to be adherent than females (p = 0.05). CONCLUSIONS: American Diabetes Association guidelines recommend statin therapy in every diabetes patient of age 40 years and above, regardless of their low-density lipoprotein level. Low adherence can result in the development of cardiovascular diseases, which can lead to increase in outpatient and inpatient costs and hence, increase in the health care costs. Adherence to statins was suboptimal among this study population. This presents an increased risk of developing cardiovascular diseases, which can lead to increases in the health care costs for this self-insured university.

**PD847**

**IMPROVING OUTCOMES AND PRODUCTIVITY FOR EMPLOYEES WITH DIABETES**

**Piper L1, Partha G2, Ferreri M3, Coopers B1, Reapchoff C2**

1University of Toledo, Toledo, OH, USA, 2University of Victoria, Victoria, BC, Canada, 3Continuing Education, Cleveland Clinic, Cleveland, OH, USA

**OBJECTIVES:** To examine the effect of a community pharmacy based medication therapy management program (MTM) on patient outcomes over one year. METHODS: A one year, pre-post longitudinal study. Patients served as their own controls. Community pharmacies provided MTM services to the City of Toledo employees and their dependents with diabetes. Employees were seen every 3 months at one of seven participating pharmacy sites. Participants received a 3 month supply of medications at the cost of one co-pay as an incentive. Data collected: quality of life scores (SF-36), self-reported adherence (Modified Morisky scale of 1–5, 1 being always adherent and 5 being never adherent), number of sick days, and patient satisfaction with services (Likert scale of 1–5, 1 being highly unsatisfied and 5 being highly satisfied). Data was analyzed using SPSS v. 16.0 for one year using descriptive statistics and Friedman tests. RESULTS: One hundred one employees enrolled at baseline; Patient had improved scores on physical functioning, role physical, body pain, and social functioning. The physical component summary remained roughly the same. Mental component scores decreased, but not significantly. Self-reported adherence improved significantly from 3.8 to 4.2 (p < 0.001) over 12 months. Experience with the pharmacist and experience with pharmacy services were the highest rated items. CONCLUSIONS: Improved quality of life and adherence can help increase productivity of employees and can help reduce costs for employers by reducing disease-related missed days of work. Employers looking to save costs and improve productivity can utilize the services provided by pharmacists.

**PD848**

**ASSESSING QUALITY OF LIFE IN SHORT STATURE YOUTH – THE QOLISSY PROJECT FOCUS GROUP AND COGNITIVE DEBRIEFING EXPERIENCE**

**Bullinger M1, Dallenmark Blom M2, Feigerlova E3, Herdman M4, Lunde C2, Mimoun E3, Piatt A1, Power M4, Quittmann J5, Rohenkohl A1, Sanz D4, Skoropadskaya A6, Varn J7, Wegener S8, Zlot D9**

1Rutgers University School of Pharmacy, Piscataway, NJ, USA, 2Nordisk, Virum, Denmark, 3Health Research Associates, Inc., Mountlake Terrace, WA, USA, 4Insight Consulting & Research S.L., Barcelona, Spain, 5Pfizer Incorporated, San Diego, CA, USA, 6University of Edinburgh, Edinburgh, UK, 7Pfizer, Ltd, Walton Oaks, UK, 8Lundbeck, Copenhagen, Denmark

**OBJECTIVES:** Since pediatric growth disorders such as Growth Hormone Deficiency (GHD) and Idiopathic Short Stature (ISS) might affect subjective wellbeing and functioning, treatment outcomes should include assessment of quality of life (QoL). The multinational QOLISSY project aims at developing simultaneously in 5 countries, a targeted instrument to measure outcomes in short stature children in three age groups (4–7, 8–12, & 13–18 yrs.). The focus groups were used to formulate items which were subsequently presented to focus groups and translated into 10 languages. Given the inter-individual and cross-cultural differences in concepts were found, suggesting a more complex model for understanding wellbeing and functioning than first envisioned. These preliminary results showed that a comprehensive taxonomy of psychological outcomes is needed as well as more research regarding the effects of psychological and medical treatment on quality of life of short stature children and their families.

**PD849**

**AGE-SPECIFIC ORIGINALS: USING THE PEDIATRIC QUALITY OF LIFE™ (PEDIQL™) DIABETES MODULE TO STUDY SIMILARITIES AND DIFFERENCES IN TARGET LANGUAGES**

