Consequences of obesity and its cost- current WHO interventions in Egypt

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IFPRI Egypt- National Nutrition Committee Joint seminar

"100 million healthy lives: Scientific evidence on double burden of malnutrition in Egypt"

26 Feb 2019

Background

Egypt

- Total population of about 94.8 million people
- Increased from 72.6 millions in 2006
- The population growth rate is 2.56 %
- Nearly one third (34%) of the population are under the age of 15 years
- 4% are 65 years and above

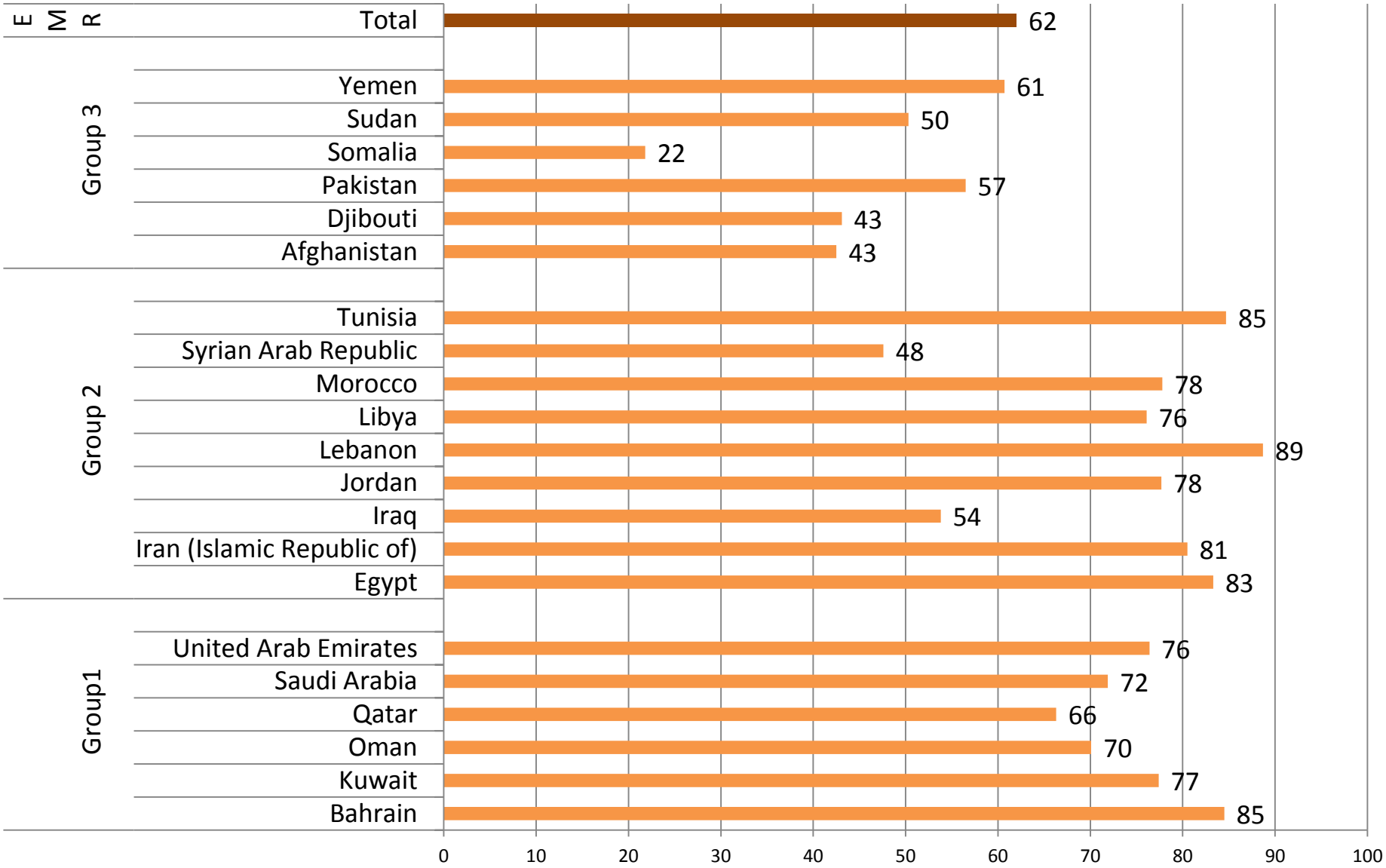
(2017 census data)

- **The four main noncommunicable diseases** are cardiovascular diseases, cancers, diabetes and chronic respiratory diseases.
- The burden of these diseases is rising disproportionately among lower income countries and populations.

