

# SOCIETAL UNMET NEEDS IN BRAZIL: EXAMINING PREVALENCE, TREATMENT RATES, AND HEALTH OUTCOMES

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## ABSTRACT

**OBJECTIVE:** The aim of the current study is to examine how unmet needs, defined as prevalence rates, treatment rates, and quality of life, compare across the ten most common conditions in Brazil.

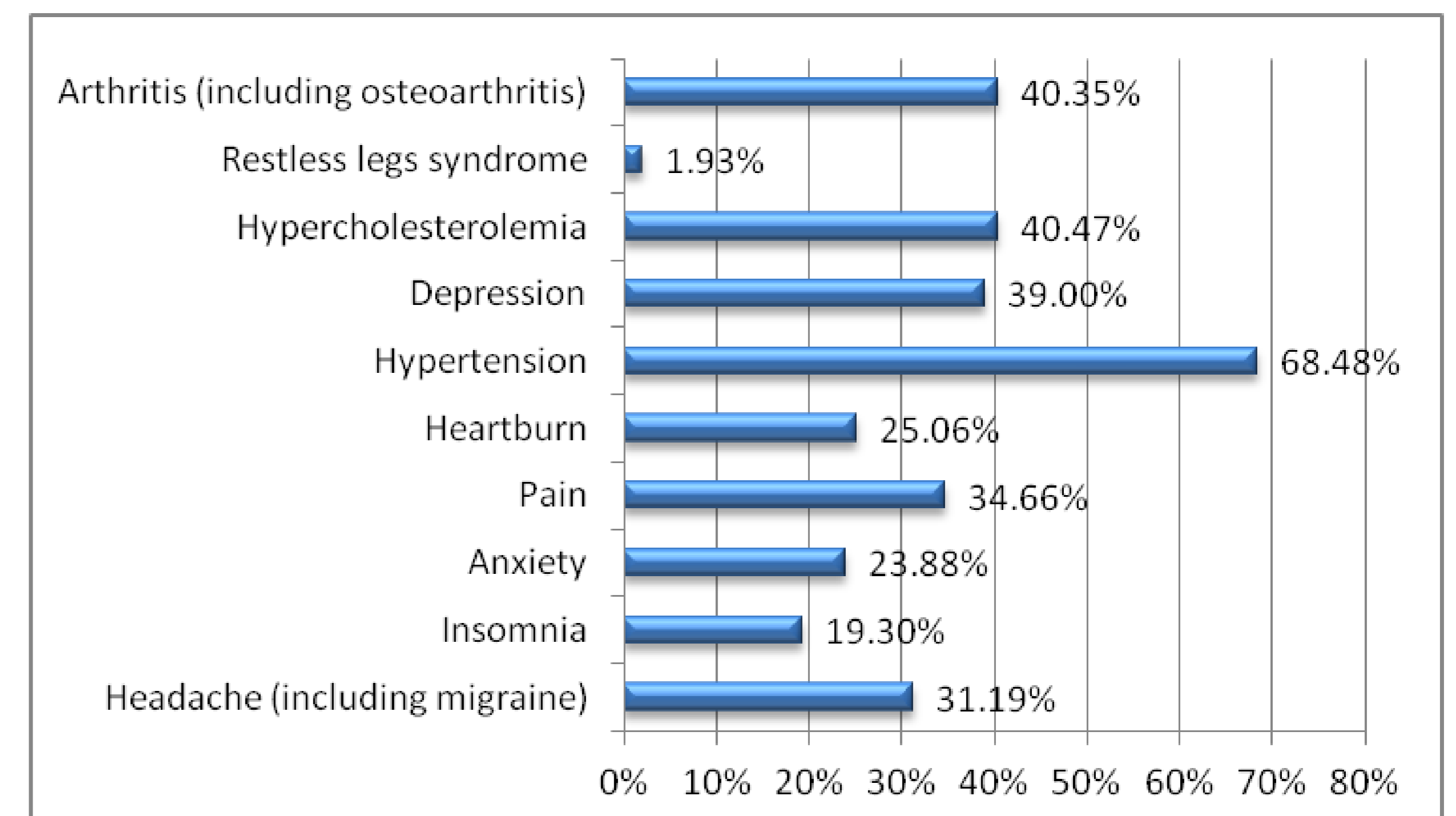
**METHODS:** Data were obtained from the Brazil 2011 and 2012 National Health and Wellness Surveys (NHWS; N=24,000). The Brazil NHWS is a self-reported nationally representative patient survey of the adult Brazilian population (aged 18+), weighted to correct for any socioeconomic sampling bias. Among the 10 most prevalent conditions in Brazil, prevalence, treatment rates, and health utilities (using the SF-6D algorithm from the Short Form-12v2) were examined.

