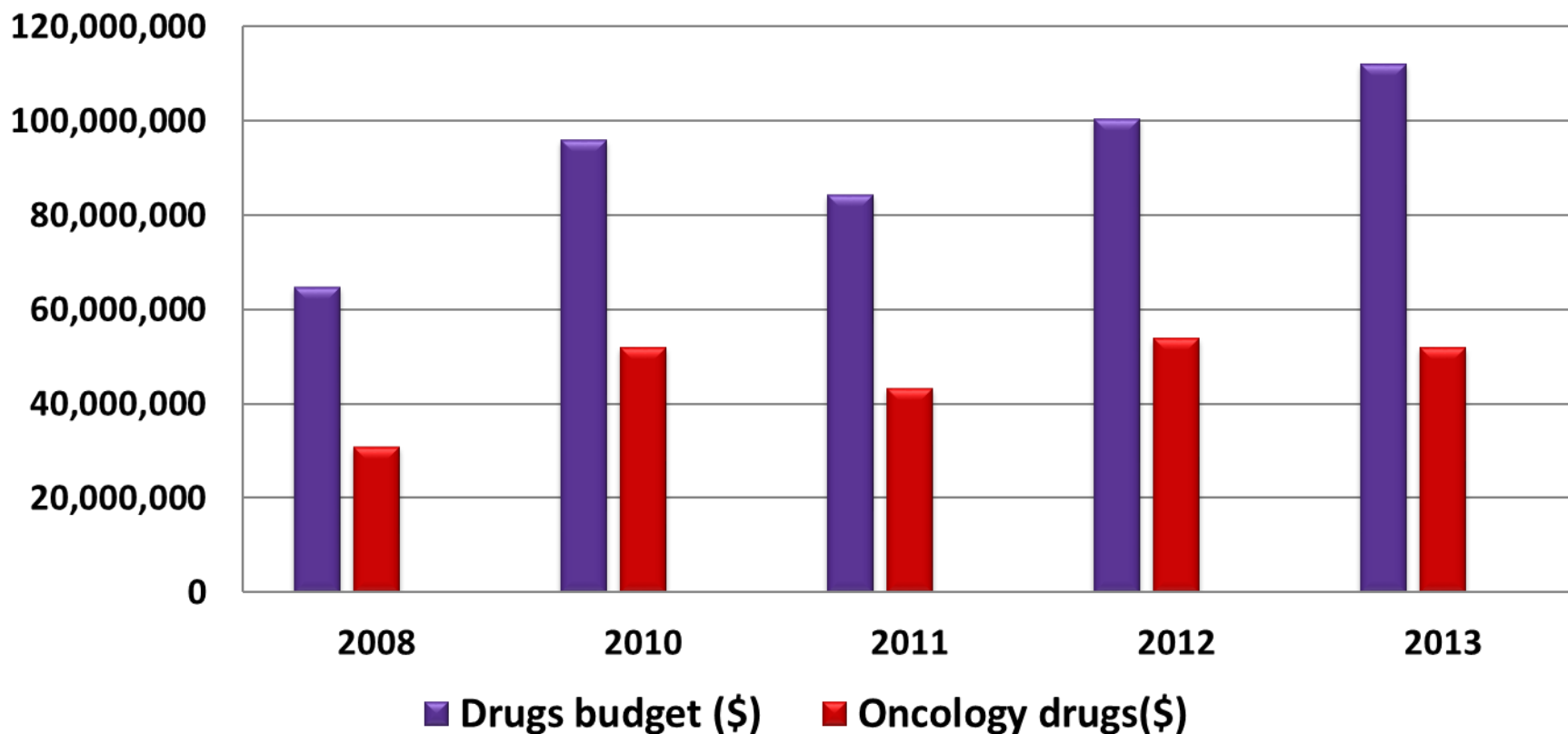
# **CANCER ECONOMIC BURDEN**

# Lebanon Current Pharmaceutical Expenditure: 2011-2019



	2011	2012	2013	2014	2015	2016f	2017f	2018f	2019f
	1.301	1.301	1.464	1.586	1.711	1.840	1.975	2.117	2.236
Pharmaceutical sales, USDbn, % y-o-y	12.98	-0.05	12.53	8.34	7.90	7.54	7.32	7.17	5.66
Pharmaceutical sales, LBPbn	1,959.757	1,956.508	2,206.254	2,394.382	2,594.092	2,806.342	3,031.514	3,269.973	3,522.053
Pharmaceutical sales, LBPbn, % y-o-y	13.33	-0.17	12.76	8.53	8.34	8.18	8.02	7.87	7.71
Pharmaceutical sales constant exchange rate, USDbn	1.298	1.296	1.461	1.586	1.718	1.859	2.008	2.166	2.333
Pharmaceutical sales, USD per capita	290.6	279.9	303.5	319.3	338.6	362.6	391.8	425.4	455.2
Pharmaceutical sales, % of GDP	3.24	2.94	3.10	3.23	3.31	3.37	3.39	3.39	3.38
Pharmaceutical sales, % of health expenditure	45.5	42.1	48.1	48.8	48.8	48.7	48.7	48.6	48.6

# Oncology Drugs Expenditure at MOPH

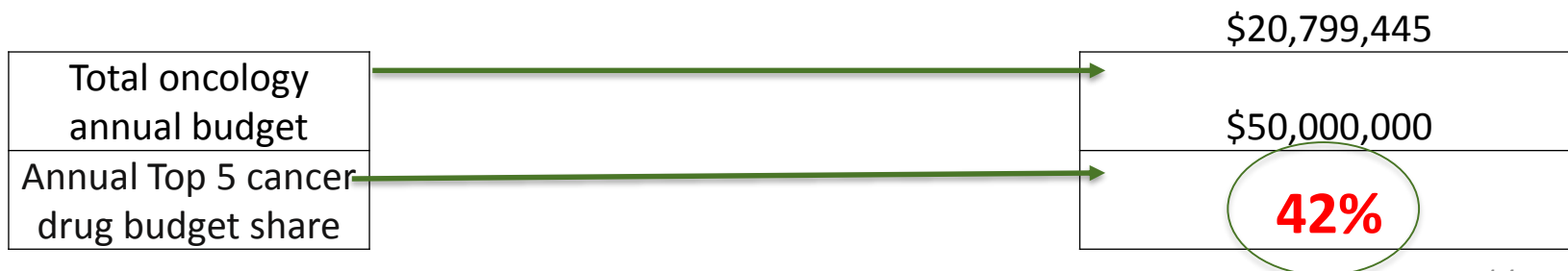


Source: Statistics Department at MOPH-2014

# Five cancer types exhaust up-to 50% of MOPH Oncology Drug Budget



2008-2013				
Rank	Cancer Type	Average number of patients/year	Average cost per patient	Total average annual cost / disease
1	Breast Cancer	1,670	\$ 5,926	\$9,898,395
2	CML	126	\$ 31,037	\$3,921,008
3	Colorectal Cancer	316	\$ 10,642	\$3,369,967
4	Lung Cancer	360	\$ 5,122	\$1,848,188
5	NHL	152	\$ 11,566	\$1,761,887







**Governments Approaches and  
INITIATIVES to reverse the  
burden**

# Governments Strategies to address the burden

## Surveillance

Monitoring cancer and its determinants



## Prevention

Reducing the incidence and severity of cancers



## Management

Strengthening health care for people with cancers





# Surveillance

- National Cancer Registry: Since 2004
- Behavioral Risk factors for NCDs in Lebanon (STEPS 2010).
- National Hepatitis Epidemiological Program for Hepatitis B & Hepatitis C.

# Prevention: Earlier Detection & Awareness Campaigns and policies in collaboration with key stakeholders



- The **Annual Breast Cancer** Awareness Campaigny since 2002 during the last three months of the year.
- For **liver disease**, MOPH **National vaccination Hepatitis** Program in vaccinating all new born since 1998 and in screening and vaccinating high risk groups.
- For **Lung and Bladder**, **Tobacco Control Law (174/2011)** and National Tobacco Program.