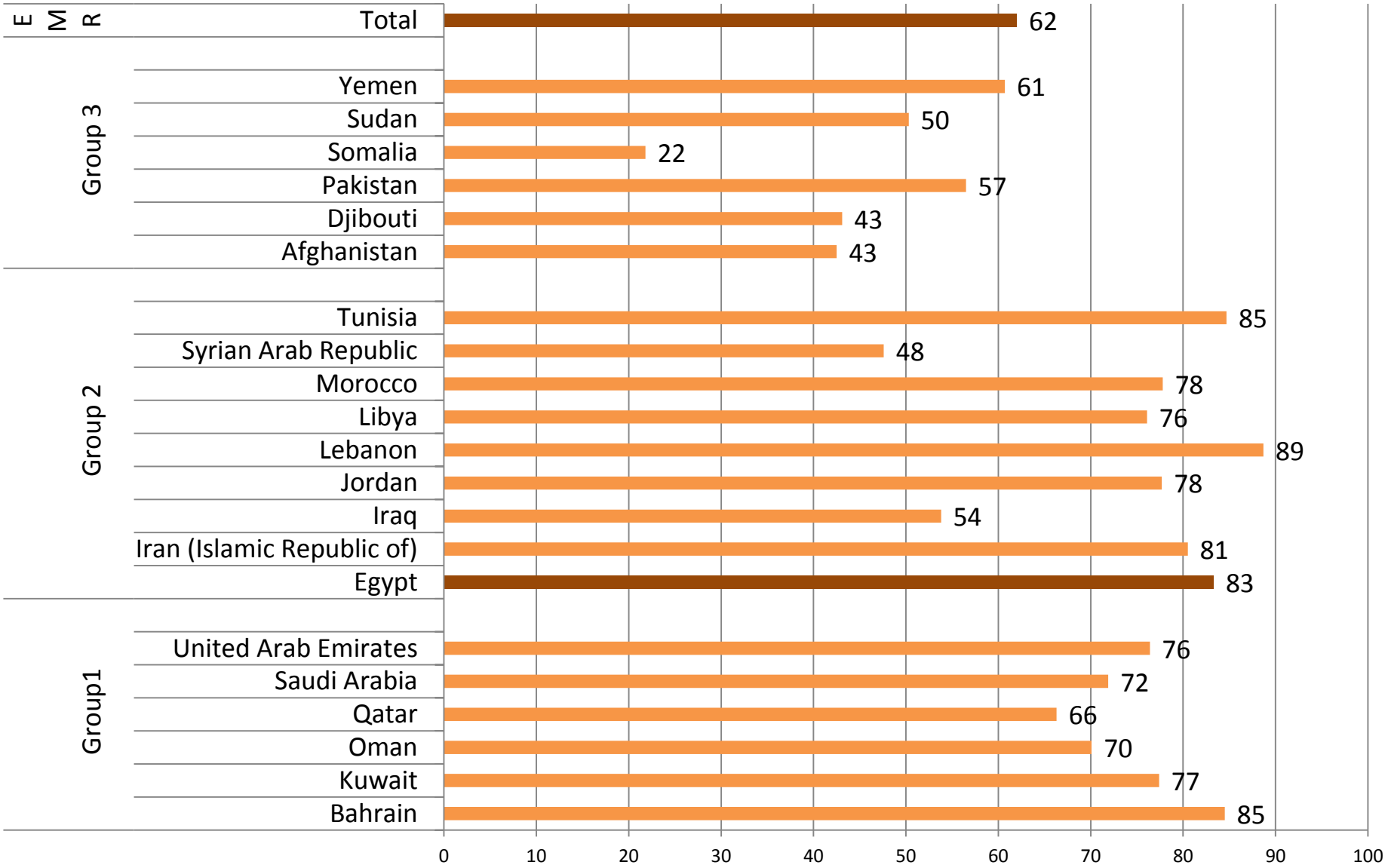
- The global epidemic of premature deaths from NCDs is driven by
  - (i) **poverty** (leading to barriers in access to safe, quality, effective and affordable medicines and technology for the prevention, detection, screening, diagnosis and treatment of NCDs);
  - (ii) **the impact of the globalization** of marketing and trade of deleterious products to health (leading to tobacco use, harmful use of alcohol and unhealthy diets);
  - (iii) **rapid urbanization** (leading to physical inactivity); and
  - (iv) **population ageing**

- **The leading behavioral risk factors** for NCDs are tobacco use, harmful alcohol consumption, unhealthy diet (including high salt and sodium intake), physical inactivity, and overweight and obesity
- **The leading physiological risk factors** are raised blood pressure, raised blood glucose, and abnormal blood lipids

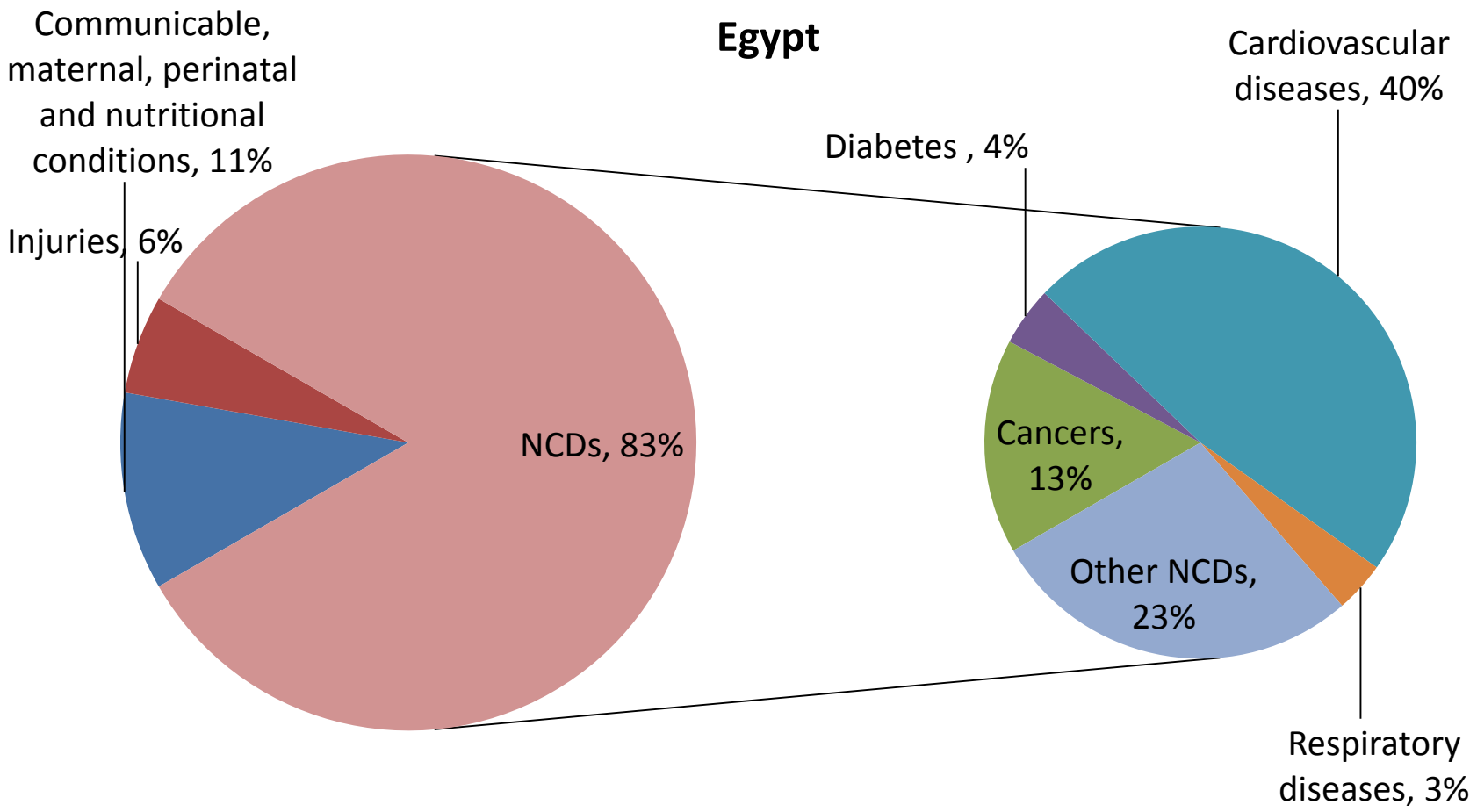
Noncommunicable disease proportionate mortality rate by country group in the Eastern Mediterranean Region, 2015



