with the introduction of generic lovastatin, atorvastatin was launched and appeared to benefit from the decline in A&P of lovastatin, as did pravastatin.

CONCLUSION: Evidence exists in each of the three markets reviewed to support the hypothesis for two of the three therapeutic classes investigated. There appeared to be a trend toward a significant increase in growth in competitive branded compounds in both the SSRI and statin markets following introduction of the first generic drug.

**PHP 16**

**A EUROPEAN HEALTH STATUS INDEX BASED ON PREFERENCES OF THE GENERAL PUBLIC**

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**OBJECTIVE:** Responsiveness has been pointed out by the WHO as one of the main objectives for any health system. Portugal, despite being in the expected place among other countries and taking into account the level of health of its citizens and the level of cultural and economic development, is placed very low when responsiveness is considered. This study aimed at assessing the perceptions of Portuguese citizens as users of primary care.

**METHODS:** A representative sample of users of all health centers within an entire health region was asked about how responsive primary care was. Users’ satisfaction was measured via the Portuguese version of the Euroqol questionnaire. This instrument mainly measures relationship and communication, medical care, information and support, continuity and cooperation, and service organization. Four thousand answers were received (40.5% response rate) from a survey performed in major urban and rural areas.

**RESULTS:** 62% of users were female with an average age of 47 years, 50% with low or very low education and with an average of 5.2 visits per year. Approximately 12% felt a good or excellent quality of life and 71% mentioned having a chronic disease. The results indicated a higher satisfaction from users about the doctor-patient relationship, both in caring (76%) and curing (70%) aspects. The areas related to the organization were, however, very penalized by patients (49%). Open-ended questions revealed the same profile but provided greater insight about the source of the dissatisfaction. The results were also compared taking into account gender, age, education and quality of life.

**CONCLUSION:** Paraphrasing Deming, it is common to observe a majority of areas of concern among the organization’s management and administration. Health-care setting is not an exception. After this diagnosis, based on patients’ views, it is advised to look with more attention at these aspects.

**PHP 17**

**THE MEDICAL WARD TEAM—A PILOT STUDY**


**Clalit Health Services, Tel Aviv, Israel**

**OBJECTIVE:** To derive one European EQ-5D value set that can be used to calculate a European EQ-5D health-status index based on preferences of the general public. EQ-5D from the EuroQol Group is an instrument capable of summarizing health-related quality of life into a single index value by applying general population preference weights. Values have been derived for EQ-5D health states using the visual analogue scale (VAS) or time trade-off (TTO) approaches. The option to derive European VAS- and TTO-based EQ-5D health status models has been investigated.

**METHODS:** Multi-level analysis was performed on 82,910 observations of VAS values derived from 11 studies in different countries and on 50,780 TTO observations derived from three studies.

**RESULTS:** After controlling for background variables, it was found that the country of origin of the study did not have a consistent effect on the VAS valuations of the EQ-5D health states. The evidence shows that European countries may share a similar value system for VAS ratings of health states. All coefficients have the right signs, while the values all differ from zero and produce values that are plausible. The explained variance by the model describing VAS values is 74.5%. Multilevel analysis of the TTO valuations revealed that on average the German values are 20% higher than the English and Spanish values. Half of this difference can be explained by controlling for background variables.

**CONCLUSIONS:** These results suggest that while more work is required to establish a European TTO-based health-status index, a European VAS-based EQ-5D health-status index is viable. A European health-status index has two advantages: i) An index would not have to be generated separately for each European country, and ii) the index can be used in multi-national randomized clinical trials examining cost effectiveness of pharmaceutical products.

**PHP 18**

**THE CLINICAL PHARMACIST AS A MEMBER OF THE MEDICAL WARD TEAM—A PILOT STUDY**


**Clalit Health Services, Tel Aviv, Israel**

**OBJECTIVE:** To assess the number and type of pharmaceutical interventions for medical wards during the initial three-month period of a new clinical pharmacy service.

**METHODS:** The clinical pharmacist participated in daily rounds and other ward activities to review patient data and determine necessary interventions. A computerized evaluation and intervention form was developed to include patients’ demographic details, diagnoses, laboratory results, medication use and the reason for the inter-
vention. The main intervention areas were: adverse drug effects; incorrect dosage; polypharmacy, and drug-drug, drug-disease and drug-food interactions. Based on this data, the pharmacist suggested specific changes in drug treatment including route of administration, changing dosing, eliminating drug interactions and preventing life-threatening drug combinations. In addition the clinical pharmacist provides pharmaceutical information to physicians and nursing staff.

RESULTS: We reviewed approximately 2300 medical records and found one or more interventions in 11% of the cases. The main type of interventions were: 99 (38.9%) unnecessary drugs; 51 (20%) incorrect dose; 47 (18.5%) drug information; 26 (10.2%) adverse drug reaction; 17 (6.6%) drug-drug interactions, and 14 (5.5%) therapeutic drug monitoring. It should be emphasized that 112 drug interactions with varying degrees of severity were prevented. The physicians, in 96% of all interventions, accepted the clinical pharmacist’s recommendations.

CONCLUSION: The results demonstrate that the clinical pharmacist contributes substantially to the quality of patient care involving drug-related problems. In addition, this intervention may reduce length of hospital stay and lower drug costs.

THE ECONOMIC BURDEN OF PHYSICAL INACTIVITY IN SWITZERLAND

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OBJECTIVES: To estimate the number of patients and costs for the treatment of selected diseases in Switzerland, depending on physical activity level. Calculation of accidents due to sport or other causes.

METHODS: Top-down approach, modeling the number of cases and deaths due to coronary heart disease (CHD), hypertension, non-insulin-dependent diabetes (NIDD), mammary cancer, colon cancer, lower back pain (LBP), brief recurrent depression, osteoporosis. Distinction by activity level (active or not). Decision tree model for calculating the number of accidents, disability, and deaths due to sports and general accidents. Inclusion of direct costs, indirect costs, and transfer payments. A comparison of disease and accident costs was not possible, because accidents could not be separated by activity level.

RESULTS: The burden of disease is 8.5 billion SFr in direct and 6 billion SFr in indirect costs. The inactive population (37%) incurs most of the direct costs (49%, 4.14 billion SFr). Diseases occurring in the active population (61%) require 2.7 billion SFr a year. Each physically inactive person costs 2595 SFr per year; active people, 1700 SFr per year. The risks attributable to physical inactivity are: CHD, 24%; hypertension, 15%; NIDD, 24%; mammary cancer, 12%; colon cancer, 25%; LBP, 12%; depression, 44%; osteoporosis, 27%. The proportion of costs for diseases caused by physical inactivity is 16%.

Total number of general accidents is 670,000, plus 299,000 sports-related accidents. 1875 accident-related deaths occur, with only 161 (9%) of them caused by sport. The ratio of the yearly direct costs of non-sport/ sport-related accidents is 3.4 / 1.1 billion SFr, and the ra-