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Consumers, Health, Agriculture and Food Executive Agency

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## **EUROpean treatment & Reduction of Acute Coronary Syndromes cost analysis**

### **The EUROTRACS Project**

**Consumers, Health, Agriculture and Food Executive Agency  
Agreement number 2012 12 07**

### **Deliverable N. D03-00**

#### **Title:**

**Estimates of the coronary artery disease (CAD) annual  
incidence for each participating country**

*May 2014*

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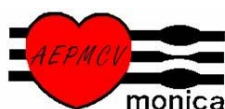
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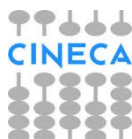
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# **EUROpean treatment & Reduction of Acute Coronary Syndromes cost analysis**

## **The EUROTRACS Project**

### **Deliverable N. D03-00**

#### **Title:**

### **Estimates of the coronary artery disease (CAD) annual incidence for each participating country**

This deliverable includes in Annex I by country (France, Germany, Greece, Italy, Portugal, and Spain):

1. CAD incidence by country
2. Cardiovascular (CV) risk factor prevalence
3. Population projections
4. Framingham calibrated models fitting by country
5. Incidence and number of CAD cases reductions per 10 percent units reduction in population prevalence of smoking, total cholesterol, and blood pressure.

In the present deliverable we synthesize the figures of the data obtained for each participating country regarding their CAD incidence **rates** for the population aged 35-74 years. We also include the **projections of population in 2015 and 2025** and the **CV risk factors prevalence** (diabetes, smoking, blood pressure and total cholesterol distributions) in 2000-2010 in each country.

The incidence projection method estimates the number of coronary events that will occur in a given population within 10 years. Based on population cohort studies done in the participating countries the projections incorporate the expected

demographic changes, baseline CV risk factor prevalence, and expected changes in the prevalence of these risk factors over a 10-year period.

A 15-year steady CAD incidence from 2010-2014 is assumed, and then projections by country / region are undertaken with the Framingham (Wilson PWF, D'Agostino RB, Levy D, Belanger AM, Silbershatz H, Kannel WB. Prediction of coronary heart disease using risk factor categories. *Circulation*. 1998; 97: 1837-47.) function coefficients (**Table 1**) calibrated with country risk factor prevalence and CAD incidence rate in the population aged 35-74.

Projections are based on three interventions that should result in 1% decrease in turn in the prevalence of:

- Total Cholesterol
- Hypertension
- Smoking

**Table 1:** Framingham original risk factor categories coefficients by sex

Risk factors	Coefficients	
	Men	Women
<b>Age</b>	0.04826	0.33766
<b>Age squared</b>	---	-0.00268
<b>Total Cholesterol (mg/dL)</b>		
<b>&lt;160</b>	-0.65945	-0.26138
160 - <200	0	0
200 - <240	0.17692	0.20771
240 - <280	0.50539	0.24385
≥280	0.65713	0.53513
<b>HDL- Cholesterol (mg/dL)</b>		
<b>&lt;35</b>	0.49744	0.84312
35 - <45	0.2431	0.37796
<b>45 - &lt;50</b>	0	0.19785
50 - <60	-0.05107	0
≥60	-0.4866	-0.42951
<b>Blood pressure mmHg (Systolic/Diastolic)</b>		
<b>&lt;120 / &lt;80</b>	-0.00226	-0.53363
120 - <130 / 80 - <85	0	0
130 - <140 / 85 - <90	0.2832	-0.06773
140 - <160 / 90 - 100	0.52168	0.26288
≥160 / ≥100	0.61859	0.46573
<b>Diabetes</b>	0.42839	0.59626
<b>Smoker</b>	0.52337	0.29246

The basal risk factors prevalences obtained from 2000-2010 and assumed for 2005, are presented after the figures with country absolute number and incidence rates projections together with the prevalence expected in 2015, and 2025 under each 1% risk factor corresponding reduction.

## **Some notes on projections assumptions and risk factor prevalence reduction.**

### **Population projection assumptions**

We obtained population estimates from 2005-2013 and population projections from 2014-2025 by sex and age group for all participating countries/regions except for Spain and Greece.

In Spain, population projections were only available for the specific region until 2021. To obtain an approximation of the population projection for 2022-2025, we calculated the annual variation from 2016-2021 and applied it to the 2022-2025 period. As population projections until 2025 will be available in October 2014, the model will be updated with these data by the end of 2014.

In Greece, population projections were only available every 5 years (the years ending in 0 and 5), to obtain an approximation of the population projection each year between the 5-year projections, we assumed a linear variation in the 5-year period.

### **CV risk factor prevalence assumptions**

We obtained risk factor prevalence data from population-based registers from each country/region for the period 2000-2010, except for Greece. Greece has just finished a country-wide survey to obtain risk factor prevalence data, these data will not be available until the end of 2014. To obtain an approximation of the risk factor prevalence in Greece for the period 2000-2010, we used published data from the Greek studies ATTICA [1] and EPIC [2], as well as data from other Mediterranean countries included in the EUROTRACS. Specifically, we obtained diabetes and smoking prevalence from the ATTICA study [1] and the distribution of population by blood pressure group from the EPIC study [2]. As there were no data available on the population distribution by groups of total cholesterol and HDL-cholesterol concentration, in the ATTICA and EPIC studies, we used cholesterol prevalence data from Portugal. Portugal and Greece have almost the same mean concentration in total, HDL and LDL-cholesterol, in both men and women.

When risk factor prevalence data from the last Greek survey become available, the model will be updated with these data.

### **CAD incidence data**

We obtained CAD incidence data from population-based registries or from official mortality and morbidity figures in all country/regions for the period 2000-2010, except for Greece. In Greece, we obtained CAD incidence from the preliminary results of the HELIOS study [3], a country-wide hospital-based registry, which has obtained CAD estimates almost equal to the official number of cases.



### **Total Cholesterol (mg / dl) prevalence reduction**

Total cholesterol levels are categorized in 5 groups. The proposed 10-year reduction is applied proportionally to the population in the 240 to 279 mg/dl and  $\geq 280$  mg/dl groups. The proposed reduction is assumed to result in an increase in the 200-239 mg/dl category. The proposed reduction cannot be greater than the sum of the population proportions in the 240 to 279 mg/dl and  $\geq 280$  mg/dl groups for each sex. E.g., if there is 14% of the population in the 240-279 mg/dl group and 5% in the  $\geq 280$  mg/dl group, the proposed reduction cannot be greater than 19%. In fact, it is unrealistic even to approach this figure.

### **Blood pressure (mmHg) prevalence reduction**

Blood pressure levels are also categorized in 5 groups. The proposed 10-year reduction is applied proportionally to population in the  $>140/90$  and  $\geq 160/100$  mmHg groups. The proposed reduction is assumed to result in an increase in the  $>130/85$  to  $<140/90$  mmHg category. The proposed reduction cannot be greater than the sum of the population proportions in the  $>140/90$  or  $\geq 160/100$  mmHg groups for each sex. E.g., if there is 11% of the population in the  $>140/90$  group and 2% in the  $\geq 160/100$  mmHg group, the proposed reduction cannot be greater than 13%. In fact, it is unrealistic even to approach this figure.

[1] Pitsavos C, et al. BMC Public Health 2003;3:32.

[2] Psaltopoulou T, et al. Am J Clin Nutr 2004;80:1012-18.

[3] Andrikopoulos G, et al. Hellenic J Cardiol 2007; 48:325-34.

## Examples by country and interpretation

In Annex I we present the results for three particular scenarios that were deemed realistic and feasible in most European countries public health systems. The proposed objectives included the following CV risk factor prevalence reduction:

- 1) None. Leave the situation as it was in 2005
- 2) Reduce population hypercholesterolemia prevalence by 10%
- 3) Reduce population hypertension prevalence by 10%, or
- 4) Decrease population smoking prevalence by 10%

Each participant region has different population size. Therefore the figures provided are not for whole countries but for participating country regions. In consequence the reductions in the number of coronary artery disease events after 20 years presented below are indicative for a fraction of country populations. Country extrapolations can be done but its reliability is certainly limited. The figures below are indicative of the magnitude of the potential benefit of the proposed interventions. Other interventions or combinations of interventions with magnitudes of reduction in prevalences can be done after registration at [www.eurotracs-project.eu](http://www.eurotracs-project.eu).

The participating regions had the following average population over the 2005-2025 period:

Country	Region	Men	Women	All
Germany	Ausgburg	167,590	168,960	336,551
Italy	Lazio	1,510,888	1,643,467	3,154,356
France	Toulouse	297,866	309,690	607,556
Portugal	Portugal	2,693,035	2,919,187	5,612,223
Spain	Girona	178,842	174,079	352,922
Greece	Greece	2,913,133	3,016,971	5,930,104

The results are presented comparatively for men and women by country in the following table (see some details in Annex I or reproduce the analyses at [www.eurotracs-project.eu](http://www.eurotracs-project.eu) after registering). Please note that the number of events has been counted based on the reference population for each region described above.

Table: accumulated decrease in number of expected coronary artery disease events after 20 years by sex in the regions of the six participating countries of EUROTRACS

	<b>Men</b>	<b>Women</b>	<b>All</b>
Expected # accumulated events	630,058	163,426	793,484
Intervention 2005-2025	<b>Decrease #CAD cases</b>	<b>Decrease #CAD cases</b>	<b>Total decrease #CAD cases</b>
10% decrease in dislipemia	11968 (1.9%)	940 (0.6%)	12908 (1.6%)
10% decrease in hypertension	8649 (1.4%)	3229 (2.0%)	11878 (1.5%)
10% decrease in smoking	16846 (2.7%)	2452 (1.5%)	19298 (2.4%)

It stems from the above overall results that the the most effective intervention in terms of number of averted CAD events in the six regions considered in the EUROTRACS project is reducing 10% the prevalence of smokers in the population. In some populations a better control of blood pressure would be a better choice for women.

