

Cancer Control and Medical Screening

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Objectives of this presentation

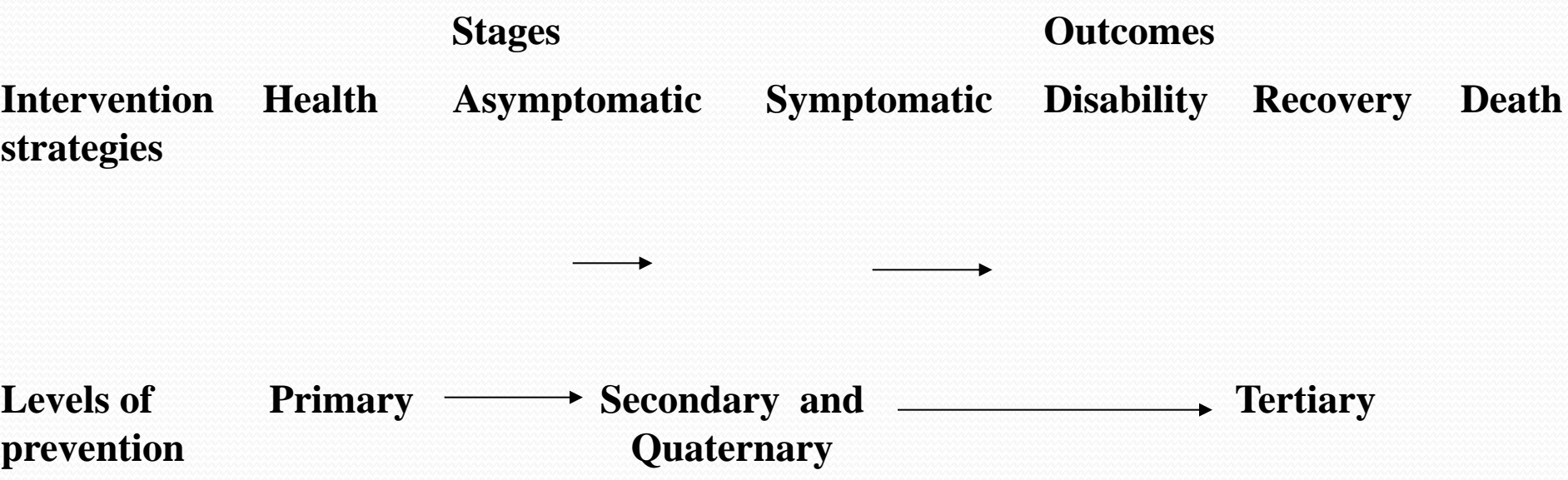
- Overview of preventive medicine and cancer control
- Cancer incidence in Jordan
- Principles of medical screening
- Components of cancer control program
- Steps for successful cancer control program Pilot screening programs
- Differentiation between regular screening and scattered campainings

Preventive Medicine

- Prevention was defined by Last as:
“Actions aimed at eradicating, eliminating, or minimizing the impact of disease or disability, or if none of these is feasible, retarding the progress of disease and disability”.



Spectrum of health and disease with the main strategies for prevention at each level