Noncommunicable disease proportionate mortality rate by country group in the Eastern Mediterranean Region, 2015



Total deaths in Egypt (2015)



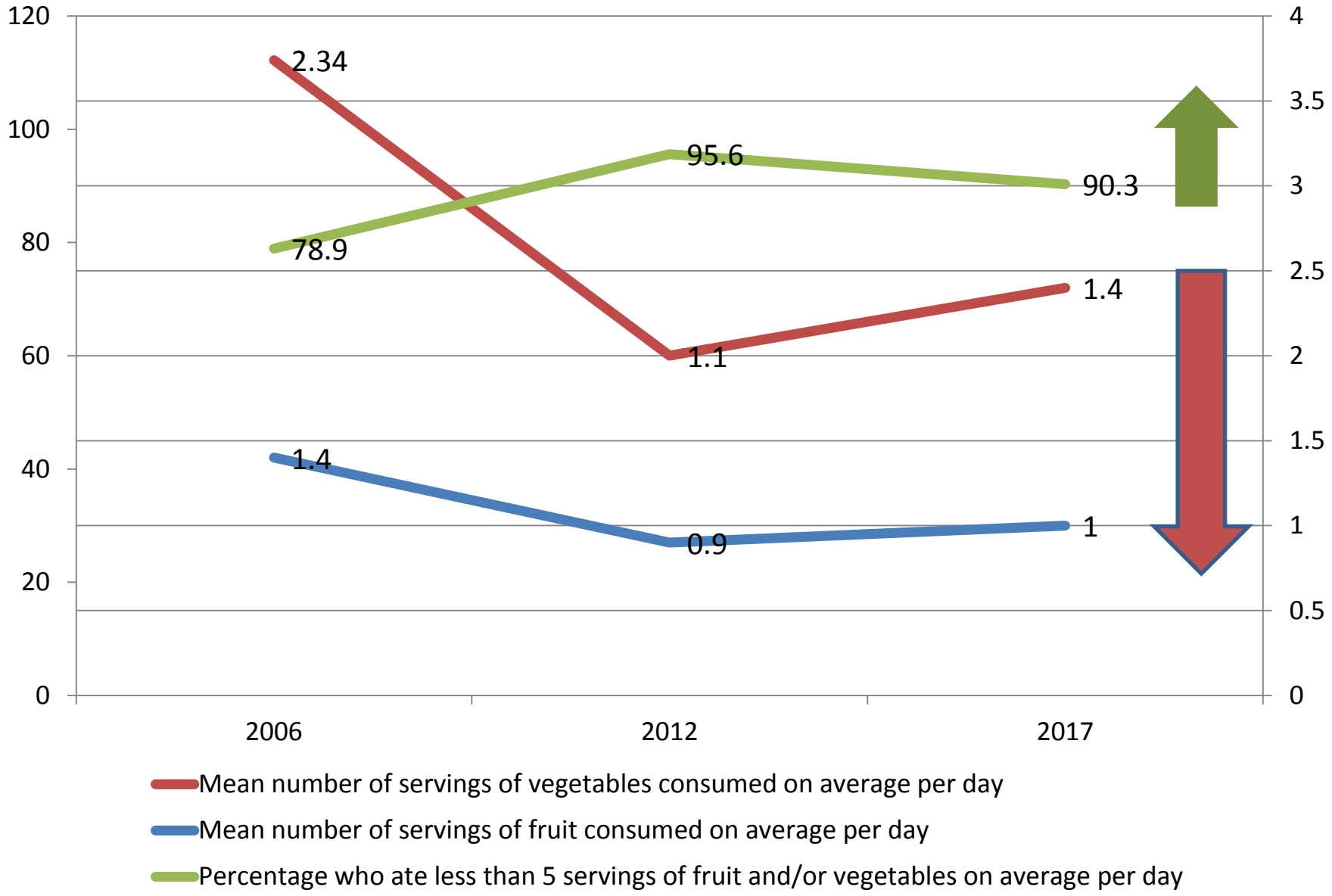
WHO STEPwise approach to chronic disease risk factor surveillance

