Hungary. While outpatient care is more frequent, in-patient care accounts for the vast majority of HCRU costs.

PHS27
ASSOCIATION OF THE HOSPITAL COST FOR COPD WITH GDP PER CAPITA: EVIDENCE FOR BRAZILIAN STATES, 2000-2014
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OBJECTIVES: To associate the mean cost per hospitalization for COPD with demographic, social, income and health indicators of each Brazilian state from 2000 to 2014. **METHODS:** The mean cost per hospitalization due to COPD was obtained from National Health System Data (DATASUS) and were reported in Brazilian Reals (1.00BRL≈0.31USD, Average 2017). Potential explanatory variables included: demographic (percentage of individuals with aged ≥ 60 years); social (Gini index, and illiteracy rate, defined as the percentage of the population aged 15 years or older illiterate); income (Gross Domestic Product - GDP per capita, and unemployment rate, defined by the percentage of economically active people who were unemployed); and health supply (number of hospital beds and rate of medical consultations per 100,000 inhabitants in Brazilian Public Health System). The mean cost per hospitalization and GDP per capita were monetarily corrected by the Extended National Consumer Price Index, with the last year as reference period. **RESULTS:** The cost per hospitalization increased 94% during the studied period (426,49BRL to 827,60BRL). Based on multiple linear regression, the study demonstrated a significant positive correlation between mean hospital cost for COPD and GDP per capita. We have identified that the variation that the variation in 1% of GDP per capita increases the average COPD cost by 0.23%. **CONCLUSIONS:** This result reflects a possible trend that states with better socioeconomic indicators, with a better quality of life, therefore, are those who are spending more with hospitalizations related to COPD. We cannot rule out the hypothesis that states with worse GDP per capita are providing worse health care conditions for COPD patients. This highlights the importance of initiatives to reduce inequalities in COPD Management in Brazil.

PHS28
COSTS RELATED TO INFUSION THERAPY ROOM AND STAFF FOR RHEUMATOID ARTHRITIS IN A SPECIALIZED CENTER
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OBJECTIVES: Rheumatoid arthritis (RA) is a systemic, autoimmune disease with a prevalence of nearly 1% worldwide. Patients become candidates for biological therapy when the disease activity continues in moderate or severe disease activity. Some of the biological medications recommended for the treatment for RA are administrated in a hospital or infusion setting center. The aim of this study was to estimate the costs related to the infusion therapy for patients with rheumatoid arthritis. **METHODS:** We retrospectively conducted a cost-descriptive analysis using a bottom-up approach. During a 12-month period, we estimated the costs of biological therapy for patients that required monitoring in an infusion room (Infliximab, Golimumab, Tocilizumab, Abatacept and Rituximab). We costed the following items: biological therapy, time spent providing care (nurse), time spent in the infusion preparation (pharmaceutical chemistry), and the materials and supplies needed for each patient in the infusion therapy. We reported the costs in US dollars using the official rate of exchange for December 2017. **RESULTS:** During 2017 we included 185 patients that required the administration of biological therapy in an infusion room therapy. The cost for each patient treated per year was USD$13.004 for Golimumab, USD$8736 for Tocilizumab, USD$8.227 for Abatacept, USD$5.518 for Infliximab, and USD for $4059 Rituximab. The total cost for treating all patients was $1.531.010 million US dollars. **CONCLUSIONS:** Biological therapy represents a high cost associated to RA care. Additionally, personnel and supplies add 7% overhead costs to the therapy. Compared to other studies, our cost estimations are ten time less than studies carried out in hospitals from the United States. This micro-costing analysis is an important input for stakeholders and decision makers about the financial impact of the usage of biological therapy in patients with RA.

PHS29
GEOGRAPHIC VARIATION IN OPIOID RELATED OUTPATIENT HEALTHCARE UTILIZATION IN THE UNITED STATES: A RETROSPECTIVE STUDY OF A LARGE HEALTH SYSTEM'S CLAIMS DATA
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OBJECTIVES: The abuse and dependence on opioids has been on the rise nationally. However, the impact of opioid use on healthcare utilization varies widely across the United States. The objective was to estimate the geographic variation in costs and payments associated with outpatient opioid-related visits in a large hospital claims database. **METHODS:** The Vizient Health System Database was used to identify opioid-related outpatient patient visits between January 2014 and June 2017. This database includes detailed billing data across all payers for more than 400 hospitals across the US. Eligible visits had a primary diagnosis of opioid use or dependence defined by International Classification of Diseases, 9th and 10th Revision (ICD-9/10). Geography was defined the 9 US Census sub-regions. Multivariable regression models were performed to estimate the mean expected cost and payment per visit for each region controlling for patient demographics, comorbid conditions, hospital characteristics, and year. **RESULTS:** A total of 160,901 hospital outpatient visits were identified in 447 hospitals. The overall adjusted mean cost and payment for an opioid visit was $533 and $374, respectively. The adjusted mean expected cost was $488, $408, $395, $569, $429, $610, $698, $530, $802 in East North Central, East South Central, Mid-Atlantic, Mountain, New England, Pacific, South Atlantic, West North Central, and West South Central regions, respectively. The adjusted mean expected payment was $281, $527, $187, $319, $245, $574, $434, $567, $476 East North Central, East South Central, Mid-Atlantic, Mountain, New England, Pacific, South Atlantic, West North Central, and West South Central regions, respectively. **CONCLUSIONS:** The cost and payment of treating an opioid related visit were highest in West South Central region and West North Central, respectively. The costs associated with the visit were typically higher than the average payment. Opioid-related visits are a highly prevalent and costly epidemic placing a large burden on US hospitals.