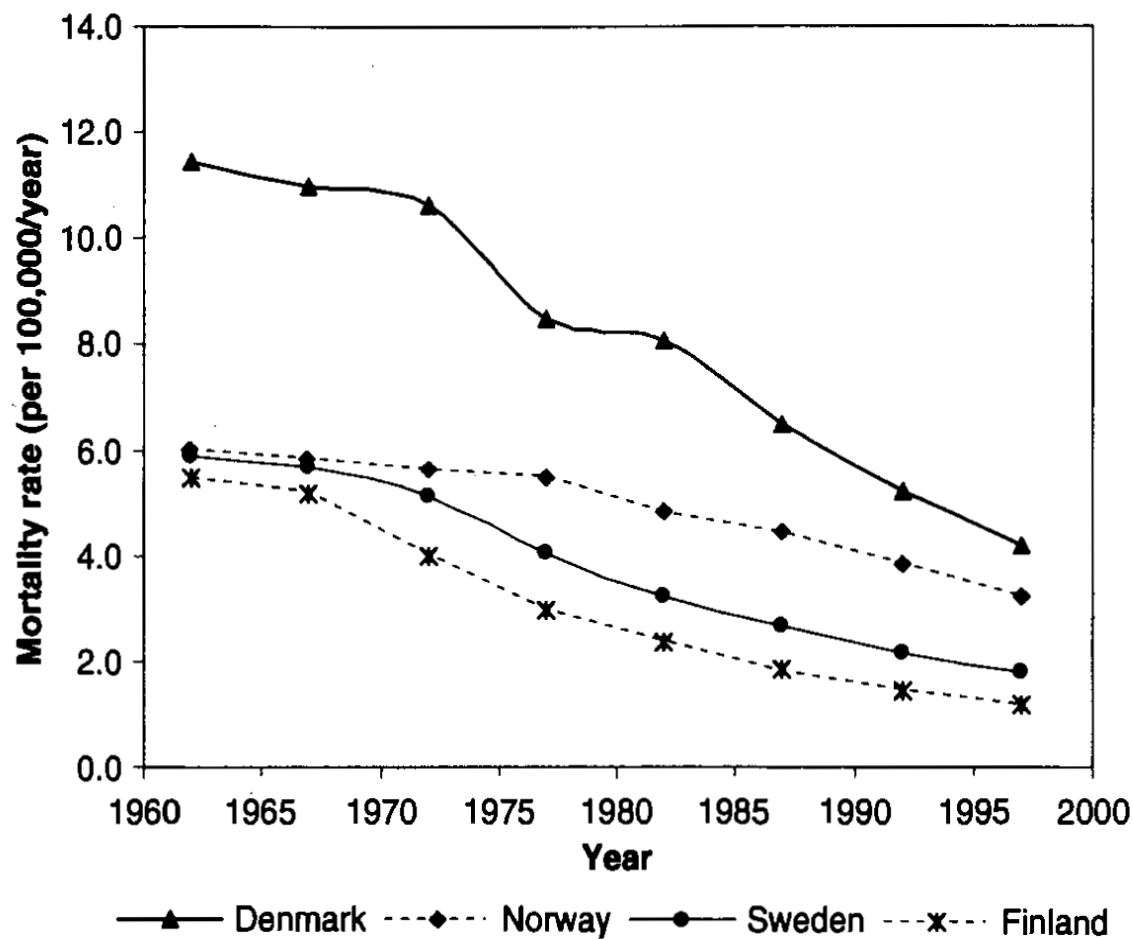


Fig. 14.5 Cervical cancer mortality rates (standardised relative to the world population) from 1950–1998 in the Nordic countries. (Data source: WHO Statistical Information System, accessed via <http://www-depdb.iarc.fr/who/menu.htm>, March 2004.).

Scope of preventive medicine


- High risk versus low risk
- High risk versus average risk

1.1. Top Cancers among Jordanian population by sex, 2022


Table 7: Ten most common cancers among Jordanians, both sexes, 2022.

Rank	Cancer	No	%
1	Breast	1756	20.1
2	Colorectal	969	11.1
3	Trachea,Bronchus,Lung	650	7.4
4	Lymphoma	610	7.0
5	Bladder	471	5.4
6	Thyroid	365	4.2
7	Leukemia	355	4.1
8	Prostate	335	3.8
9	Brain,Nevous system	250	2.9
10	Stomach	208	2.4

Ten most common cancers among Jordanian Males, 2022

	Rank	Site	Frequency	Percent
	1	Trachea,Bronchus,Lung	518	12.9
	2	Colorectal	515	12.8
	3	Bladder	411	10.2
	4	Prostate	335	8.3
	5	NHL	234	5.8
	6	Leukemia	200	5.0
	7	HL	131	3.3
	8	Brain,Nervous System	128	3.2
	9	Kidney	126	3.1
	10	Stomach	114	2.8

Ten most common cancers among Jordanian Females, 2022

	Rank	Site	Frequency	Percent
	1	Breast	1743	36.8
	2	Colorectal	454	9.6
	3	Thyroid	272	5.7
	4	Corpus Uteri	208	4.4
	5	Ovary	167	3.5
	6	NHL	163	3.4
	7	Leukemia	155	3.3
	8	Trachea,Bronchus,Lung	132	2.8
	9	Brain,Nervous System	122	2.6
	10	Stomach	94	2.0

