(34%) and VA respondents (VA-MS 34%, MH/SA 27%, VA-ADR 40%). HHA and SNF respondents reported a similar average maximum number of daily injections per patient (2.7 and 2.9, respectively). Whereas, almost half of the HHA respondents reported restrictions on the number of daily nurse-administered injections that can be delivered (14% also reported that their agencies restricted the types of insulin that nurses can administer), only 10% of the VA-ADR and none of the SNF respondents reported any restrictions on the number of injections (about 18% of VA-MS and VA-ADR respondents reported restrictions on the type of insulin). **CONCLUSIONS:** Insulin treatment patterns and restrictions on T2D patients vary across settings, sometime substantially. There is evidence that care, as measured by nurse administered insulin injections, may be more restricted in home health-care than in institutional settings such as SNFs and VA facilities.

PDB99
UNDERUSED DIABETES MONITORING SERVICES AND OUT-OF-POCKET HEALTH CARE EXPENSES SHARE AMONG AMERICANS WITH DIABETES MELLITUS

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OBJECTIVES: Out-of-pocket (OOP) cost as a component of insurance benefit design has been found to be a barrier to medication adherence or use of preventive care. This study aimed to assess the association of OOP share of total healthcare expenditure (THE) with diabetes monitoring in the United States. **METHODS:** This cross-sectional study analyzed the household component data from the 2009 Medical Expenditure Panel Survey (MEPS). According to the American Diabetes Association guidelines, proper monitoring was defined as at least two A1c tests along with one eye or foot examination annually. The OOP share was measured by the percentage of annual self-paid healthcare expenses out of THE. Insurance coverage was categorized into any private, public only and uninsured. Logistic regression models were employed to control for social-demographics, health status, and treatments among subpopulations with different insurance coverage. Estimates were weighted to the total population (WTP). **RESULTS:** Among 2,445 (WTP: 19,780,759) individuals with diabetes, 66.07% received proper monitoring. Well-monitored individuals had a lower OOP share (20.10% vs. 26.69%) than those that did not receive services. Individuals with private insurance, public insurance, and no insurance reported different OOP share: 21.79%, 15.65%, and 53.30%, respectively. The logistic regressions indicated that individuals bearing high OOP share were less likely to receive proper monitoring among individuals with private insurance and no insurance [odds ratio (OR)=0.99, 95% confidence interval (95%CI)= 0.981-0.999, OR=0.98, 95%CI=0.975-0.987, respectively]. OOP share was not a significant factor in public insurance beneficiaries. Other risk factors included older age, race/ethnic minorities, use of oral antihyperglycemic medications and insulin, and worse health status. **CONCLUSIONS:** Nearly one-third Americans with diabetes did not receive proper diabetes monitoring in 2009. The OPP share was inversely associated with receiving proper monitoring, suggesting the OOP share should be considered in the benefit design for preventive care, particularly among the privately insured.

PDB100
HEALTH CARE UTILIZATION AND COST PATTERNS AMONG DIABETES PATIENTS PRIOR TO INITIATION WITH SAXAGLIPTIN AND OTHER (NON-INSULIN) ANTIDIABETIC MEDICATIONS IN A US HEALTH PLAN

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OBJECTIVES: Health care resource utilization and costs may be indicators of disease severity and overall health status. In observational studies, these factors could influence patients' probability of receiving or benefiting from a particular treatment. We compared pre-index utilization and costs in diabetes patients initiating saxagliptin versus other non-insulin anti-diabetic regimens. **METHODS:** Individuals age ≥18 years and with evidence of T2DM (ICD-9-CM 250.x0 or 250.x2) were identified from a US health plan database. Patients with ≥1 pharmacy claim for saxagliptin (SAXA) between August 1, 2009 and December 31, 2010 were assigned to the SAXA cohort, and patients with ≥1 pharmacy claim (August 1, 2009-December 31, 2010) for other oral anti-diabetic medications or GLP-1 analogs were assigned to the Other cohort. Patients were required to be naive to SAXA or the Other regimen for 12 months prior to the index pharmacy claim. Utilization and costs were measured during a 12 month (pre-index) period before treatment initiation. **RESULTS:** Pre-index, the SAXA cohort (N=4763) had higher rates of all-cause ambulatory visits (14.7 vs. 13.9; p<0.001) and diabetes-related ambulatory visits (5.1 vs. 3.5; p<0.001) versus the Other cohort (N=75,943). SAXA patients had higher pre-index all-cause pharmacy costs ($2808 vs. $1660; p<0.001) and diabetes-related total costs than Other patients ($3683 vs. $2854; p<0.001), driven by higher diabetes-related ambulatory and pharmacy costs (both p<0.001). SAXA patients, however, had lower counts of pre-index all-cause and diabetes-related inpatient visits, all-cause ED visits, and lower all-cause inpatient and ED costs than the Other cohort. **CONCLUSIONS:** In a managed health care setting, pre-index resource utilization and costs of patients initiating SAXA were higher for ambulatory services and pharmacy, but ED visits and inpatient stays were lower, compared with patients initiating other anti-diabetic regimens. These findings suggest SAXA prescribing patterns could be influenced by differences in patients' pre-index clinical characteristics and risk profiles, such as difficulty achieving glycemic control in the pre-index period.

