

INTRODUCTION

- Lower urinary tract symptoms attributed to benign prostatic hyperplasia (LUTS/BPH) has significant impacts on quality of life
- As life expectancy increases in low-income countries, so will prevalence of age-related non-fatal diseases
- Current analyses of trends have focused on North America and Europe
- In the US, 28% of Medicare beneficiaries >65 years old carry the diagnosis of BPH
- Fee-for-service costs (excluding medication costs) of BPH/LUTS in the US were ~\$785 million in 2013
- Medication costs are similarly high, with 57% of men diagnosed with BPH filling a prescription
- Objective: To describe the trend in the impact of LUTS/BPH on a global scale using the Global Burden of Disease (GBD) database.

MATERIALS & METHODS

- Global Burden of Disease Database: 1171 worldwide registries and health systems from 1990-2017
- Years Lived with Disease (YLD) were calculated using weighted BPH disease codes (disability weight 0.067)
- We trended estimates for YLDs for LUTS/BPH over 27 years, with subset analyses by sociodemographic (SDI) quintile status

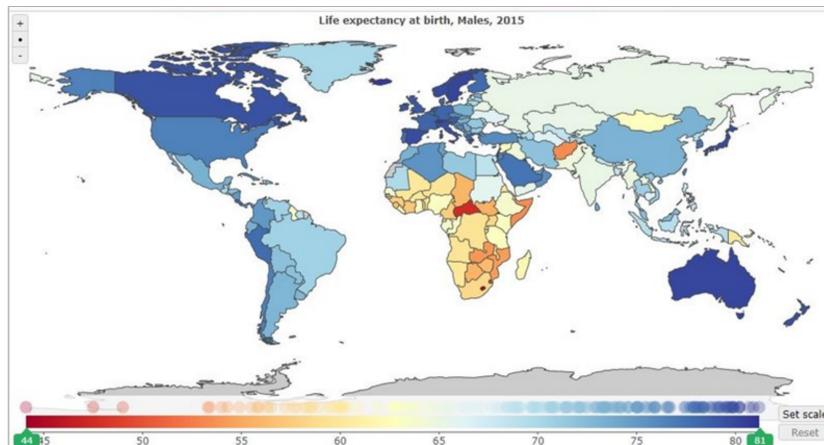


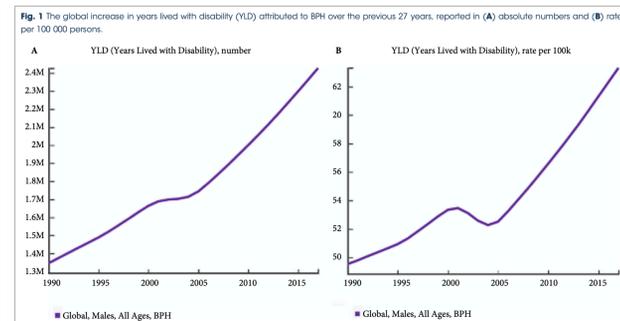
Image 1. Life expectancy at birth for males, worldwide, 2015 (Source: GBD Vizhub)

RESULTS

- From 1990 to 2017 the YLD attributed to LUTS/BPH for males of all ages have been rising steadily, even when controlling for population growth (Fig 1a, 1b).
- A total of 2 427 334 YLD were attributed to BPH in 2017 alone, almost three times more than those attributed to the next highest urological disease, prostate cancer (Table 1, Figure 2).

Table 1. Global and United States YLDs 2017 all ages both genders, absolute number. GBD standardized methodology and disability indices used.

	YLD	(CI)
LUTS/BPH	2,427,334	948,607
Prostate Cancer	843,226	531,978
Bladder Cancer	247,041	143,414
Urolithiasis	230,893	78,687
Kidney Cancer	141,048	88,949



- In global populations, when broken down by SDI quintile, LUTS/BPH show the highest impact when ordered by SDI level, with 25.1% of YLD in the highest quintile compared to 12.2% in the lowest quintile (Fig. 3).