	2006	2011	2012	2017
Egypt	*	*		*

If we look at the risk factors gathered on obesity and relevant behaviors, we will find

Healthy Diet

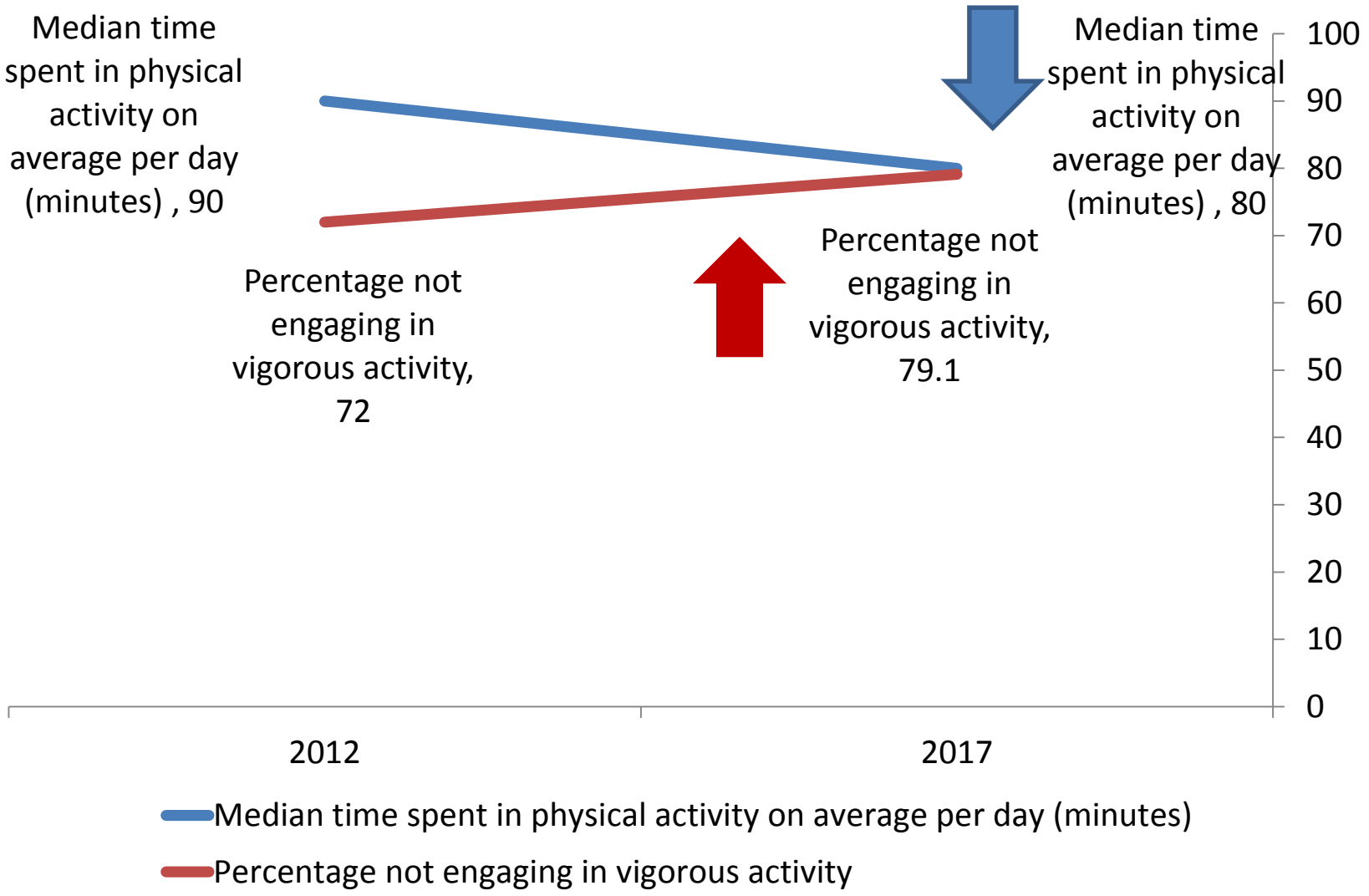
	Mean number of days fruit consumed	Mean number of servings of fruit consumed on average per day	Mean number of days vegetables consumed	Mean number of servings of vegetables consumed on average per day	Percentage who ate less than 5 servings of fruit and/or vegetables on average per day
2017	3.6	1.0	4.4	1.4	90.3
2012	3.5	0.9	4.6	1.1	95.6
2006		1.4		2.34	78.9


120
100
80
60
40
20
0
4
3.5
3
2.5
2
1.5
1
0.5
0
2.34
95.6
90.3
78.9
1.4
1.1
1.4
1
0.9
2006
2012
2017
Mean number of servings of vegetables consumed on average per day
Mean number of servings of fruit consumed on average per day
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day

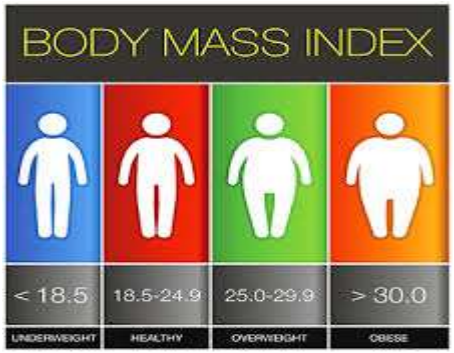
Physical Activity

	Median time spent in physical activity on average per day (minutes)	Percentage not engaging in vigorous activity
2017	80.0	79.1
2012	90	72
2006		

