

Country report Italy – August 2015



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I. Structure of Health care in Italy

Italy is a parliamentary republic with a population of 60.8 million inhabitants and a life expectancy of 80,2 years for men and 85,0 for women (average life of 82.5 years), one of the highest in the world (WHO – World Health Statics 2014).

The National Health Services (NHS) is a set of institutions and bodies that contribute to the objectives of protecting the health of citizens:

A) The Ministry of Health, and other agencies and bodies at the national level, including the Board of Health (CSS – Consiglio Superiore di Sanità), the National Institute of Health (ISS - Istituto Superiore di Sanità) the National Agency for Control of Drugs (AIFA) and the National Agency for the Control of Health Services (AGENAS).

B) The Departments of Health of each region with the local health medical, para medical and administrative staff and the public and private hospitals accredited with the NHS.

C) The local network of the NHS is formed by general practitioners and by specialists acting inside the local health units (ASL). The network even includes specialist freelancers working in the territory but affiliated to the NHS, specialists working in regional health units for prevention and outpatient rehabilitation, specialists working in health units for the follow-up of protected discharges of patients with heart failure. Finally the network includes specialists for assisted living or nursing home for dependent patients or for patients who still require care for a long term and specialist working in the General and University Hospitals, in which there are three different levels of Operative Units (OU): complex (UOC), simple (UOS), departmental (UOD).

The Italian NHS is a public system of universal nature that, as established by the article 32 of the Italian Constitution guarantees the right to health and health care to all citizens, independent of sex, religion or race. It is financed through general taxation and direct revenues collected by regional health authorities. Some charges on drug prescription and specialised examinations exist:

- a) Elective or emergency inpatient admissions, day hospital and day service are covered by NHS
- b) For instrumental examinations and for drugs with expired patent, patients may be asked to pay a little contribution if the patient doesn't want the generic drug
- c) Prevention in high risk patients, medication and rehabilitation are in charge of the NHS
- d) Those who want an immediate performance, outside of normal waiting list may enter an integrative private insurance system to take advantage of these benefits even in private Hospital not affiliated to the NHS. They may also require service in public hospitals from doctors who outside working hours deliver intramural clinical activity.

Physician resources: there are 110,732 doctors working in the different structure of the NHS (1.83 per 1000 inhabitants), 28,365 working in anaesthesia and intensive care, radiology, hygiene and preventive medicine, 25,635 in general surgery, gynaecology and obstetrics, orthopaedics and traumatology, 41,302 in internal medicine, cardiology, psychiatry and paediatrics. (NHS data from 2010)

At present there are 7558 cardiologists working in General and University Hospitals registered to the FIC (12,4% for 100,00 inhabitants). 5,400 doctor work regionally as specialists in the local health units (ASL) or as specialist freelancers in the region but affiliated to the NHS. Thus, the total number of cardiologists is close to 13,000, with a ratio of 21,3 for 100,000 inhabitants.

The National Plan of Health (PSN) 2014-2016, the main tool for planning and multi-annual programming of the NHS, recommend the following objectives:

- a) Promote prevention of cardiovascular diseases (CVD) and cerebrovascular diseases, by raising awareness of the population about risk factors
- b) Improve the quality of care provided by the Emergency Network for ACS and for acute stroke with the implementation of stroke units in all the national territory
- c) Promote clinical stability of patients through the optimisation of the therapeutic treatment and the rehabilitation after acute illness
- d) Ensure continuity of care, reduce hospitalisations and improve the quality of life of patients with chronic heart failure.

Finances

Cardiovascular diseases in Italy cause 35% of deaths in men and 43% in women, which has a huge impact on public health and on economic resources. In Italy the funds allocated from the central Government amounted to 112,062 billion Euros in 2014. The ratio of health spending to gross domestic product (GDP) is 7.2%, as compared to 8.7 in France, 8,6% in Germany and 8.3 in USA. Spending on public hospitals and private hospitals accredited with NHS totalled in 2011 an amount of 61,574 billion euro, of which the 85.6% (52.6 billion) for public Hospitals and 14, 4% (8.8 billion) for private accredited Hospital (data from ANSA).

Data from the Italian Institute of Statistics (ISTAT) show that spending for cardiac surgery is approximately 650 million euro per year, representing the 1% of total health expenditure for hospitals. Drugs used for the care of CVD, with an amount of more than 5 billion Euros, represent the most important part of the budget for all drugs, and it is covered at 93% from the NHS.

