OBJECTIVES: The aim of this study is to assess for 2012 the cost of diabetes from a payer perspective, based on the French health insurance database and using two different approaches (top-down versus bottom-up). METHODS: Using information on about 60 millions of individuals from the general scheme insurance database (85% of the French population), we developed algorithms to identify all people who received care for each of 56 groups of diseases or medical events or treatments, which are frequent, severe and/or costly. Algorithms have been validated per each patient. For diabetes, we used ICD-10 diagnoses for long-term chronic diseases, reimbursement for anti-diabetic drugs. Costs of all reimbursed expenditures (out-patient, care for morbidity/sickness benefits) were extracted per individual. The top-down method allocated expenditure to each of the 56 diseases based on the average expenditure by disease calculated for individuals with only one disease. All expenditures were thereafter extrapolated to the whole population to fit national health account aggregates. For the bottom-up approach, diabetes expenditures were estimated by identifying finely in our database expenditure items which are partly or wholly directly related to diabetes according to expert judgment. RESULTS: Based on the top-down approach, among the 146 billion euros of expenditures reimbursed by national health insurance (all insurance schemes) in 2012, 7.5 billion (5%) are attributable directly to diabetes. Expenditures for chronic renal insufficiency and cardio-vascular disease, frequent diabetes complications, were identified separately (FM): FM diabetes represents more than 50% of the diabetes expenditures, other outpatient care 34% (2.5 billion), inpatient care 9% (700 million) and disability/sickness benefits 7% (0.5 billion). Sensitivity analysis on our bottom-up approach is currently being completed. CONCLUSIONS: Our study provides estimation of the cost of diabetes from a payer perspective, according to two different approaches but with concordant results.

PDB53
DIRECT COST OF DIFFUSE TOXIC GOITER AND ITS COMPLICATIONS IN UKRAINE
Valeriy A, Tetyana P, Tetyana Z
Ivan Franko University Ternopil State Medical University, Ternopil, Ukraine

OBJECTIVES: To determine the direct cost of health care technologies used for treatment of diffuse toxic goiter in Ukraine. METHODS: We made the retrospective analysis of 52 patients’ medical records with DTG that were hospitalized to the endocrinology department of Ternopil University Hospital (Jan-Dec 2012). The method of pharmacoeconomic analysis “cost of illness” was used to estimate the cost of treatment in our sample. In the DTG patients with complications. In the top-down approach, we calculated the cost of laboratory analysis, the cost of instrumental analysis, the cost of drug treatment, doctor’s consultations, costs of patient’s stay in hospital. While determining the direct costs of medical services in monetary terms we used the rates for medical services that were in Ternopil University Hospital. RESULTS: The study found that among the patients there were 11 (21.15%) men and 41 (78.85%) women aged 20 to 65 years (46.8±9.4). All patients have got to the hospital in stage of medication sub-compensation. The average duration of stay in hospital for patients was 10.7±2.7 days. The total cost of laboratory tests was EUR 1,555.53. The cost of instrumental methods of patients examination amounted EUR 204.25. The cost of consultations by specialists was EUR 285.97. In total patients spent EUR 1,086.79 on medicines. We found that the cost of drug treatment of the underlying disease is EUR 211.83, the cost of drug therapy of DTG complications is EUR 1,163.64. Total cost of patients’ stay in hospital was EUR 3,513.45. After statistical analysis we determined that the total cost of DTG per patient is EUR 133.36 per course of treatment. CONCLUSIONS: In the cost structure of health care provision for patients with diffuse toxic goiter the most significant costs were spent for laboratory tests and for patient’s stay in hospital. The presence of underlying disease complications significantly increases cost of drugs.

