OBJECTIVES: China’s health care expenditure is one of the largest in the world and is set to grow strongly in the foreseeable future. A greater understanding of the impact of economic and policy factors on China’s health care expenditure and its growth trend will help major pharmaceutical firms make strategic plans in the emerging markets. METHODS: Dynamic least squares regression was used on annual provincial data series from 2000 to 2013. The dependent variable was real health care expenditure (RPCHE). The explanatory variables included real per capita GDP (RPCGDP), relative price for consumer health spending (RPCMED) and lagged variables. The analysis used data from WHO, China Statistical Yearbook and IHS Global Insight, London, UK. RESULTS: A negative correlation was found between estimated RPCHE and RPCGDP; and a positive correlation between estimated RPCHE and RPCGDP. The main results can be summarized as follows: 1) For every 1% rise in the growth rate of RPCGDP, there is a 1.16% decrease in the level of RPCHE, and 2) the income elasticity of real health care expenditure is 1.5%. Based on the estimations, forecasts on total health care expenditure were made for the forecast period (2012-2020). The main independent variables—RPCMED and RPCGDP—were derived from IHS Macro for the forecast period. To capture health care policy’s impact on health care expenditure, and factors were used in the forecast. According to the forecast, China’s total health care expenditure is projected to grow 15.8% this year and 14.8% next.

CONCLUSIONS: In terms of economic impact, relative price for consumer health spending and income play a major role in determining health care expenditure. In terms of policy impact, China’s health care expenditure may increase with economic expansion—but will be a key driver of health care expenditure growth throughout the forecast horizon, although there are increasing pressures on pricing and significant regional disparities.

PHP48 HEALTH FINANCING FOR PRISONERS WITH HIV: LESSON LEARNED FROM INDONESIA
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OBJECTIVES: The purpose of this study was to collect information on prevention and care treatment programs among prisoners in two prisons: Jakarta and Bali and who finance the program. METHODS: Retrospective data was collected from two prisons: Bali and Jakarta. Cost was estimated from government and partners perspective. Both quantitative and qualitative analysis were done. A modified activity-based costing was done supported with document review and interviews. RESULTS: HIV intervention in Indonesia has been improving with support from the Government and international partners. At the moment several prisons in Java are chosen as model for HIV/AIDS programs for prisoners, including VCT, Lab-test, ART, OI treatment and hospital care. Total spending in Bali was USD 26,239 per year and unit cost was USD 78, while in Jakarta unit cost was USD 426. These spending even higher if other activities such as substitution and treatment at hospital were included. Some programs such as Methadone therapy, condom and ART were conducted in collaboration with District Health Office and local hospital, and funded by government. Interestingly, program for prisoners in Bali includes spiritual therapy such as yoga and dancing, initiated using funds from international partners. High cost for CD4 and ART were covered by central government, while operational cost was supported by external funding. Networked with other institution because no direct costs actually covered by the prisoners themselves. CONCLUSIONS: Most of program intervention for prisoners supported by external partners. Sustainability issue remain unclear since donor funding will be finished soon and must be replaced by government. Local government is expected to support continuity of the program. But regions with low fiscal capacity are not able to ensure program continuity.

PHP49 DOWN-SCHEDULING MEDICINES FROM PRESCRIPTION TO OVER-THE-COUNTER: WIN-WIN?
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OBJECTIVES: Each year over a million patients in Australia delay seeing a General Practitioner (GP), and a similar number do not fill their prescriptions, because of the cost. This study assesses whether financial incentives can reduce economic and morbidity implications in the long-term. In addition, reduced uptake affects company revenue. Currently the US Food and Drug Administration (FDA) is considering a range of measures to improve access to medicines, including making more drugs used for common, under-treated conditions, available over-the-counter (OTC). This study aimed to group GPs and estimate co-payment cost savings generated from OTC formulations to one of the patient and manufacturers for a sample of medicines that are available both OTC and on prescription in Australia.

METHODS: Costs of accessing diclofenac (25mg tablets) and omeprazole (20mg tablets) via a GP prescription were compared to those for OTC. For medicines obtained on prescription, patients needed to pay the co-payment cost for the PBS listed product. Therefore, an OTC strategy also appears to decrease the direct costs of treatment for patients, while simultaneously increasing the price per tablet to manufacturers: a win-win situation.