II. Risk factor statistics

CVD Mortality

Since 1980 the rates of coronary mortality adjusted by age fell from 267.1 to 141.3 per 100,000 populations in men (- 47,1%) and from 161.3 to 78.8 (- 51,1%) in women aged 25-84 years, producing in 2014, a number of 42.930 coronary deaths less (24,955 men, 17,975 in women) (5).

About 40% of this decrease is due to specific treatments, mainly better treatment for heart failure (13,7%), revascularization in ACS (4,9%) or secondary prevention therapies after AMI (6,1%), while 58% is due to changes in major cardiovascular risk factors in the population Italian (2).

There has been a reduction of CV mortality in the general population from 2000 to 2012, decreasing gradually from 43,2 to 30,7%.

PCI resources

In Italy there are in total 1,163 hospitals. 728 hospitals have a Cardiac Unit, 403 are equipped with intensive care units cardiology (ICCU) (55%), 266 also with haemodynamics (32% of the total), that equates to 4,37 percutaneous coronary intervention (PCI) centres per million population. 213 centres perform coronary angioplasty and 143 operative units of hemodynamic perform angioplasty in on all hours of the day (69% of the all the structures that perform angioplasty). The total number of PCI performed in Italy was 141712, whose primary PCI 31957, rescue PCI 1398, and the remaining elective (4).

Main CVD risk factors

Smoking:

Despite the anti-smoking law came into force in 2003, prohibiting smoking in public places, around 20% of men and women aged 35 to 74 years are currently smokers. However the number of smokers decreased from 32.3% to 23.8% in men and from 22.5% to 20.1% in women. Several centers to combat the habit of smoking were created in Italy; programmes at these centers are free of charge for every citizen but drugs for smoking cessation are with a fee.

Physical activity:

The prevalence of physical inactivity during last 10 years in both genders remained almost unchanged (41,6% in women and 32,3% in men).

Hypertension:

The prevalence of hypertension in the age 35-74 years decreased slightly from 52,2 to 51,0 as well as in women from 44.3 to 37.2% in the period 1998-2002/2008-2012 (7).

However, in the registry of Italian General Practitioners (GPs) data are slightly different (1). In this registry prevalence of hypertension shows a growing trend (from 21.0% in 2005 to 26.7% in 2013) and it is higher in women (22.1% in 2005 and 27.4% in 2013) than in men (19, 8% in 2005 and 25.9% in 2013).

The geographical analysis shows a higher prevalence in the southern regions and in the center. Regarding age, there is an increase with age, with a peak ranging from 75 to 84 years and a reduction in the ultra 85 or older.

The prevalence of hypertension is higher in males in the age groups between adolescence and 55-64 years, conversely, after 55 years the prevalence is higher in females (1). Concerning the mean blood pressure (BP) values, in the last ten years, from 2002 to 2012, in the population aged 35 to 74 years, the mean systolic blood pressure fell in both genders (135 to 132 mmHg in men and 132 to 127 mm Hg in women) while the diastolic dropped only in women (82 to 79 mmHg) (2).

The percentage of well controlled hypertensive patients has improved in both genders although it remain unsatisfactory (in women from 11.5% to 26,2% and in men, from 7.3% to 15.5%). In a cohort study of 211 591 Italian hypertensive patients, followed by GPs (n=168 313, 79.5%) or in hypertension centres (n=28 180, 13.3%) or ambulatory and hospital divisions (n=15 098, 7.1%), 33.6% of treated hypertensives reported a good control of BP levels.

These findings highlight the need for more effective interventions to improve management of hypertension in Italy (3).

Hypercholesterolemia:

The prevalence of high cholesterol has increased in both genders, from 20.8% to 34.3% in men and from 24.6% to 36.6% in women. The control of total cholesterolemia is improved in the last ten years, but it is still insufficient: the percentage at target levels in men rose from 13.5% to 24% and among women from 9.6% to 17.2% (9). The percentage of subjects who reach LDL-C target is discrete in low and medium risk but insufficient in high risk patients (9).

Recently a registry of patients with familial hypercholesterolemia (FH) has been created by the Italian Society for the Study of Atherosclerosis.

Diabetes, Obesity and Metabolic Syndrome:

The prevalence of type 2 diabetes shows a growing trend (from 5.9% in 2005 to 7.7% in 2013 and it is higher in men (6.5% in 2005 and 8.4% in 2013) than women (5.4% in 2005 and 7.0% in 2013). Significant geographic differences in the prevalence was observed and showed a higher prevalence in the south than in the center and in the north of Italy, both for males and females. These data showed a peak in the range from 75 to 84 years and a subsequent reduction in the over 85 years or older. Furthermore in this age group the difference in prevalence between men and women diminishes significantly (1).