# **Annex I**

# **EUROTRACS**

## **Deliverable 3**

FRANCE

May 20, 2014

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Figure 1: Number of cases

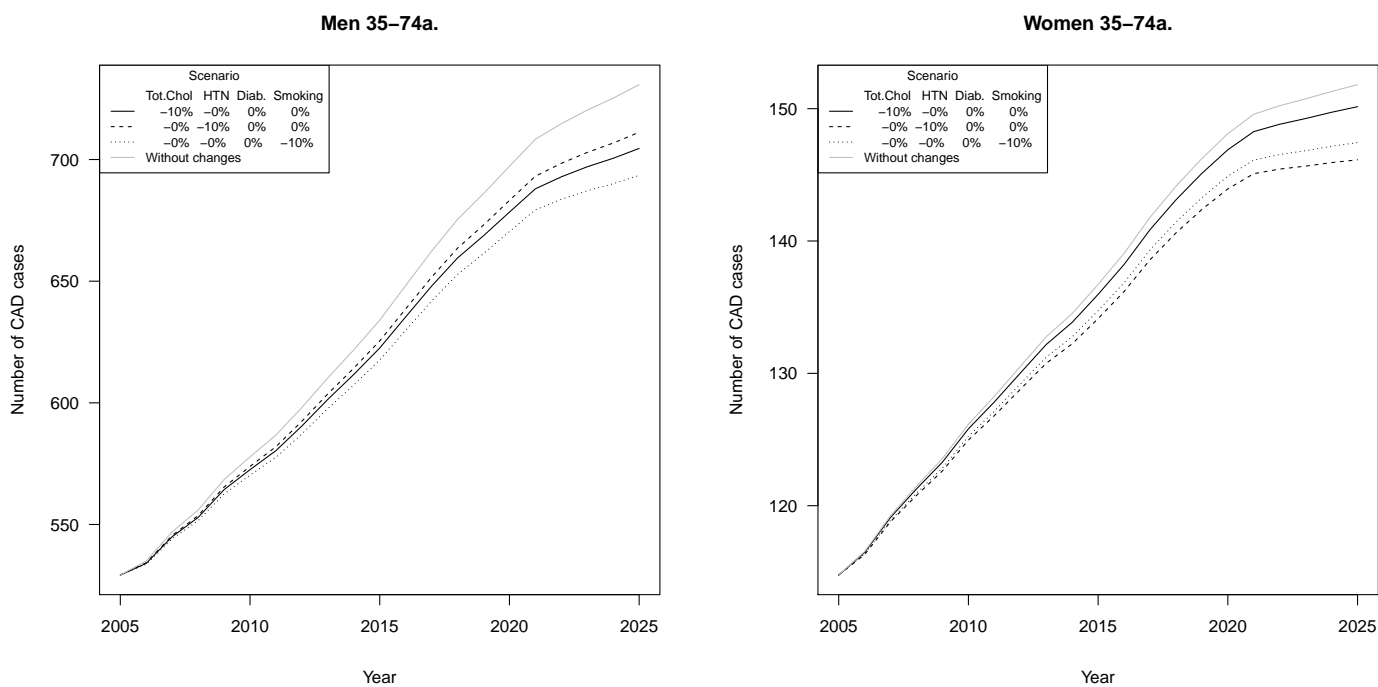


Figure 2: Attack rate

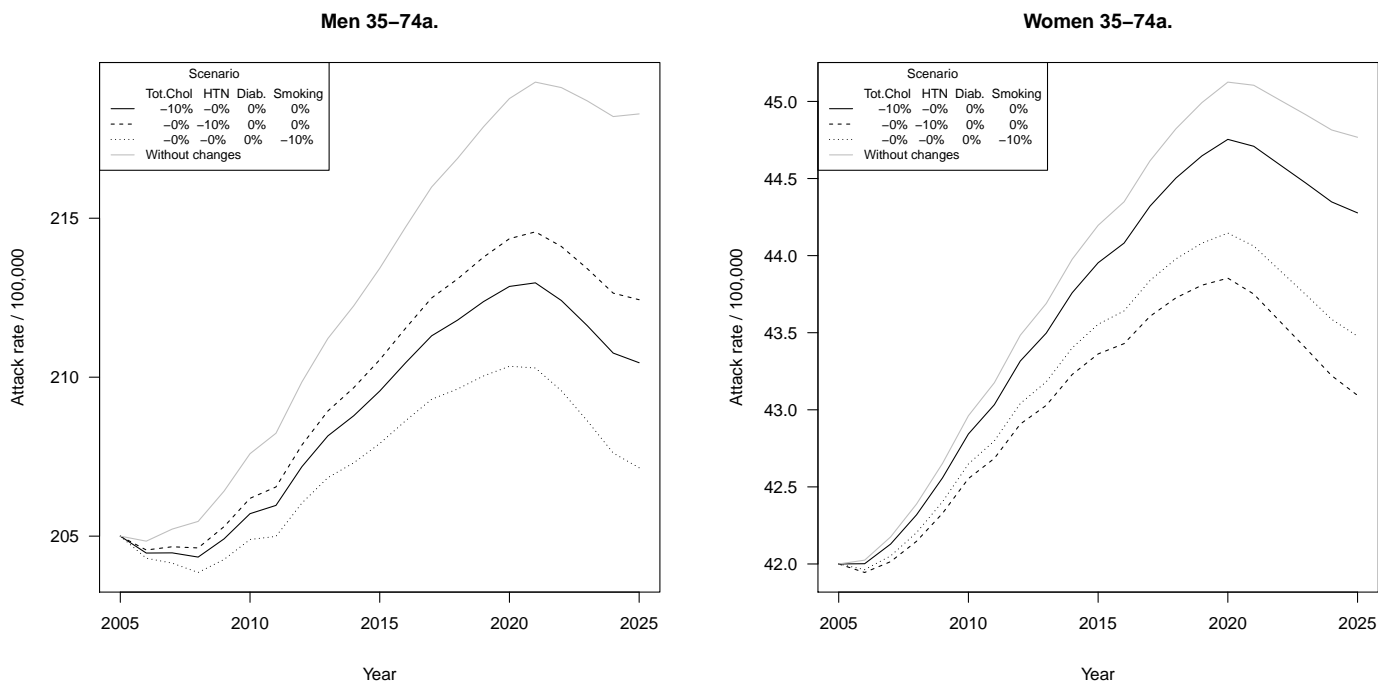


Figure 3: Prevented Cases

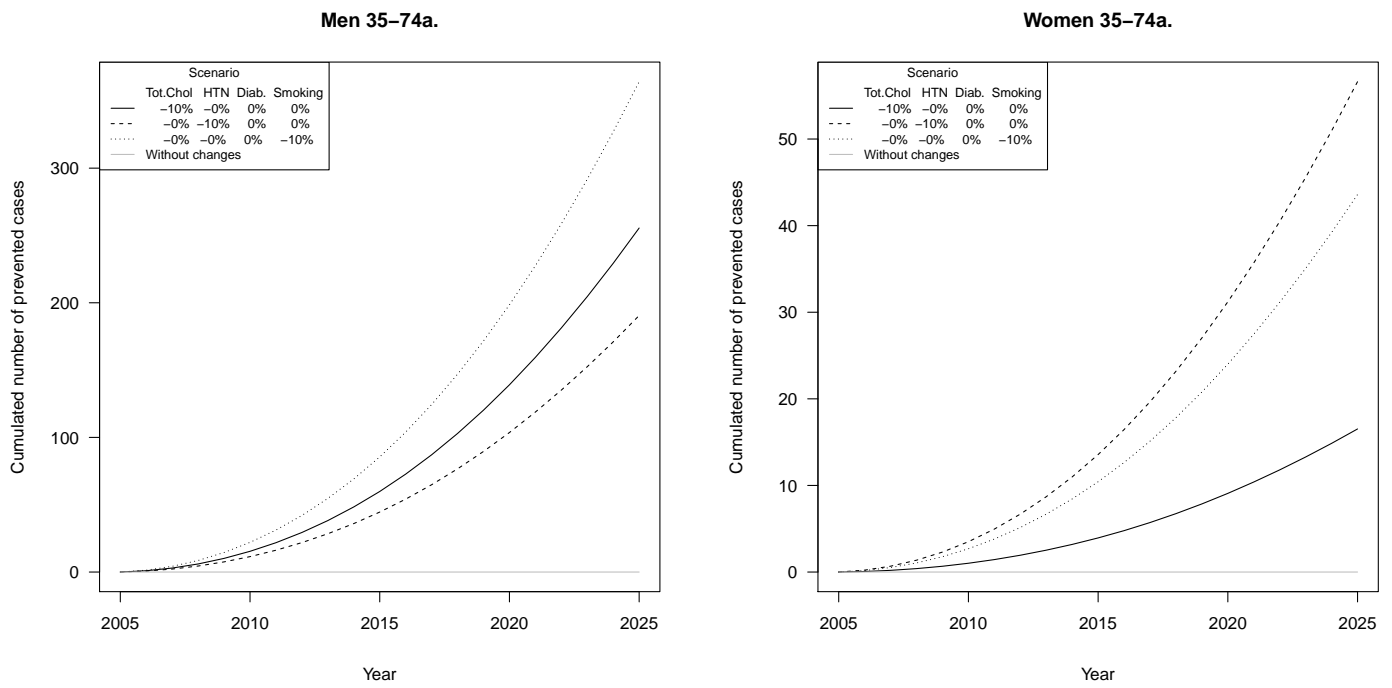




Table 1: **Scenario 1**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	10% decrease	10% decrease
Hypertension	0% decrease	0% decrease
Diabetes	0% increase	0% increase
Smoking	0% increase	0% increase

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	51.8	53.1	52.4	53.9
Total cholesterol <160	4.8%	4.8%	3.9%	3.9%
Total cholesterol 160-<200	23.6%	23.6%	22.8%	22.8%
Total cholesterol 200-<240	41.0%	51.0%	43.0%	53.0%
Total cholesterol 240-<280	23.2%	15.6%	22.6%	15.1%
Total cholesterol >280	7.4%	5.0%	7.7%	5.2%
Blood pressure <120/80	17.0%	17.0%	45.0%	45.0%
Blood pressure <130/85	20.5%	20.5%	18.6%	18.6%
Blood pressure <140/90	21.3%	21.3%	15.4%	15.4%
Blood pressure <160/100	27.2%	27.2%	15.7%	15.7%
Blood pressure >=160/100	14.0%	14.0%	5.2%	5.2%
Diabetes	6.2%	6.2%	5.1%	5.1%
Smoking	15.4%	15.4%	14.2%	14.2%
Population	258156	334783	273238	339111
Expected Attack rate / 100,000	205	218	42	45
Scenario 1 Attack rate / 100,000	205	210	42	44
Expected number of CAD cases	529	731	115	152
Scenario 1 number of CAD cases	529	705	115	150
Scenario 1 total number of prevented cases	0	256	0	17

Table 2: **Scenario 2**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	0% decrease	0% decrease
Hypertension	10% decrease	10% decrease
Diabetes	0% increase	0% increase
Smoking	0% increase	0% increase

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	51.8	53.1	52.4	53.9
Total cholesterol <160	4.8%	4.8%	3.9%	3.9%
Total cholesterol 160-<200	23.6%	23.6%	22.8%	22.8%
Total cholesterol 200-<240	41.0%	41.0%	43.0%	43.0%
Total cholesterol 240-<280	23.2%	23.2%	22.6%	22.6%
Total cholesterol >280	7.4%	7.4%	7.7%	7.7%
Blood pressure <120/80	17.0%	17.0%	45.0%	45.0%
Blood pressure <130/85	20.5%	20.5%	18.6%	18.6%
Blood pressure <140/90	21.3%	31.3%	15.4%	25.4%
Blood pressure <160/100	27.2%	20.6%	15.7%	8.2%
Blood pressure >=160/100	14.0%	10.6%	5.2%	2.7%
Diabetes	6.2%	6.2%	5.1%	5.1%
Smoking	15.4%	15.4%	14.2%	14.2%
Population	258156	334783	273238	339111
Expected Attack rate / 100,000	205	218	42	45
Scenario 2 Attack rate / 100,000	205	212	42	43
Expected number of CAD cases	529	731	115	152
Scenario 2 number of CAD cases	529	711	115	146
Scenario 2 total number of prevented cases	0	191	0	57

Table 3: **Scenario 3**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	0% decrease	0% decrease
Hypertension	0% decrease	0% decrease
Diabetes	0% increase	0% increase
Smoking	-10% decrease	-10% decrease

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	51.8	53.1	52.4	53.9
Total cholesterol <160	4.8%	4.8%	3.9%	3.9%
Total cholesterol 160-<200	23.6%	23.6%	22.8%	22.8%
Total cholesterol 200-<240	41.0%	41.0%	43.0%	43.0%
Total cholesterol 240-<280	23.2%	23.2%	22.6%	22.6%
Total cholesterol >280	7.4%	7.4%	7.7%	7.7%
Blood pressure <120/80	17.0%	17.0%	45.0%	45.0%
Blood pressure <130/85	20.5%	20.5%	18.6%	18.6%
Blood pressure <140/90	21.3%	21.3%	15.4%	15.4%
Blood pressure <160/100	27.2%	27.2%	15.7%	15.7%
Blood pressure >=160/100	14.0%	14.0%	5.2%	5.2%
Diabetes	6.2%	6.2%	5.1%	5.1%
Smoking	15.4%	5.4%	14.2%	4.2%
Population	258156	334783	273238	339111
Expected Attack rate / 100,000	205	218	42	45
Scenario 3 Attack rate / 100,000	205	207	42	43
Expected number of CAD cases	529	731	115	152
Scenario 3 number of CAD cases	529	694	115	147
Scenario 3 total number of prevented cases	0	364	0	44

