

2.3 Risk factors for CVD {3,1,4}

During the last decades CVD are studied intensively and we already know their causes. There are a lot of them or multifactorial and have many social and biological characteristics, which increase the probability to have a problem with the coronary or cerebral arteries. These characteristics are presented in the following table where they are divided into three main categories.

Biological factors	Life style factors.	Main characteristics	
		Not changeable	Changeable
High blood pressure	Smoking	Age	Financial avenues
High cholesterol High triglycerides, high LDL, low HDL	Bad diet, full of calories and fats	Gender	Education
Hyperglycemia / diabetes	High alcohol consumption	Family history	Life conditions
overweight / obesity	Lack of physical activity	Ethnicity	Work conditions

2.4 The evaluation of the risk factors of CVD according to the WHO:

The prevention of CVD is a coordinated actions in individual or population level, in order to eliminate the impact of CVD and their inabilities.[4]

The diagram of SCORE according to the proposed mode of WHO present the risk to have CVD in 10 years (fatal or not) based on risk factors categories as age, gender, systolic pressure, smoking, cholesterol level and having or not diabetes[5]

2.4.1 Three actions that need to be done:

- Data gathering and clinical judgement
- Evaluation of the CVD risk by using the SCORE with the collected data
- Vendoset mbi nivelin e menaxhimit të rrishtit.

2.4.2 The categories of the 10 year risk [1]

<p>1- High risk !!</p> <ul style="list-style-type: none"> • full blown CVD. • Diabetes + risk factors other factors, damaged organs, RCD • SCORE estimated $\geq 10\%$ 	<p>2- High risk !</p> <ul style="list-style-type: none"> • there is 1 increased risk factor (HTA, dislipidemy) • Diabetes, no risk factors and no organ damages . • moderate RCD • SCORE is 5-10%
<p>3- Moderate risk .</p> <ul style="list-style-type: none"> • SCORE is estimated 1-5% • third age patients. 	<p>4- Low risk</p> <ul style="list-style-type: none"> • SCORE estimated <1%

2.43 How can we manage the cardio vascular risk [7,8] ?

a) Behavior strategies:

- **Smoking:** active or passive smoking should be avoided and the smokers should be helped to quit smoking by advising and medication.
- **Feeding:** to advise for better diet (fruits and vegetables over 500 g daily), to prevent CVD. It is recommended **weight reduction** on overweight and obese people.
- **Physical activity:** all the adults should have 2,5-5 hours in a week with moderate intensity of physical activity (over 30 minutes in 4-5 days a week (but every kind of activity is better than nothing)

b) Treatment of risk factors:

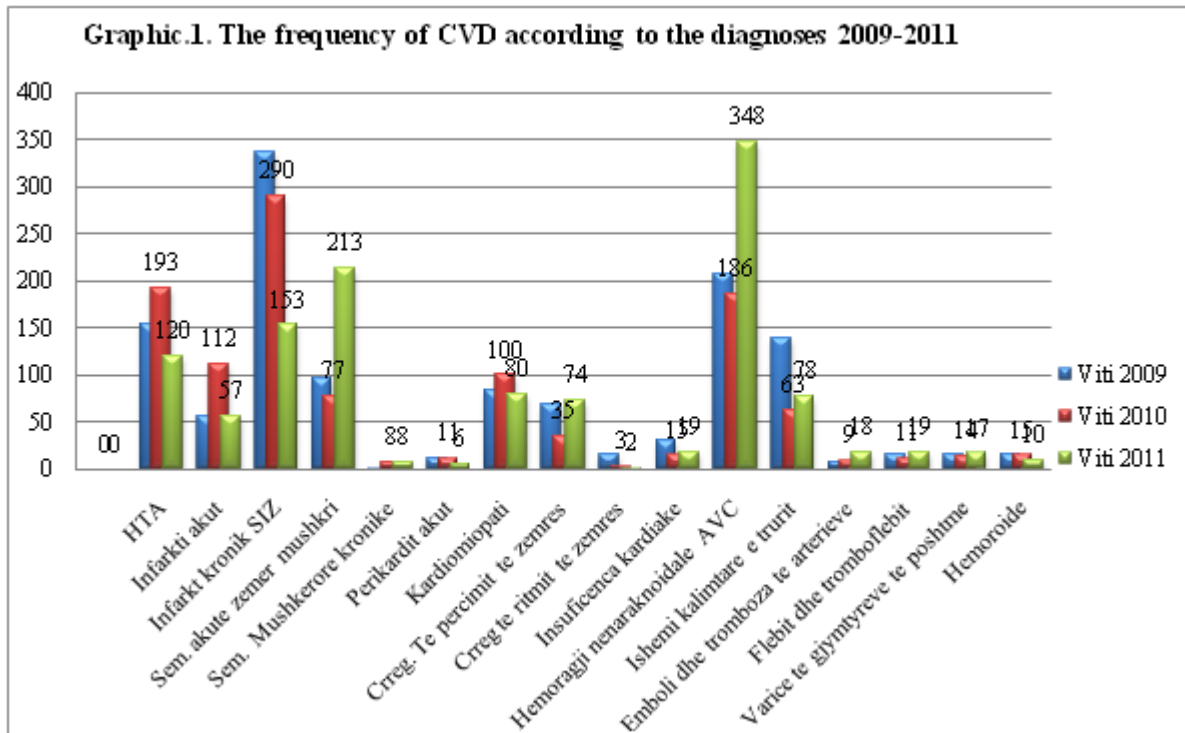
- **Hypertension:** The recommended strategies of behavior in all patients with HTA or with high blood pressure. The level of blood pressure <140 mmHg (systolic) and < 90 mmHg (diastolic) in all hypertensive patients.
- **Diabetes:** Monitoring HbA1c for the prevention of CVD in diabetes patients in: < 7,0% (< 53 mmol/mol). The use of Statins for all diabetes patients to reduce the cardio vascular risk. The blood pressure in diabetes patients should not exceed: <140/80 mmHg.
- **Lipids:** In patients with very high risk for CVD, the recommended level for LDL cholesterol is < 1,8 mmol/L (<~ 70 mg/dL) or under $\geq 50\%$ reduction on the level of LDL when the desired level can't be reached. In patients with high risk for CVD, it is recommended a LDL- cholesterol level < 2. 5 mmol/L (<~100 mg / dL)