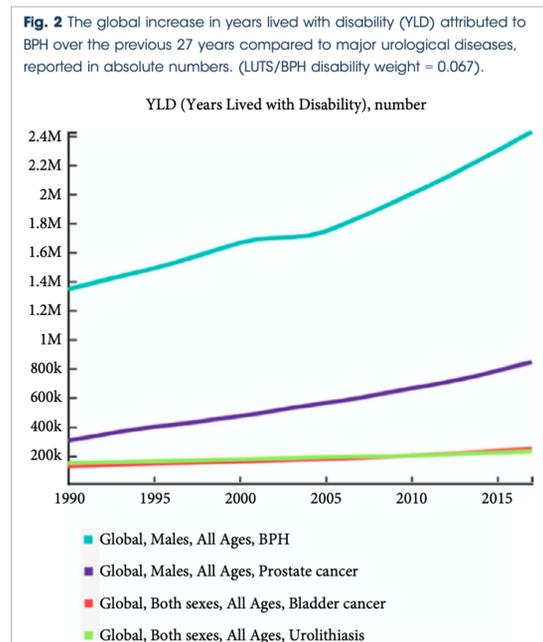


Fig. 2 The global increase in years lived with disability (YLD) attributed to BPH over the previous 27 years compared to major urological diseases, reported in absolute numbers. (LUTS/BPH disability weight = 0.067).

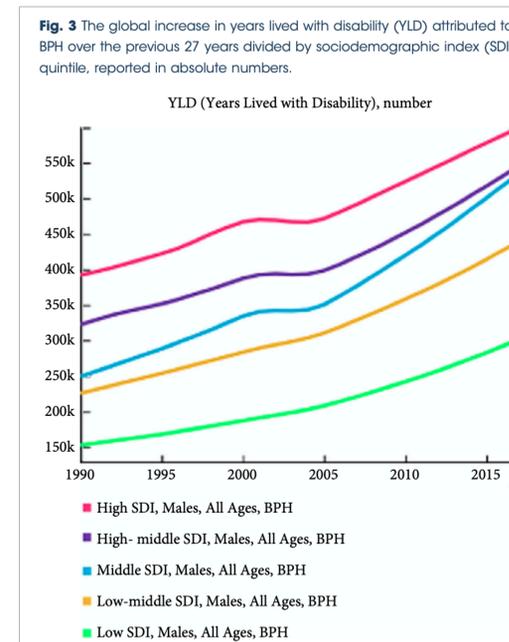
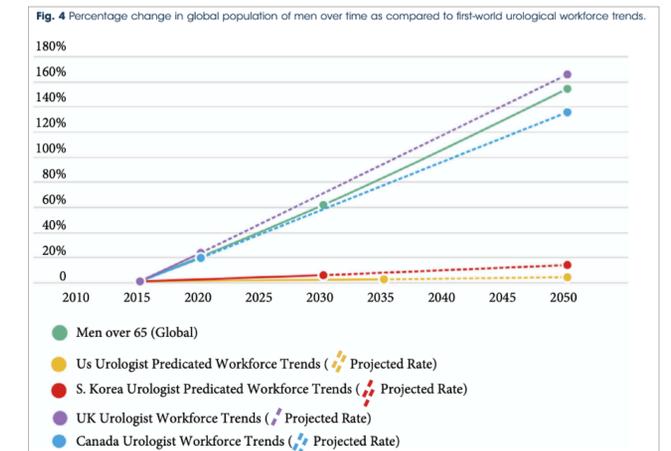


Fig. 3 The global increase in years lived with disability (YLD) attributed to BPH over the previous 27 years divided by sociodemographic index (SDI) quintile, reported in absolute numbers.

LIMITATIONS & CONCLUSIONS

- LUTS/BPH is responsible for more disease impact than any other urologic disease
- Men in higher SDI countries are more likely to experience LUTS/BPH- as lower SDI countries overcome fatal diseases, a similar rise in LUTS/BPH can be expected
- The urologic workforce in the United States is becoming inadequate to keep up with increasing demand (Figure 4)



- Limitations: Variability in standards of data gathering, non-fatal estimation, and disease severity and medical claims data being generalized from high-income countries
- Preventative, complimentary, and cost-effective treatment strategies are crucial to combat these physician-to-patient imbalances

Selected References

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Acknowledgements & Disclosures

Conflicts of Interest: None
 Funding Sources: None
 Acknowledgements: The authors would like to thank the GBD creators and contributors

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