# **EUROTRACS**

## **Deliverable 3**

GERMANY

May 20, 2014

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Figure 1: Number of cases

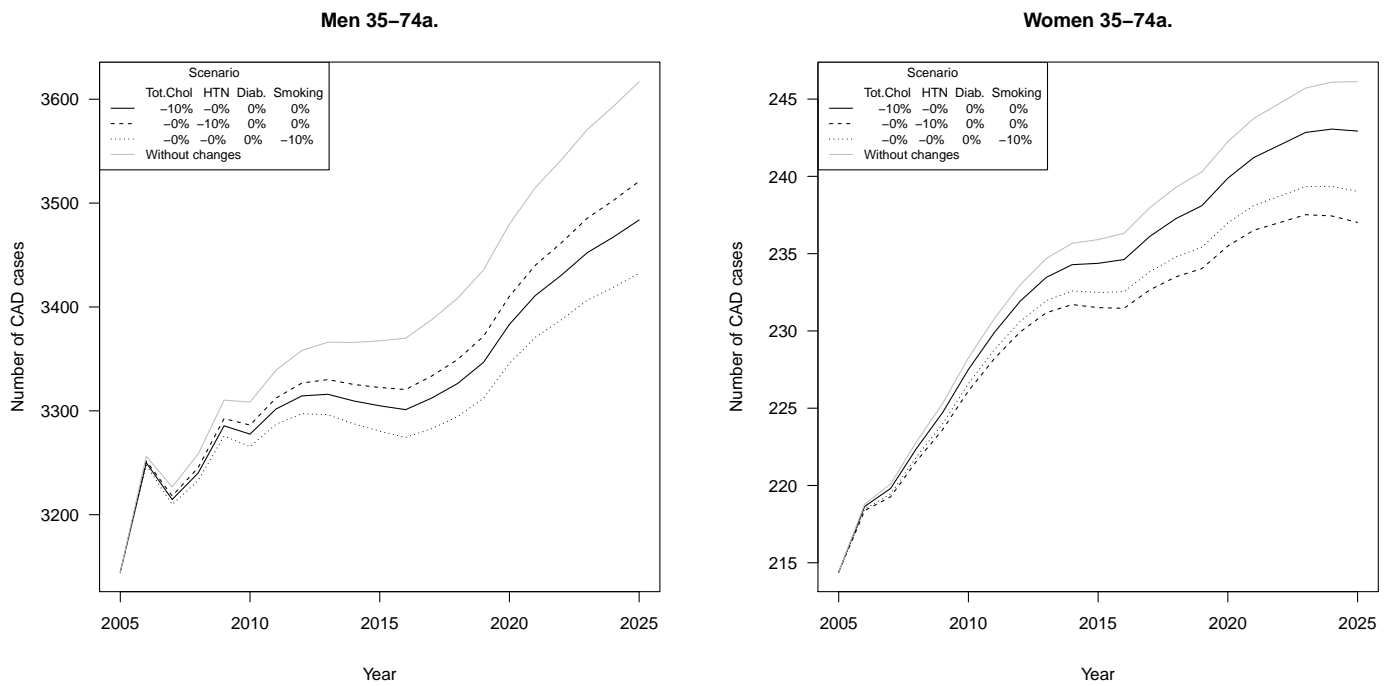


Figure 2: Attack rate

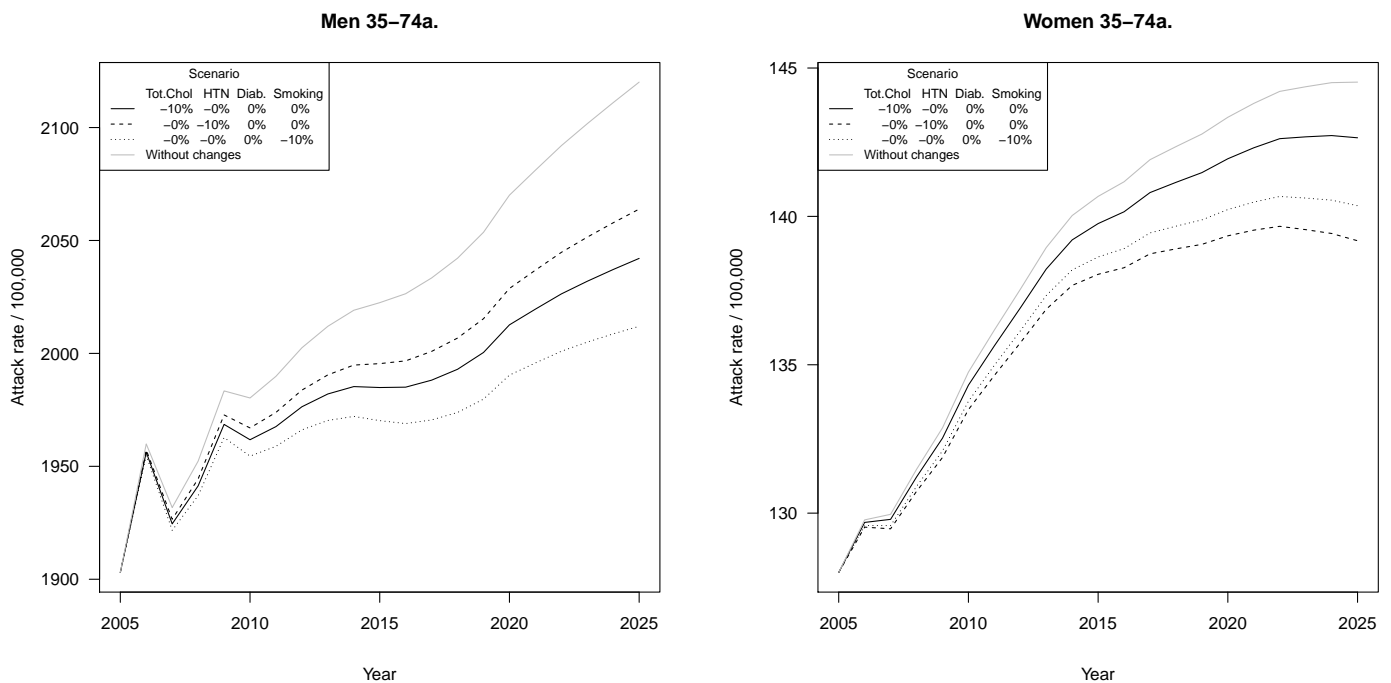


Figure 3: Prevented Cases

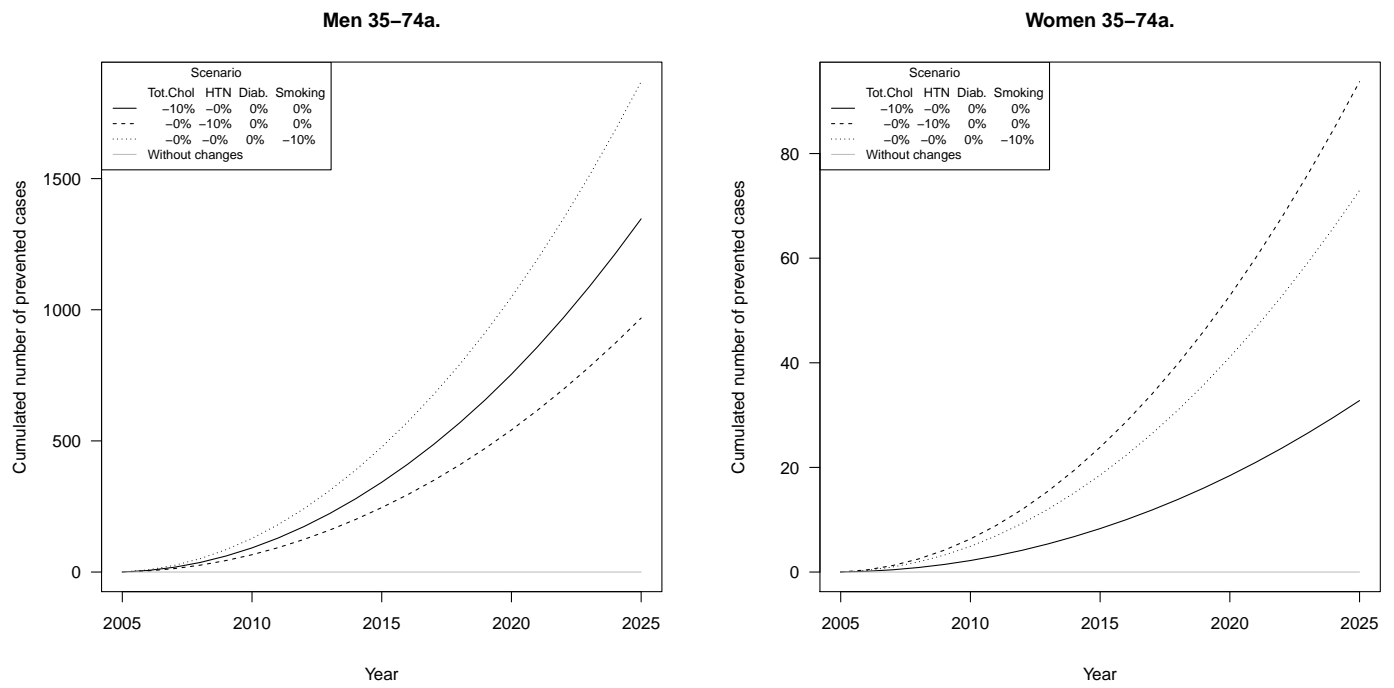


Table 1: **Scenario 1**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	10% decrease	10% decrease
Hypertension	0% decrease	0% decrease
Diabetes	0% increase	0% increase
Smoking	0% increase	0% increase

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	52.5	54.7	53.2	55.3
Total cholesterol <160	2.8%	2.8%	3.4%	3.4%
Total cholesterol 160-<200	18.0%	18.0%	18.0%	18.0%
Total cholesterol 200-<240	35.9%	45.9%	36.7%	46.7%
Total cholesterol 240-<280	30.0%	23.1%	28.3%	21.5%
Total cholesterol >280	13.3%	10.2%	13.6%	10.4%
Blood pressure <120/80	15.3%	15.3%	36.4%	36.4%
Blood pressure <130/85	20.0%	20.0%	20.4%	20.4%
Blood pressure <140/90	20.9%	20.9%	15.6%	15.6%
Blood pressure <160/100	30.2%	30.2%	21.3%	21.3%
Blood pressure >=160/100	13.7%	13.7%	6.3%	6.3%
Diabetes	5.2%	5.2%	4.5%	4.5%
Smoking	24.3%	24.3%	17.5%	17.5%
Population	165254	170600	167500	170300
Expected Attack rate / 100,000	1903	2120	128	145
Scenario 1 Attack rate / 100,000	1903	2042	128	143
Expected number of CAD cases	3145	3617	214	246
Scenario 1 number of CAD cases	3145	3484	214	243
Scenario 1 total number of prevented cases	0	1347	0	33



Table 2: **Scenario 2**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	0% decrease	0% decrease
Hypertension	10% decrease	10% decrease
Diabetes	0% increase	0% increase
Smoking	0% increase	0% increase