PDB101
DIAPS 79: ESTIMATED HOSPITALIZATIONS ATTRIBUTABLE TO DIABETES MELLITUS IN BRAZILIAN PUBLIC HEALTH CARE SYSTEM (SUS) BETWEEN 2008-2010

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OBJECTIVES: To estimate the hospitalizations and its costs that can be attributed to diabetes mellitus (DM) among hospitalizations occurred in Brazilian Public Health-care System (SUS) between 2008-2010. **METHODS:** Number of hospitalization and associated costs for study period was obtained through a review of government administrative claims database (DATASUS). Hospitalizations with a first-listed diagnosis of diabetes were added to hospitalizations estimated to be due to diabetes by attributable risk methodology (ARM). ARM is based on the formula: $RAP_i = [P \times (RRi - 1)] / [P \times (RRi - 1) + 1]$, where RAP_i is the fraction of population attributable risk for medical condition "i" due to diabetes, P represents prevalence rate of diabetes, and RRi is the relative risk of medical condition "i" for people with diabetes compared to those without it (ADA, 2003). Diabetes prevalence was obtained from VIGITEL-2006, a nationwide random telephonic sample (54,369 individuals). Self-reported and expanded estimates according to diagnosis rate were used. Relative risks of hospitalization for chronic complications and general medical conditions for diabetic subjects were obtained from literature. Results were given for entire population and per 10,000 inhabitants according to national census bureau. **RESULTS:** According to self-reported data, a total of 896,727 hospitalizations were estimated to be related to DM per year in SUS. This corresponds to 47 hospitalizations per 10,000 inhabitants annually in the whole population and can reach up to 318,2 per 10,000 when considering the group aged 75+. Annual hospitalization costs were estimated to be Brz$1,167,386,000 or Brz$61,197,90 per 10,000 inhabitants (and Brz$398,058.61/10,000 for 75+ population). When considering the expansion of self-reported cases according to diagnosis rate, it was estimate 1,353,161 hospitalizations (70,8 per 10,000) and a total annual cost of Brz$1,778,992 (Brz$ 93,140.65/10,000). **CONCLUSIONS:** DM and its complications are associated with a relevant economic burden to SUS, especially when considering the elderly population.

PDB102
USE OF HEALTH CARE ADMINISTRATIVE DATABASES TO ESTIMATE THE BURDEN OF DIABETES MELLITUS: A POPULATION-BASED STUDY

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OBJECTIVES: To assess the epidemiologic and economic burden of diabetes mellitus (DM) from a large population-based study. **METHODS:** Lombardy Region includes 9.9 million individuals. Its DM population was identified through a data warehouse (DENALI), which matches with a probabilistic linkage demographic, clinical and economic data of different Healthcare Administrative databases. All individuals who during the year 2000 had an hospital discharge with a IDC-9 CM code 250.XX, and/or two consecutive prescriptions of drugs for diabetes (ATC code A10XXXX) within one year, and/or an exemption from co-payment health care costs specific for DM, were selected and followed up to 9 years. We calculated prevalence, mortality and health care costs (hospitalizations, drugs and outpatient examinations/visits) from the National Health Service's perspective. **RESULTS:** A total of 312,223 eligible subjects were identified. The study population (51% male) had a mean age of 66 (from 0.03 - 105.12) years at the index date. Prevalence was 0.4% among subjects aged <45 years, 3.0% (46-55 years), 7.2% (56-65 years), 11.1% (66-75 years), 12.2% (76-85 years) and 10.1% (>85 years). Overall 43.4 deaths/1,000 patients/year were estimated, significantly (p<0.001) higher in men than in women. Overall, 3,315€/patient-year were spent on average: hospitalizations were the cost driver (54.2% of total cost). Drugs contributed to 31.5%, outpatient claims represented 14.3% of total costs. As regards hospital costs, 35.6% was attributable to admissions for cerebro/cardiovascular reasons, 4.3% to admission for DM reasons, and 60.1% to any other reason. Class C drugs contributed to 33.5% of total drug costs, 21.8% was attributable to class A (16.7% to class A10) and 4.3% to class B (2.4% to class B01) drugs. **CONCLUSIONS:** . Merging different administrative databases can provide with many data from large populations observed for long time periods. DENALI shows to be an efficient instrument to obtain accurate estimates of burden of diseases such as diabetes mellitus.

PDB103
PREDICTORS OF HOSPITAL READMISSIONS IN PATIENTS WITH DIABETES: RESULTS FROM THE 1999-2009 MEDICAL EXPENDITURE PANEL SURVEY

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OBJECTIVES: Hospital readmissions are a major concern for patients with diabetes in terms of reduced quality of life and increased economic burden. The objective of the study was to identify predictors of readmissions among patients with diabetes. **METHODS:** A retrospective analysis was conducted using the longitudinal data from the Medical Expenditure Panel Survey (1999-2009), a set of nationally representative surveys of individuals and their health-care providers across the United States. Patients with a diabetes-related hospital admission during the survey period were identified using the International Classification of Disease (ICD)-9 diagnosis code, '250'. These patients were followed for 12 months to determine if another diabetes-related hospital admission occurred. A logistic regression to predict readmission was developed and estimated. Covariates included age, gender, race,