region for European countries and gender, age, race, and region for the United States. Participants report if they have been diagnosed with 5 mental and 12 physical health conditions. Mental and physical health status is defined by the SF-8. Non-adherent attitudes are defined by using three attitudinal statements: use of another’s prescription, frequent switching, and frequent missed doses. Respondents report their degree of agreement on a five-point scale. **RESULTS:** Overall, France has the highest percentage of people with non-adherent attitudes (18% use another’s prescription; 3% frequently switch; 13% frequently miss doses), and Great Britain has the lowest (8% use another’s prescription; 2% frequently switch; 9% frequently miss doses). People in all countries with non-adherent attitudes are more likely to be younger and less-educated. In Germany and Great Britain, those with non-adherent attitudes are more likely to be male, and in France and the US are more likely to be female. For all countries, mental health is worse among those with non-adherent attitudes. Physical health is worse among those with non-adherent attitudes in Great Britain and the US, but is the same or better in Germany and France. Respondents with a mental health condition in Great Britain and the United States are more likely to have non-adherent attitudes. Results varied for France and Germany by specific mental health condition. **CONCLUSION:** Non-adherent attitudes vary across countries. These differences should be considered in creating programs that promote adherence.

**THE IMPACT OF VARYING DEGREES OF COMPLIANCE WITH OSTEOPOROSIS MEDICATION ON FRACTURE RATES IN ACTUAL PRACTICE**

Caro JJ, Ishak KJ, Huybrechts KF, Naujoks C

Caro Research Institute, Concord, MA, USA; Caro Research, Dorval, Quebec, Canada; Novartis Pharma AG, Basel, Switzerland

**OBJECTIVES:** Osteoporosis therapy places extensive behavioral demands on patients, including the need for precisely scheduled daily or weekly medication intake, regular physical exercise and frequent visits to health care providers. Although effective treatments are available, compliance with osteoporosis therapy is known to be low. It has previously been demonstrated that medication non-compliance in actual practice—defined as taking less than 80% of prescribed medications—significantly increases the risk of fractures. The objective of this study was to explore the effect of varying the definition of non-compliance to identify the minimum level of compliance required to reduce fracture risk. **METHODS:** Demographic, prescription drug use, physician services and hospitalization information for women with osteoporosis who were dispensed an osteoporosis medication between 1996 and 2001 was obtained from the Saskatchewan Health data files. Fractures were identified by hospitalization or physician visits with a relevant diagnostic or procedure code. Different levels of compliance were defined based on the proportion of time during which patients had drugs available: <50% (poor), 50–80% (medium), 80–90% (good), and >90% (excellent). A Cox proportional hazards model was used to assess the effect of compliance, defined as a time-dependent covariate, controlling for other known risk factors for fractures. Patients were studied for up to three years following the index prescription. **RESULTS:** Among 11,249 women suffering from osteoporosis the overall fracture rate was 4.8 fractures per 100 person-years. Poor compliance led to a 40% increase in fracture risk (95% CI: 19%–66%) compared to excellent compliance, while medium compliance increased risk by 20% (95% CI: 0%–43%). No statistically significant differences in fracture risk were observed, however, between good and excellent compliance. **CONCLUSION:** A high level of compliance (80%–100%) is required to reduce osteoporosis-related fracture risk.

**CLAIMS BASED MEASURES OF DRUG TAKING COMPLIANCE AMONG MEDICAID PATIENTS WITH SCHIZOPHRENIA: FEASIBILITY AND PREDICTIVE UTILITY**

Christensen DB, Guo JD
University of North Carolina, Chapel Hill, NC, USA

**OBJECTIVES:** 1) To determine if refill-based measures of non-adherence could be constructed using claims data; 2) compare and contrast three different compliance measures; and 3) determine the degree to which each measure predicted hospitalization or emergency room events among Medicaid patients with schizophrenia. **METHODS:** Retrospective case control study using Medicaid claims data. Subjects were 1426 patients with a diagnosis of schizophrenia who had received at least one Rx for an antipsychotic medication. Cases were patients with an event; controls were randomly selected during the same calendar quarter. Both were continuously eligible and receiving ambulatory care for at least six months before the index date. Demographic, medical care use, comorbidity, and antipsychotic drug usage data were collected. A “days out of therapy” measure, and 2 medication possession ratio (MPR) scores were computed from dispensed prescription (Rx) records during the 120-day window prior to the index event date. **RESULTS:** Days’ supply was missing or inaccurate for 5.2% of all Rx; and 12.5% of patients had at least one Rx with a missing days’ supply. Days’ supply could be imputed for most missing records using a simple algorithm. Two of the 3 compliance measures correlated with each other at r = .33 or higher. The two MPR measures demonstrated low sensitivity for an event (<32%) but relatively high specificity (>70%) regardless of cutoff level. The days out measure demonstrated high sensitivity and low specificity. An exploratory model predicting events was developed using