N.B: Total top ten female cancers accounted for 3510 (74.1%)

Ten most common cancers among Jordanians both genders, 2017

No	Site	Freq	%
1	Breast	1302	20.5
2	Colorectal	678	10.8
3	Lymphoma	485	7.6
4	Trachea, Bronchus, Lung	480	7.5
5	Thyroid	293	4.6
6	Bladder	248	3.9
7	Prostate	236	3.7
8	Leukemia	233	3.6
9	Stomach	211	3.3
10	Brain, Nervous system	185	2.9

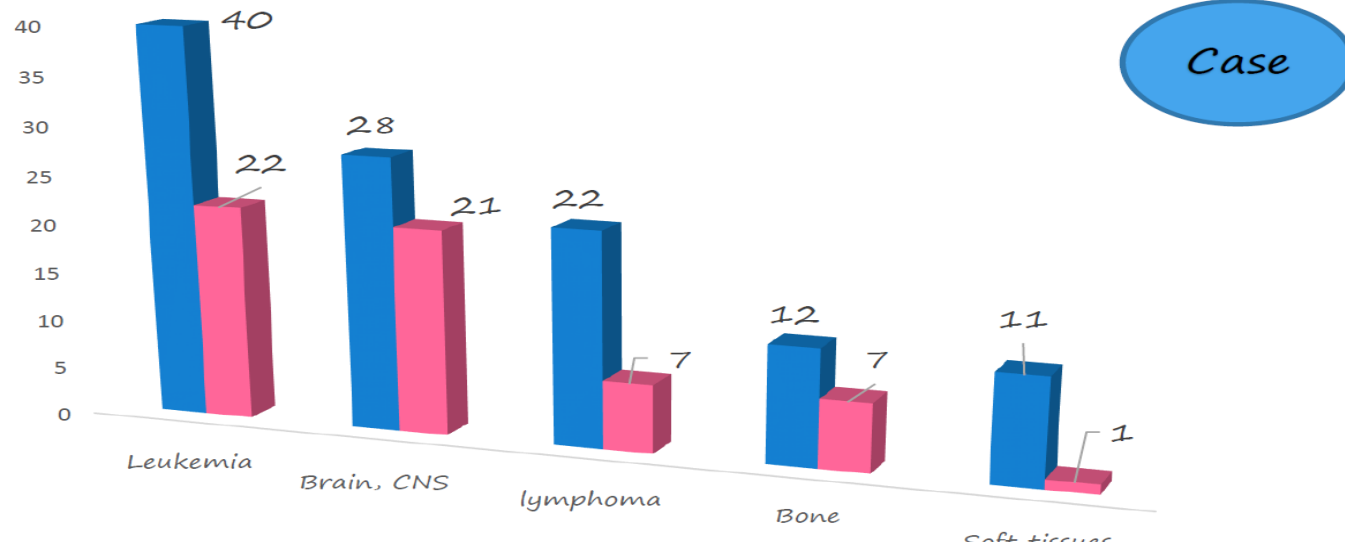
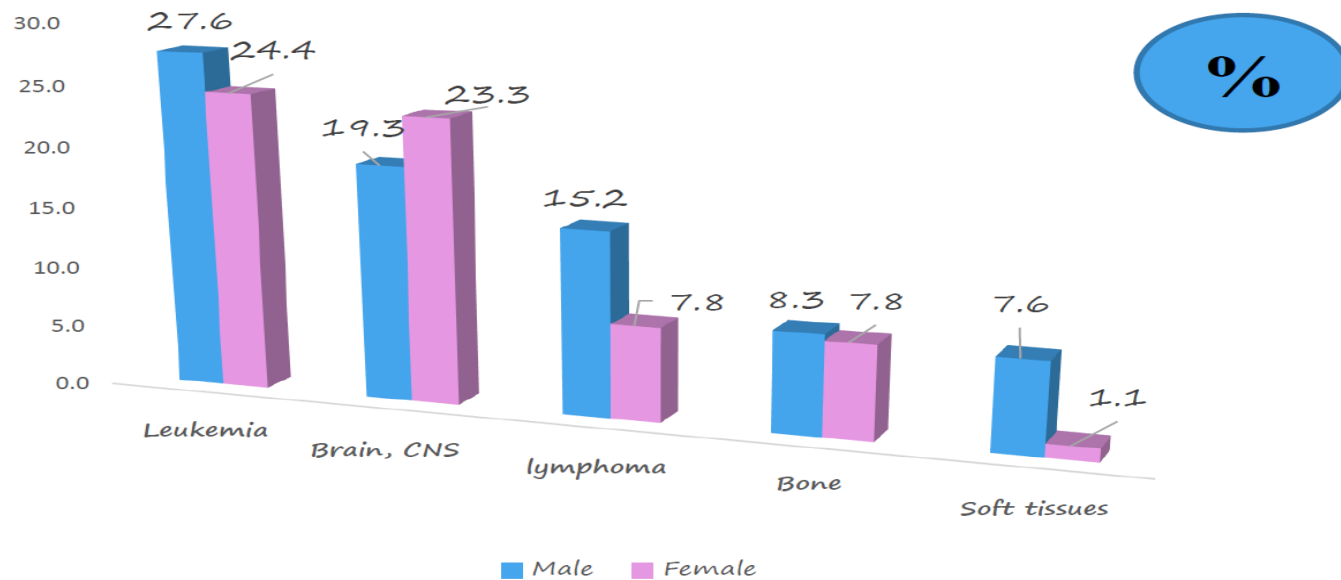
Ten most common cancers among Jordanians, Males, 2017.