3. Materials and Methods

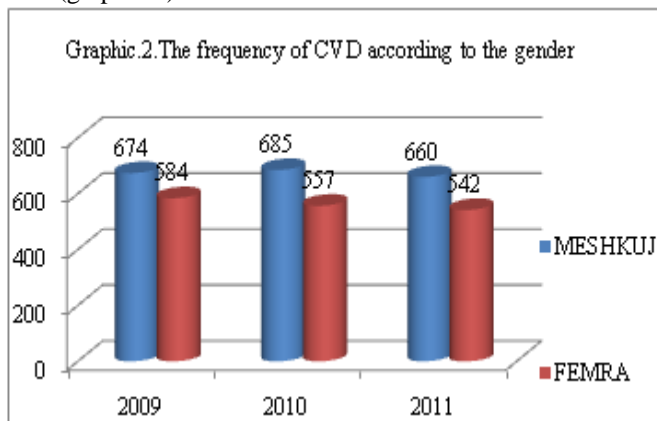
This is a descriptive study bases on data gathering from the base medical records registers to evaluate the number of patients hospitalized with CVD during the time period of 2009-2011. We distributed them by age, place of living, and gender. The study population is all the patients hospitalized in the hospital of Vlore for years 2009-2011 treated for CVD (included 16 diagnoses) in age groups 15 year old to 65+ years old.

4. Results and Discussions

CVD are divided as: 7.9% in 2009 of the yearly hospitalization, 9.3% in 2010, and 9.7% in 2011 in the hospital of Vlore. In graphic 1 we see all the classified CVD and their prevalence for the 3 years of the study. We can clearly see that the most frequent diseases are: HTA, chronic infarct-ICD, cardiomyopathies VCA, the others are less frequent.