From 1998 to 2008 the prevalence of obesity increased from 26,0 to 32,2% in subjects with lower education and diminished from 13,2 to 12,6 in those with higher education. The prevalence of metabolic syndrome decreased from 29,2 to 23,5% in in women from 29,6 to 18,5% . The prevalence is highest in subjects with low education and lowest in subjects with high education levels.

Diet and alcohol:

The survey OEC /HES (Health Examination Survey) 2008-12 considering healthy eating habits showed that only a third of Italians aged between 35 and 74 consume an adequate amount of vegetables and fish; recommended consumption of fruits (followed by more than 50% of men and women) and cheese (followed by 41% of men and 50% women) are higher. Only 14% of men and 15% of women consume sweets according to the recommendations.

Significant gender differences are observed in the adequate consumption of meats/sausages and of alcohol: in both cases, adherence to recommended consumption is significantly better in women with 39% and 68% respectively versus 22% and 41% detected in men.

2.7% of men and 0.6% of women do not follow any indication concerning food healthy and only 11% of men and 24% of women observed a number of healthy eating habits between 5 and 8.

Considering at least 5 healthy eating habits, along with physical activity in leisure time and the absence of cigarette smoke, this study revealed that only 7% of men follow a healthy lifestyle, while the situation is better for women with a percentage of about 13%.

The table shows the prevalence of main cardiovascular risk factors in Italy ten years ago and today:

Risk Factor	Ten years ago		Today	
	Male (%)	Female (%)	Male (%)	Female (%)
Smoke ₁	32,3	22,5	23,8	20,1
Physical Inactivity ₁	34	46,3	32,3	41,6
Hypertension ₁	52,2	44,3	51	37,2
Hypercholesterolemia ₁	20,8	24,6	34,3	36,6
Diabetes ₁	11,4	7,8	11,2	7,6
Metabolic Syndrome	29,2	29,6	23,5	18,5
CV Risk	8,1	3,2	7,6	2,7

Source: 1 <http://www.cuore.iss.it/>

The table shows data from OEC of the National Institute of Health (www.cuore.iss.it):

Cardiovascular risk factors	1988 (n:1912)	2008 (n:1738)	Difference	P
Systolic pressure (mmHg)	138,3±20,1	134,2±17,7	-4	<0,001
Diastolic pressure (mmHg)	86,7±11,2	83,8±10,1	-2,9	<0,001
Total cholesterol (mg/dl)	207,4±38,6	224,7±43,8	17,3	<0,001
HDL (mg/dl)	50,7±13	51,6±13,2	0,9	<0,05
LDL (mg/dl)	122,8±42,5	144,1±38,3	21,3	<0,001
Triglycerides (mg/dl)	141,1±118,2	144,7±94,5	3,6	NS
Glycaemia (mg/dl)	97,9±29,1	105,3±26,7	7,4	<0,001
BMI (Kg/m ²)	27±3,7	27,8±4,6	0,7	<0,001
Heart rate (p/min)	66,6±11,2	68,3±9,3	1,7	<0,001
Cardiovascular risk	8,3±8,8	8±8,6	-0,3	NS
Diabetes (%)	14,5	14	-0,5	NS

Metabolic syndrome (%)	24,5	28	3,4	<0,05
Obesity (%)	18,8	25,1	6,3	<0,001
Not controlled hypertensive patients (%)	18	17,5	-0,5	NS
Controlled hypertensive patients (%)	4,8	10,1	5,3	<0,001
Not treated hypertensive patients (%)	36,2	26	-10,2	<0,001
Smokers (%)	31,2	23,8	-7,4	<0,001
Ex smokers (%)	36,9	39,8	2,9	NS

Source: Giorn Ital Cardiol 2010; 11 (5 Suppl 3): 31S-36S

References and links:

1. Health Search Registry of the Italian GPs 2014 – www.healthsearch.it
2. ISS (www.iss.it) - the Epidemiological Observatory on Cardiovascular Diseases of the National Health Institute published on GIC 2003; 4: 9S-121S (suppl. 4) and GIC 2014; 15: 7S-31S (suppl. 1)
3. Volpe M, Borghi C, Mancia G, Trimarco B et al. J Human Hypertension 2015
4. Italian Society of Invasive Cardiology (SICI-GISE 2013) – www.gise.it
5. www.ISTAT.it (2014 data)
6. www.ministerosalute.it
7. www.cuore.iss.it
8. www.sisa.it
9. Poli A. et al. G. Ital Arterioscl. 2015, in press

III. Main actors and Prevention methods

Who delivers?

