

analysed included annual health insurance costs, patient numbers and cost distribution calculated for age groups and sex. The following cost categories were included into the study: general practice care, home care, in- and outpatient care, medical imaging, laboratory diagnostics, pharmaceuticals and medical aids. Patients with allergic asthma were identified with the following code of the International Classification of Diseases 10th revision: J4590. **Results:** In 2018, the Hungarian National Health Insurance Fund Administration spent 11.79 billion Hungarian Forints (HUF) on the treatment of asthma patients, 43.62 million American Dollars (USD), or 36.97 million Euros (EUR). 40.13% of costs was spent on treatment of male, 59.87% on female patients. The highest patient numbers were in general practice care: 140,737 men (42.78%), 188,275 women (57.22%), in total 329,012 patients. Pharmaceuticals (60.32% of total health insurance costs in men, 60.92% in women), outpatient care (16.17% in men, 15.88% in women) and general practice care (9.19% in men, 8.86% in women) were the main cost drivers, all other forms of medical care amounted to 14.32% in men and 14.34% in women. Annual health care treatment cost per patient was 33,614 HUF (124 USD/105 EUR) in men and 37,482 HUF (139 USD/118 EUR) in women. **Conclusions:** Pharmaceuticals were the major cost drivers in the treatment of asthma. Major cost drivers showed no significant difference between the sexes. The average annual health insurance costs per patient was 12% higher in women.

Respiratory-Related Disorders - Epidemiology & Public Health

PRS36 EPIDEMIOLOGICAL DISEASE BURDEN OF ALLERGIC ASTHMA BASED ON ROUTINELY COLLECTED HEALTH INSURANCE CLAIMS DATA

Pónusz R,¹ Endrei D,² Elmer D,² Németh N,² Horváth L,² Csákvári T,³ Sebestyén A,² Boncz L²

¹University of Pécs, Pécs, BA, Hungary, ²University of Pécs, Pécs, Hungary,

³University of Pécs, Zalaegerszeg, Hungary

Objectives: Prevalence of allergic asthma has shown a continuous increase. It may affect any age group; the major symptoms may negatively impact upon the ability to work and quality of life. The aim of our study was to determine the epidemiological disease burden of allergic asthma. **Methods:** Data were derived from the financial database of the Hungarian National Health Insurance Fund Administration (NHIFA), for the year 2018. Data analysed included annual patient numbers, case numbers and prevalence of care utilisation per 100,000 population according to age groups and sex. The following health insurance treatment categories were included into our study: general practice care, home care, in- and outpatient care, medical imaging, laboratory diagnostics, drugs and medical aids. Patients with allergic asthma were identified with the following code of the International Classification of Diseases 10th revision: J4500. **Results:** The highest national patient numbers were in use of pharmaceuticals: 40,308 men and 59,284 women, in total 99,592 patients, followed by general practice care (38,406 men and 57,969 women, in total 96,375), and outpatient care (26,223 men and 43,819 women, in total 70,042). Based on patient numbers regarding pharmaceuticals, prevalence in 100,000 among men was 862.83 patients, among women 1,160.89 patients, in total 1,018.49. As regards sex distribution in the use of pharmaceuticals, 40.47% of patients were men, 59.53% were women, in general practice care 39.85% were men, 60.15% were women, while in outpatient care men accounted for 37.44%, women for 62.56% of patients. **Conclusions:** Prevalence of allergic asthma was found to be slightly lower among men (0.74-times) than among women. The reason for high patient numbers found regarding pharmaceuticals is attributable to the fact that progression of the disease and relief of symptoms are primarily achieved with pharmacotherapy, mainly with the administration of bronchodilators and anti-inflammatory drugs.

PRS37 EXPLORATORY ANALYSIS OF SOCIOECONOMIC AND BEHAVIORAL CHARACTERISTICS AMONG ADULTS WHO TRIED TO QUIT SMOKING IN THE U.S.

Alotaibi A,¹ Sherbeny F²

¹Florida A&M University, Tallahassee, FL, USA, ²Florida A & M University, Tallahassee, FL, USA

Objectives: To explore the socioeconomic and behavioral characteristics among adults who tried to quit smoking on a national level using NHANES. **Methods:** Data were obtained from NHANES 2015-2016 datafiles. Adult smokers, 18 years and older, were included. NHANES is a nationally-representative survey conducted by the CDC to examine health and nutritional status of children and adult in the U.S through interviews and direct physical examinations. The study population was identified by including people who answered "yes" to the question of whether they tried to quit smoking or not. Descriptive statistics were used to explore demographic (age, gender, and race), social (education and marital status), economic (annual income), and smoking behavioral characteristics associated with the study population. **Results:** In total, 600 individual smokers were included in the study. About 60% of the participants were male (362 male smokers vs 238 female smokers). The majority of smokers were among the age group of 31-45 years old (28%) vs. (20%) for 61-80 years old. In addition, most smokers were non-Hispanic Whites (33%) and non-Hispanic Blacks (31%) compared to Hispanics (23%). In terms of social status, smoking

was highly prevalent among high school graduates (30%) compared to college graduates (13%). Smoking was also higher among married smokers (36%) compared to divorced (12%). Participants with middle annual income (\$25,000 - \$75,000) had a higher rate of smoking cigarettes compared with low or high-income smokers (42% vs. 35% and 15%, respectively). **Conclusions:** The study showed that the majority of smokers were middle aged, non-Hispanic White and Black males. The findings also indicate that most smokers were married, didn't have a college degree, and had a middle annual income. These results can provide a baseline for public health and smoking cessation awareness and education. It can also assist providers in decision making processes by identifying the target population for interventions.