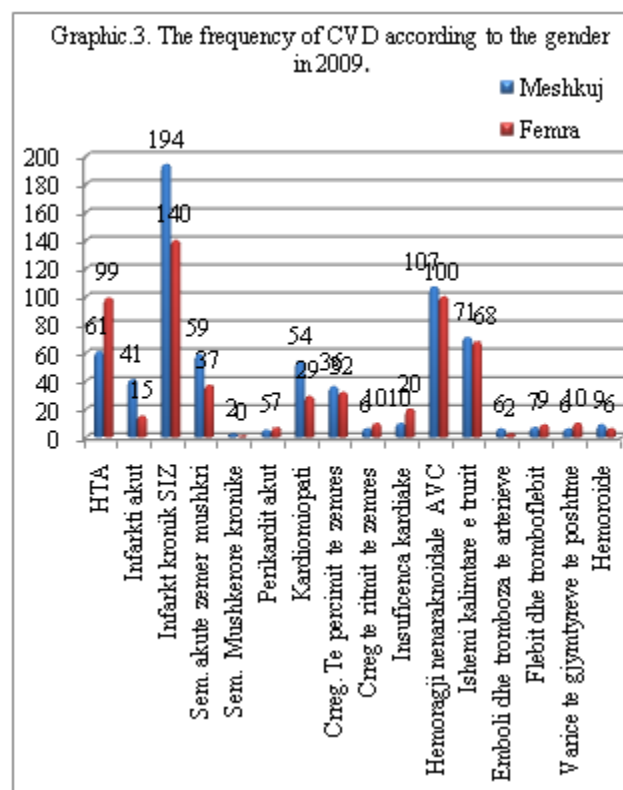


Males are more hospitalized than females in the three years. In 2009 we see 54% males and 46% females. In 2010 55% males and 45 % females and in 2011 males 55% and females 45%.(graphic 2)

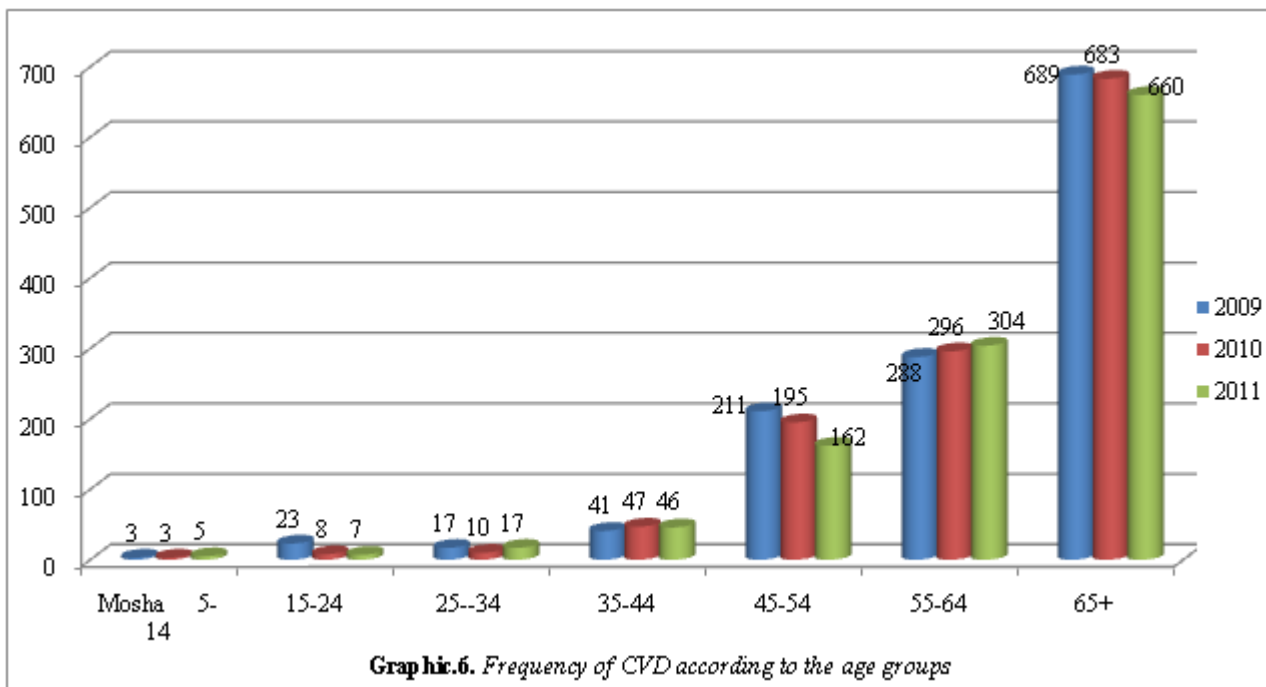
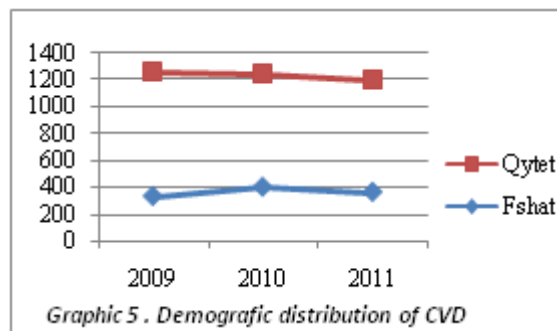
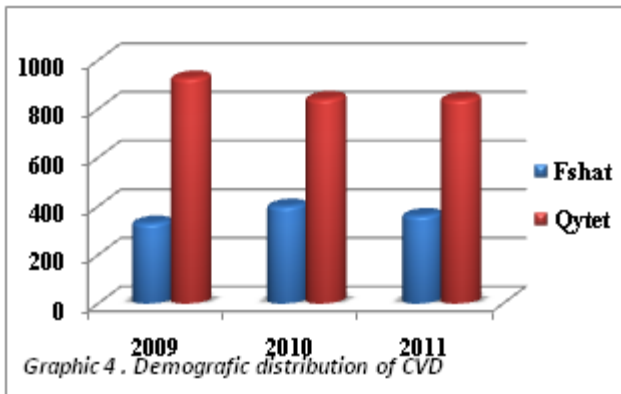