The main stakeholders are general practitioners, cardiologists working in the territory as employees of the NHS or freelancers affiliated to the NHS, cardiologists working in centers of rehabilitative cardiology and those working in university and general hospitals or private hospitals affiliated to the NHS.

Where?

GPs represent the front line for primary prevention and provide first line screening examinations. They work in cooperation with cardiologists in the provision of secondary CVD prevention.

The role of nurses in cardiac rehabilitation was acknowledged recently after a new law that recommends cooperation between GPs and other health workers like nurses. This provides a better organisation of follow-up in prevention and might even reduce costs. Second and third level services are provided initially by university and general hospitals and centres of rehabilitative cardiology and thereafter follow-up is delivered by cardiologists of the regional services.

For patients who undergo cardiovascular intervention the initial phases of rehabilitation are delivered by specialists and physiotherapist at the bed-side. Once discharged from hospital, the traditional model of CVD rehabilitation & prevention, in the past, has been hospital-based. However, territorial-based services are significantly increased during the last years and the participation of physiotherapists and nurses is increasingly important. Scientific societies like ANMCO, SIC and others and some Foundation like H&CF and HCF provide education and initiatives for health care providers and patients.

Guidance

The Guidelines of the European Society of Cardiology are regularly translated in Italian and diffused in the main cardiological journals and also continuously presented in numerous scientific meetings of the main cardiological societies devoted to prevention and rehabilitation as well as in meeting and courses of CME with GPs and cardiologists working in the territory. These guidelines are updated from the Ministry of Health.

In Italy for the evaluation of global cardiovascular risk both GPs and cardiologists use the cards of risk elaborated by the ISS with the "Progetto Cuore". These cards include the six traditional risk factors (RFs) of the cards of Framingham as well as of the Euroscore. Moreover, there is a computerised system that consent the inclusion the absolute value of each RFs and also HDL-cholesterol enabling a more accurate calculation of risk.

Quality control

In Italy there is an Agency (AGENAS) for the annual evaluation of all services and benefits provided by the public and private healthcare and so also for cardiovascular prevention and rehabilitation. RFs profiles are monitored at national and regional level by

the evaluation of population's sample chosen at random performed yearly by the "the Epidemiological Observatory on Cardiovascular Diseases of the National Health Institute of Health".

Links

- www.iss.it
- www.cuore.iss.it

IV. Main Prevention activities

Campaigns

One of the most important initiatives in cardiovascular prevention is "The Heart Project (Progetto Cuore)" of the National Health Institute. It provides from 1988 important information about CVD epidemiology, risk factors and risk stratification, collecting data from over 4500 primary care physicians by means of centres affiliated to the national OEC (Osservatorio Epidemiologico Cardiovascolare).

The ANMCO and HCF organise each year in February and the SIC and H&CF the last week-end of September during the World Heart Day, campaigns named "Cardiology open" in which the cardiology institutions taking part in the respective network promote screening of the general population that pertains spontaneously for risk factors and ECG with advice on lifestyle, diet and physical activity.

ANMCO and HCF recently have launched the "*BancomHeart*", a personal card containing electrocardiogram (EKG), blood pressure values and other clinical data, available for consultation in each moment by the use of a computer, tablet or smartphone.

The ANMCO organised a campaign "*Eat less, eat better: useful information for citizens*" to educate population toward the Mediterranean diet.

The SIC launched the "*Heart in the pot*" an innovative initiative towards the prevention through a healthy diet daily, offering a variety of recipes that are pleasant but also healthy, gathered in a small book available free for participant in the annual SIC Congress and purchasable for the public at small price; this booklet contains 70 cooking recipes prepared from cardiologists for cardiac patients and presented by a group of architects.

Links:

- www.cuore.iss.it
- www.fondazioneitalianacuorecircolazione.it
- www.sicardiologia.it
- www.anmco.it
- www.federcardio.it
- www.cuore.iss.it
- www.hubmiur.pubblica.istruzione.it
- www.bancadelcuore.it

Projects

"*Cardiology in the classroom – A Scuola di Cuore*" is an educational initiative of SIC and H&CF, aimed at providing the students of middle and high schools the main concepts of prevention of CVD through the creation of a slide kit of teaching materials simple and understandable on the main CVD risk factors and how to correct them. Hereby teachers can educate students on these topics and give be a source of insight and discussion.

