

Slovakia, Slovenia, Serbia), Western European countries (WE; Austria, Belgium, Denmark, Finland, France, Germany, Greece, the Netherlands, Ireland, Luxembourg, Norway, Italy, United Kingdom, Portugal, Sweden, Spain, Switzerland) and former states of the Soviet Union (FSU; Azerbaijan, Armenia, Estonia, Belorussia, Georgia, Kazakhstan, Kirgizia, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenia, Ukraine, Uzbekistan) in both sexes. In our analysis we used descriptive statistics, independent samples t-test. **Results:** In 1990, standardized mortality in men 45-59 was the highest in FSU (n=15) 358.69/100,000, the lowest rate was found in WE (n=17) 143.67/100,000. It significantly decreased to 244.99/100,000 (-31.70%, n=11) and 50.29/100,000 (-65.00%, n=15) by 2014 respectively (p<0.05). In 1990, standardized mortality in women 45-59 was the highest in FSU (n=15) 99.78/100,000, the lowest rate was found in WE (n=17) 29.06/100,000. It significantly decreased to 56.26/100,000 (-43.61%, n=11) and 9.89/100,000 (-65.97%, n=15) by 2014 respectively (p<0.05). Mortality also decreased significantly (p<0.001) among men (-49.41%) and women (-50.57%) in EE between 1990 and 2014. **Conclusions:** A significant decline was detected in standardized mortality of IHD in both sexes aged 45-59 between the assessed time period. The highest improvement was observed in Western-European countries.

PCV52

EFFECTIVENESS OF A CARDIOVASCULAR DISEASE PREVENTION PROGRAM IN THE CONTROL OF CARDIOVASCULAR RISK FACTORS IN A LOW-INCOME POPULATION FROM THE CARIBBEAN REGION OF COLOMBIA

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Objectives: To evaluate the effectiveness of a cardiovascular disease prevention program in the control of cardiovascular risk factors in a low-income population from the Caribbean region of Colombia. **Methods:** A retrospective cohort study was conducted. A population of 128,265 patients enrolled in the "De todo corazón" program between 2013-2018 with hypertension (HTA), diabetes mellitus (DM2), dyslipidemia or chronic kidney disease (CKD) was considered for eligibility. A paired analysis was conducted by selecting patients enrolled in 2016 with at least one year of follow-up. Baseline and follow-up scenarios were constructed by selecting the last measurement of clinical variables in a 3-month period after the date of enrollment and the last measurement available in the study period. Patients with blood pressure (BP) <140/90, low-density lipoprotein cholesterol (LDL) ≤100mg/dl and glycated hemoglobin (hba1c) ≤7.5% were considered as controlled. Paired t-test and McNemar test were used to compare clinical values and proportion of patients controlled in both scenarios. Paired mean differences and Cohens D statistic were used as absolute and relative measures of effect size. A p value <0.050 was considered significant. **Results:** A sample of 17,713 (13.8%) patients was obtained. 65.0% were women, had a mean(SD) age of 59.5(13.0) and 61.8 (13.0) years at baseline and follow-up. Prevalence of HTA, DM2, dyslipidemia and CKD were 94.4%, 30.6%, 58.2% and 17.6%, respectively. No change in prevalences was observed. At follow up, an increase in proportion of patients with frequent physical activity (n=10,723; +28.1%), controlled BP (n=16,691; +28.6%) and controlled LDL (n=9,139; +33.0%) was observed (p<0.001). Systolic BP, diastolic BP and LDL reduced in their mean values (mean difference, Cohens D) (-3.0mmHg;0.15), (-4.1 mmHg;0.25) and (-10.0 md/dL; 0.19), respectively (p<0.001). No significant change was observed in hba1c (p=0.229) **Conclusions:** The DTC program is effective in the promotion of physical activity and control of BP and LDL

PCV53

EFFECTIVENESS OF A CARDIOVASCULAR RISK MANAGEMENT PROGRAM IN THE INCIDENCE OF CARDIOVASCULAR EVENTS IN A LOW-INCOME POPULATION FROM THE CARIBBEAN REGION OF COLOMBIA