PHS30
GEOGRAPHIC VARIATION IN OPIOID RELATED INPATIENT HEALTHCARE UTILIZATION IN THE UNITED STATES: A RETROSPECTIVE STUDY OF A LARGE HEALTH SYSTEM'S CLAIMS DATA
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OBJECTIVES: Despite the rise in opioid abuse and dependence, there has been little research on the geographic variation of healthcare utilization. The objective was to estimate the geographic variation in costs, payments, and length of stay (LOS) associated with inpatient opioid related hospital visits in a large hospital claims database. **METHODS:** The Vizient Health System Database was used to identify opioid related patient visits between January 2014 and June 2017. Eligible visits had a primary diagnosis of opioid use or dependence defined by International Classification of Diseases, 9th and 10th Revision (ICD-9/10). Geography was defined using the 9 US Census sub-regions. Multivariable regression models were performed to estimate the mean expected cost and payment per visit for each region controlling for patient demographics, comorbid conditions, hospital characteristics, and year. **RESULTS:** A total of 32,713 hospital inpatient visits were identified in 359 hospitals. The overall adjusted mean cost, payment, and LOS for an opioid visit was $4,383, $6,689, and 4.35 days, respectively. The adjusted mean expected cost was $3,336, $2,894, $5,835, $4,472, $4,885, $6,671, $3,979, $5,192, $3,520 in the East North Central, East South Central, Mid-Atlantic, Mountain, New England, Pacific, South Atlantic, West North Central, and West South Central regions. The adjusted mean expected payment was $7,984, $4,038, $7,070, $9,001, $7,897, $8,183, $5,551, $6,490, $5,617 in the East North Central, East South Central, Mid-Atlantic, Mountain, New England, Pacific, South Atlantic, West North Central, and West South Central regions. The Pacific and East North Central Region had the highest (4.95 days) and lowest (3.77 days) LOS, respectively. **CONCLUSIONS:** The cost and payment of treating an opioid related visit was highest in Mid-Atlantic and Pacific regions, respectively. Visit-associated costs associated were lower than the payment. Opioid related visits are a highly prevalent and costly epidemic placing a large burden on US hospitals.

PHS31
HEALTHCARE RESOURCE UTILISATION AND COSTS OF AGITATION IN PEOPLE WITH DEMETIA LIVING IN CARE HOMES - THE MANAGING AGITATION AND RAISING QUALITY OF LIFE IN DEMENTIA (MARQUE) STUDY
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OBJECTIVES: To compare the costs for care home residents with different levels of agitation measured by the Cohen-Mansfield Agitation Inventory (CMAI), and calculate the cost of agitation (over and above the cost of the care home) in residents with and without clinically significant symptoms of agitation using the CMAI as well as the excess costs associated with agitation. **METHODS:** We used the baseline data from 1,424 residents with dementia living in care homes (part of **M**anaging **A**gitation and **R**aising **QU**ality of lif**E** in dementia (MARQUE) study) that had Cohen-Mansfield Agitation Inventory (CMAI) scores recorded. We investigated the relationship between residents' health and social care costs and severity of agitation based on the CMAI. In addition, we assessed resource utilisation and compared costs of residents with and without clinically significant symptoms of agitation using the CMAI over and above the cost of the care home. **RESULTS:** The annual mean costs per resident with CMAI scores ≤45 and >45 were £2,410.21 (95% CI £2,158.74 to £2,661.67) and £2,800.66 (95%CI £2,451.74 to £3,149.58) respectively. Agitation defined by the CMAI was a significant predictor of costs. One point increase in the CMAI is associated with an increase of 0.5 percentage points (cost ratio 1.005, 95%CI 1.001 to 1.010) in annual costs. The excess annual cost associated with agitation per resident with dementia was £1,125.35. This suggests that, on average, agitation accounts for 44% of the annual health and social care costs of dementia in people living in care homes. **CONCLUSIONS:** Agitation in people with dementia living in care homes contributes significantly to the overall costs increasing as the level of agitation increases. Residents with the highest level of agitation cost nearly twice as much as those with the lowest levels of agitation, suggesting that effective strategies to reduce agitation are likely to be cost-effective in this setting.

PHS32
INCREMENTAL HEALTHCARE RESOURCE USE AND COSTS ASSOCIATED WITH SKELETAL-RELATED EVENTS IN PATIENTS WITH BONE METASTASES FROM SOLID TUMORS
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OBJECTIVES: Skeletal-Related Events (SREs) are common in patients with bone metastases (BM) from solid tumors (ST). Guidelines recommend prophylactic therapy for SRE prevention. SREs are associated with poor survival and high costs. The objective was to estimate the additional economic burden of SREs, measured by healthcare resource use (HRU) and costs, in patients with BM from ST. **METHODS:** In this retrospective database analysis, adults with ≥1 inpatient or ≥2 outpatient ST diagnosis followed by ≥1 diagnosis of BM between 01/01/2011 and 06/30/2016 were identified from IQVIA's PharMetrics Plus healthplan claims database. All patients had continuous enrollment for ≥12 months pre-BM date and ≥6 months post-BM