Percentage with low levels of activity (defined as < 600 MET-minutes per week)*

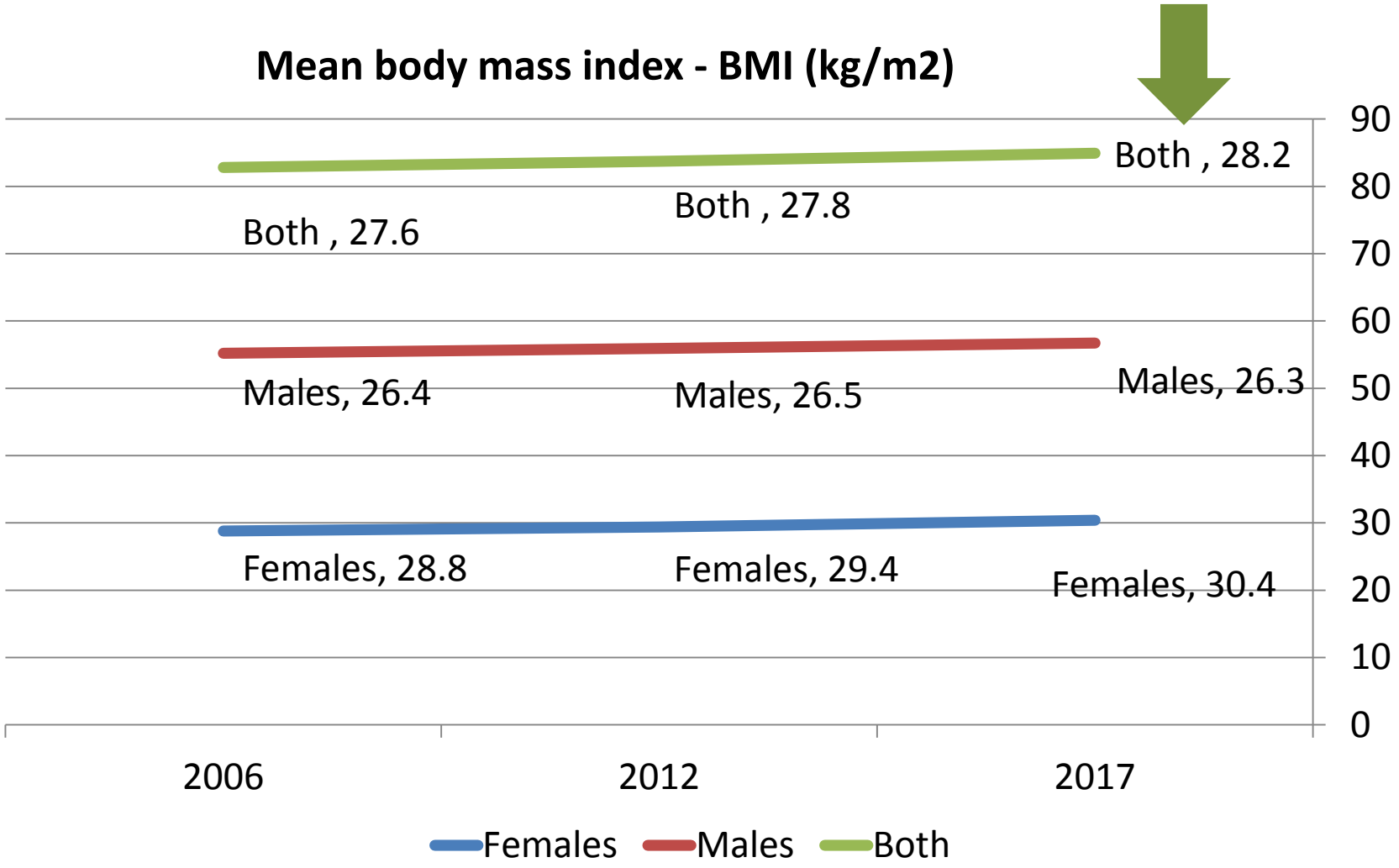

Median time spent in physical activity on average per day (minutes) , 90
Median time spent in physical activity on average per day (minutes) , 80
Percentage not engaging in vigorous activity, 72
Percentage not engaging in vigorous activity, 79.1
100
90
80
70
60
50
40
30
20
10
0
2012
2017
Median time spent in physical activity on average per day (minutes)
Percentage not engaging in vigorous activity

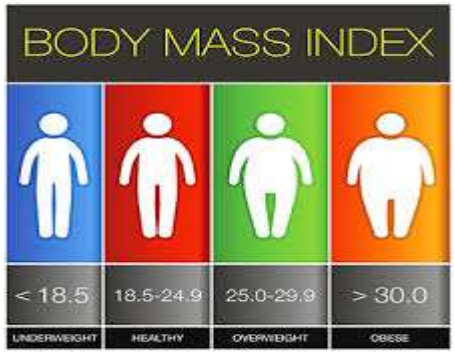
Overweight and Obesity



Mean body mass index - BMI (kg/m2)