**RESULTS:** Of the conditions respondents reported being diagnosed with, eight had prevalence rates greater than 15% (only restless leg syndrome [RLS] at 4.74% and arthritis at 4.25% were not among the top ten conditions). Despite these prevalence rates, only patients with hypertension (treatment rate=68.48%) reported a treatment rate greater than 50%. The remaining treatment rates generally varied between 19.30% (insomnia) and 40.47% (hypercholesterolemia); see Figure 2.

**CONCLUSIONS:** Despite high prevalence rates for a variety of chronic conditions, treatment rates in Brazil are particularly poor. One of the exceptions was hypertension, which may be related to the Farmacia Popular do Brasil, which allows for the free distribution of medicines for hypertensive and diabetic patients. However, many conditions, particularly psychiatric ones, were associated with both poor treatment rates as well as significant decrements in health utilities. From a public health perspective, more emphasis should be placed on the importance of proper chronic disease management in Brazil.

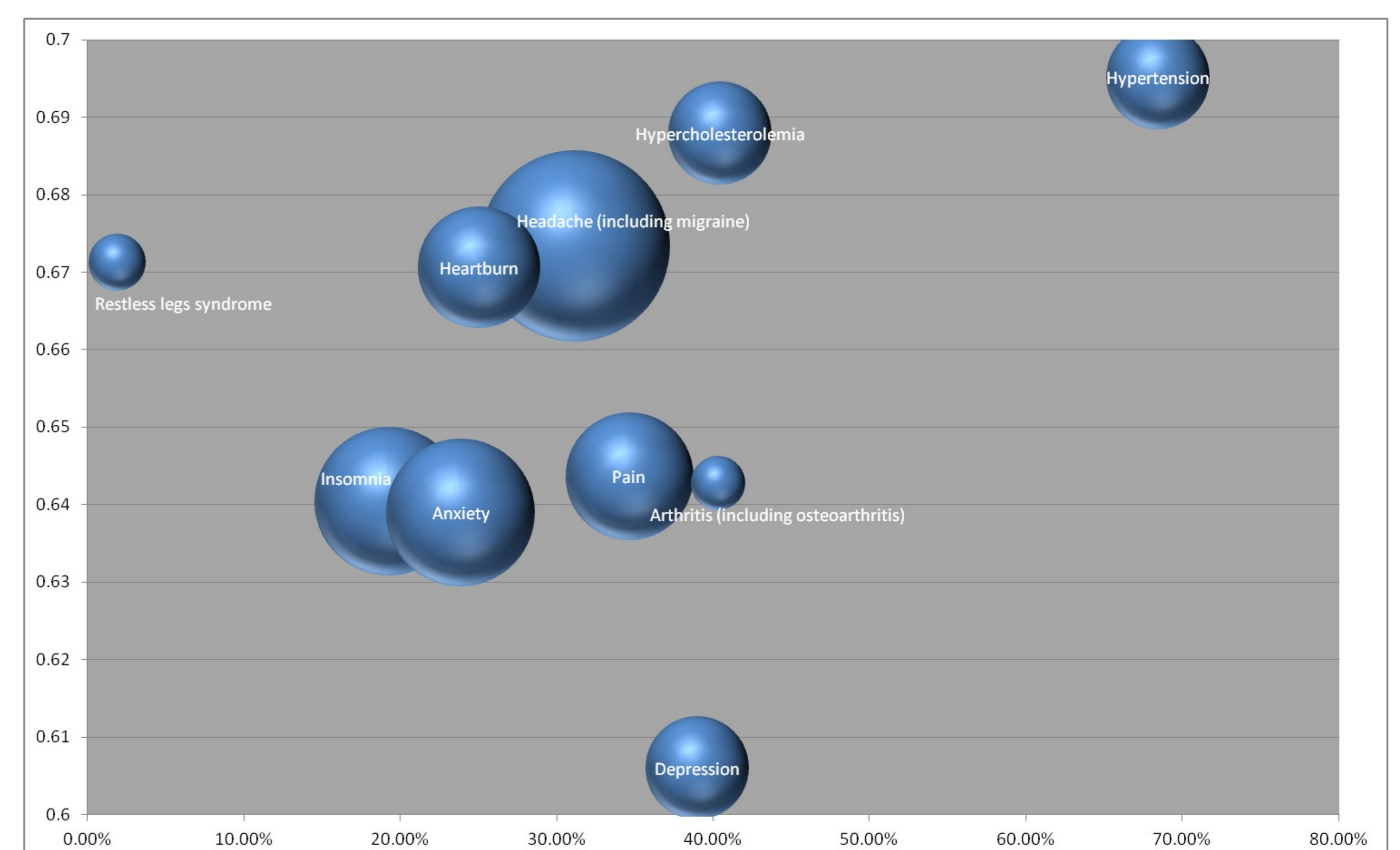
- Despite these prevalence rates, only patients with hypertension (treatment rate=68.48%) reported a treatment rate greater than 50%. The remaining treatment rates generally varied between 19.30% (insomnia) and 40.47% (hypercholesterolemia); see Figure 2.
  - Patients with RLS reported the lowest treatments rates of all the top ten conditions (1.93%).