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Objectives: Evaluate the effectiveness of a cardiovascular risk management program "De Todo Corazon" (DTC) on the incidence of cardiovascular events (CVE) in a low-

income population from the Caribbean region of Colombia. **Methods:** This was a retrospective cohort study. Patients with 20 to 76 years affiliated to insurer company and enrolled to the DTC program were considered as the study population. The data source was an administrative database of all 128,263 patients between Jan 2015 and Dec 2018. The main outcome was the reduction in the risk of a CVE (stroke, AMI or CHF) based in the time-person exposed to the intervention. Four different time thresholds were considered for establishing exposure status: six months, one year, two years and four years. Propensity score-weighted Cox regression models were used to evaluate the association between exposure to the program and the incidence of CVE. **Results:** Exposed to the DTC program had a significantly lower risk of a cardiovascular outcome in the 1-year (HR : 0.878, (IC95% 0.770 – 1.001), p = 0.051), 2 years (HR : 0.517, (IC95% 0.472 – 0.565), p < 0.001) and 4 years (HR : 0.447, (IC95% 0.418 – 0.479), p < 0.001) but not in the 6-month (HR : 1.046, (IC95% 0.879 – 1.245), p = 0.612). Control of blood pressure was associated to a lower risk of a CVO in all scenarios of exposure (6-month = HR : 0.373, (IC95% 0.339 – 0.410), 1-year = HR : 0.375 (IC95% 0.327 – 0.390), 2 years = HR : 0.366 (IC95% 0.329 – 0.407), 4 years = HR : 0.358 (IC95% 0.332 – 0.385)(p<0.001). **Conclusions:** The DTC program was shown to be effective in the reduction of the risk of a CVE after one year of exposure. Population-based interventions may be an important strategy for the prevention of CVE in low-income individuals.

PCV54

AGE-SPECIFIC EXAMINATION OF EARLY CEREBROVASCULAR MORTALITY: 1990-2014

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Objectives: Within cardiovascular diseases, cerebrovascular diseases are one of the leading causes of mortality worldwide. The aim of our study was to analyse early age-specific standardised mortality related to cerebrovascular diseases in 100,000 population for the age group 45-59. **Methods:** Data were derived from the WHO European Mortality Database for the years 1990 and 2014, for the age group 45-59. We compared standardised mortality related to cerebrovascular diseases in 100,000 population in Eastern European countries (EE; Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Poland, Rumania, Slovakia, Slovenia, Serbia), Western European countries (WE; Austria, Belgium, Denmark, Finland, France, Germany, Greece, the Netherlands, Ireland, Luxembourg, Norway, Italy, United Kingdom, Portugal, Sweden, Spain, Switzerland) and former states of the Soviet Union (FSU; Azerbaijan, Armenia, Estonia, Belorussia, Georgia, Kazakhstan, Kirgizia, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenia, Ukraine, Uzbekistan) in both sexes. In our analysis we used descriptive statistics, independent samples t-test. **Results:** In 1990, standardised mortality in men 45-59 was the highest in FSU (n=15) 134.19/100,000, the lowest rate was found in WE (n=17) 35.14/100,000. It significantly decreased to 91.13/100,000 (-32.09%, n=11) and 14.31/100,000 (-59.28%, n=15) by 2014 respectively (p<0.001). Mortality among men also decreased significantly in Eastern Europe (-54.14%; p<0.001) between 1990-2014. In 1990, standardised mortality in women 45-59 was the highest in FSU (n=15) 83.62/100,000, the lowest rate was found in WE (n=17) 21.11/100,000. It significantly decreased to 41.83/100,000 (-49.97%, n=11) and 8.80/100,000 (-58.29%, n=15) by 2014 respectively (p<0.001). Mortality among women showed a significant decrease in Eastern Europe (-57.53%; p<0.001) between 1990-2014. **Conclusions:** Standardised mortality rate for cerebrovascular diseases showed considerable regional inequalities in the 45-59 age group probably resulting from the unequal economic development of the regions investigated which has an impact on the quality of healthcare provided. Regarding the sexes, male mortality rate was higher in all age groups.

PCV56

COMPARISON OF THE FRAMINGHAM, PROCAM AND MODIFIED FRAMINGHAM RISK SCORES FOR PREDICTING CARDIOVASCULAR EVENTS IN A COHORT FROM A CARDIOVASCULAR PREVENTION PROGRAM IN THE CARIBBEAN REGION OF COLOMBIA

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Objectives: To compare the Framingham, PROCAM and modified Framingham risk scores for predicting cardiovascular events (CVE) in a cohort from a cardiovascular prevention program in the Caribbean Region of Colombia. **Methods:** Retrospective cohort study. A population of 128,265 patients enrolled in the "De todo corazón" program between 2013-2018 with hypertension (HTA), diabetes mellitus (DM), dyslipidemia or chronic kidney disease (CKD) was considered. Patients with 30 to 74