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	52.5	54.7	53.2	55.3
Total cholesterol <160	2.8%	2.8%	3.4%	3.4%
Total cholesterol 160-<200	18.0%	18.0%	18.0%	18.0%
Total cholesterol 200-<240	35.9%	35.9%	36.7%	36.7%
Total cholesterol 240-<280	30.0%	30.0%	28.3%	28.3%
Total cholesterol >280	13.3%	13.3%	13.6%	13.6%
Blood pressure <120/80	15.3%	15.3%	36.4%	36.4%
Blood pressure <130/85	20.0%	20.0%	20.4%	20.4%
Blood pressure <140/90	20.9%	30.9%	15.6%	25.6%
Blood pressure <160/100	30.2%	23.3%	21.3%	13.6%
Blood pressure >=160/100	13.7%	10.6%	6.3%	4.0%
Diabetes	5.2%	5.2%	4.5%	4.5%
Smoking	24.3%	24.3%	17.5%	17.5%
Population	165254	170600	167500	170300
Expected Attack rate / 100,000	1903	2120	128	145
Scenario 2 Attack rate / 100,000	1903	2064	128	139
Expected number of CAD cases	3145	3617	214	246
Scenario 2 number of CAD cases	3145	3521	214	237
Scenario 2 total number of prevented cases	0	968	0	94

Table 3: **Scenario 3**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	0% decrease	0% decrease
Hypertension	0% decrease	0% decrease
Diabetes	0% increase	0% increase
Smoking	-10% decrease	-10% decrease

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	52.5	54.7	53.2	55.3
Total cholesterol <160	2.8%	2.8%	3.4%	3.4%
Total cholesterol 160-<200	18.0%	18.0%	18.0%	18.0%
Total cholesterol 200-<240	35.9%	35.9%	36.7%	36.7%
Total cholesterol 240-<280	30.0%	30.0%	28.3%	28.3%
Total cholesterol >280	13.3%	13.3%	13.6%	13.6%
Blood pressure <120/80	15.3%	15.3%	36.4%	36.4%
Blood pressure <130/85	20.0%	20.0%	20.4%	20.4%
Blood pressure <140/90	20.9%	20.9%	15.6%	15.6%
Blood pressure <160/100	30.2%	30.2%	21.3%	21.3%
Blood pressure >=160/100	13.7%	13.7%	6.3%	6.3%
Diabetes	5.2%	5.2%	4.5%	4.5%
Smoking	24.3%	14.3%	17.5%	7.5%
Population	165254	170600	167500	170300
Expected Attack rate / 100,000	1903	2120	128	145
Scenario 3 Attack rate / 100,000	1903	2012	128	140
Expected number of CAD cases	3145	3617	214	246
Scenario 3 number of CAD cases	3145	3432	214	239
Scenario 3 total number of prevented cases	0	1869	0	73

# **EUROTRACS**

## **Deliverable 3**

GREECE

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Figure 1: Number of cases

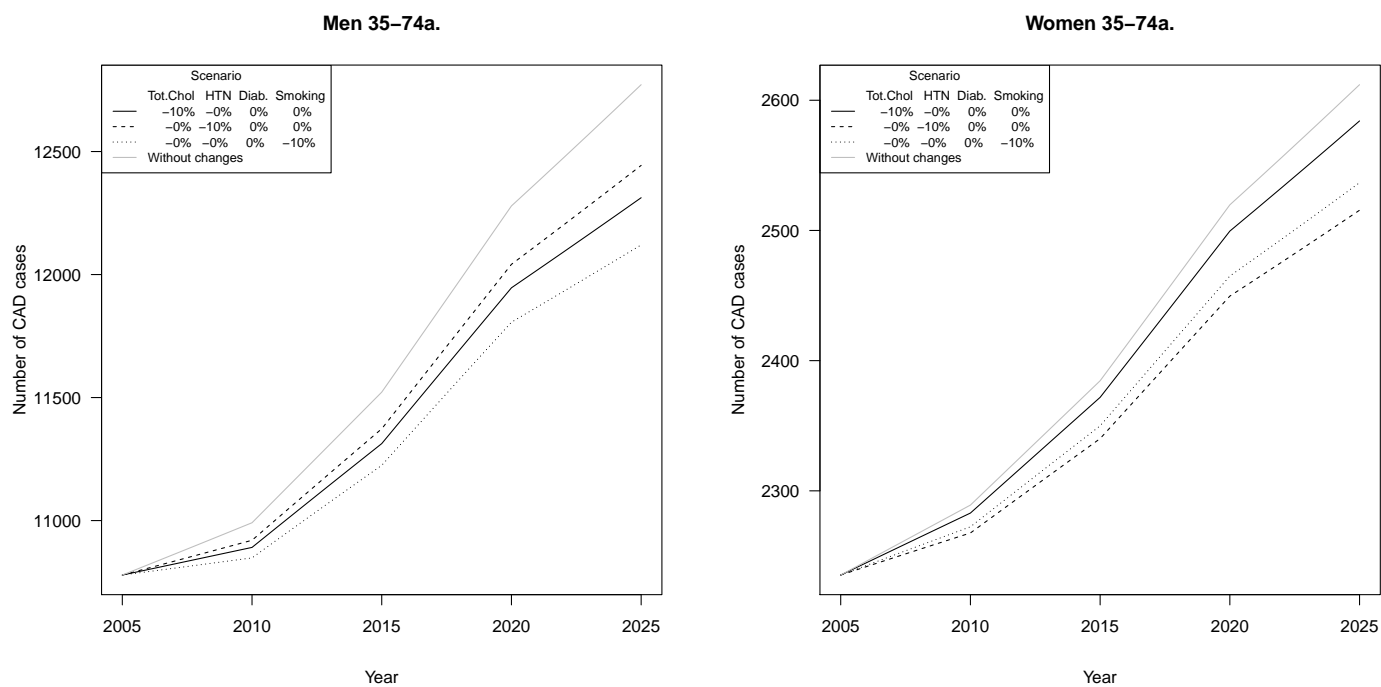


Figure 2: Attack rate

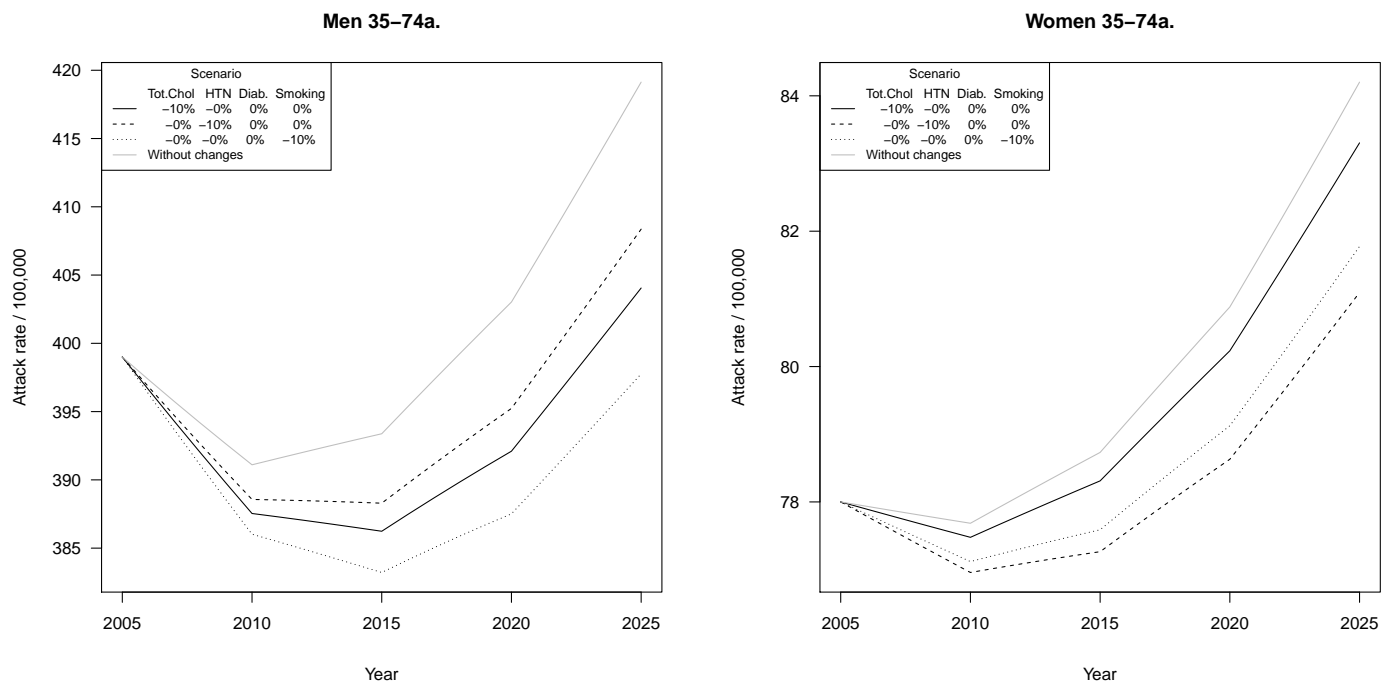


Figure 3: Prevented Cases

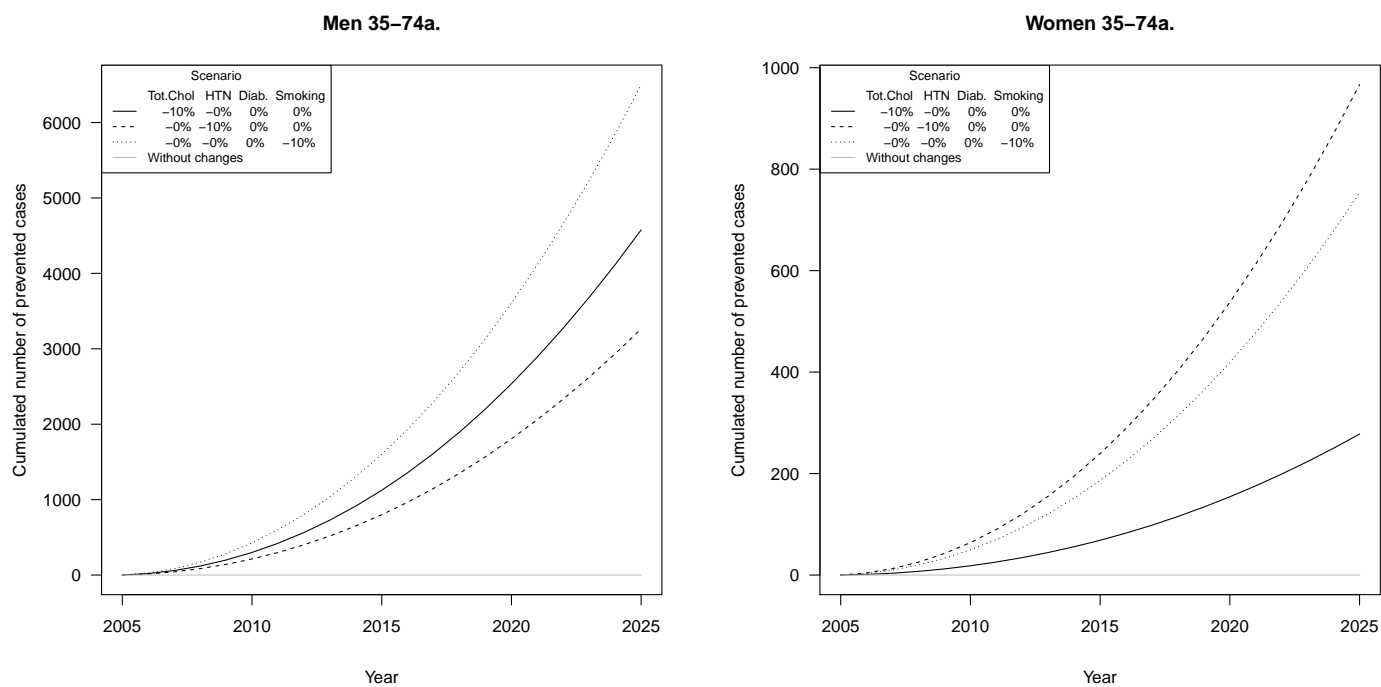


Table 1: **Scenario 1**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	10% decrease	10% decrease
Hypertension	0% decrease	0% decrease
Diabetes	0% increase	0% increase
Smoking	0% increase	0% increase