In all the CVD during 2009 we see the morbidity predominates in males in this diseases: acute infarct (AMI), chronic infarct, acute heart-lung diseases, chronic lung diseases, cardiomyopathy, CVA, brain ischemia, embolism and artery thrombosis, hemorrhoids.

Females suffer more from: HTA, acute pericarditis, disorders of cardiac rhythm, cardiac insufficiency, flebitis and thromboflebitis, varices of the lower limbs by evaluation the higher risk of these groups.



The graphic 4 and 5 is presented the demographic distribution of cases in the villages ad the city for the three years, in the city the number is much higher. The ration village/city in 2009 is 74% in the city and 26% in the village. In 2010 is 68% of the cases form the city and 32% from the village. In 2011 the ratio is 70% city 30% village. The frequency in the village is slightly increasing and the one in the city is slightly decreasing.



CVD frequency increases with the age increase. The cases are present in the young ages also, age group 45-54 years old around 16%, 55-64 years old 23%, and 65+ around 55% of all the cases with CVD.

In **2009** age group 5-14 years old 0.5%, 15-24 year old 2%, 25-34 year old 1%, 35-44 year old 3%, 45-54 year old 17%, 55-64 23% and over 65+ ages 54% of the cases.

In **2010** age group 5-14 is 0%, 15-24 year old 0%, 25-34 year old 1%, 35-44 year old 4%, 45-54 year old 16%, 55-64 24% and over 65+ year old 54% of the cases.

In **2011** age group 5-14 is 0%, 15-24 year old 1%, 25-34 year old 1%, 35-44 year old 4%, 45-54 year old 14%, 55-64 23% and over 65+ ages 55% of the cases.

5. Conclusions:

By studying the categories that are more in risk, population, the age groups, more frequent diseases, demographic distribution etc., the use of primary health care prevention is a necessity to decrease the mortality and morbidity form the CVD. According to the literature, screening and the SCORE evaluation can asses the risk and take measures to manage these categories according to their factors. Screening and

monitoring the patients that come in the primary health care services and urging them toward the healthy life style, elimination the risk factors and their awareness would bring a considerable reduction in CVD.

6. Recommendations

- 1) To implement the educational programs with recommendations for the management of CVD from the primary health care services.
- 2) To assess the risk for CVD in daily practice, in men over 40 years old and women over 50 years old or post menopausal, when one or more factors are present as smoking, under nutrition or obesity, physical inactivity, HTA, dislipidemie, diabetes mellitus.
- 3) Screening in time the cardio-vascular problems and following the advices of the medical team will decrease the number of CVD
- 4) To improve the health care in accordance with the patient needs.
- 5) The changes in the life style are recommended in all individuals.

References

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- [2] Ministria e Shëndetësisë.(
<http://www.moh.gov.al/index.php/statistika>)
- [3] Konferenca e I Kombetare per "Politikat Shëndetësore ne Shqipëri" Strategjia e OBSH për shëndetin deri në 2020 Shëndeti në të gjitha politikat. Maj 2012.
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- [5] Read the 2012 Joint Guidelines in: European Heart Journal (2012) 33, 1635–1701 doi:10.1093/eurheartj/ehs092 and European Journal of Preventive Cardiology 2012;19: 4:585-667. or visit www.escardio.org/guidelines
- [6] Estimation of TOTAL RISK remains a core part of the 2012 guidelines Consider using the relative risk chart and the risk-age model. HDL-adjusted charts available at www.heartscore.org
- [7] <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2293958/bin/vhrm0303-313-03.jpg>
- [8] Read the 2012 Joint Guidelines in: European Heart Journal (2012) 33, 1635–1701 doi:10.1093/eurheartj/ehs092 and European Journal of Preventive Cardiology 2012;19: 4:585-667. or visit www.escardio.org/guidelines

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