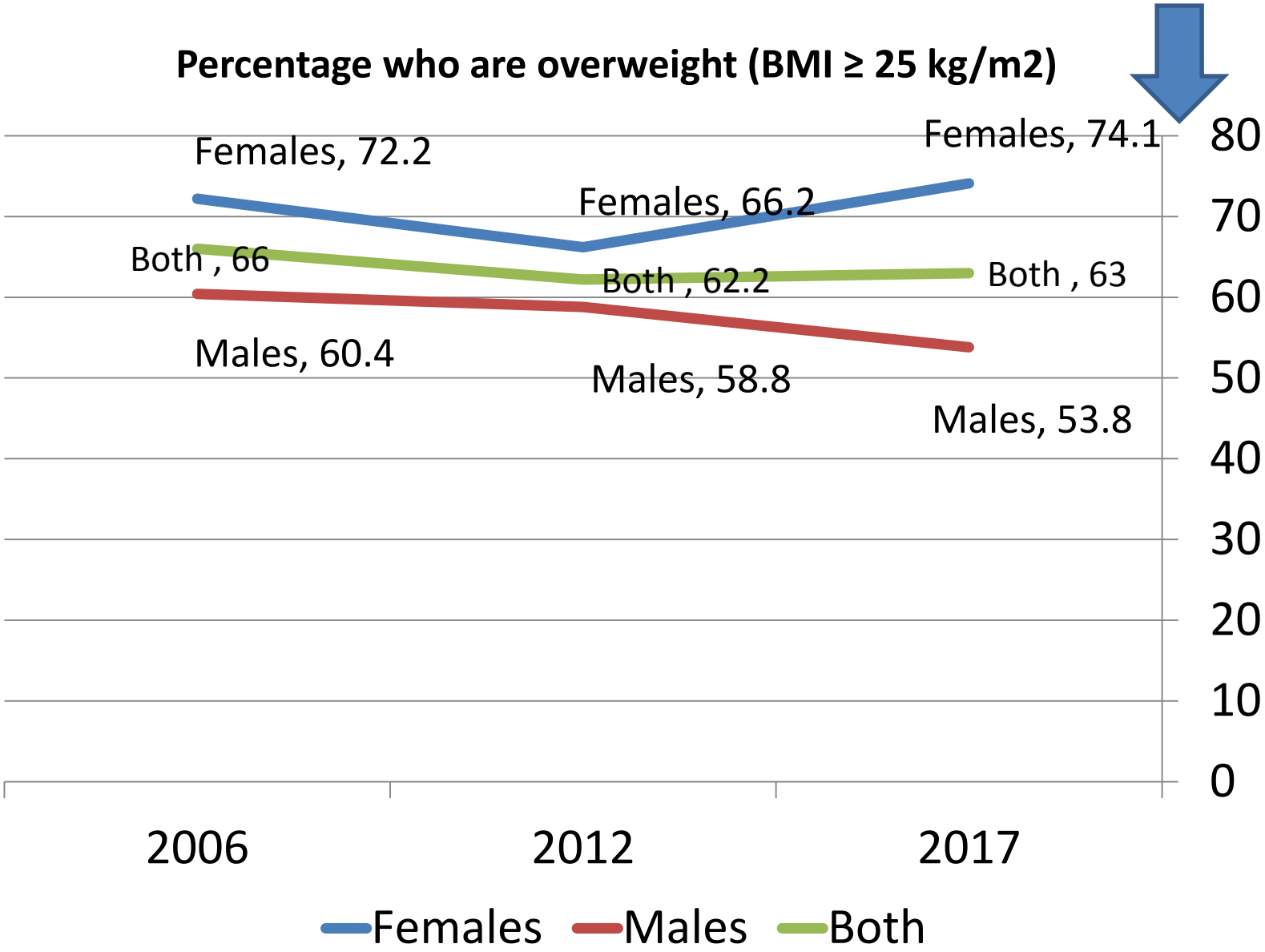
	Females	Males	Both
2017	30.4	26.3	28.2
2012	29.4	26.5	27.8
2006	28.8	26.4	27.6

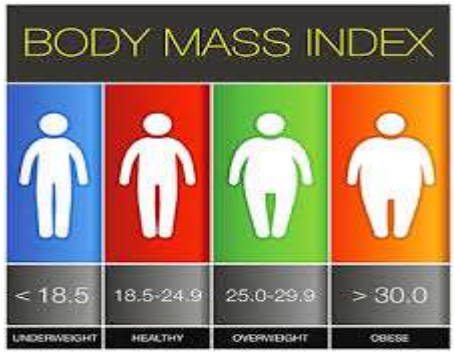

Mean body mass index - BMI (kg/m2)
90
80
70
60
50
40
30
20
10
0
Both , 28.2
Both , 27.8
Both , 27.6
Males, 26.3
Males, 26.5
Males, 26.4
Females, 30.4
Females, 29.4
Females, 28.8
2006
2012
2017
Females
Males
Both



Percentage who are overweight (BMI ≥ 25 kg/m2)

