WORK PRODUCTIVITY LOSS AND ACTIVITY IMPAIRMENT ACROSS NINETEEN MEDICAL CONDITIONS IN A REPRESENTATIVE SAMPLE OF US ADULTS

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INTRODUCTION

- Work productivity represents an important dimension to include when assessing the full value of healthcare interventions.[1] For populations of working age, the effect health can have on the amount of missed work days (absenteeism) and the reduced productivity at work (presenteeism) can lead to substantial societal costs.[1]
- Currently, no population norms exist for work-related impairment. This gap can make it challenging for researchers and healthcare policy makers to place the burden of certain diseases in a broader context.

OBJECTIVES

The objectives of this study were:

- To provide US population estimates for work productivity and activity impairment.
- To provide US population estimates for work productivity and activity impairment for 19 separate highly disabling conditions.

METHODOLOGY

Data Source

- Data from the 2012 US National Health and Wellness Survey (NHWS) were used (N=71,141).
  - The NHWS is a cross-sectional health survey conducted annually in the US, which is administered to a demographically representative sample of adults with respect to age, sex, race/ethnicity, and region.
  - The NHWS includes a variety of information on demographics, conditions experienced, and health outcomes.
  - All respondents were included in the analyses (N=71,141).

Measures

- *Demographics*. Age, sex, and employment (coded as currently employed vs. not) were included.
- *Experienced Conditions*. NHWS respondents were provided a list of conditions and asked which they had experienced and been diagnosed with. Conditions which represent 19 of the most disabling conditions according to the Centers for Disease Control (CDC) were included.[2] Respondents who self-reported a diagnosis of any of these conditions were considered to have them. A full list of the conditions included and variable scoring is available from the first author by request.
- *Work and Activity Impairment*. The Work Productivity and Activity Impairment (WPAI) questionnaire was included as our primary measure of impairment.[3] The WPAI includes the following metrics:
  - Absenteeism (*employed respondents only*): Percentage of work time in the last seven days that was missed due to health
  - Presenteeism (*employed respondents only*): Percentage of impairment experienced while at work due to health in the last seven days
  - Overall Work Impairment (*employed respondents only*): Percentage of work time missed or impaired due to either absenteeism or presenteeism in the last seven days
  - Activity Impairment (*all respondents*): Percentage of impairment in daily activities in the last seven days

Analyses

- Unadjusted mean levels of absenteeism, presenteeism, and overall work impairment are reported for all employed NHWS participants. Similarly, levels of activity impairment for the entire NHWS sample (regardless of employment) are also reported.
- Unadjusted estimates of absenteeism and presenteeism are also reported by each separate condition among all employed patients who reported a diagnosis (**Figure 1**; right column). Unadjusted estimates of activity impairment are also reported separately by each condition among all respondents (**Figure 2**).
- Additional prevalence and demographic data are presented within each condition for both employed participants only (**Figure 1**; first three columns) and for all respondents (**Figure 2**; right column).

RESULTS

- Across the entire employed portion of the sample, the mean level of absenteeism was 3.49% (95% CI: 3.35%-3.63%), presenteeism was 12.97% (95% CI: 12.74%-13.20%), and overall work impairment was 15.01% (95% CI: 14.76%-15.27%).
- Across the entire NHWS sample, the mean level of activity impairment was 22.08% (95% CI: 21.87%-22.29%).
- Levels of work impairment by condition are shown in **Figure 1**. The most debilitating conditions for those employed were AIDS, broken bones, and kidney problems.
- Levels of activity impairment by condition are shown in **Figure 2**. The most debilitating conditions were hernia/rupture, kidney problems, and back/spine problems.

DISCUSSION

- These results help to provide some context for work productivity-related burden of disease measures by producing overall population estimates from a representative sample along with estimates for various chronic conditions.
- The results reported here can serve as a useful benchmark for subsequent studies of US adults that utilize the WPAI. Specifically, this work will allow researchers to place their estimates for work productivity loss and activity impairment in the context of both overall impairment and impairment reported for other conditions.

LIMITATIONS

- All data were patient reported. No verification of diagnoses or levels of absenteeism (e.g., using employment databases) was available.
- Although the NHWS is broadly representative with regard to overall population demographics, respondents in each chronic condition group from our sample may differ from the respective populations of those conditions in ways which could influence impairment (e.g., more functional members of the population were able to participate in the NHWS).