PDB54
COMPARISON OF THE ECONOMIC BURDEN AND HEALTH CARE UTILIZATIONS OF U.S. VETERAN PATIENTS DIAGNOSED WITH TYPE 2 DIABETES MELLITUS
Ala H1, Kariyono M2, Wang Y1, Baser O1
1STATMedResearch, Ann Arbor, MI, USA, 2STATMedResearch and The University of Michigan, Ann Arbor, MI, USA

OBJECTIVES: To evaluate the economic burden and health care utilizations of Type 2 diabetes mellitus (T2DM) among U.S. veteran patients. METHODS: Top-down approach (International Classification of Disease 9th Revision Clinical Modification [ICD-9-CM] diagnosis codes 250.x0, 250.x2) were identified using the U.S. Veterans Health Administration Medical SAS datasets (01OCT2008–31SEP2011). The first diagnosis of type 2 diabetes was defined as the index date. A comparison cohort of patients without a T2DM diagnosis but of the same age, region, gender and index year were identified and matched according to baseline Charlson Comorbidity Index scores, with a randomly chosen 1:3 ratio of patients to minimize selection bias. Patients in both cohorts were required to be at least age 18 years, with 1-year continuous health plan enrollment pre- and post-index date. Baseline body mass index (BMI) and glycated hemoglobin (HbA1c) values were obtained. Healthcare costs and expenditures were成本 using 1,1 popensity score matching (PSM). RESULTS: A total of 1,211,748 T2DM patients were identified for study. T2DM patients had significantly higher HbA1c (7.25 vs. 5.78, p<0.0001) and BMI (31.75 vs. 29.16, p<0.0001) results during the baseline period. After adjusting for baseline differences, T2DM patients had increased 32.9% medical services per patient per month (P<0.0001) and higher diagnostic and demographic characteristics. A higher percentage of T2DM patients had inpatient admissions (8.65% vs. 1.58%, p<0.0001), emergency room (ER) (13.12% vs. 4.44%, p<0.0001) and follow-up health care costs and utilization (retinopathy without surgery), US$1,933 (retinopathy with surgery), US$17 (renal failure) and less (2014) A323–A686

PDB55
MEDICAL EXPENDITURES ASSOCIATED WITH TYPE 2 DIABETES MELLITUS IN JAPAN: A LARGE CLAIMS DATABASE STUDY
Fukuda H1, Ikeda S2, Shirouma T3, Igarashi A4, Fukuda T5
1Kyushu University, Graduate School of Medical Sciences, Fukuoka, Japan, 2International University of Health and Welfare, Aira, Kyushu City, Fukuoka, Japan, 3National Institute of Public Health, Saitama, Japan, 4University of Tokyo, Graduate School of Pharmaceutical Sciences, Tokyo, Japan

OBJECTIVES: The objective of the study was to estimate the excess costs associated with type 2 diabetes mellitus (T2DM) and diabetes-related complications in Japan through the use of a large claims database. METHODS: We performed a retrospective cohort analysis using a large commercial claims database obtained from the Medical Data Center Co., Ltd. (Tokyo, Japan). Data from the period between January 2005 and June 2012 were analyzed. Patients diagnosed with T2DM were identified using the International Classification of Diseases 10th revision (ICD-10) diagnosis codes E11–E14, with the month of initial diagnosis designated as the index month. Cost and health care utilization data from claims for outpatient, inpatient, and dispensing services during the study period were summarized to per-patient-per-month (PPPM) levels. Costs were calculated from the perspective of a payer for both T2DM patients and controls. RESULTS: Diabetes-related complications were identified through the occurrence of the following diseases after the index month and/or their associated treatment: retinopathy, nephropathy, neuropathy/extremity disease, ischemic heart disease, and cardio-vascular disease. Regression analysis examining costs associated with each health state of T2DM were estimated using a fixed-effects model. RESULTS: A total of 8,063,139 PPPM records from 152,791 T2DM patients were identified and examined. The average follow-up duration per patient was 52.8 months. The average incremental cost for T2DM was US$123 PPPM. The average incremental costs for diabetes-related complications were US$94 (retinopathy without surgery), US$1,933 (retinopathy with surgery), US$17 (renal failure), US$1,933 (renal dialysis), US$131 (neuropathy and/or extremity disease without surgery), US$4,498 (neuropathy and/or extremity disease with surgery), US$93 (ischemic heart disease without surgery), US$13,280 (ischemic heart disease with surgery), US$66 (cerebrovascular disease with surgery), and US$2,605 (cerebrovascular disease with hospitalization). CONCLUSIONS: These results of incremental medical expenditure in relation to health state may contribute to economic evaluations of various aspects of health care in Japan.