No	Site	Freq	%
1	Colorectal	371	12.4
2	Trachea, Bronchus, Lung	366	12.2
3	Prostate	236	7.9
4	Bladder	215	7.2
5	Non-Hodgkin lymphoma	159	5.3
6	Leukemia	158	5.3
7	Stomach	127	4.2
8	Kidney	117	3.9
9	Brain, Nervous system	102	3.4
10	Hodgkin disease	97	3.2

Ten most common cancers among Jordanian Females, 2017.

No	Site	Freq	%
1	Breast	1292	38.4
2	Colorectal	307	9.1
3	Thyroid	223	6.6
4	Corpus Uteri	148	4.4
5	Non-Hodgkin lymphoma	136	4.0
6	Ovary	109	3.2
7	Trachea, Bronchus, Lung	107	3.2
8	Hodgkin disease	93	2.8
9	Brain, Nervous system	84	2.5
10	Stomach	83	2.5

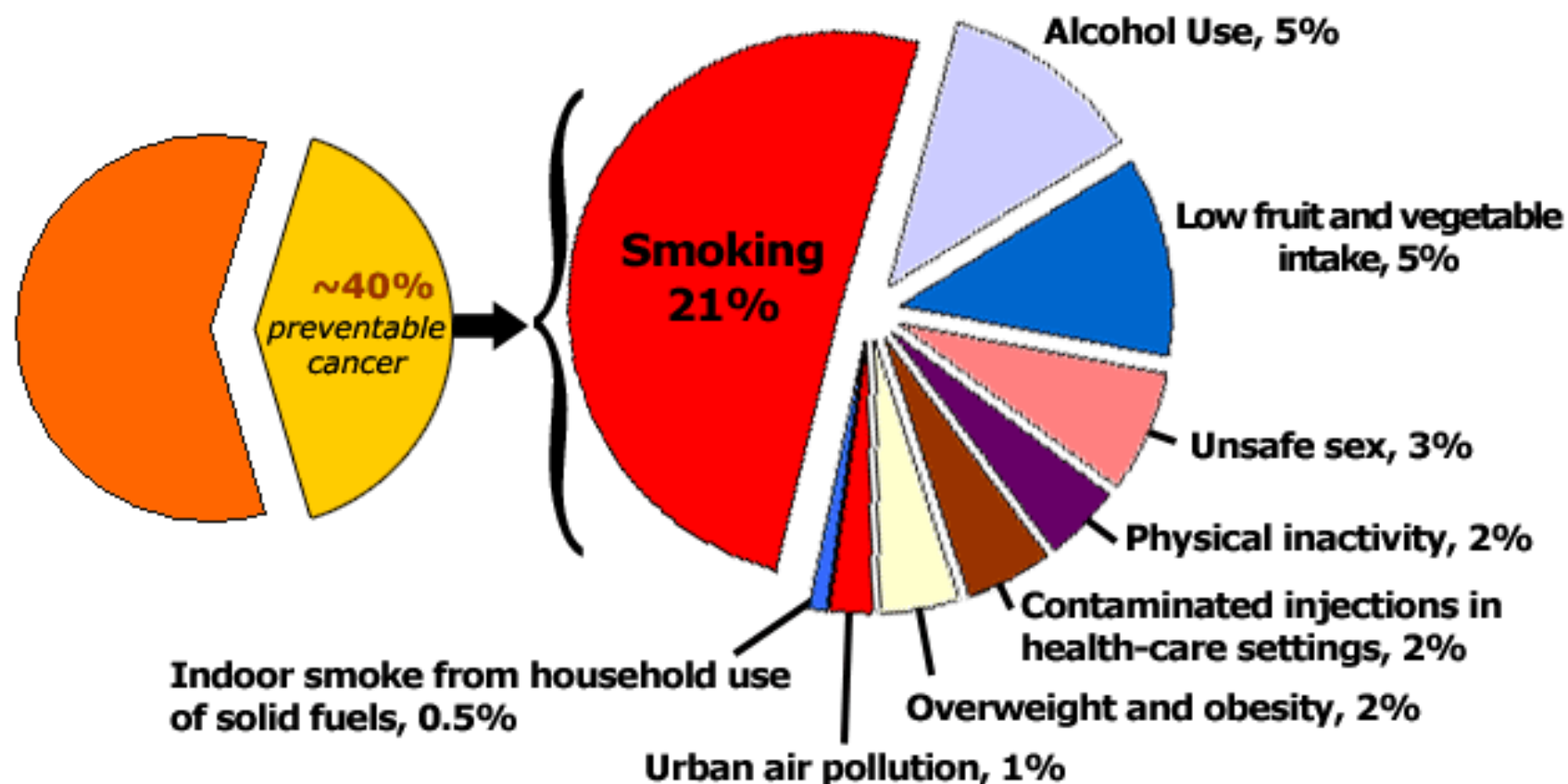
Top Five Pediatric Cancers percentages & Cases by gender, Jordan, 2017.



Cancer Control Program

- An evidence based program aims to reduce cancer burden through:
 1. Reducing cancer incidence
 2. Minimizing cancer morbidity and mortality
 3. Prevention of cancer recurrence and complications
 4. Improvement of quality of life

Estimated proportion of preventable cancer associated with 9 leading modifiable risk factors



Danaei G, Vander Hoorn S, Lopez AD, Murray CJ, Ezzati M. Causes of cancer in the world: comparative risk assessment of nine behavioural and environmental risk factors *The Lancet*, 2005, 366:1784-1793

FACTORS **I**NFLUENCING **S**URVIVAL FROM **C**ANCER

Treatment:

Availability

Access

Quality

Disease:

Natural history

Clinical extent

Definitions

Early Detection:

Early clinical detection

Screening

Host:

Age

Sex

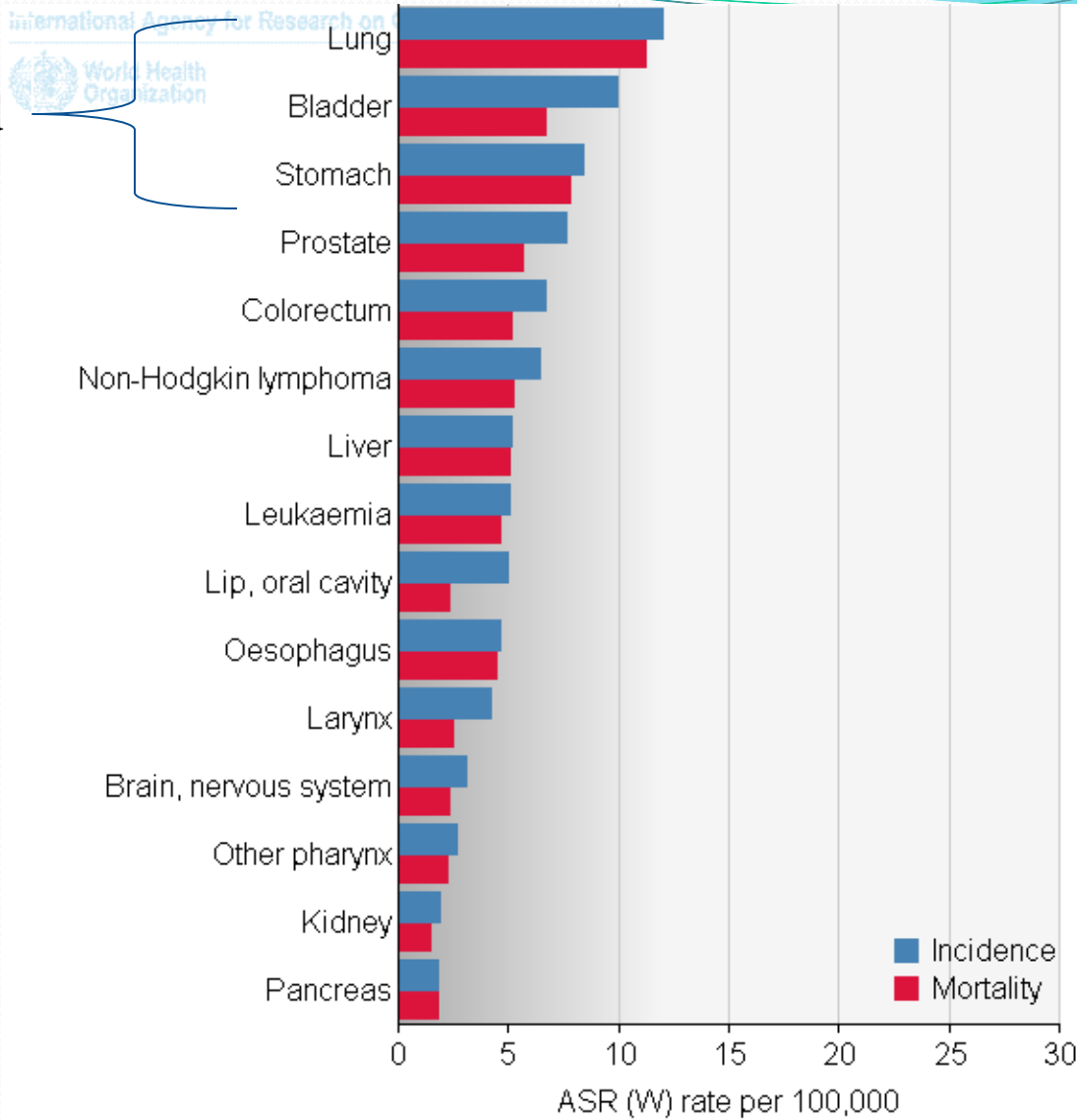
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Comorbidity

Behaviour

Estimated age-standardised incidence and mortality rates: men- Eastern Mediterranean region