**Figure 2: Treatment Rates Among the Ten Most Prevalent Conditions Reported by Patients in Brazil**



- Combining prevalence estimates with treatment rates and health utilities provides an assessment of where healthcare resources may need to be allocated; see Figure 3.

**Figure 3: Unmet Needs Among the Ten Most Prevalent Conditions Reported by Patients in Brazil**



- Indeed, many of the debilitating conditions with respect to health utilities had particularly suboptimal treatment rates: depression (health utilities=0.606; treatment rate=39.00%), anxiety (health utilities=0.639; treatment rate=23.88%), and insomnia (health utilities=0.640; treatment rate=19.30%).

## INTRODUCTION

- Epidemiological shifts, in part due to lifestyle changes and policy changes, have occurred for a variety of conditions [1].
- As illustrated in previous studies, surveillance of prevalence, treatment rates, and health outcomes can be helpful for healthcare decision makers to properly allocate scarce resources [2].

## OBJECTIVE

- The aim of the current study was to apply this type of outcomes surveillance analysis to Brazil. Specifically, the objective was to examine how unmet needs, defined as prevalence rates, treatment rates, and quality of life, compare across the ten most common conditions in Brazil.

## METHODS

### Data Source

- Data were obtained from both the Brazil 2011 and 2012 National Health and Wellness Survey (NHWS; N=24,000). The Brazil NHWS is a self-reported general health survey of the adult Brazilian population (aged 18 years and older).
- The NHWS used a stratified random sampling frame to ensure the final sample is identical to that of the Brazil population with respect to age and sex distributions.

### Sample

- All respondents of the Brazil 2011 and 2012 NHWS were included (N=24,000).

### Measures

- **Comorbidities.** All respondents of the NHWS self-reported the presence or absence of approximately 150 conditions, including whether they had been diagnosed with that condition by a healthcare professional.
- **Treatment.** For each condition a respondent reported experiencing, they also reported whether they were taking a prescription medication for that condition.
- **Health utilities.** Overall health utility scores were also calculated using the Short Form-12 version 2 instrument (applying the SF-6D algorithm). The scores range from 0 to 1 with higher scores indicating greater health.

