yet been fully met in Belgium. Despite the success of the policy, adjustments are desirable, especially with respect to the broad definition of cheap medicines. Given the fact that all groups of physicians reached their limits together with the increased possibility of prescribing cheap medicines due to the entrance of new, generic medicines, the government decided to raise the minimum criteria in 2011. 

**PHPB1**

**FUNDING SOURCES ANALYSIS RESULTS (REGIONAL AND FEDERAL LEVELS) OF PHARMACEUTICAL MARKETS PER REGIONS OF RUSSIAN FEDERATION**

Borisov D1, Fechenkin A2

1Laboratory of Pharmacoeconomics and outcomes research, First MGMU named after I. M. Sechenov, Moscow, Moscow, Russia, 2Non-Commercial partnership, Moscow, Moscow, Russia

**OBJECTIVES:** To analyze state funding sources of drug provision all over RF for the period of 2009-2010. **METHODS:** Different sources of drug funds were summed up during four years. Several variables were included in the open source of the drug auctions of the federal and regional level, orders of the Ministry of Public Health and Social Development, analysis of regional programs of the drug provision and etc. **RESULTS:** Interactive map of the RF was developed due to this analysis of the collected data, it shows information on each region of the RF, the number of privileg- ileges people, population of the region, sum of the budget by the ONLS (reimburse- ment) programs, the sum of the budget according to the regional reimbursement, sum of the hospital budgets, sum of the special programs of the region (if such programs approved in the region), sum of the budget by the program “7 nosologies” (special reimbursement program), with the detailed separation of the budget ac- cording to the nosologies. Such map clearly demonstrates difference in the funding system between regions. The ranges of color distinction by regions were put into the map for more convenient usage, it allows visually demonstrate difference in funding in the terms of the RF. Several programs where the data was validated, this process showed complete conformity of the existing data with the official budgets of the regions. **CONCLUSIONS:** Nowadays this research represents unique product in acceptable of administrative decisions for the ad- ministration of health sector of the RF. Also for the further improvement of the given analytical system it is necessary to adjust the collecting of the corresponding data for 2011 and to analyze the budget of regions on the Federal Health Modernization Program 2011-2012.

**PHPB2**

**A STUDY EXPLORATING THE GENERAL PUBLIC PERCEPTIONS TOWARDS MEDICINES**

Alhadid M3, Hassali MA4, Maghrabi I5

1Taif University, Taif, Saudi Arabia, 2Universiti Sains Malaysia, Penang, Malaysia, 3Taif University, Taif, Saudi Arabia

**OBJECTIVES:** General public perceptions will affect on their behavior towards medicines. Therefore, this study aims to evaluate the general public perceptions towards medicines in the state of Penang Malaysia. **METHODS:** A cross sectional study using convenience sampling technique was used. Appropriate descriptive and inferential statistics were used to find the differences among the respondents. All data were analyzed at alpha value of 0.05. **RESULTS:** Seven hundred respondents were successfully responded to the survey. More than one third of the respondents 37% stated that they understand what is meant by conventional medicines, whereas 32% stated that they understand traditional medicines and only 3% understand what is meant by generic medicines. On the other hand, 36% see doctor once they have minor illness and 30% prefer to go to get OTC drugs from the community pharmacies. On the other hand, 36% see doctor once they have minor illness and 30% prefer to go to get OTC drugs from the community pharmacy. Furthermore, 62% believe that more expensive drugs are of better qual- ity, and 50% believe that advertising affect on their perceived quality of medicines as well as the country of the manufacturer affects on their selection of the drugs. Previous experience, physician’s recommendations, pharmacist’s rec- ommendations, friend’s recommendations, cost of the medicine and medical in- surance coverage were the main factors that affect on their perceptions.

**CONCLUSIONS:** General public in Penang are very concerned about the medicine chosen. General public education on various types of medicines is important to correct misconceptions and give them the knowledge that they need to make an informed decision. Hence, physicians, pharmacists and other health care providers play vital roles in educating the general public about medicines.

**PHPB3**

**THE ECONOMIC BURDEN OF DISEASE RELATED MALNUTRITION IN EUROPE**

Kalo Z1, Iontoi A2, Nujiten M3

1Bocconi University, Milan, Italy, 2University of Turin, Turin, Italy, 3University of Liverpool, Liverpool, UK

**OBJECTIVES:** Disease related malnutrition (DRM) is a frequent but often unrecogn- ized problem, even in the developed world. The objective of this study was to estimate the burden of disease related malnutrition (BoDRM) in Europe. **METHODS:** An Economic model was developed to estimate the direct, and indirect medical and non-medical costs of DRM. The model was based on literature review, and data from registries and surveys. **RESULTS:** The estimated annual burden of DRM is over 31 billion EUR annually. The estimated annual health burden is approximately 5.7 million life years or 9.1 million QALYS. The total monetary value of the health and financial BoDRM is 306 billion EUR. The health burden in chronic diseases is greater than in acute diseases, and is also greater than the financial burden. In acute diseases, the financial burden is greater than the health burden.

