and persisted following interventions, and 2) the impact of inter-
ventions on quality, and patient drug costs from a payer per-
spective. METHODS: Before-after study with comparison group
design. Medicaid prescription claims data were compared for
care settings.

PHYSICIAN PRESCRIBING OF SLEEP DISORDER
MEDICATIONS IN UNITED STATES OUTPATIENT SETTINGS:
FACTORS AFFECTING PRESCRIPTION OF HIGH ABUSE
POTENTIAL AND COSTLY MEDICATIONS
Rasu R1, Balanirshnan R2, Shenolikar R2, Nahata M2
1University of Missouri Kansas City, Kansas City, MO, USA; 2Ohio
State University College of Pharmacy, Columbus, OH, USA
OBJECTIVE: This research was performed to analyze selected
socioeconomic and clinical factors relating to both physicians
and patients associated with physicians’ prescribing of expensive
medications and medications with abuse potential side effects
for treatment of sleep difficulties in a nationally representa-
tive sample of outpatient physician visits in the United States.
METHODS: A multivariate logistic regression method was used
to analyze the 1996–2001 National Ambulatory Medical Care
Survey data to determine the patient and physician factors
associated with a prescription for expensive medication and medica-
tions with abuse potential side effects in outpatient settings.
RESULTS: From 1996 to 2001, about 94.6 million sleep-
difficulty related visits were made to outpatient physician offices
in the United States. Forty eight percent (45 million) of sleep-
difficulty related visits received a prescription for medication
therapy only. Patients over 65 years of age were 44% less likely
(OR: 0.56, 95% CI: 0.33–0.90) to receive an expensive medica-
tion prescription than patients aged 18–34 years (reference
group). Hispanic patients were 56% less likely to receive an
expensive medication prescription than Non-Hispanic patients
during their visits (OR: 0.44, 95% CI: 0.22–0.88). Male patient
visits were 39% less likely than female patient visits to result in
receipt of medication with abuse potential among patient visits
receiving medication therapy (OR: 0.61, 95% CI: 0.45–0.81). In
addition, patients with mental co-morbidities were 80% more
likely to be associated with receipt of a prescription of medica-
tions with abuse potential than patients with no mental co-
morbidities (OR: 1.80, 95% CI: 1.31–2.47). CONCLUSIONS:
This study indicated that patient’s age and ethnicity influence
physician prescribing of expensive medications for treatment of
sleep difficulties. In addition, increased probability of receipt of

medication with abuse potentials in female gender is of concern,
when safer alternative medications with lower abuse potentials
are easily available.

HP4
PRIMARY CARE AND GATEKEEPER MODELS IN GERMANY—
WHAT DO THE PATIENTS WANT?
Kielhorn H1, Wolter AB2, Schoenemark MP3
1Schoenemark, Kielhorn and Collegen, Hannover, Germany;
2Hannover Medical School, Hannover, Germany
OBJECTIVES: To understand and quantify the consumers’
choice and preferences for the heavily discussed and politically
promoted introduction of gatekeeper models in primary care as
a measure of effective cost containment. Furthermore, to explore
which of the patients’ segments could be addressed by which
value proposition, which design elements to use and what kind
of incentive structures to create. METHODS: Applying stochas-
tic methods, a representative sample of 3024 people from the
health insured population was taken and segmented according
to four basic dimensions (age, gender, income, and insurance
status). About 1000 interviews were performed in a telephone
survey. Participants were asked 10 questions about their knowl-
edge on primary care and gatekeeper models. Other questions
addressed aspects such as design elements of potential gatekeeper
models, parameters for the interviewee’s choice on a potential
family doctor, demands on the quality of a family doctor, and
incentive structures. RESULTS: The participants showed differ-
entiated answer profiles. Older and currently ill people were
significantly better informed concerning gate keeper models in
primary care. In total, 88% already go to their family doctor and
60% use their family doctor as the primary address and would
participate at a gatekeeper model without extra incentives. The
demands on family doctors are dependent on age and gender.
Neighbourhood and personal experience as well as quality and
service level are key factors. CONCLUSIONS: It can be con-
cluded that even without being well informed and without
explicit incentive structures, the insured already behave accord-
ing to the principles of primary care and gatekeeper models,
limiting the political effect of reorganising patient streams
in ambulatory care. Furthermore, insurance companies should
investigate consumers’ choices in primary care before setting up
sophisticated incentive systems.

Methods and Concepts in Patient-Oriented Research

PO1
TRAJECTORIES OF EQ-5D QUALITY OF LIFE UTILITY SCORES
FOR 10,000 SCHIZOPHRENIA OUTPATIENTS OVER 2 YEARS: A
REPORT FROM THE SOHO STUDY
Hammond GC1, Croudace TJ1, Jones PB1, Belger M2, Novick D3
1University of Cambridge, Cambridge, UK; 2Eli Lilly and Company Ltd,
Windlesham, Surrey, UK
OBJECTIVES: Extensive longitudinal data are required to char-
acterize the outcomes of serious mental disorders. Statistical
methods for profiling individual differences in clinical and social
outcomes, and the impact of treatment have expanded over the
past decade, are now implemented in user friendly software. Our
aim was to characterize individual trajectories in patient-rated
quality of life scores recorded over two years. METHODS: The
sample comprised 10,000 outpatients with schizophrenia partici-
ating in the Schizophrenia Outpatient Health Outcomes
(SOHO) observational study of health outcomes of antipsychotic
treatment which was conducted in 10 European countries.
SOHO enrolled schizophrenia outpatients who were initiating
or changing their antipsychotic medication. The outcome was