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	53.1	54.1	53.9	54.9
Total cholesterol <160	13.4%	13.4%	8.7%	8.7%
Total cholesterol 160-<200	32.4%	32.4%	33.0%	33.0%
Total cholesterol 200-<240	31.8%	41.8%	38.2%	48.2%
Total cholesterol 240-<280	16.8%	9.3%	15.2%	7.6%
Total cholesterol >280	5.6%	3.1%	4.9%	2.5%
Blood pressure <120/80	22.6%	22.6%	40.1%	40.1%
Blood pressure <130/85	22.0%	22.0%	17.6%	17.6%
Blood pressure <140/90	24.8%	24.8%	18.7%	18.7%
Blood pressure <160/100	23.8%	23.8%	18.3%	18.3%
Blood pressure >=160/100	6.9%	6.9%	5.3%	5.3%
Diabetes	8.0%	8.0%	6.0%	6.0%
Smoking	51.0%	51.0%	39.0%	39.0%
Population	2701400	3047200	2865800	3102000
Expected Attack rate / 100,000	399	419	78	84
Scenario 1 Attack rate / 100,000	399	404	78	83
Expected number of CAD cases	10779	12772	2235	2612
Scenario 1 number of CAD cases	10779	12312	2235	2584
Scenario 1 total number of prevented cases	0	4576	0	278

Table 2: **Scenario 2**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	0% decrease	0% decrease
Hypertension	10% decrease	10% decrease
Diabetes	0% increase	0% increase
Smoking	0% increase	0% increase

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	53.1	54.1	53.9	54.9
Total cholesterol <160	13.4%	13.4%	8.7%	8.7%
Total cholesterol 160-<200	32.4%	32.4%	33.0%	33.0%
Total cholesterol 200-<240	31.8%	31.8%	38.2%	38.2%
Total cholesterol 240-<280	16.8%	16.8%	15.2%	15.2%
Total cholesterol >280	5.6%	5.6%	4.9%	4.9%
Blood pressure <120/80	22.6%	22.6%	40.1%	40.1%
Blood pressure <130/85	22.0%	22.0%	17.6%	17.6%
Blood pressure <140/90	24.8%	34.8%	18.7%	28.7%
Blood pressure <160/100	23.8%	16.0%	18.3%	10.5%
Blood pressure >=160/100	6.9%	4.7%	5.3%	3.1%
Diabetes	8.0%	8.0%	6.0%	6.0%
Smoking	51.0%	51.0%	39.0%	39.0%
Population	2701400	3047200	2865800	3102000
Expected Attack rate / 100,000	399	419	78	84
Scenario 2 Attack rate / 100,000	399	408	78	81
Expected number of CAD cases	10779	12772	2235	2612
Scenario 2 number of CAD cases	10779	12444	2235	2516
Scenario 2 total number of prevented cases	0	3263	0	967



Table 3: **Scenario 3**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	0% decrease	0% decrease
Hypertension	0% decrease	0% decrease
Diabetes	0% increase	0% increase
Smoking	-10% decrease	-10% decrease

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	53.1	54.1	53.9	54.9
Total cholesterol <160	13.4%	13.4%	8.7%	8.7%
Total cholesterol 160-<200	32.4%	32.4%	33.0%	33.0%
Total cholesterol 200-<240	31.8%	31.8%	38.2%	38.2%
Total cholesterol 240-<280	16.8%	16.8%	15.2%	15.2%
Total cholesterol >280	5.6%	5.6%	4.9%	4.9%
Blood pressure <120/80	22.6%	22.6%	40.1%	40.1%
Blood pressure <130/85	22.0%	22.0%	17.6%	17.6%
Blood pressure <140/90	24.8%	24.8%	18.7%	18.7%
Blood pressure <160/100	23.8%	23.8%	18.3%	18.3%
Blood pressure >=160/100	6.9%	6.9%	5.3%	5.3%
Diabetes	8.0%	8.0%	6.0%	6.0%
Smoking	51.0%	41.0%	39.0%	29.0%
Population	2701400	3047200	2865800	3102000
Expected Attack rate / 100,000	399	419	78	84
Scenario 3 Attack rate / 100,000	399	398	78	82
Expected number of CAD cases	10779	12772	2235	2612
Scenario 3 number of CAD cases	10779	12121	2235	2537
Scenario 3 total number of prevented cases	0	6502	0	754