Tobacco smoke is eating your loved ones.



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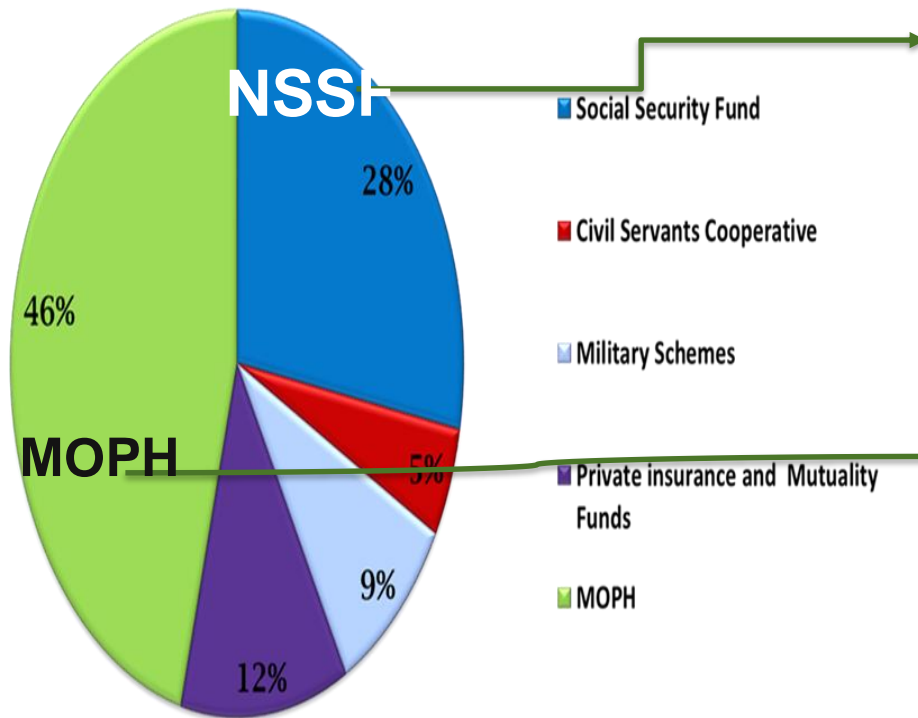
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طالب بقانون يحميك   
 بأماكن خالية من الدخان ١٠٠٪



# Management: Restructure Cost Sharing and Insurance Design in all institutions.



➤ Fast-tracked - higher Reimbursement rate- Risk sharing agreements for oncology and immunology products.

- HTA unit
- Yearly Tender BIDs
- Cost effectiveness local Studies for Oncology, immunology, and
- Cost-sharing agreements

# MOPH Strategy for adapting the WHO Global NCD Action Plan- (GAP) 2013–2020



- To promote **behavioral change to healthier lifestyles** in three major areas of exposure: **Tobacco use, unhealthy diets and insufficient physical activity.**
- **Standardize Periodic cancer screenings** : **Colonoscopy**, Mammography..
- Improve **routine data collection** procedures towards a sustainable health information system reporting on **Cancer and its determinants**
- Integrate **Cancer/NCD morbidity-mortality** surveillance data within the MOPH data management system.
- Develop **an HTA unit** at MOPH promoting HTA discipline in health technology Assessment.
- Assign **NCD committee** to strengthen the institutional capacity of the MOPH to mobilize resources, **build partnerships**, develop the program, and monitor implementation



# Conclusion

- **Growing burden** of Cancer in Lebanon and critical need for **HCS to adapt**.
- Need to **activate a national Plan for cancer prevention** and control.
- **Upgrade NCR to population** based Registry and improve accuracy of incidence.
- **Standardize screening Programs** for Breast and colorectal cancer..
- **Fostering research** and data access to generate local data for HTA and evidence-based decision making.
- **Foster Collaboration** across all key stakeholders and create framework for collaboration addressing all shortcomings.

**Thank you**



# Acknowledgment

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