**Steenstrup S1, Varn J2**

1MAPI Institute, Lyon, France, 2Texas A&M University, College Station, TX, USA

**OBJECTIVES:** Prior to use in an international study, the PediQL™-2.2 Diabetes Module consisting of 3 reports (Teen report, Adult report, Child report) Parent report for teens, Parent report for children) underwent linguistic validation into 10 languages. A rigorous methodology was conducted to ensure conceptual equivalence, cultural relevance and appropriateness of formulations across the 3 age categories. This involved forward / backward translations and testing on a sample of the 3 age groups. Based on the original, the aim of our study was to formulate an instrument in each of the 10 languages. If this was the case in the translations, determine a potential pattern should there be differences and make recommendations on the basis of the results. METHODS: This investigation was carried out as follows: 1) Comparison of the 29 identical items from the Teen, Adult and Child reports (with 21 identical items’ for the Parent report) to determine if the translations across the 3 reports; and 3) determination of a pattern in the differences. RESULTS: First results indicate that language versions are relatively similar across the 3 reports with few differences and no identifiable pattern. The differing formulations across age groups are not the same across translations. Differences are not linked to the translation of technical terms, but found in items on general symptoms. CONCLUSIONS: The similarities across the 3 age-specific forms for the 10 languages seem to indicate the universal and intergenerational acceptability of the original concepts and their formulations. Given the inter-individual and identifiable pattern across age categories in some languages however, it is recommended to test the understanding of each item through cognitive debriefing on a sample of each age group despite the use of identical formulations in the original. This will ensure appropriate comprehension across age groups and translations and facilitate international comparison and pooling of data.

**PD850**

**THE IMPACT OF OBESITY AND QUALITY OF LIFE ON MEDICAL AND LOST PRODUCTIVITY COSTS IN DIABETIC PATIENTS**

**Sub DC1, Kim CM1, Kwon JW2, Jung SM1, McGuire M3, Qureshi Z4**

1Yonsei University College of Medicine, Seoul, South Korea, 2Yonsei University College of Medicine, Seoul, South Korea

**OBJECTIVES:** To examine how obesity and quality of life (QOL) affect medical (MC) and lost productivity costs (LPC) in U.S. adults with diabetes. METHODS: A cross sectional study design was applied using the 2003–2006 Medical Expenditure Panel Survey data. The study population consisted of patients aged 18–64 with diabetes, but without immunodeficiency, malignancy, kidney dialysis, or underweight. All costs were converted to 2008 U.S. dollars. RESULTS: The study identified 3,621 diabetic patients. Patients with low PCS-12 had more complications, compared to those with high PCS-12 (17.0% vs. 4.4%). A similar trend was also observed for MCS-12 (8.7% vs. 2.2%). In general, patients with lower PCS-12 had higher MC ($12,203 in low-QOL vs. $3,172 in high-QOL) and LPC ($1,632 in low-QOL vs. $2,935 in high-QOL). A similar trend was found in the relationship between MCS-12 and both costs, but this relationship was weaker than that of PCS-12. Among patients with medium to high PCS-12, obese patients had higher MC and LPC than normal or overweight patients. CONCLUSIONS: Lower levels of QOL were associated with a higher economic burden on diabetic patients, especially the physical QOL component. Among diabetic patients with higher levels of physical QOL that are less conditioned by disease severity and complications, the impact of obesity on economic burden was observed.

**PD851**

**THE IMPACT OF NON-SEVERE HYPOGLYCEMIC EPISODES ON WORK PRODUCTIVITY AND DIABETES MANAGEMENT: A FOUR COUNTRY PERSPECTIVE**

**Brod M1, Christensen T2, Lygver Thomsen T3, Bushnell D4**

1The Brod Group, Mill Valley, CA, USA, 2Novo Nordisk A/S, Virum, Denmark, 3Novo Nordisk A/S, Virum, Denmark, 4Novo Nordisk A/S, Virum, Denmark, Health Research Associates, Inc., Mountain Terrace, WA, USA

**OBJECTIVES:** The objective of the study was to understand of the impact of diabetes-related non-severe hypoglycemic episodes (NHSE’s) on work productivity and diabetes management. METHODS: A web-based survey was developed based on literature, expert input and 68 patients participating in focus-group or individual interviews. Persons with self-reported diabetes in US, France, Germany, and UK participated in the survey. NHSE’s were classified as occurring in the past month, either daytime (while at work or not at work) or during sleep. RESULTS: A total of 6,756 persons were surveyed of whom 972 (14.4%) worked for pay and 1,443 (21.5%) worked for pay and 1443 (21.5%) worked for pay and the average age of the sample was 41.3 ± 13.5. There were no significant country differences for % on insulin vs. oral or % type1 vs. type2 subjects. Fifty-nine percent of type 1 subjects (range 30.7% in France – 70.9% in US, p < 0.001) and 34.8% of type 2 subjects were adherent than females (p = 0.05). CONCLUSIONS: American Diabetes Association guidelines recommend statin therapy in every diabetes patient of age 40 years and above, regardless of their low-density lipoprotein level. Low adherence can result in the development of cardiovascular diseases, which can lead to increase in outpatient and inpatient costs and hence, increase in the health care costs. Adherence to statins was suboptimal among this study population. This presents an increased risk of developing cardiovascular diseases, which can lead to increases in the health care costs for this self-insured university.