# **EUROTRACS**

## **Deliverable 3**

ITALY

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Figure 1: Number of cases

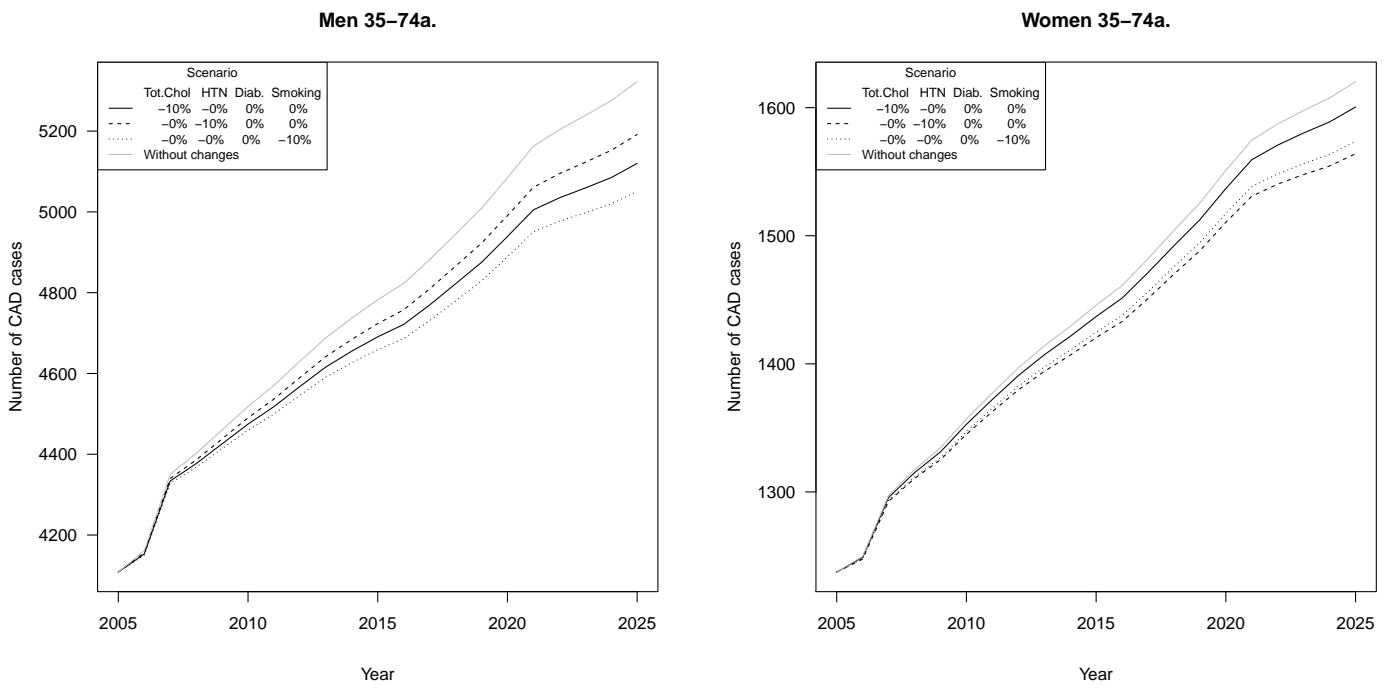


Figure 2: Attack rate

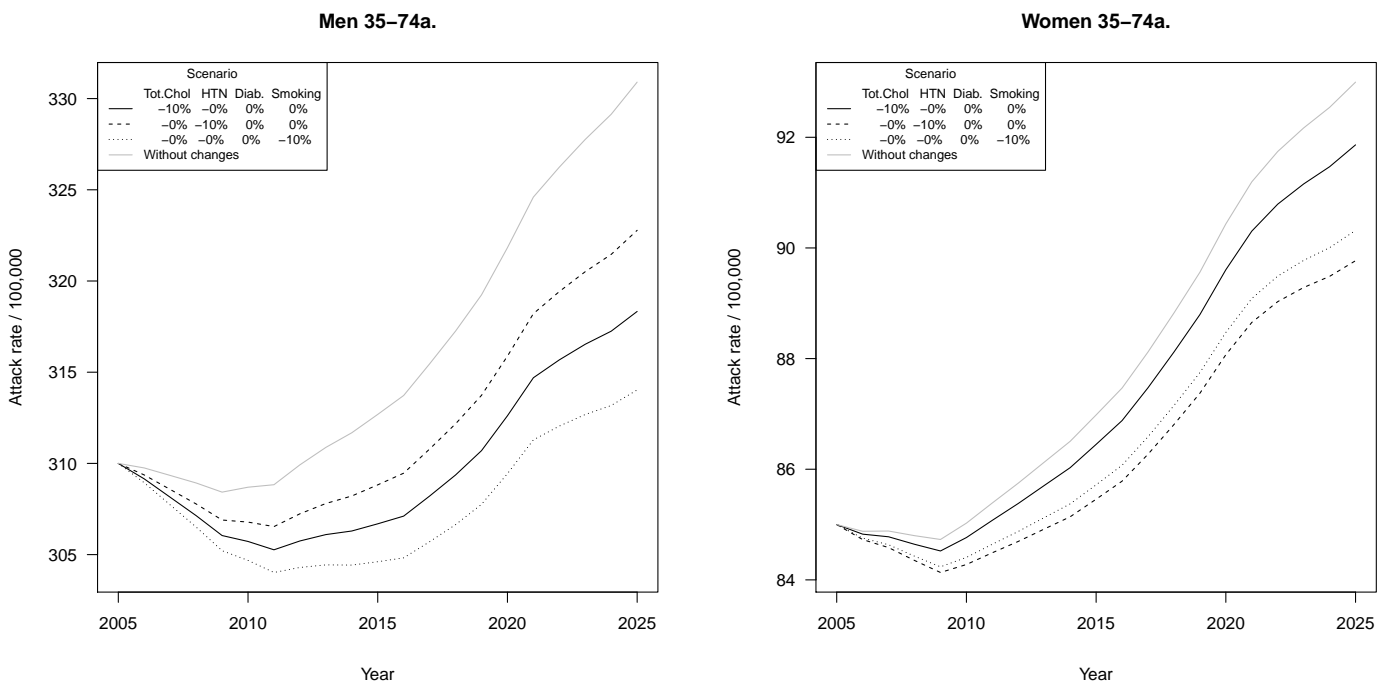


Figure 3: Prevented Cases

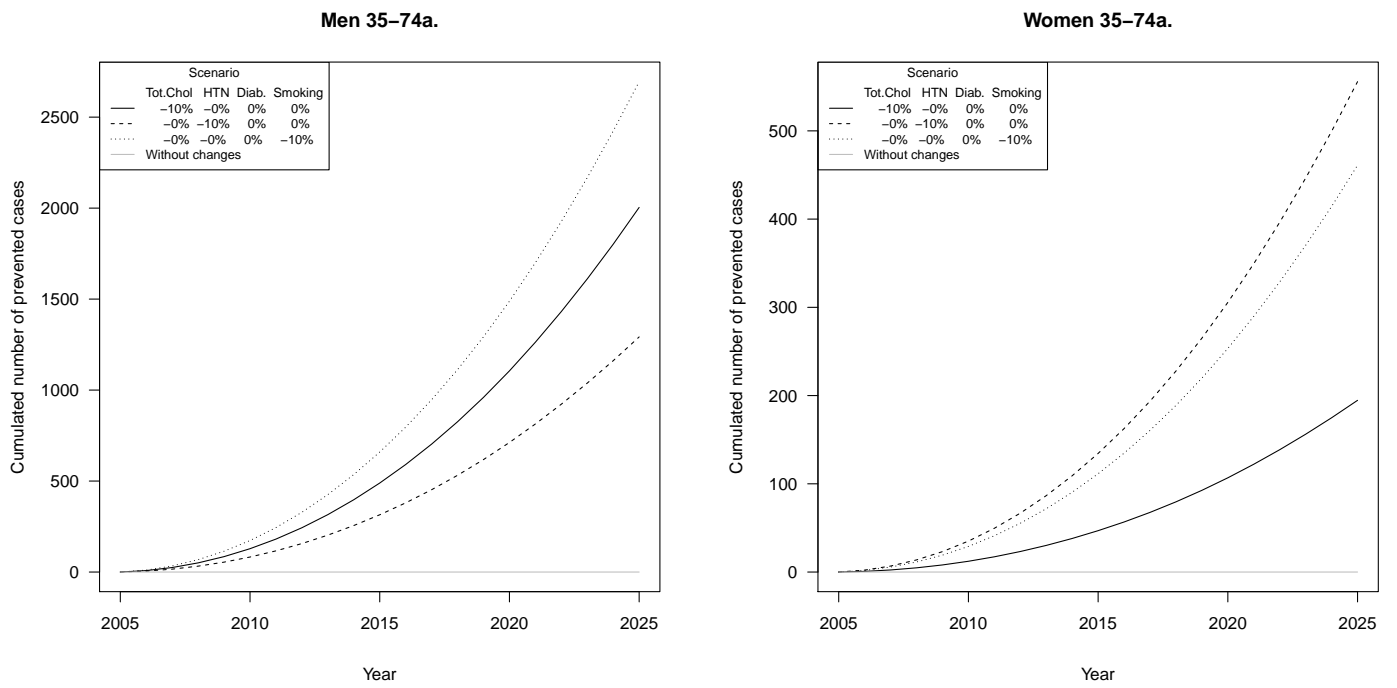


Table 1: **Scenario 1**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	10% decrease	10% decrease
Hypertension	0% decrease	0% decrease
Diabetes	0% increase	0% increase
Smoking	0% increase	0% increase

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	52.8	54.1	53.4	54.6
Total cholesterol <160	7.2%	7.2%	9.5%	9.5%
Total cholesterol 160-<200	17.4%	17.4%	20.3%	20.3%
Total cholesterol 200-<240	48.6%	58.6%	34.2%	44.2%
Total cholesterol 240-<280	16.4%	10.3%	25.3%	18.3%
Total cholesterol >280	10.4%	6.5%	10.7%	7.7%
Blood pressure <120/80	20.8%	20.8%	17.4%	17.4%
Blood pressure <130/85	36.9%	36.9%	31.4%	31.4%
Blood pressure <140/90	27.9%	27.9%	31.5%	31.5%
Blood pressure <160/100	12.9%	12.9%	17.5%	17.5%
Blood pressure >=160/100	1.5%	1.5%	2.2%	2.2%
Diabetes	5.1%	5.1%	3.9%	3.9%
Smoking	33.0%	33.0%	24.0%	24.0%
Population	1325291	1608438	1455819	1742275
Expected Attack rate / 100,000	310	331	85	93
Scenario 1 Attack rate / 100,000	310	318	85	92
Expected number of CAD cases	4108	5322	1237	1620
Scenario 1 number of CAD cases	4108	5120	1237	1601
Scenario 1 total number of prevented cases	0	2004	0	195

Table 2: **Scenario 2**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	0% decrease	0% decrease
Hypertension	10% decrease	10% decrease
Diabetes	0% increase	0% increase
Smoking	0% increase	0% increase

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	52.8	54.1	53.4	54.6
Total cholesterol <160	7.2%	7.2%	9.5%	9.5%
Total cholesterol 160-<200	17.4%	17.4%	20.3%	20.3%
Total cholesterol 200-<240	48.6%	48.6%	34.2%	34.2%
Total cholesterol 240-<280	16.4%	16.4%	25.3%	25.3%
Total cholesterol >280	10.4%	10.4%	10.7%	10.7%
Blood pressure <120/80	20.8%	20.8%	17.4%	17.4%
Blood pressure <130/85	36.9%	36.9%	31.4%	31.4%
Blood pressure <140/90	27.9%	37.9%	31.5%	41.5%
Blood pressure <160/100	12.9%	3.9%	17.5%	8.6%
Blood pressure >=160/100	1.5%	0.5%	2.2%	1.1%
Diabetes	5.1%	5.1%	3.9%	3.9%
Smoking	33.0%	33.0%	24.0%	24.0%
Population	1325291	1608438	1455819	1742275
Expected Attack rate / 100,000	310	331	85	93
Scenario 2 Attack rate / 100,000	310	323	85	90
Expected number of CAD cases	4108	5322	1237	1620
Scenario 2 number of CAD cases	4108	5192	1237	1564
Scenario 2 total number of prevented cases	0	1292	0	556

Table 3: **Scenario 3**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	0% decrease	0% decrease
Hypertension	0% decrease	0% decrease
Diabetes	0% increase	0% increase
Smoking	-10% decrease	-10% decrease

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	52.8	54.1	53.4	54.6
Total cholesterol <160	7.2%	7.2%	9.5%	9.5%
Total cholesterol 160-<200	17.4%	17.4%	20.3%	20.3%
Total cholesterol 200-<240	48.6%	48.6%	34.2%	34.2%
Total cholesterol 240-<280	16.4%	16.4%	25.3%	25.3%
Total cholesterol >280	10.4%	10.4%	10.7%	10.7%
Blood pressure <120/80	20.8%	20.8%	17.4%	17.4%
Blood pressure <130/85	36.9%	36.9%	31.4%	31.4%
Blood pressure <140/90	27.9%	27.9%	31.5%	31.5%
Blood pressure <160/100	12.9%	12.9%	17.5%	17.5%
Blood pressure >=160/100	1.5%	1.5%	2.2%	2.2%
Diabetes	5.1%	5.1%	3.9%	3.9%
Smoking	33.0%	23.0%	24.0%	14.0%
Population	1325291	1608438	1455819	1742275
Expected Attack rate / 100,000	310	331	85	93
Scenario 3 Attack rate / 100,000	310	314	85	90
Expected number of CAD cases	4108	5322	1237	1620
Scenario 3 number of CAD cases	4108	5051	1237	1574
Scenario 3 total number of prevented cases	0	2695	0	461