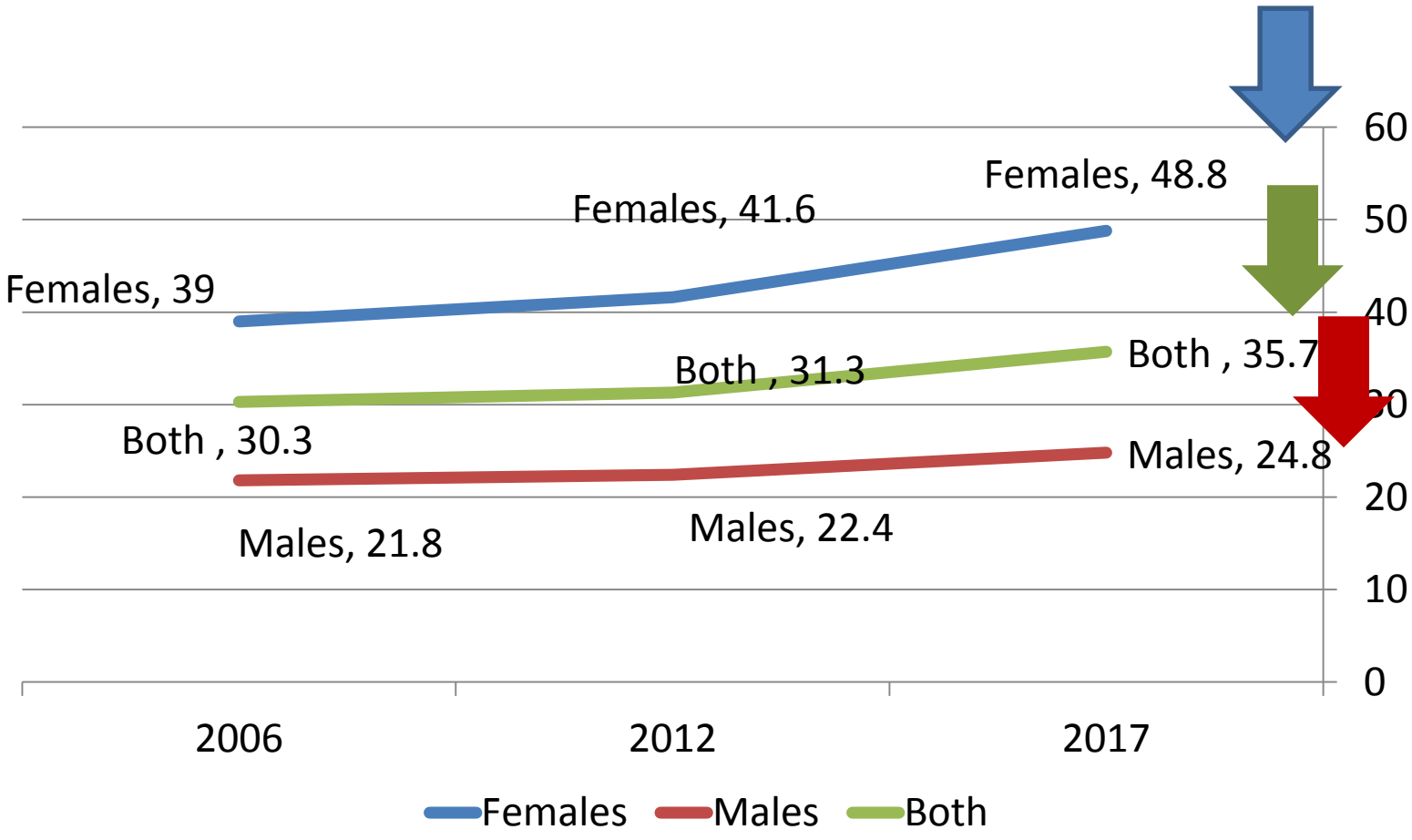
	Females	Males	Both
2017	74.1	53.8	63.0
2012	66.2	58.8%	62.2
2006	72.2	60.4	66.0


Percentage who are overweight (BMI ≥ 25 kg/m2)
Females, 72.2
Females, 66.2
Females, 74.1
Both , 66
Both , 62.2
Both , 63
Males, 60.4
Males, 58.8
Males, 53.8
80
70
60
50
40
30
20
10
0
2006
2012
2017
Females
Males
Both



Percentage who are obese (BMI ≥ 30 kg/m2)

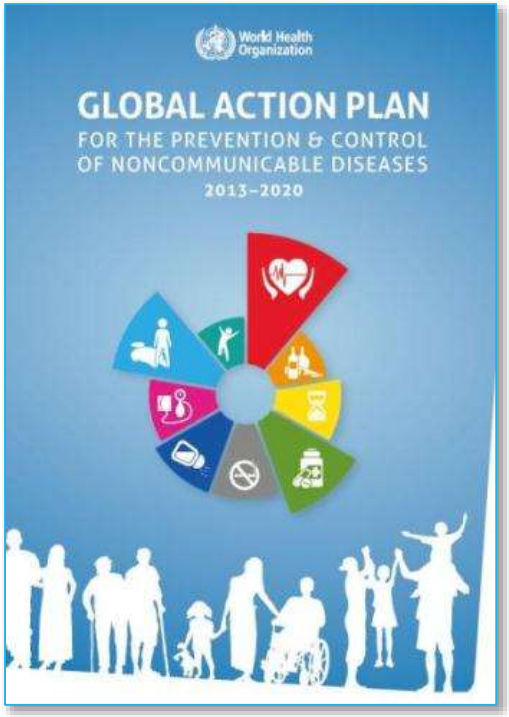
	Females	Males	Both
2017	48.8	24.8	35.7
2012	41.6	22.4	31.3
2006	39	21.8	30.3


Females, 39
Females, 41.6
Females, 48.8
Both , 30.3
Both , 31.3
Both , 35.7
Males, 21.8
Males, 22.4
Males, 24.8
60
50
40
30
20
10
0
2006
2012
2017
Females
Males
Both

- Estimates of annual healthcare costs attributable to obesity are **US$190 billion per year in the USA**, approximately 21% of US healthcare expenditures.
- Given its complexity, the obesity epidemic requires multilevel and integrated solutions, from individual intervention, to broad food policy, industry, and agriculture initiatives.

Best Practices

- To strengthen national efforts to address the burden of NCDs, **WHO Global Action Plan for the Prevention and Control of NCDs 2013-2020** was endorsed in 2013
- The global action plan provides a **road map** and **a menu of policy options** for Member States when implemented collectively between 2013 and 2020, will attain **9 voluntary global targets**.



