risk-adjustment. Furthermore, we have a ZIP-code for each patient and the exact address for every hospital. Addresses of hospitals and the centroids of all German ZIP-codes were geo-coded. For the empirical analysis, we use multiple logistic regression analysis. We supplement our analysis by showing changes in access to hospitals if a minimum volume standard is introduced. RESULTS: Patients with hip fracture who are treated within 24 h have a 12% decreased mortality compared to patients with fracture surgery delayed more than 24 h. For patients treated with hip fracture, the odds ratio of death of 5.1% compared to an average mortality of 3.1% for patients who are treated in hospitals with more than 151 cases. For patients with AAA the case volume effect is lower. However studies from patients treated in hospitals with cases under 15 cases per year, the average probability of death for patients treated in hospitals with more than 68 cases is 1.0 percentage points less. We show that minimum volume standards seem possible without compromising overall access. CONCLUSIONS: The estimation model suggests that around 380 deaths would be avoided if around 20,000 patients in the smallest hospitals would have been treated in the largest hospitals instead. Furthermore, we show that minimum volume standards do not reduce hospital access measured in travel times. However, to ensure an adequate access in all areas, a few “sole providers” in some regions seem necessary.

PCV162
THE SHORT-TERM IMPACT OF PARTICULATE MATTER EXPOSURE ON THE RISK OF PRESCRIPTION OF CARDIORESPIRATORY DRUGS IN ITALY
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OBJECTIVES: Drug prescriptions recorded in health care administrative databases (HADs) can be an indicator of moderate health outcomes (undetectable through hospital records) and correlated with public health effects. The present study is aimed at assessing the short-term effect of PM exposure on the risk of cardiorespiratory drug prescription in Lombardy, a region in northern Italy. METHODS: For each county we identified all prescriptions of selected respiratory, cardiovascular and antibiotic treatments recorded during 2005-2006 in data warehouse DENALI, which gathers HADs of Lombardy health system. The Regional Environmental Protection Agency of Lombardy provided time-series of daily mean particulate matter concentration. The model was designed matched by day of week and fitted separate Cox proportional hazard models for each respiratory and cardiovascular treatment. Confounding was accounted for using a Poisson model developed, based on the time-series of prescriptions, of antidepressants. Analyses were replicated for delayed effects of PM up to 6 days and for warm and cold season. RESULTS: The study area counted 470,300 residents, requiring 655,865 prescriptions. Mean PM10 concentration was 46 μg/m3 (SD 33 μg/m3). Overall, we estimated that rises in PM10 concentration were associated with an immediate increment in the risk of prescription of inhalant adrenergics (0.32% for increments of 10 μg/m3 in PM10 concentration; 95%CI 0.00, 0.65), antiarrhythmics (0.52% per 10 μg/m3 in PM10 concentration; 95%CI 0.13, 0.91), nitrates (0.51% per 10 μg/m3 in PM10 concentration; 95%CI 0.28, 0.74). Increased PM exposure was also positively associated with the prescription of inhalant glucocorticoids during the warm season and of inhalant adrenergics, antiarrhythmics and nitrates during the cold season. CONCLUSIONS: The significant association that we detected between PM concentration and drug prescriptions suggests that PM exposure may impact public health not only through severe but also through moderate adverse events. Further investigation is needed and given the usually difficult retrieving information on moderate outcomes, HADs represent a valuable data source.