# **EUROTRACS**

## **Deliverable 3**

PORTUGAL

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Figure 1: Number of cases

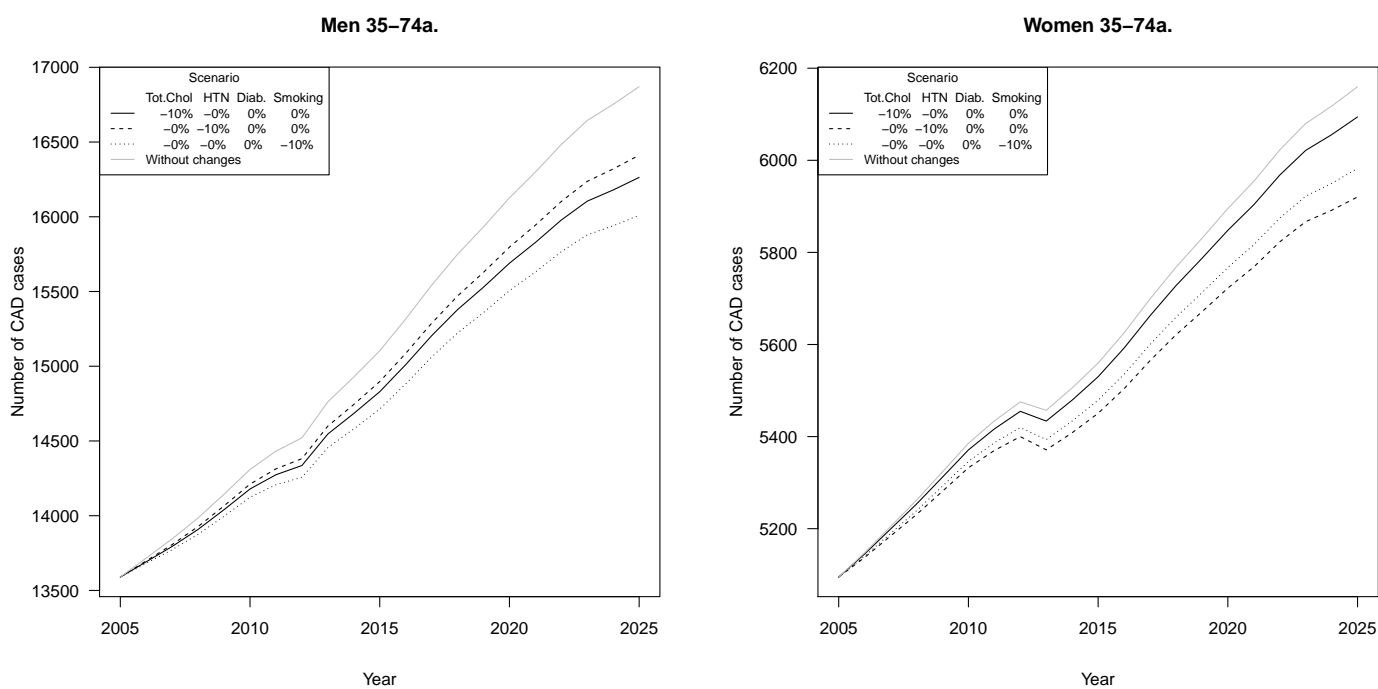


Figure 2: Attack rate

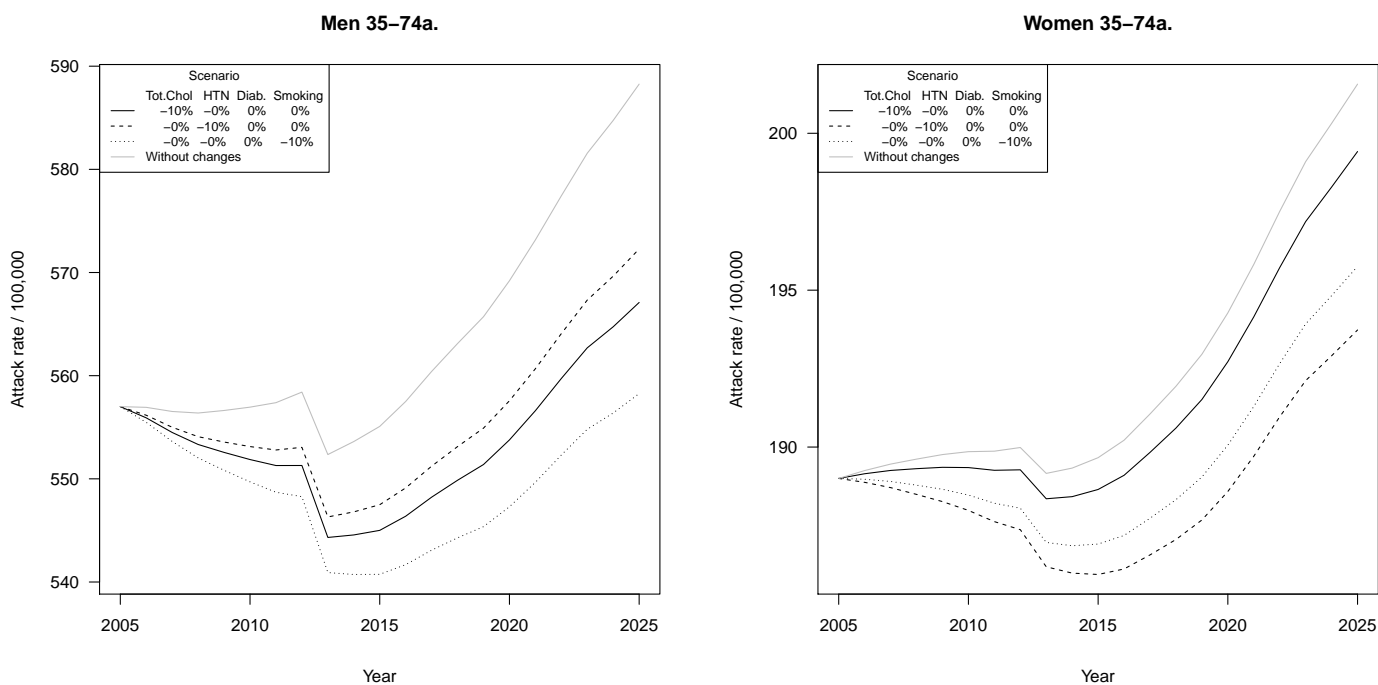


Figure 3: Prevented Cases

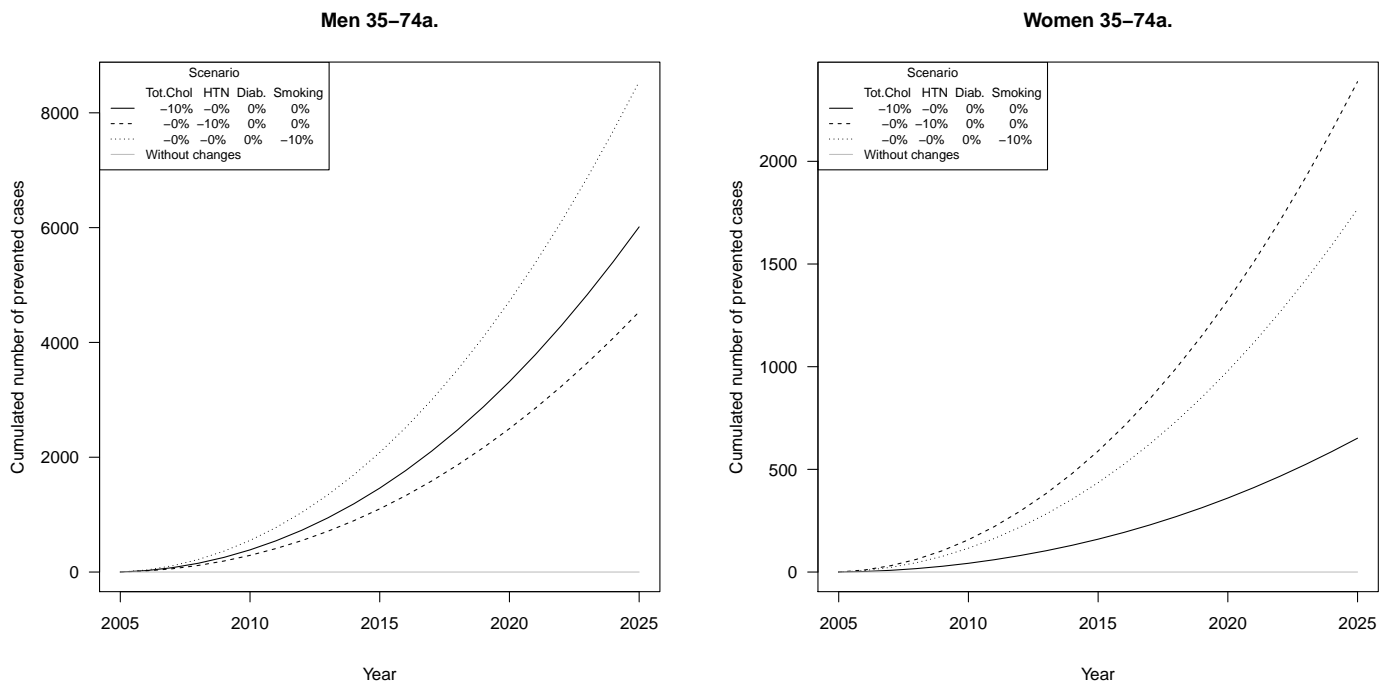


Table 1: **Scenario 1**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	10% decrease	10% decrease
Hypertension	0% decrease	0% decrease
Diabetes	0% increase	0% increase
Smoking	0% increase	0% increase

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	52.9	54.0	53.6	54.6
Total cholesterol <160	13.4%	13.4%	8.7%	8.7%
Total cholesterol 160-<200	32.4%	32.4%	33.0%	33.0%
Total cholesterol 200-<240	31.8%	41.8%	38.2%	48.2%
Total cholesterol 240-<280	16.8%	9.3%	15.2%	7.6%
Total cholesterol >280	5.6%	3.1%	4.9%	2.5%
Blood pressure <120/80	16.7%	16.7%	24.2%	24.2%
Blood pressure <130/85	19.6%	19.6%	22.0%	22.0%
Blood pressure <140/90	18.4%	18.4%	14.6%	14.6%
Blood pressure <160/100	28.0%	28.0%	26.4%	26.4%
Blood pressure >=160/100	17.2%	17.2%	12.7%	12.7%
Diabetes	16.4%	16.4%	11.6%	11.6%
Smoking	20.2%	20.2%	8.3%	8.3%
Population	2439784	2867828	2695750	3055997
Expected Attack rate / 100,000	557	588	189	202
Scenario 1 Attack rate / 100,000	557	567	189	199
Expected number of CAD cases	13590	16870	5095	6160
Scenario 1 number of CAD cases	13590	16263	5095	6094
Scenario 1 total number of prevented cases	0	6013	0	652

Table 2: **Scenario 2**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	0% decrease	0% decrease
Hypertension	10% decrease	10% decrease
Diabetes	0% increase	0% increase
Smoking	0% increase	0% increase

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	52.9	54.0	53.6	54.6
Total cholesterol <160	13.4%	13.4%	8.7%	8.7%
Total cholesterol 160-<200	32.4%	32.4%	33.0%	33.0%
Total cholesterol 200-<240	31.8%	31.8%	38.2%	38.2%
Total cholesterol 240-<280	16.8%	16.8%	15.2%	15.2%
Total cholesterol >280	5.6%	5.6%	4.9%	4.9%
Blood pressure <120/80	16.7%	16.7%	24.2%	24.2%
Blood pressure <130/85	19.6%	19.6%	22.0%	22.0%
Blood pressure <140/90	18.4%	28.4%	14.6%	24.6%
Blood pressure <160/100	28.0%	21.8%	26.4%	19.6%
Blood pressure >=160/100	17.2%	13.4%	12.7%	9.5%
Diabetes	16.4%	16.4%	11.6%	11.6%
Smoking	20.2%	20.2%	8.3%	8.3%
Population	2439784	2867828	2695750	3055997
Expected Attack rate / 100,000	557	588	189	202
Scenario 2 Attack rate / 100,000	557	572	189	194
Expected number of CAD cases	13590	16870	5095	6160
Scenario 2 number of CAD cases	13590	16412	5095	5920
Scenario 2 total number of prevented cases	0	4533	0	2388

Table 3: **Scenario 3**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	0% decrease	0% decrease
Hypertension	0% decrease	0% decrease
Diabetes	0% increase	0% increase
Smoking	-10% decrease	-10% decrease

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	52.9	54.0	53.6	54.6
Total cholesterol <160	13.4%	13.4%	8.7%	8.7%
Total cholesterol 160-<200	32.4%	32.4%	33.0%	33.0%
Total cholesterol 200-<240	31.8%	31.8%	38.2%	38.2%
Total cholesterol 240-<280	16.8%	16.8%	15.2%	15.2%
Total cholesterol >280	5.6%	5.6%	4.9%	4.9%
Blood pressure <120/80	16.7%	16.7%	24.2%	24.2%
Blood pressure <130/85	19.6%	19.6%	22.0%	22.0%
Blood pressure <140/90	18.4%	18.4%	14.6%	14.6%
Blood pressure <160/100	28.0%	28.0%	26.4%	26.4%
Blood pressure >=160/100	17.2%	17.2%	12.7%	12.7%
Diabetes	16.4%	16.4%	11.6%	11.6%
Smoking	20.2%	10.2%	8.3%	-1.7%
Population	2439784	2867828	2695750	3055997
Expected Attack rate / 100,000	557	588	189	202
Scenario 3 Attack rate / 100,000	557	558	189	196
Expected number of CAD cases	13590	16870	5095	6160
Scenario 3 number of CAD cases	13590	16010	5095	5982
Scenario 3 total number of prevented cases	0	8542	0	1768