Where to focus: 9 global NCD targets to be attained by 2025 (against a 2010 baseline)

A **25%** relative reduction in risk of **premature mortality** from cardiovascular disease, cancer, diabetes or chronic respiratory diseases

At least a **10%** relative reduction in the **harmful use of alcohol**

A **10%** relative reduction in prevalence of **insufficient physical activity**

A **25%** relative reduction in prevalence of **raised blood pressure** or contain the prevalence of raised blood pressure

A **30%** relative reduction in prevalence of current **tobacco use**

Halt the rise in **diabetes and obesity**

A **30%** relative reduction in mean population **intake of salt/sodium**

An **80%** availability of the **affordable basic technologies and essential medicines**, incl. generics, required to treat NCDs

At least **50%** of eligible people receive drug therapy and counselling to **prevent heart attacks and strokes**

WHO 2017 Updated menu of policy options in Global Action Plan 2013-2020

- **'Best buys'**: effective interventions with cost effectiveness analysis (CEA) ≤ I$100 per DALY averted in LMICs
- **Effective interventions** with CEA >I$100 per DALY averted in LMICs
- **Other recommended interventions** from WHO guidance (CEA not available)

Best Buys

Unhealthy diet & physical inactivity

1. **Reduce salt intake** through the **reformulation** of food products to contain less salt
2. Reduce salt intake through the **establishment of a supportive environment** in public institutions such as hospitals, schools, workplaces
3. Reduce salt intake through a **behaviour change** communication and mass media campaign
4. Reduce salt intake through the implementation of **front-of pack labelling**

Effective interventions

Unhealthy diet & physical inactivity

1. **Eliminate industrial trans-fats** through the development of legislation to ban their use in the food chain
2. **Reduce sugar consumption** through effective taxation on sugar-sweetened beverage

Other recommended interventions

Unhealthy diet & physical inactivity

1. Promote and support exclusive breastfeeding for the first 6 months of life
2. Implement subsidies to increase the intake of fruits and vegetables
3. Replace trans-fats and saturated fats with unsaturated fats through reformulation, labelling, fiscal policies or agricultural policies
4. Limiting portion and package size to reduce energy intake and the risk of overweight/obesity

Other recommended interventions

Unhealthy diet & physical inactivity

5. Implement nutrition education and counselling in different settings
6. Implement nutrition labelling to reduce total energy intake (kcal), sugars, sodium and fats
7. Implement mass media campaign on healthy diets, including social marketing to reduce the intake of total fat, saturated fats, sugars and salt, and promote the intake of fruits and vegetables

Egypt Status

بسم الله الرحمن الرحيم

وزارة الصحة والسكان
الوزير

قرار وزير الصحة السكان
رقم : ٣٤٨ لسنة ٢٠١٤
بإنشاء وحدة للأمراض غير المعدية
بقطاع الطب العلاجي

وزير الصحة والسكان

بعد الاطلاع على قانون نظام العاملين المدنيين بالدولة رقم ٤٧ لسنة ١٩٧٨.
وعلى قرار رئيس الجمهورية رقم ٢٤٢ لسنة ١٩٩٦ بتنظيم وزارة الصحة والسكان.
وبناء على ما عرضه رئيس القطاع العلاجي.

قرر

مادة (١): تنشأ وحدة للأمراض غير المعدية بالقطاع العلاجي ، تتولى مباشرة المهام والمسئوليات الآتية:

١- وضع خطة قومية لمكافحة الأمراض غير السارية بمشاركة جميع القطاعات المعنية في الدولة .

٢- المشاركة في وضع السياسات والإجراءات العامة المتعلقة بمكافحة الأمراض غير السارية .

٣- العمل مع الإدارات واللجان المتخصصة لوضع بروتوكولات وأدلة العمل الإكلينيكية لبرامج مكافحة الأمراض غير السارية ووضع ميزانيتها ولتحديد آليات تنفيذها ومتابعتها .

٤- المشاركة في إجراء الأبحاث اللازمة لتحديد حجم المشاكل الصحية الناجمة عن الأمراض غير المعدية واتخاذ التدابير اللازمة للحد منها .

- **The creation of NCD unit** within MOHP at the central level;
- **Building a national NCD unit team** that is well qualified and trained to conduct all the unit’s activities;
- **Development of the NCD Action Plan** 2017-2022

Egypt national NCD targets by 2021 and 2025

Framework Element	Baseline	Target 2021	Target 2025
Premature mortality from NCD	25%	15% relative reduction	20% relative reduction
Physical inactivity	32.1%	5% relative reduction	10% relative reduction
Salt/sodium intake	12.8 g/day	20% relative reduction (10.0 g/ day)	10% relative reduction (9.0 g/ day)
Tobacco use	24.4%	10% relative reduction (22.0 %)	20% relative reduction (20 %)
Raised blood Pressure	39%	15%relative reduction (33%)	10 %relative reduction (30%)
Diabetes and obesity	17.2% diabetes 31.3% Obesity	Halt the rise in diabetes & obesity	Halt the rise in diabetes & obesity
Drug therapy to prevent CVD	*N/A %	10 % coverage	15% coverage
Essential NCDs medicines and basic technologies to treat major NCDs	60%	70% availability	80 % availability

Egypt national NCD targets by 2021 and 2025

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Premature mortality from NCD	25%	15% relative reduction	20% relative reduction
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Diabetes and obesity	**17.2% diabetes 31.3% Obesity**	**Halt the rise in diabetes & obesity**	**Halt the rise in diabetes & obesity**
Drug therapy to prevent CVD	*N/A %	10 % coverage	15% coverage
Essential NCDs medicines and basic technologies to treat major NCDs	60%	70% availability	80 % availability

- Production of **national protocols and guidelines** for diagnosis and management of hypertension, diabetes, and cancer;
- Scaling up of the **National Cancer Registry**;
- Implementation of Egypt **STEPwise Surveys** to assess the current status of risk factors for NCDs; and
- Development of **National Action Plans** for tobacco control, and cancer prevention and control.

Thank You