The SIC and H&CF within "Cardiology in the classroom" have formed operators able to perform cardiopulmonary resuscitations with the use of semiautomatic external

defibrillators (DAE, BLS-D) for teaching and students of high schools giving a few DAE machines to schools. Moreover, in cooperation with the District 2110 (Sicily and Malta) of the Rotary international a lot of operators in BLS-D have been formed and more than 50 DAE have been donated to institutional sites of the District frequented by many people.

The H&CF launched a national project to screen students of the high schools with a medical examination and ECG to prevent sudden death. At present more than 15,000 ECGs has been performed.

Concerning the prevention of sudden death ANMCO through an agreement with the National Agency for the Safety of Railways (ANSF), the Police Service of Railway (POLFER) donated 60 semiautomatic external defibrillators (DAE) to the Italian Railways and trained many operators in use the equipment.

Links:

- www.hubmiur.pubblica.istruzione.it
- www.sicardiologia.it
- www.fondazioneitaliananacuorecircolazione.it
- www.anmco.it

Education

Essential knowledge on cardiovascular prevention and rehabilitation is given to students during the course of studies at the Medical School.

Students are educated in:

- a) The epidemiology of CVD and the importance of traditional RFs included in the risk card (in Italy the *Progetto Cuore card*) that is equivalent to SCORE: a the high risk SCORE $\geq 5\%$ is considered as equivalent to the high risk in Progetto Cuore of $\geq 20\%$;
- b) The value of some emerging RFs such as metabolic syndrome and microalbuminuria;
- c) The relationship between RFs and preclinical atherosclerosis as well as the clinical manifestation of atherosclerosis;
- d) The fact that CVD is closely related to lifestyle, especially to the use of tobacco, poor dietary habits, excessive intake of salt and alcohol, physical inactivity and psychosocial stress, as the World Health Organization (WHO) has stated that more than three-quarters of the total mortality for CVD can be prevented by implementing appropriate changes in lifestyle.

An extended program is taught to the fellows in post-graduate training in CVD; this includes a six months period at the ambulatory services of cardiovascular prevention and rehabilitative cardiology. Here they take care of many patients under mentor guidance, thus acquiring a substantial and direct experience with high risk patients and with patients in need of secondary prevention and rehabilitation.

V. Cardiac rehabilitation

For whom

Cardiac Rehabilitation (CR), in its different forms (hospitalisation, day hospital, outpatient), is generally considered appropriate in patients with:

- a) Recent acute myocardial infarction with or without elevation ST and low ejection fraction
- b) Patients post mechanical revascularization with PCI
- c) Patient post-surgical revascularization (CABG)
- d) Patients after cardiac surgery for valve disease, congenital or acquired
- e) Patients with chronic heart failure (HF), even after implantation of devices (ICD, CRT, VAD)
- f) Patients after heart transplantation.

It is contraindicated in cases of unstable angina, congestive HF with clinical instability, severe ventricular arrhythmias, pulmonary hypertension (> 60 mm Hg), high blood pressure not controlled by medication, pericardial effusion, recent episodes of thrombophlebitis with or without pulmonary embolism, severe obstructive cardiomyopathy, aortic stenosis, inflammatory or infectious diseases in place, the presence of associated diseases limiting physical training.

Recent studies show that cardiac rehabilitation can be useful also even in elderly patients > 75 years provided they are in good condition and able to perform physical activity.

By whom and how

Cardiovascular Rehabilitation is defined by the WHO as "The sum of work required to ensure the best physical condition, psychological and social conditions so that patients with chronic cardiac or post-acute can retain or regain their role in society".

It is developed according to five key areas for action:

1. Clinical care, risk assessment and proper drug treatment
2. Physical training and prescription of physical activity programmes
3. Health education specifically directed to the correction of risk factors (smoking cessation, diet, weight control, anxiety and depression)
4. Psychosocial assessment and if needed employment of specific interventions
5. Follow-up clinical-instrumental and individualized support for maintaining an appropriate lifestyle and an effective secondary prevention.

The objectives of CR are to limit the physiological and psychological consequences of CVD, pursue clinical stability and improving the overall functional capacity and impact as to the degree of autonomy, independence and the quality of life, get people back, but also to define and reduce the risk of new cardiovascular events. It is therefore necessary that many skills are involved in the implementation of rehabilitation programs:

- Cardiologist
- rehabilitation therapist
- psychologist
- dietician
- nurses
- other relevant figures.

