in Finland since 1980 and also slightly from 1990, but real prices have constantly decreased. Depending from the adjustment index used, the real prices of all drugs have decreased 35–67% since 1980, or 16–40% since 1990. For reimbursed drugs the development was similar; in Basic Refund category real prices have decreased 24–46% since 1990, and even 45–72% since 1980. Since the effectiveness of drugs has not decreased during the time period studied, we suggest that the cost-effectiveness of drug treatment has clearly increased in Finland.

**MANAGING ACUTE INJURIES RESULTING FROM MOTORCYCLE ACCIDENTS: EMERGENCY DEPARTMENT AND INPATIENT HOSPITAL RESOURCE USE AND COSTS**

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**OBJECTIVES:** To examine resource use and cost of Emergency Department (ED) and hospital care for acute injuries resulting from motorcycle accidents. METHODS: 2003 ED visit and hospital discharge data from Massachusetts, where a mandatory age helmet law applies, were analyzed. Cases with motorcycle accident-related injuries were identified by ICD-9 diagnosis and external cause codes (E codes: E810.2–E825.2, E810.3–E825.3). Inpatient cases were restricted to those admitted via ED. Type and circumstance of injury, time of occurrence, demographics, costs, length of stay (LOS) and disposition were examined. Charges were adjusted by a 0.55 cost-to-charge ratio and adjusted to national values. Cost estimates (2003US$) include accommodations and ancillary services. RESULTS: Acute injuries from motorcycle accidents resulted in 3066 ED visits and 420 hospitalizations during the year. Males comprised 87% of cases; injured party was driver in 95%. Mean age was 32 years (49% < 30 years). The majority (76%) occurred between May–September, Friday–Sunday (32%), and 4:00 PM–midnight (34%). Multiple injuries were noted in 44% of cases. Head injury/skull fractures were coded for 8%, Fatalities were noted in <1% of cases. On average, hospital LOS was 7 days (±10.1) with cost per stay of $19,535 (±$34,688). At hospital discharge, 82% went home (14% with home care), 17% transferred to sub-acute facilities, 1% AMA. ED visit cost without hospitalization was $787 (±$1,136) and was 2.7 hours (±3), on average. Management of these injuries resulted in use of 2877 hospital days and 9274 ED visit hours at a cumulative cost of $10.5 million. CONCLUSIONS: This analysis shows that nearly half of the motorcycle accident victims sustained more than one injury; the majority survived, and most acute injuries were managed successfully in the ED. Although substantial, these acute care costs are conservative estimates of injury-related costs, as they do not include physician-related or post-acute care costs.

**PHARMACEUTICAL CARE IN GREECE: A CITIZEN SATISFACTION SURVEY**

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**OBJECTIVES:** To evaluate user satisfaction from pharmaceutical care and determine the factors affecting it in Greece. METHODS: A telephone survey was conducted by using a random sample of 1000 individuals, stratified by age, county and gender. A questionnaire was designed, containing questions about the characteristics of the drug users, their out of pocket spending on pharmaceuticals, the type and shape of the drug and their satisfaction from medication. A logistic regression is done, using as dependent variables various dimensions of satisfaction, such as: (a) the drug effectiveness, (b) the drug shape, (c) the health professionals’ responsiveness, (d) the appearances of side effects and (e) the price adequacy. As independent variables various characteristics of the respondents are used such as demographic, epidemiological and socioeconomic factors. RESULTS: 80% of Greek population is high satisfied from pharmaceutical care, 91.93% from health professionals’ responsiveness, 86.03% from the non appearances of side effects, 85.59 % from the drug shape, 62.99 from price adequacy and 59.78% from the drug effectiveness. Satisfaction from the drug shape, appearance of side effects, drug effectiveness and improvement of health depend on health status. Individuals of better health status have a higher probability to evaluate higher their satisfaction from medication. Satisfaction from health professionals’ responsiveness depends on age. Older individuals have a higher probability to evaluate higher their satisfaction from health professionals’ responsiveness. Satisfaction from price adequacy depends on age, social class and degree of urbanization. Lower social class older individuals and cities residents have a lower probability to eval-
uate higher their satisfaction from price adequacy. CONCLUSIONS: The evaluation of users’ satisfaction from medication as well as the determination of the factors affecting it should be incorporated into the third party payers, the pharmaceutical industry and the Greek government decision making.