# **EUROTRACS**

## **Deliverable 3**

SPAIN

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Figure 1: Number of cases

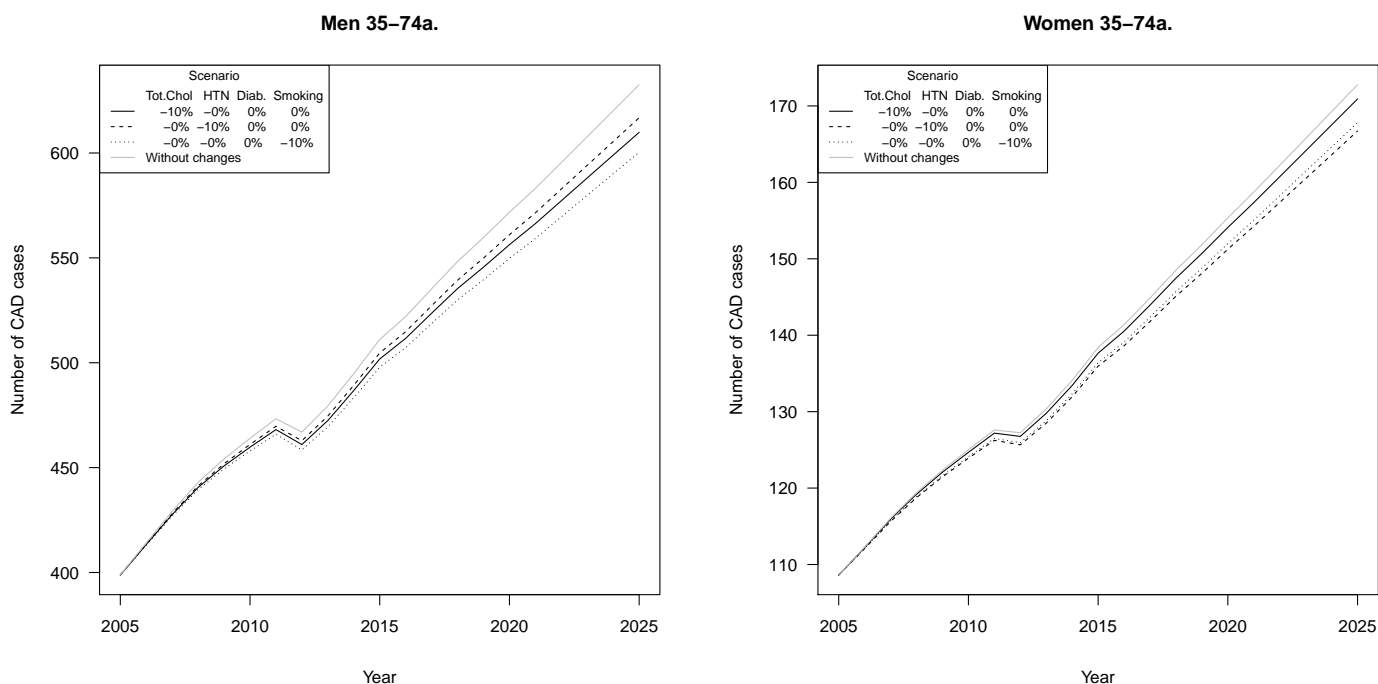


Figure 2: Attack rate

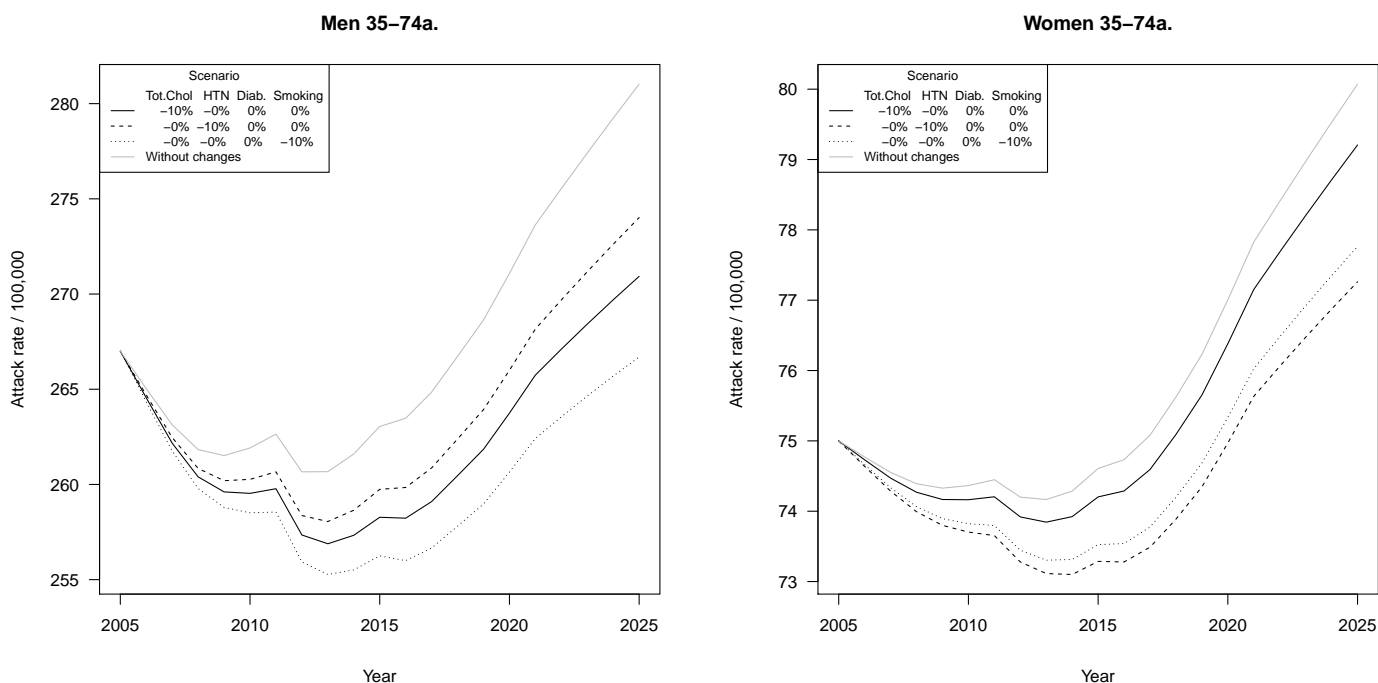


Figure 3: Prevented Cases

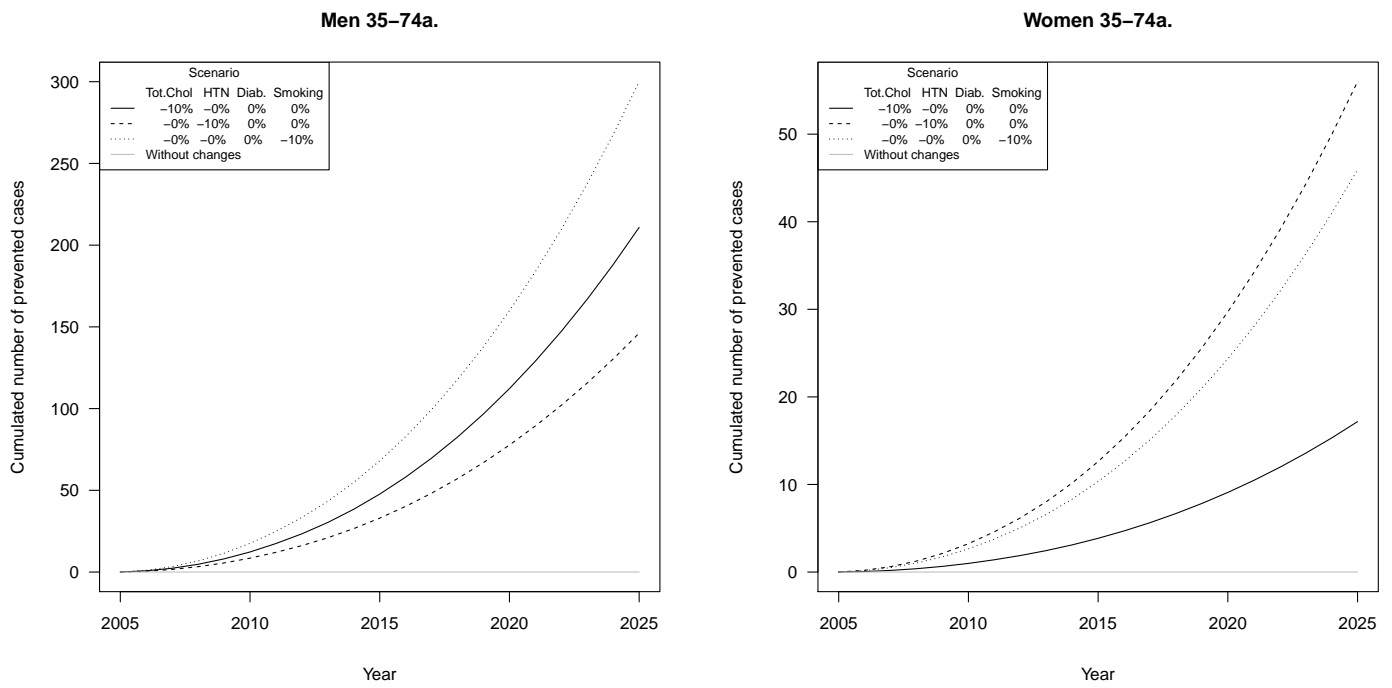


Table 1: **Scenario 1**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	10% decrease	10% decrease
Hypertension	0% decrease	0% decrease
Diabetes	0% increase	0% increase
Smoking	0% increase	0% increase

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	51.8	52.8	52.5	53.4
Total cholesterol <160	8.2%	8.2%	8.5%	8.5%
Total cholesterol 160-<200	33.9%	33.9%	32.7%	32.7%
Total cholesterol 200-<240	38.0%	48.0%	36.3%	46.3%
Total cholesterol 240-<280	15.0%	7.5%	16.9%	9.4%
Total cholesterol >280	4.9%	2.4%	5.6%	3.1%
Blood pressure <120/80	52.3%	52.3%	68.6%	68.6%
Blood pressure <130/85	21.8%	21.8%	15.1%	15.1%
Blood pressure <140/90	13.5%	13.5%	8.7%	8.7%
Blood pressure <160/100	10.6%	10.6%	6.6%	6.6%
Blood pressure >=160/100	1.8%	1.8%	1.0%	1.0%
Diabetes	17.3%	17.3%	10.8%	10.8%
Smoking	27.9%	27.9%	15.4%	15.4%
Population	149356	225097	144829	215783
Expected Attack rate / 100,000	267	281	75	80
Scenario 1 Attack rate / 100,000	267	271	75	79
Expected number of CAD cases	399	633	109	173
Scenario 1 number of CAD cases	399	610	109	171
Scenario 1 total number of prevented cases	0	211	0	17

Table 2: **Scenario 2**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	0% decrease	0% decrease
Hypertension	10% decrease	10% decrease
Diabetes	0% increase	0% increase
Smoking	0% increase	0% increase

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	51.8	52.8	52.5	53.4
Total cholesterol <160	8.2%	8.2%	8.5%	8.5%
Total cholesterol 160-<200	33.9%	33.9%	32.7%	32.7%
Total cholesterol 200-<240	38.0%	38.0%	36.3%	36.3%
Total cholesterol 240-<280	15.0%	15.0%	16.9%	16.9%
Total cholesterol >280	4.9%	4.9%	5.6%	5.6%
Blood pressure <120/80	52.3%	52.3%	68.6%	68.6%
Blood pressure <130/85	21.8%	21.8%	15.1%	15.1%
Blood pressure <140/90	13.5%	23.5%	8.7%	18.7%
Blood pressure <160/100	10.6%	2.1%	6.6%	-2.1%
Blood pressure >=160/100	1.8%	0.3%	1.0%	-0.3%
Diabetes	17.3%	17.3%	10.8%	10.8%
Smoking	27.9%	27.9%	15.4%	15.4%
Population	149356	225097	144829	215783
Expected Attack rate / 100,000	267	281	75	80
Scenario 2 Attack rate / 100,000	267	274	75	77
Expected number of CAD cases	399	633	109	173
Scenario 2 number of CAD cases	399	617	109	167
Scenario 2 total number of prevented cases	0	146	0	56

Table 3: **Scenario 3**

	<b>Men</b>	<b>Women</b>
Total Cholesterol	0% decrease	0% decrease
Hypertension	0% decrease	0% decrease
Diabetes	0% increase	0% increase
Smoking	-10% decrease	-10% decrease

	<b>Men</b>		<b>Women</b>	
	2005	2025	2005	2025
Age	51.8	52.8	52.5	53.4
Total cholesterol <160	8.2%	8.2%	8.5%	8.5%
Total cholesterol 160-<200	33.9%	33.9%	32.7%	32.7%
Total cholesterol 200-<240	38.0%	38.0%	36.3%	36.3%
Total cholesterol 240-<280	15.0%	15.0%	16.9%	16.9%
Total cholesterol >280	4.9%	4.9%	5.6%	5.6%
Blood pressure <120/80	52.3%	52.3%	68.6%	68.6%
Blood pressure <130/85	21.8%	21.8%	15.1%	15.1%
Blood pressure <140/90	13.5%	13.5%	8.7%	8.7%
Blood pressure <160/100	10.6%	10.6%	6.6%	6.6%
Blood pressure >=160/100	1.8%	1.8%	1.0%	1.0%
Diabetes	17.3%	17.3%	10.8%	10.8%
Smoking	27.9%	17.9%	15.4%	5.4%
Population	149356	225097	144829	215783
Expected Attack rate / 100,000	267	281	75	80
Scenario 3 Attack rate / 100,000	267	267	75	78
Expected number of CAD cases	399	633	109	173
Scenario 3 number of CAD cases	399	600	109	168
Scenario 3 total number of prevented cases	0	300	0	46