PRS38 EPIDEMIOLOGICAL DISEASE BURDEN OF NON-ALLERGIC ASTHMA BASED ON ROUTINELY COLLECTED HEALTH INSURANCE CLAIMS DATA

Boncz L,¹ Endrei D,¹ Elmer D,¹ Németh N,¹ Horváth L,¹ Csákvári T,² Kajos L,¹ Sebestyén A,¹ Pónusz R³

¹University of Pécs, Pécs, Hungary, ²University of Pécs, Zalaegerszeg, Hungary,

³University of Pécs, Pécs, BA, Hungary

Objectives: The prevalence of asthmatic diseases has shown a continuously increasing tendency, consequently, besides the individual disease burden these diseases are a significant burden for the society as well. The aim of our study was to determine the epidemiological disease burden of non-allergic asthma. **Methods:** Data were derived from the financial database of the Hungarian National Health Insurance Fund Administration (NHIFA), for the year 2018. Data analysed included annual patient numbers, case numbers and prevalence of care utilisation per 100,000 population according to age groups and sex. The following health insurance treatment categories were included into our study: general practice care, home care, in- and outpatient care, medical imaging, laboratory diagnostics, drugs and medical aids. Patients with non-allergic asthma were identified with the following code of the International Classification of Diseases 10th revision: J4510. **Results:** The highest national patient numbers were in use of pharmaceuticals: 6,119 men and 13,387 women in total 19,506 patients, followed by outpatient care (5,772 men and 13,081 women, in total 18,853), and general practice care (5,474 men and 12,441 women, in total 17,915). Based on patient numbers with regards to pharmaceuticals, prevalence in 100,000 among men was 131.08 patients, among women 262.14 patients, in total 199.48 patients. As regards sex distribution in the use of pharmaceuticals 31.37% of patients were men and 68.63% were women, in outpatient care 30.62% were men and 69.38% were women, while in general practice care men accounted for 30.56%, women for 69.44% of patients. **Conclusions:** Prevalence of non-allergic asthma was found to be 2.0-times higher among women, than among men. The reason for high patient numbers found in the use of pharmaceuticals is attributable to the progression of the disease and relief of symptoms are primarily achieved with pharmacotherapy.

PRS39 PREVALENCE OF ASTHMA AND ALLERGIES IN BALOCHISTAN

Gul R,¹ Jan SU,² Qadir M,³ Qadir A,⁴ Sattar A⁵

¹Institute of public health Quetta, Quetta, BA, Pakistan, ²Faculty of Pharmacy UOB, Quetta, Quetta, Pakistan, ³Institute of Public health, Quetta, BA, Pakistan, ⁴Health Department, Quetta, BA, Pakistan, ⁵Faculty of pharmacy, University of Balochistan/, Quetta, Pakistan

Objectives: The current study was planned to investigate the prevalence of asthma and allergic problems in people of Balochistan, Pakistan. **Methods:** To determine the prevalence of allergic problems in the area of Balochistan. The current study was conducted in the tribal groups of (Pashtoon, Baloch) in all socioeconomic classes. We have no data regarding it for any tribal group and class. We used a Saudi Arabian Protocol utilizing questionnaires for an adult male and female in this region. Questionnaires were distributed to 1000 people, age 18-60 years, in three various areas for suitable proportional illustration of low, middle, and high socioeconomic levels. There are 553 (55.3%) questionnaires returned by the people were observed suitable and thus incorporated in the survey. The SPSS software was used for data analysis. **Results:** The data analysis showed that the allergic problems are relatively high in Balochistan, Pakistan. The occurrence of wheezing was observed to be 17.0%, whereas the diagnosed individuals with asthma were 8.0%. Observed cases of allergic rhinitis were 35.0%. The rate of those having as well as wheezing as well as allergic rhinitis episodes were 10.0%. No sex wise statistically significant dissimilarity observed between non-asthmatics and asthmatics (P-value: 0.300). Socioeconomic condition was observed to affect significantly (p value: 0.002). In case of the prevalence of diagnosed asthma individual was 3.0% in the lower socioeconomic group, 15.10% in the middle-group and 8.01% in the highest socioeconomic group. **Conclusions:** Asthmatic problems are relatively widespread in Balochistan, Pakistan, but they linger on under-diagnosed. The prevalence information of rhinitis indicates an alarming condition. These clinical problems were observed to affect middle-class in the majority, while the lower and lower-middle group leftovers the less affected. So far to diagnosis, prevention, education and management may assist the province, to eradicate the disease.