PHPS1 REVIEWED CLOSED INTRAVENOUS CATHETER SYSTEM REDUCES THE OCCURRENCE OF THE CATHETER REPLACEMENT AND THE COST
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OBJECTIVES: Replacement of Peripheral Venous Catheter (VC) is sometimes required prematurely due to extravasation, catheter damage, complications such as phlebitis. This is a significant economic benefits of an integrated closed intravenous system (CIS) with pre-attached stabilization platform and extension tube (Catheter A) which may reduce the occurrence of unplanned catheter replacement. METHODS: A prospective, open, quasi-random, and controlled study was conducted to compare a regular catheter (Catheter B) in a 286-bed general hospital in Japan. Patients requiring PVCs for 72 hours or more were enrolled and assigned to either Catheter A Group (Group A) or Catheter B Group (Group B). Both catheters were secured with the same procedure and regularly observed until removal. The Kaplan-Meier estimate for the replacement rates for both catheters for 72 hours was calculated, and the cost difference between the groups was obtained using product prices and average nursing fees published by the government. RESULTS: There were 358 patients evaluated: 193 in Group A and 165 in Group B. One hundred forty three patients in Group A and 109 patients in Group B required catheter replacement because of extravasation, catheter damage, complications, or scheduled catheter removal. The remaining 106 patients from both groups had catheters removed for unexpected reasons such as earlier end of therapy and self-withdrawal. Excluding those 106 patients, there was a significant difference in the catheter survival curve between Group A and B (p=0.01, log-rank test). The total cost of catheter replacement for 72-hour use was 393 yen for Group A and 704 yen for Group B. CONCLUSIONS: The cost difference between two catheters can be offset by savings generated from a lower event rate. Along with total cost benefit, use of FD G-CSF is considered to provide improved safety to patients through decreased complications.
Malaysia, 3
To assess the influence and role of antineoplastic and immunomodulating agents in works and recommendations of AOTM until the end of 2011 were reviewed and analyzed from the official website of AOTM. The recommendations related to antineoplastic and immunomodulating drugs were distinguished. RESULTS: Among 105 (74%) of them connected with antineoplastic and immunomodulating agents. 105 (74%) of them regarding oncology treatment. Recommendation for non–drug technologies were connected with antineoplastic and immunomodulating agents. 105 (74%) of them regarding oncology treatment. Recommendation for non–drug technologies were connected with antineoplastic and immunomodulating agents.

METHODS: This intervention study was conducted by geriatric team from March 2011 until Aug 2011 in a medical center in Taiwan. Medication assessment was undertaken in elderly outpatients aged 65 years or older who prescribed five or more drugs concomitantly on the date of inclusion. We provided Comprehensive Geriatric Assessment (CGA) to the patients. This process involves a comprehensive medication history interview by pharmacist, structured therapy assessment, and open communication between members of the medical team. RESULTS: A total of 51 patients were included during the period. The mean age was 79.4 (± 13.4) years, 53% were women. The patients took an average of 11 different long term medications. Medication reduction during 3 consequence pharmacist consulting in clinic visit were 37.7%, 38.8%, 44.2% respectively. Finally, the mean number of medications prescribed per patient was 7.8. CONCLUSIONS: Pharmacists involved in CGA has been effective in reducing number of medications and daily drug doses for patients by facilitating discontinuation of unnecessary or inappropriate medications.

PHP54
CHEMICAL DRUG PRICE INDEX STUDY
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OBJECTIVES: To accurately reflect actual price level of chemical drugs and changes, this study deeply explored influencing factors of chemical drug price, constructed chemical drug price index system and meanwhile sought methods to establish price index of a specific type of chemical drugs. METHODS: Combination of qualitative and quantitative methods were used to establish chemical drug price index system. Qualitative methods were used to determine criteria for selecting chemical drugs representatives. Field survey was used for data collection. RESULTS: On the basis of chemical drug classification, representatives were determined step by step. By collecting chemical drug price data in representative regions and manufacturers, chemical drug price index was proposed. Feasibility to establish chemical drug price index system was explored and several main price indexes were proposed.

CONCLUSIONS: First, this study proposed specific methods to establish chemical drug prices and solved the problem of selecting representative from various chemical drugs. Second, quality adjustment decision process was proposed and key quality adjustment methods were explored. Finally, as it is difficult for a single overall chemical drug price index to completely reflect the general view of chemical drug price level and changes in our country, this study proposed an index system including overall index, essential drug index and antibiotic index based on the need of reality.

PHP55
PERCEPTION TOWARDS HEALTH PROMOTION ACTIVITIES: FINDINGS FROM A CROSS SECTIONAL SURVEY AMONG URBAN POOR POPULATION IN THE STATE OF PENANG, MALAYSIA
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OBJECTIVES: To provide information on the perceptions towards health promotion activities among urban poor population of Malaysia. METHODS: The study was designed as a questionnaire based cross-sectional analysis. General public from the district of Jelutong which is located in the state of Penang, Malaysia was conveniently approached for the study. The questionnaire asks about perceptions and responses related to health promotion activities. More than 35% of the patients age between 30 - 44 years old in both groups. The direct medical cost including cost of medical care, cost of hospitalization and cost of laboratory.