CR is provided inside the General and University Hospitals as well as in Rehabilitation Centres, both public and private, for patients hospitalised (after cardiac CABG or valve intervention or with severe HF), for ambulatory patients after AMI or PCI or with mild to moderate HF CR. This latter activity is developing also in the ambulatory of the local Units of the NHS on the territory.

According to the latest data available (www.gicr.it) about 100,000 patients/year leave hospital after acute myocardial infarction, 87,000 after coronary PCI, 29,000 after a CABG and 21,000 after intervention on the valves and the great vessels. All of these patients in addition to those with heart failure have access to CR programmes according to the latest guidelines.

Providing programmes of CR widespread and organized to ensure the expected results on the basis of scientific evidence involves an investment of resources. In recent years the interest for CR has grown considerably. The survey IACPR-GICR, Isyde-2008, showed that there was an increase of + 70% over the past 10 years of CR Centres, leading to a total of 190 centers. The capacity is of 60,000 patients in rehabilitation in one year (35,000 after cardiac surgery for CABG or valve, or aneurysm; 15,000, after acute coronary syndrome or PCI; 7500 with heart failure). The mean duration of rehabilitation is 18 days. So, today the provision of CR is still insufficient to cover all patients and therefore CR must be further extended.

Training programmes for all participants in the CR staff is required annually by participation in annual CME Courses.

Audit and costs

In Italy the burden of CVD has been one of the most important public health problems and the most frequent cause of disability giving to anticipated pension is represented by CVD (31.2%), with an annual cost of about 2.7 billion Euros.

Multifactorial rehabilitation programmes show a more favorable cost-effectiveness ratio than programmes containing merely physical training. CR is now recognised as the standard model for the overall follow-up of cardiac patients after acute cardiac illness or chronic such HF and, in particular, is the most effective model for the realisation of a secondary prevention structured and long term. In Italy the cost of the Cardiac Rehabilitation both in public or private Hospitals is covered by the NHS.

VI. The Future

Needs

The economic burden of CVD is likely to increase due to the aging of population. It is mandatory to reach a reduction of the rate of smoking, the improvement of diet both reducing calories and improving quality of food, and the implementation of physical activity in the free time. Moreover, it is very important that cardiologists working in General and University Hospitals encourage the patients to join cardiac rehabilitation. Due to the impact of adequate secondary prevention a large majority of new events can be avoided.

Possibilities

The success in this field may be reached through cooperation between the Ministry of Health, Department of Health of Regions, scientific cardiological societies and foundations, launching media campaigns, with a more widespread diffusion of guidelines on CV prevention and rehabilitation and increasing the number of scientific meetings with CME to discuss these topics between GPs and cardiologists.

Obstacles

One of the main obstacles for implementing prevention and rehabilitation in the coming years may be the present economic crisis with consequent spending reductions all regions of Europe. This may induce a reduction of the budget of the NHS. Primary prevention depends mainly on the work of education that the GPs can provide their patients and this should be considered independent from the cost savings.

Concerning the secondary prevention the most part of drugs are generic and do not weigh particularly on budget of health. Also in this case the main actions have to derive from the good cooperation between NHS and cardiologists. A significant increase can be expected from the application of innovative medical (i.e. the new PCSK-inhibitors for lowering cholesterol in statin intolerant or not at target) or interventional therapies (innovative stent, devices, etc.).

Plans

For the next five years we should:

- a) Significantly reduce the percentage of patients with elevated levels of blood pressure, cholesterol and blood glucose
- b) Decrease the percentage of obese people, overweight and with the metabolic syndrome
- c) Increase the percentage of CVD patients in secondary prevention with values of RFs at target
- d) Improve the entry in cardiological rehabilitation of most patients in need
- e) Educate a more correct life style in the general population regarding smoking cessation, good eating and increasing physical activity.

It is necessary to coordinate between the different stakeholders: the Ministry of Labour, the Ministry of Health and the Ministry of Social Policy. In this sense, some activities are already under way, for example with the program "Gain Health" and the pact for the protection of health and prevention in the workplace; the National Prevention Plan (2014-2016), which defines instruments, protocols and diagnostic and therapeutic rehabilitation.

At the institutional level, health education in schools is an obvious element to be included in a strategy, in this case with an important contribution of the cardiological scientific societies.