PCV163
HYPERCHOLESTEROLEMIA'S BURDEN OF DISEASE IN PORTUGAL
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OBJECTIVES: To estimate the impact of hypercholesterolemia (HYP) on population health in Portugal. METHODS: We estimate the Disability Adjusted Life-Years (DALY) attributable to HYP in 2010. The DALY include both years lost to premature death and years lost to disability (HYP is a risk factor for Acute Myocardial Infarction (ICD 9 410), other Coronary Heart Diseases (ICD 9 411-414) and for Ischemic Stroke (ICD 9 433-434). In order to estimate the attributable fraction to HYP of the diseases considered a microsimulation approach was used by using Framingham equations on data from individual observations in the Valsim database. A total cholesterol equal to the mean for observations above 200 mg/dL was imputed to all individuals under statin treatment. The exposure to overageing of the population. Currently, AAAAs in Austria are only incidentally detected and due to its asymptomatic course often overlooked therefore the impact of an organized screening program in Austria has been underestimated. A methodological model for Austria’s population was developed. Each agent represents a person which has an individual development of its aorta depending on age, sex, and smoking habits. Identification of risk factors and parameterization of the model was performed in the TAIEThi project (FP7 grant number 288154). The TAIEThi cohort consists of 60 years old at simulation start and the observed time horizon is 20 years. The chosen screening strategy which is compared to current practice corresponds to the EU-funded TAIEThi screen and an assumed 40% participation. RESULTS: Events like ruptures, deaths or treatment are recorded and accumulated over the whole simulation time. Additionally, because many of the figures of the model depend on probabilities, the time in point when patients benefit from the intervention with 95% probability is calculated. Ruptures are reduced from 786 to 531, deaths from 573 to 458, AAAAs from 401 to 360. Decreased mortality, costs and QALYs are 7500 euros and 0.14. Significant differences can be observed after about four years. Although incidence is much higher among men, it is remarkable that screening is more cost-effective for women due to higher risk of rupture and life expectancy. CONCLUSIONS: The agent based simulation model allows detailed analysis of groups with specific properties, e.g. smokers, other age groups and different screening strategies. It also allows decision makers to estimate when the impact of the intervention, in this case organized screening, can be observed or measured within the real population.

PCV164
ADDED VALUE AND FUTURE ADOPTION OF A NEW MEDICAL IMAGING TECHNOLOGY FOR INTERVENTIONAL CARDIOLOGY
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OBJECTIVES: To estimate the potential added value of an ultrasound-fluoroscopy fusion technology and to support product development and marketing positioning of the technology in interventional cardiology, using a combination of research methods. METHODS: Stakeholder analysis was carried out to determine the professionals involved in the adoption process. Literature search indicated which procedures could benefit most from the imaging technology. Subsequently, the current workflow and associated resource use of those procedures was compared with the expected workflow after potential technology adoption. Decision criteria to adopt the new imaging technology were evaluated with the analytical hierarchy process (AHP). Finally, a value based pricing approach was used to estimate the value of the technology to specific stakeholders in the adoption of technology. RESULTS: Intervention cardiologists were identified as key stakeholders in the adoption of technology. The AHP showed that reduction in complication rates is the most important criterion for adopting a new imaging technology, whereas the purchase price seemed less important. Various procedures could benefit from the new technology, as this may shorten procedural times and facilitate communication between intervention cardiologists and imaging professionals. Value based pricing analysis showed that cost savings could be expected as a result of reduced procedure times, especially in centers of expertise with medium to high procedure volumes. CONCLUSIONS: The ultrasound-fluoroscopy fusion technology can provide added value in specific cardiac interventions, especially in hospitals with medium to high procedure volumes. Early assessment of potential added value and adoption criteria timely and effectively supported the product development phase. It informed various decision makers on the factors influencing the expected value of and uncertainties surrounding a future adoption of the technology.

PCV165
DIVERGENCE OF IFTA DECISIONS ACROSS COUNTRIES: CASE ANALYSIS OF IVABRADINE
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OBJECTIVES: Monitoring the performance of the health care system requires timely and robust information highlighting the burden of disease on a regional level. The development of the performance measures over time may be attributed to changes in the organization of the system. Using data from the routine database the AITHS 2006/2007 (a standardized health interview survey), the cause of death registry 2006 and 2007, the hospital discharge datasets from the Austrian DRG system 2006/2007 (KDok/DLD) and diagnoses for the outpatient sector derived from pharmaceutical claims data 2006/2007 (ATC – ICD) - are used to describe the burden of disease regarding Ischemic Heart Disease (ICD9 410-414) with different regional granularity. Methods and results are compared with epidemiological data changes derived from this topic, using the similarity of the results of these different methods of measurement a systematic review of regional correlation is being elaborated. Correlations pointing to a high analogy of the findings in spite of the differences in dimensions measured on the one hand and corresponding to remoteness of the other hand were further explored. RESULTS: The review of regional correlation indicates promising close links between the burden of disease derived from ATC – ICD, AITHS and cause of death registry data. Hospital discharge data and closely-intuitive relations towards the other data sets. CONCLUSIONS: The use of routine data yields promising opportunities for monitoring the Austrian health care system in a timely and comprehensible way. It enables different aggregation levels regarding regions and periods and leads to a better understanding of regional variation. The methodology can be transferred to other areas of diseases.