INTRODUCTION
Gastroesophageal reflux disease (GERD) is a condition in which reflux of gastric contents causes troublesome symptoms or complications.1 The prevalence of GERD is high, with the degree of estimated to affect 10–20% of the population in the Western world.2,3 The health-related quality of life of GERD patients is significantly impaired. For example, the symptoms of GERD can lead to sleep disruption, reduced concentration at work, and interference with physical activities such as exercise and housework.4

The majority of large-scale studies on the burden of GERD have not accounted for differences in the severity of GERD symptoms.5

OBJECTIVE
The aim of this exploratory study was to describe the relationship between symptoms of GERD and self-reported concomitant diseases, health-related quality of life and work productivity.

METHODS
Data were obtained from the 2004 National Health and Wellness Survey (NHWS; http://www.nhwsurvey.com/), an internet-based study of adults. Data were obtained from the 2004 National Health and Wellness Survey, 

CONCLUSIONS

- Increasing severity and frequency of gastroesophageal reflux disease (GERD) symptoms is associated with more concomitant diseases, lower health-related quality of life, increased absence from work and reduced productivity in both work and non-work activities, as well as increased healthcare resource utilization.

- The interplay of GERD symptoms and concomitant diseases in the reduction of health-related quality of life and productivity in GERD patients remains to be clarified.

- Information on the combined burden of GERD and concomitant diseases is needed to identify individuals and patient subpopulations in whom a more effective and targeted management is justified.

RESULTS

- Overall, 64% of respondents with GERD had mild symptoms severity, and only 18% (n = 1171/6333) of this subset had symptoms on 2 days per year (Figure 1).

- Respondents with moderate or severe symptoms experienced these symptoms more frequently than those with mild disease, 64% (n = 1810/2841) and 79% (n = 586/745) of respondents with moderate and severe symptom severity had symptoms on 2–20 per week, respectively.

- The number of concomitant diseases was higher in respondents with GERD symptoms compared with the control group (mean difference [MD]: 1.6, 95% confidence interval [CI]: 1.6–1.7, Table 1), and the difference became more pronounced with increasing frequency and severity of GERD symptoms.

- Respondents with GERD missed more hours from work due to health problems compared with controls (MD: 0.9, 95% CI: 0.7–1.2, Table 2).

- A greater reduction in health-related productivity was observed in respondents with GERD compared with controls, both while at work (MD: 7.5, 95% CI: 6.7–8.4, Figure 2) and when performing daily activities (MD: 12.1%, 95% CI: 11.4–12.9%, Table 4).

- Absenteeism, in productivity at work and impairment in performance of daily activities all became more pronounced with increasing symptom severity and frequency (Tables 2–4).

- Respondents with GERD had lower SF-8 physical and mental scores compared with controls (Figure 2).

- The mean SF-8 physical and mental scores for the control group were 48.8 (95% CI: 48.6–49.0) and 51.3 (95% CI: 51.1–51.5), respectively; in comparison, published SF-8 physical and mental scores for the total US population are both 49.2.

- A difference of 3–5 units in any of the 36-item Short-Form Health Survey (and thus also SF-8) dimensions or components has been proposed to be clinically relevant;6 respondent groups with moderate or severe symptoms and/or symptoms on ≥ 2 days per week therefore show clinically relevant decreases in both physical and mental SF-8 scores.

- The reduction in SF-8 physical and mental scores correlated with the severity and frequency of GERD symptoms, indicating that quality of life is impaired to a greater extent with increasing frequency and/or severity of GERD symptoms.

- Increasing severity and/or frequency of GERD symptoms was also significantly (p < 0.001) associated with more physician visits, emergency room visits, hospitalizations and GERD and/or concomitant medication.

- Results from previous studies in general US employee populations have consistently indicated a GERD-related reduction in work productivity of around 10%, compared with 7% in this study. This discrepancy is most likely due to differences in the definition of GERD; in this study, GERD respondents were identified as those reporting > 1 day with GERD-related symptoms or medication during the past month.

REFERENCES