The monthly expenses for Fosamax® decreased from with or without the reimbursement of Fosavance®. was considered and expected annual expenses were estimated in July 2006. Using registered consumption data from RIZIV, the evolution of the monthly expenses for alendronates was considered and expected annual expenses were estimated with or without the reimbursement of Fosavance®. RESULTS: The monthly expenses for Fosamax® decreased from €2.7 Mio prior to the reimbursement of Fosavance® to €1.4 M by July 2007. Simultaneously the expenses for Fosavance® increased to €1.4 M. Only 52% of the market (in value) is left for generic competition. The monthly opportunity savings are estimated to be 30% of €1.4M (€0.52 M) instead of 30% of €2.7 M (€0.81 M). The opportunity loss is therefore €3.5 M per year assuming constant market value (137,500 patients treated with alendronates in 2006). CONCLUSIONS: The alendronate patent expiry and generic competition would theoretically have generated an economy of 30% on the entire alendronate market. The switch to the patent-protected fixed combination however shelters a substantial part of this market from generic competition and from the effects of the off-patent reimbursement policy. Therefore, this ‘life cycle management’ technique jeopardizes the release of financial resources and the creation of budget headroom, essential for financing the access to new and/or innovative medicines. It should be considered as an opportunity ‘lost’.

**PHP32**

**COST-BENEFIT ANALYSIS OF PUBLIC HOSPITAL DEVELOPMENT**

Kalo Z1, Lukovics M2, Donkane Verebes E3, Sampar P4
1Eötvös Loránd University, Budapest, Hungary, 2Szeged University, Szeged, Hungary, 3Integra Zrt, Budapest, Hungary, 4PricewaterhouseCoopers Ltd, Budapest, Hungary

**OBJECTIVES:** The Hungarian government allocates significant investment budget for hospital development between 2008–2013. A cost-benefit model was developed to assess the social benefit of public health care investments. We present the results for a planned investment in a large district hospital with 1386 beds.

**METHODS:** We considered the following long-term social and financial benefits: 1) QALY gain and incremental costs from new services; 2) cost savings and QALY gain from simplified patient routes and reduced postoperative complication; 3) improved technical efficiency of operation (e.g. matrix organization); and 4) reduction of fixed costs. Incremental costs and benefits are calculated over a 15 year period. We employed 8% discount rate for costs and 5% for QALYS. Health benefits were translated to monetary terms by assuming 40,000€/QALY gain conversion rate. 250 HUF/€ exchange rate was used in the model.

**RESULTS:** Our model estimated €8.1 million financial and €43.7 million social benefit over 15 years from the €49.5 million investment. The Net Present Value of the hospital development project is €7.5 million (including the remaining value of assets after 15 years). The investment potentially improves the sustainability of the hospital operation, as the annual net financial balance exceeds the annual cost of depreciation by €800,000.

**CONCLUSIONS:** Cost-benefit analysis of public investment projects improves the allocative efficiency of scarce resources. Our model can assess the return on investment by capturing long-term social and financial benefits and also the sustainability of hospital operation. Prospective validation of the model is necessary.

**PHP33**

**INFLUENCE OF MORBIDITY ON THE USE OF RESOURCES IN PRIMARY CARE: RETROSPECTIVE APPLICATION OF ACG AT A SPANISH INTERREGIONAL LEVEL**

Sicras-Plañar A1, Navarro-Artieda R2, Velasco-Velasco S1, Prados S3, Estelrich J4
1Badalona Servicios Asistenciales, Barcelona, Spain, 2Hospital Germans Trias i Pujol, Barcelona, Spain, 3Instituto aragonés de ciencias de la Salud, Barcelona, Spain

**OBJECTIVES:** To describe the effect of patient’s morbidity load in relation to resource utilization in Primary Care (measured by pharmacy cost and visits) trough the retrospective application of ACG in 23 Primary Care Health Centres from three Spanish regions.

**METHODS:** Multicentre, retrospective study based on data from electronic records of patients seeking care during 2003 in the autonomous regions of Aragon, Balearics and Catalonia.

**Principal measurements:** universal variables (age, sex, health service-family practice/paediatrics), variables of morbidity (resource utilization bands [RUB]) and dependent variables (visits, episodes and pharmacy cost). The ACG case-mix System software (version 7.0; n = 106) classified subjects into a single category for a given annual resource consumption. A log transformation of dependent variables was carried out to reduce skewness of the distribution and make it close to normal. Statistical software: SPSSWIN, p < 0.05.

**RESULTS:** Study population: 286,450 (Aragon: 49.3%; Balearics: 23.2%; Catalonia: 27.5%), annual coverage: 75.5% of the population, patient’s mean age: 42.9 ± 23.6 years, percentage of female patients: 54.1%, mean number of consultations: 7.3 ± 7.1, 6.6 ± 7.0 and 8.0 ± 8.1 correspondingly, p < 0.001. Patient’s case-mix: 55.0% of the study population was grouped into 10 ACG. A high variability was observed among regions with differences in the average values of RUB (2.9 ± 0.8; 2.3 ± 0.8; 2.4 ± 0.8) and pharmacy cost (€361.67; €242.01; 290.89), p < 0.001. The explanatory power of the ACG classification system was 30.7% (Ln: 41.2%) for visits, 87.6% (Ln: 87.1%) for episodes and 21.3% (Ln: 39.9%) for pharmacy cost, p < 0.001.

**CONCLUSIONS:** The fact that patient’s morbidity load is adequately correlated with attended consultations and pharmacy cost reinforces the appropriateness of the ACG system when associating clinical and economic information from health care centers in Primary Care. In consequence, case-mix adjustment must be considered for clinical decision-making and financial management in Primary Care.

**PHP34**

**COSTS ASSOCIATED TO ADDITIONAL TEMPORAL SICK LEAVE DAYS IN THE IMSSS**

Contreras-Hernandez I, Olvera-Gomez JL, Garduño-Espinosa J
Social Security Mexican Institute, Mexico City, Mexico

**OBJECTIVES:** Financial protection of the affiliated workers to the Social Security Mexican Institute (IMSS) is one of its core functions; however it also generates outlays to the health system. This study estimates the associated cost to additional sick leave days due to medical causes and/or due to inefficiencies on the system.

**METHODS:** A cost study was made from the perspective of the institution through a prospective cohort of male and female patients to whom it was prescribed temporal sick leave days due to diseases not related to the work environment (general disease), a follow-up was scheduled until their return to their work place and the cost of medical attention was calculated; this included ambulatory consult, drugs, lab exams, urgency service assistance, surgery, hospital time and payment under the concept of sick leave. All patients must have an estimation of the probable number of recovery days, those who required additional days were identified and the causes that triggered a longer lapse.