**CONCLUSIONS:** In Europe, DRM is a considerable health and financial burden and represents a significant contribution to the total burden of disease, estimated by WHO at about 300 billion EUR. Therefore, the potential to improve nutritional care in all aspects of patient management. The availability of scientific data on DRM is limited, especially regarding the relative mortality risk and quality of life impact. Policy makers should support programmes to extend the clinical and economic evidence base for nutritional care.

**PHPB4**

**ASSESSING PRODUCTIVITY AND ACTIVITY IMPAIRMENT DUE TO ILLNESS IN POLAND: EMPLOYEES VERSUS EMPLOYERS VIEW**

Wrona WD1, Hermanowski T2, Jakubczyk M2

1Department of Pharmacoeconomics, Medical University of Warsaw, Warsaw, Poland, 2Grant Leader, Department of Pharmacoeconomics, Medical University of Warsaw, Warsaw, Poland

**OBJECTIVES:** The inclusion of lost productivity costs in pharmacoeconomic studies is still a subject of considerable debate. The aim of this study was to quantify the work impairment due to general health status in population of employees and employers (i.e. owners and managers). **METHODS:** Data were obtained from a survey that incorporated the WPAI-GH questionnaire and questions on costs of worker replacement (including hiring and training process). The survey was conducted in cooperation with Employers of Poland – the largest and oldest organisation of employers in Poland in the framework of research grant no N405 15/034 offered by the Ministry of Science and Higher Education of the Republic of Poland.

**RESULTS:** The non-representative population comprised 196 subjects in paid jobs (156 employees and 40 employers), 167 of whom were currently employed in govern- ment sector (employees) and businesses (employers). Least performed on the work time missed due to health problems (absenteeism) during the past 7 years (0.8% for employers; p=0.052). Impairment while being at work (presenteeism) amounted to 12.2% of total time for employers (5.4% for employers; p=0.05). Percent- age of overall work impairment due to health problems for employees and employers were 5.7% vs. 18.3%, respectively (p=0.05). On average more than 50% of overall work impairment was compensated by other employees in the company with a general tendency of a higher compensation of employees’ responsibilities. Mean time of hiring and training new workers to achieve 75% of expected productivity was 76 and 216 days to achieve full productivity. **CONCLUSIONS:** Productivity loss measured by WPAI-GH is higher among employees than employers in analyzed sample in Poland, with a tendency of a higher compensation among employees. Preliminary data suggest that overall work impairment can be com- pletely compensated within one year from a single employer perspective and support friction cost approach.

**PHPB5**

**A SYSTEMATIC REVIEW OF AUTOMATED DOSE DISPENSING IN PRIMARY HEALTH CARE**

Hakkarainen K1, Silho S2, Iisoojarvi J1, Blom M3, Airaksinen M1, Maenpaa A4

1University of Helsinki, Helsinki, Finland, 2National Institute for Health and Welfare, Helsinki, Finland, 3Finnish Medicines Agency, Kuopio, Finland

**OBJECTIVES:** An automated dose dispensing (ADD) service is implemented in pri- mary health care for patients, particularly in the Nordic countries. In this service, regularly used medicines are machine-packaged into unit-dose bags for each point of administration. The aim of this study is to review the evidence of the ADD’s influence on the appropriateness of medication use, medication safety and costs in the primary health care setting. **METHODS:** A systematic literature search on the most relevant databases, including the Medline, Embase, and Cochrane Library. An article was included in the review if the study was conducted in primary health care or nursing home settings and medicines were dispensed in unit-dose bags. All study designs were approved and control groups were not required. Studies applied- ing outcome measures that were related to the appropriateness of medication use, medication safety or costs were included. **RESULTS:** Out of 278 abstracts, six studies were found to be acceptable. The prevalences of potential inappropriate drug use (IDU) were higher among ADD users than non-ADD users. After controlling for confounding factors, ADD reduced the probability of long-acting benzodiazepine use among women and drug-drug interactions among women and men. The ADD users aged >65-79 years had more problems with potential IDU than older ones (≥80 years). The risk of administration errors was lower if medicines were supplied by the ADD service. The ADD service also made a significant improvement in documentation of patient medication records. Any costs were not investigated in the studies. **CONCLUSIONS:** The evidence of the influence of ADD on appropriateness of medication use and medication safety is limited, and missing on costs. The findings of this review suggest that the ADD service can improve medication safety in primary health care, but does not effectively reduce potential IDU.

**PHPB6**

**INCORPORATING THE PATIENT PERSPECTIVE INTO THE HEALTH CARE PROCESS: EXPERIENCE FROM THE C.A.T. HEALTH SYSTEM**

Herbst J1, Castelijn N1, Cuervo J3, Igarreta M3, Ortega F3

1University of Asturias, Oviedo, Spain, 2BAP Health Outcomes Research, Oviedo, Spain, 3Hospital University Central de Asturias, Oviedo, Spain

**OBJECTIVES:** To evaluate the feasibility of the C.A.T. Health system (a computer- ized adaptive test which evaluates generic Health-Related Quality of Life-HRQOL) in a university hospital, at different levels of the health care process. **METHODS:** The C.A.T. Health-system has been developed and validated within a 3 years research