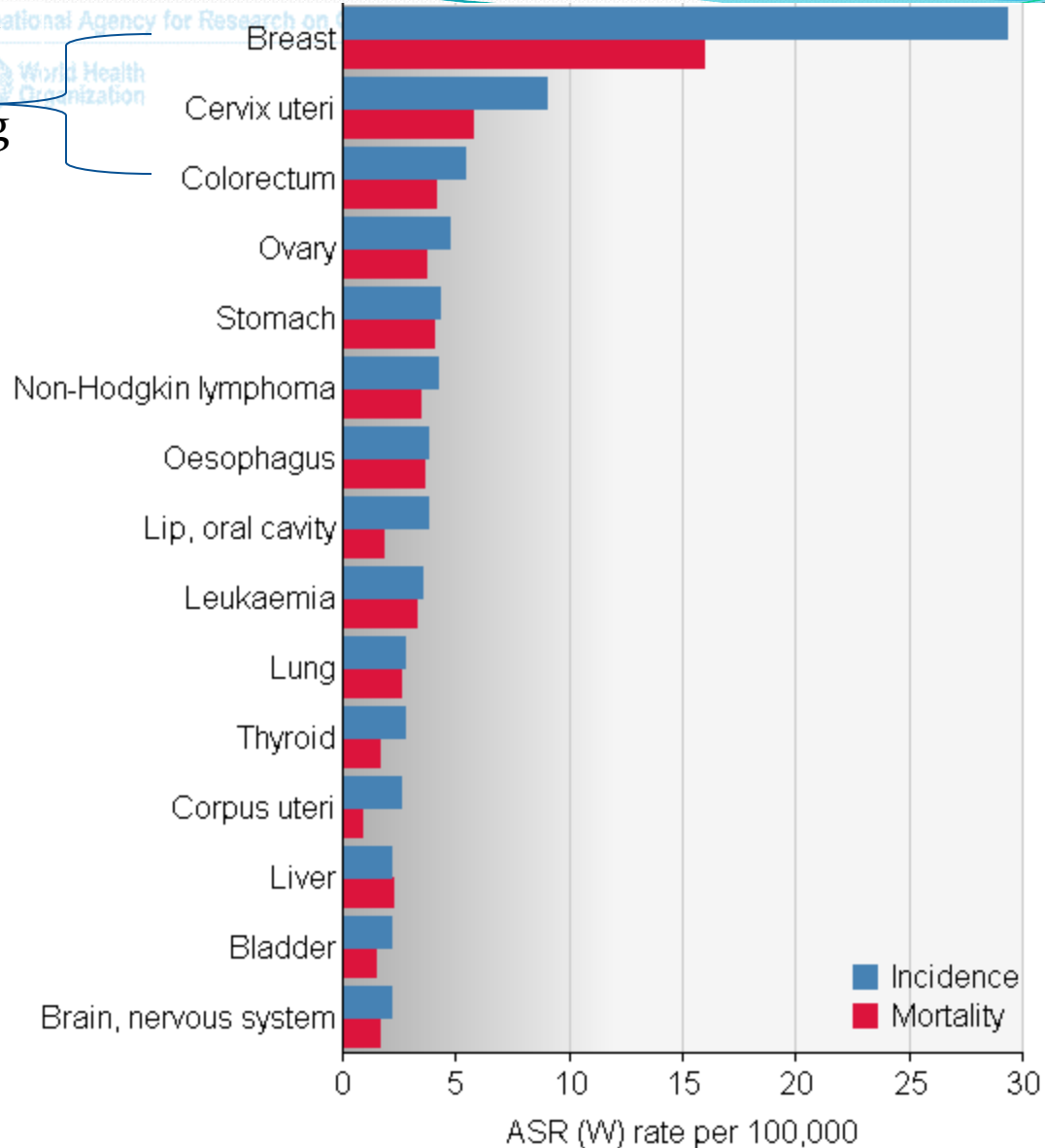
Can be prevented



Global Center for Public Health and Disease
Control, Global Academy for Health Sciences, OH
USA

Estimated age-standardised incidence and mortality rates: women. Eastern Mediterranean region

We can detect them through national systematic screening programmes



Smoking cessation programs

- Include other types of smoking such as Narjeela in calculation of tobacco smoking rates
- Evaluate current and past programs
- Focus on:
 1. Prevention of smoking amongst teenagers
 2. Increase taxes on tobacco products and use the money for prevention programs
 3. Providing free smoking cessation services : medical and behavioural interventions
 4. Free helplines for smokers
 5. Your team should be well-trained
 6. Compare respondents with non-respondents, Success Vs failed
- Can we introduce smoking cessation medical and behavioural management into our medical education and residency training?

A smoking aware practice

GP time

>5 mins



Intense intervention



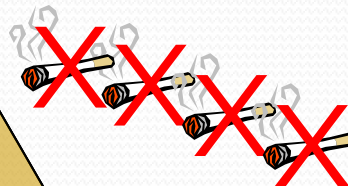
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Increase in quit rate

2-5 mins



Moderate intervention



4 fold

<1 mins



Brief intervention



3 fold

A 'no-smoking practice'



2 fold

Try to have incentives system

- In the UK, the incentives system has promoted GPs to have a major contribution in increasing the uptake of cervical screening system.
- In the UK, each GP surgery would send a reminder letter for non-respondents and would provide counseling, if needed.
- Therefore, have a national or regional targets and provide incentives for those who meet them.