THE ECONOMIC CONSEQUENCES OF DIABETES TYPE 2 IN POLAND
Niewada MP1, Głogowski CA1, Pietrasik AL1, Łatek M1, Kamiński B2, Gierczynski JM2, Krzyzanowska AM3
1Medical University of Warsaw, Warsaw, Poland; 2GlaxoSmithKline Pharmaceuticals S.A., Warsaw, Poland; 3Warsaw School of Economics, Warsaw, Poland

OBJECTIVES: The Cost Of Diabetes Type 2 In Poland (CODIP) is multicenter, bottom-up designed, retrospective study aimed at evaluation of total cost of diabetes type 2 in Poland. Study design reflects that of CODE 2 (Cost Of Diabetes in Europe Type 2) and allows for international comparison. METHODS: Three hundred three patients diagnosed with type 2 diabetes mellitus (mean age: 61, mean time from diagnosis: 10.86 year, males: 49%) were randomly selected from out-patients charts databases and surveyed. Both patient and practitioner questionnaires collected data from each patient on: clinical characteristic, medical and other resources used, quality of life. Total treatment costs were calculated using drug retail and medical procedures prices. Indirect costs were estimated by human capital approach. The impact of complications on total costs was evaluated. Values are expressed in PLN and also presented in Euro value (PPP value: €1 = 1.9 PLN). RESULTS: A total of 74.6% patients presented comorbidities with coronary arteries disease as most prevalent (20.5%). The total annual treatment costs amounted to 6797 PLN (€3577), including 2460 PLN (€1295) of direct costs. The direct cost structure: 21% physicians consultations, 3% paramedics, 46% diabetic drug costs (insulin 63%, oral hypoglycemic agents and glucagon 37%), hospital costs 29%, emergency service 1%. Calculating expenditures for comorbidities direct costs increased up to 4390 PLN (€2310). Mean cost for patients with no complications amounted to 1892 PLN (€996). The indirect cost is mainly determined by early retirements or morbidity and relatives care costs. CONCLUSIONS: Economic impact of diabetes type 2 in Poland is considerable. Insulin prescription patterns are responsible for large part of drug costs. Diabetes complications are associated with significant total costs increase.

TYPE-2 DIABETES AND HOSPITAL COSTS ACCORDING TO OBESITY: A RETROSPECTIVE ANALYSIS FROM A HOSPITAL DATA BASE IN FRANCE
Riveline JP1, Petit C1, Dinet J2, Sevellec C3, Nabarett H3, Disport T3, Charpentier G1
1Centre Hospitalier Sud Francilien, Corbeil-Essonnes, France; 2Sanofi-Synthelabo Recherche, Bagneux, France; 3Medcost, Paris, France

OBJECTIVES: In a type 2 diabetes population, we calculated retrospectively the hospital costs according to different body mass index (BMI). METHODS: We studied a cohort (n = 2263) of type 2 diabetes patients included up to February 2002 and having undergone at least two visits. The cohort was stratified in 4 BMI groups calculated on the mean measured body weight: 18.5–24.9 kg/m2 (normal), 25–29.9 kg/m2 (overweight), 30–34.9 kg/m2 (obese) and over 35 kg/m2 (very obese). Annual hospital costs per patient for each BMI group were calculated by combining observed Health care resource utilization and official costs data of the Diagnosis Related Group (DRG) system. Health care resource considered and costs were related to management of diabetes (in-hospitalization, day care hospitalization) and complications (myocardial infarction, angina pectoris, transient ischaemic accident and stroke). RESULTS: Number of patients per group was 399, 914, 625, and 325 for normal, overweight, obese, and very obese respectively. Total annual hospital costs (in Euros) per patient were 2357, 2645, 2779, and 2972 for normal, overweight, obese and very obese respectively. In each group, the relative weight of in-hospitalization cost for management of diabetes were 51.2%, 51%, 58.1%, and 64.4% for normal, overweight, obese and very obese respectively. In each group, the relative weight of cost of complications were 8%, 10.8%, 7.3%, and 8.9% for normal, overweight, obese and very obese respectively. CONCLUSIONS: We confirm obese diabetic patients (BMI above 25 kg/m2) generate more hospital costs than non-obese diabetic patients. According to the increase of BMI, we note a progression of in-hospitalization costs for management of type 2 diabetes whereas the proportion of day care hospitalization costs is decreasing. Higher is the BMI, higher are costs dedicated to diabetes care. As opposite, cost of complications remains stable whatever the BMI. Prevention of complications in patient with high BMI may be an explanation to this pattern of care.

PREDICTORS OF EMERGENCY DEPARTMENT VISITS IN ELDERLY PATIENTS WITH DIABETES
Chen GJ, Teuschler H, Moran WP
Wake Forest University Health Science, Winston-Salem, NC, USA

OBJECTIVES: To investigate determinants on use of emergency department in elderly patients with DM. Diabetes mellitus (DM) is a common chronic condition that affects about 10% elderly population in the US. The total direct medical expenditures incurred by people with diabetes are estimated more than $44 billion. It is estimated that individual over the age of 65 years account for approximately two-thirds of all medical costs related to diabetes. Despite fact that a number of studies have examined medical cost and service use in patients with DM, little is know about use of emergency department in elderly patients with DM. METHODS: Using the national representative data of Medicare Current Beneficiary Survey (MCBS) in 1999, 1646 fee-for-service