**THE IMPACT OF MEDICARE MANAGED CARE ON USE OF VA PHARMACY SERVICES**

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OBJECTIVE: Many Medicare enrolled veterans view the Department of Veterans Affairs (VA) as a preferred source of pharmacy services, even when they have access to pharmacy coverage elsewhere. With the implementation of the Medicare pharmacy benefit imminent, the objective of these analyses was to examine how one alternative source of pharmacy care, Medicare managed care (HMO) enrollment, affects the use of VA pharmacy services. METHODS: We combined national calendar year (CY) 2002 Medicare enrollment data for Medicare-enrolled VA users with pharmacy cost records from the VA's National Decision Support System (DSS) files. VA users were identified as a Medicare HMO enrollee if they were enrolled in a Medicare HMO at any time during CY 2002. RESULTS: In CY 2002, 2.3 million Medicare enrolled veterans (5.4% of all Medicare beneficiaries) received medications from the VA, at a total cost of $2.4 billion (68% of all VA pharmacy costs). Across the 127 individual VA medical centers (VAMCs) there was wide variation in the percentage of HMO enrollees among Medicare enrolled pharmacy users (from <1% to >49%) and in the percentage of pharmacy costs associated with their use (from <1% to >41%). HMO enrollees were just as likely as non-enrollees to use VA pharmacy care, although the average annual cost of their care was lower—$847 per year [sd = $1969] versus $1101 [$2794] for non-enrollees (p ≤ 0.0001). CONCLUSIONS: VA users who are enrolled in Medicare HMOs continue to use VA pharmacy services, even though the majority of them have access to pharmacy coverage through their HMO plans. Although the implementation of the Medicare prescription drug benefit in 2006 is expected to increase access to prescription drugs for Medicare beneficiaries, the VA will likely remain a significant pharmacy provider for Medicare enrolled veterans.

**AN INTRODUCTION TO HEALTH TOURISM AND MEDICAL TOURISM**

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OBJECTIVES: To provide a comprehensive and systematic review of the literature on medical tourism and health tourism, to present a grounded conceptual model for the constructs and to provide a historical background on the matter. METHODS: “Medical tourism” and “health tourism” were separately searched using the Medline database to review the literature on the availability and use of the terms. Given the limited results for both terms, the broader term “tourism” was searched. Entries referring to a type of tourism were investigated further for classification of the variants of tourism and to understand their nature and context of use in the field. RESULTS: The Medline search for “medical tourism” generated only nine results while the term “health tourism” produced 15 results. The term “tourism” produced 445 entries 177 of which were non-English; all languages were considered in the abstract review. Of the 445 entries, 58 types of tourism and four categories were generated with “well-being” as main reference for the grounded conceptual model. Analysis of the results revealed that an explicit definition for either term is the exception rather than the rule and that the two terms are treated as similar concepts. CONCLUSION: The review of the literature underlined the problem of a severely limited literature and the lack of consensus on definitions and clarity on the conceptual framework. This paper defined health tourism as travel outside one's local environment for the maintenance, improvement or restoration of the individual's well-being in mind and body while medical tourism, a subset of the health tourism is travel outside one's natural health care jurisdiction for the improvement or restoration of the individual’s well-being in mind and body. This overview has presented that as a matter of history, the concept of health tourism and medical tourism is not new.

**PRICING POLICIES FOR THE PHARMACEUTICAL MARKET—AN INTERNATIONAL PERSPECTIVE**

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OBJECTIVES: Governmental price regulation of drugs has become a popular measure to contain health care spending. The aim is to evaluate the effectiveness of selected demand and supply side measures, keeping in mind crucial factors in this market, for instance the free rider problem and moral hazard. METHODS: To analyze reference price limits on reimbursement a static two class product model is introduced. Besides this measure additionally patents, parallel imports as supply side price regulation and drug budget for physicians and generic drugs as demand side price regulation will be reviewed. RESULTS: By using a sequential price-setting process within the model it can be shown that applying marginal cost pricing for drugs clustered within Phase 1, welfare can be increased. If government sets the reference price equal to the marginal costs welfare can be increased without free riding on the sunk R&D costs of researching pharmaceutical firms because the patent protection has expired. To give a comprehensive evaluation of the other pricing policies the interactions between regulative measures are taken into account. CONCLUSIONS: In the past too many regulative measures to contain health care expenditures have been targeted primarily to supply side measures or to demand side measures. But, regulation that only applies on one side does little to control the rising expenditures. Without simultaneous use of demand side incentives and volume controls, pharmaceutical expenditures probably can not be reduced effectively.

**MULTIPLE APPRAISAL OF DRUGS IN THE UK HEALTH CARE SYSTEM**

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OBJECTIVES: To review the three national bodies responsible for health technology assessment in the UK: the National Institute for Health and Clinical Excellence (NICE), the Scottish Medicines Consortium (SMC) and the All Wales Medicines Strategy Group (AWMSG); to judge their fitness for purpose; and to assess the value of a multi-layered system. METHODS: The working of the organisations was classified under four headings: objectives and scope; assessment of technologies; the decision process; implementation. The main source of information was the documentation produced by these bodies on their rules,