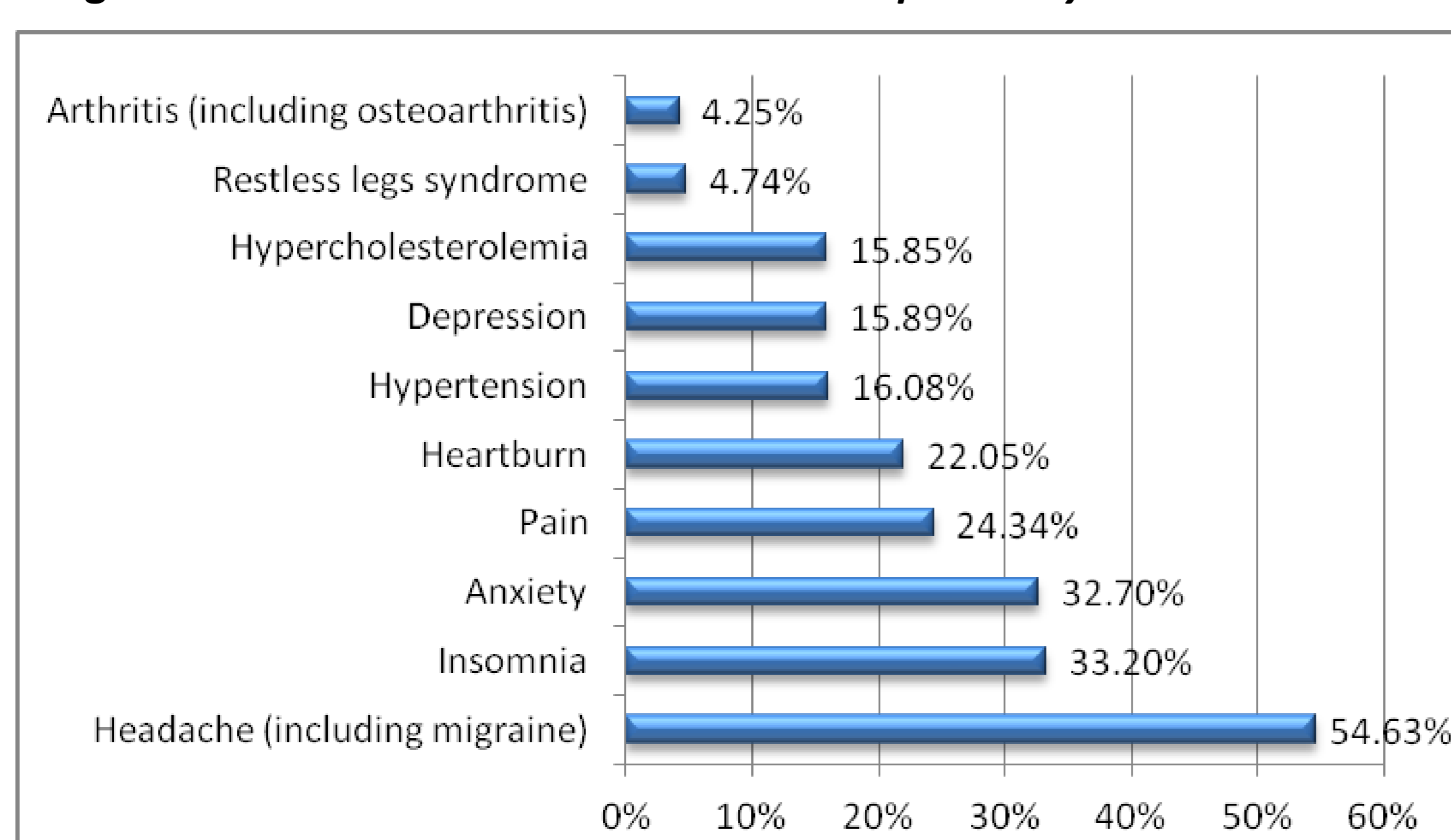
## CONCLUSIONS

- Despite high prevalence rates for a variety of chronic conditions, treatment rates in Brazil are generally poor.
- One of the exceptions was hypertension, which may be related to the Farmacia Popular do Brasil, which allows for the free distribution of medicines for hypertensive and diabetic patients.
- However, many conditions, particularly psychiatric ones, were quite prevalent yet associated with both poor treatment rates as well as significant decrements in health utilities.
- From a public health perspective, more emphasis should be placed on the importance of proper chronic disease management in Brazil.

## RESULTS

- Of the ten most prevalent conditions, eight had prevalence rates greater than 15% (only restless leg syndrome [RLS] at 4.74% and arthritis at 4.25% had lower rates among the top ten conditions); see Figure 1.

**Figure 1: Ten Most Prevalent Conditions Reported by Patients in Brazil**



## References

1. International Diabetes Federation (2009). IDF Diabetes Atlas. Available from: <http://www.diabetesatlas.org/content/> regional-overview. Accessed 2010 May 26.
2. DiBonaventura MD, Isherwood G, Buenestado B, Manso M. Societal unmet needs within Spain. Presentation at the European International Society of Pharmacoeconomics and Outcomes Research, Madrid, Spain. November 2011.