RESULTS: The profile of the inpatients who were identified using a list of ICD-10 and admitted in Prathom Hospital. They were divided into 2 groups 1) the patients admitted with the diagnosis of acute myocardial infarction and 2) the patients admitted with the diagnosis of angina paroxysm. The direct medical cost excluding the part of hospitalization. The direct medical cost including cost of medical care, cost of hospitalization and cost of laboratory. RESULTS: During study period 34(19.32%) cases of hospitalization patients admitted because of ADRs because of ADRs and 142(80.68%) cases were verified to have ADRs after admission and 157(77.84%) cases were excluded because they developed ADRs but not extended their hospitalization.

PHPS7
CLINICAL EFFECTS OF PHARMACIST INTERVENTIONS FOR POLYPHARMACY IN A GERONTOLOGIC CLINIC IN TAIWAN
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OBJECTIVES: To evaluate clinical pharmacist interventions in geriatric outpatients in terms of reduce the potentially deleterious consequences of polypharmacy. METHODS: This intervention study was conducted by geriatric team from March 2011 until Aug 2011 in a medical center in Taiwan. Medication assessment was undertaken in elderly outpatients aged 65 years or older who prescribed five or more drugs concomitantly on the date of inclusion. We provided Comprehensive Geriatric Assessment (CGA) to the patients. This process involves a comprehensive medication history interview by pharmacist, structured therapy assessment, and open communication between members of the medical team. RESULTS: A total of 51 patients were included during the period. The mean age was 79.4 (± 13.4) years, 53% were women. The patients took an average of 11 different long term medications. Medication reduction during 3 consequence pharmacist consulting in clinic visit were 37.7%, 38.8%, 44.2% respectively. Finally, the mean number of medications prescribed per patient was 7.8. CONCLUSIONS: Pharmacists involved in CGA has been effective in reducing number of medications and daily drug doses for patients by facilitating discontinuation of unnecessary or inappropriate medications.

PHP58
DIRECT COST OF ADVERSE DRUG REACTION TREATMENT IN HOSPITALIZED PATIENTS IN NAHKON PATHOM HOSPITAL, THAILAND
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OBJECTIVES: To determine the direct medical cost of treatment in hospitalized patients with adverse drug reactions (ADRs) in regional hospital in the provider’s perspective. METHODS: The direct medical cost were collected from hospital financial record of patients who were admitted due to the treatment of polypharmacy adverse drug reactions documented in special ward 4/2 in the fiscal year 2009 (From 11/7/2008 - 9/30/2009) in Nakhom Prathom Hospital. They were divided into 2 groups 1) the patients admitted with ADRs, and 2) the patients who admitted and developed ADRs after admission so that the difference in the hospitalization and medications cost. The direct medical cost including cost of medical care, cost of hospitalization and cost of laboratory. RESULTS: During study period 34(19.32%) cases of hospitalization patients admitted because of ADRs and 142(80.68%) cases were verified to have ADRs after admission and 157(77.84%) cases were excluded because they developed ADRs but not extended their hospitalization. More than 35% of the patients age between 30 - 44 years old in both groups. The 22(56.41%) patients in group 1 did not previously have ADR. Using Naranjo’s Algorith found that more than 60% of the patients were categorized in probable class. ADR occurred in both groups more than 40% cause by antibiotics. Most frequent ADR were maculopapular(30.77%) and urticaria(15.38%) as well as occurring more than 1 symptoms(15.38%). Total direct medical cost in fiscal year 2010 from patients in both groups was estimated at 185,955.75 Thai Baht, average direct medical cost 4,767.58 Thai Baht per patient. The average direct medical cost in group 1 and group 2 was 7,074.94 Thai Baht and 2,677.85 Thai Baht per paper respectively.

CONCLUSIONS: This study emphasized medical and economic impact of the ADRs treatments. ADR surveillance and pharmaceutical care activities would be compared the cost and benefit.

PHP60
RATIONAL PHARMACISTS’ JOB SATISFACTION: ANALYSIS THROUGH VARIOUS JOB CHARACTERISTICS
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OBJECTIVES: Concerning insufficient collected data about pharmacists’ job satisfaction in the Middle East and also in Iran, this countrywide study was conducted to determine Iranian pharmacists’ job satisfaction in some job characteristics; additionally, some causes of dissatisfaction among pharmacists have been diagnosed. METHODS: A job satisfaction questionnaire was developed and reliability tests were done by some experts in field of pharmacy practice. Then a sample

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