Figure 1. ***Prevalence, Demographics, and Work Productivity Impairment among Employed US NHWS Respondents by Condition***

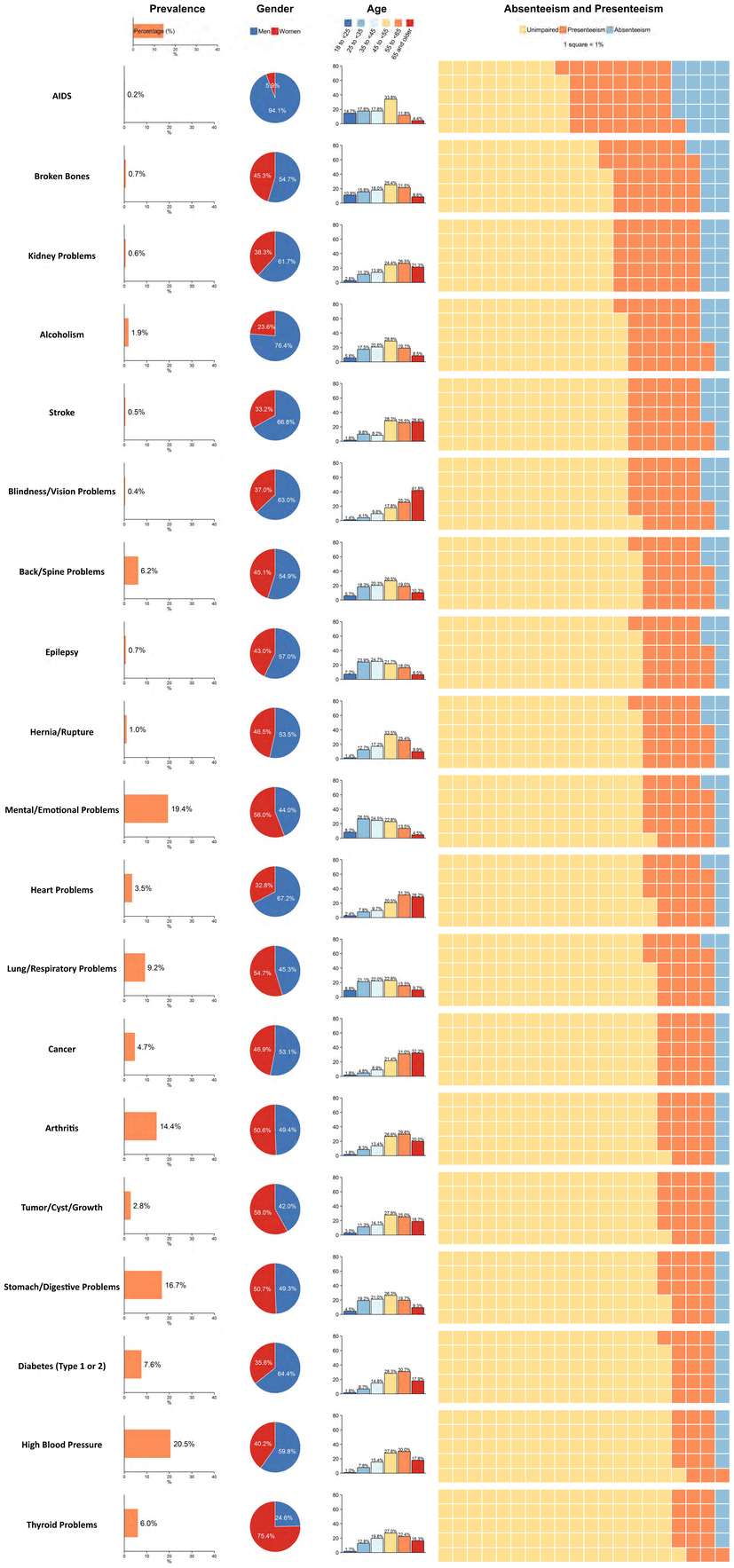
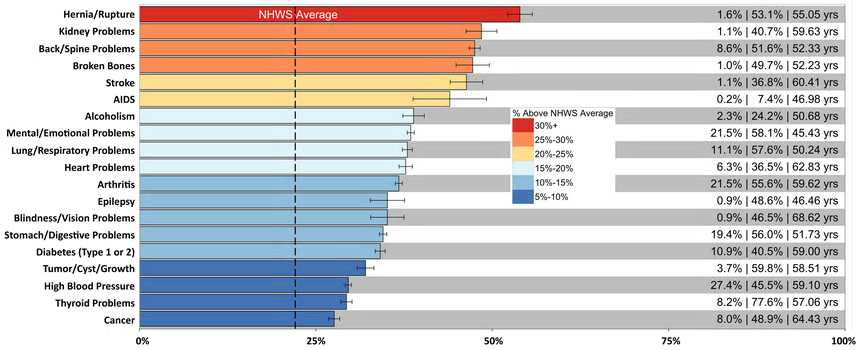


Figure 2. ***Activity Impairment, Prevalence, and Demographic Characteristics among All US NHWS Respondents by Condition***



References

1. Lofland JH, Pizzi L, Frick KD. A review of health-related workplace productivity loss instruments. *Pharmacoeconomics*. 2004;22(3):165-84.
2. Centers for Disease Control. Prevalence and Most Common Causes of Disability Among Adults: United States, 2005. *Morbidity and Mortality Weekly Report*. 2009;58(16);421-426.
3. Reilly MC, Zbrozek AS, Dukes EM. The validity and reproducibility of a work productivity and activity impairment instrument. *Pharmacoeconomics*. 1993;4(5):353-65.

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