

# European Respiratory Society Annual Congress 2012

**Abstract Number:** 2402

**Publication Number:** P995

**Abstract Group:** 6.1. Epidemiology

**Keyword 1:** Epidemiology **Keyword 2:** Longitudinal study **Keyword 3:** Public health

**Title:** Health, social and economic consequences of chronic obstructive pulmonary disease (COPD): A controlled national study

Dr. Anders 17339 Løkke aloekke@gmail.com MD <sup>1</sup>, Dr. Ole 17340 Hilberg ole.hilberg@aarhus.rm.dk MD <sup>1</sup>, Dr. Philip 17341 Tønnesen phtoe@geh.regionh.dk MD <sup>2</sup>, Jakob 17348 Kjellberg JKC@dsi.dk <sup>3</sup>, Rikke 17354 Ibsen rikke@itracks.dk <sup>4</sup> and Prof. Poul 17355 Jennum POJE@glo.regionh.dk MD <sup>5</sup>. <sup>1</sup> Department of Respiratory Medicine, Aarhus County Hospital, Aarhus, Denmark, 8000 ; <sup>2</sup> Department of Pulmonary Medicine, Gentofte University Hospital, Gentofte, Denmark, 2820 ; <sup>3</sup> Danish Institute for Health Services Research, Danish Institute for Health Services Research, Copenhagen, Denmark ; <sup>4</sup> Itracks, Itracks, Aarhus, Denmark and <sup>5</sup> Danish Center for Sleep Medicine, Department of Clinical Neurophysiology, Center for Healthy Ageing, Faculty of Health Sciences, University of Copenhagen, Glostrup Hospital, Copenhagen, Denmark .

**Body:** Rationale: The objective direct and indirect costs of COPD among adults and the treatment are incompletely described. Methods: From the Danish National Patient Registry (1998-2010), 171,557 (83,338 men and 88,219 women) COPD patients (ICD-10 diagnoses: J44.0 - 44.9) were identified and included. For every patient, four age-, sex- and socioeconomic-matched control citizens were randomly selected from the Danish Civil Registration System (322,233 men and 342,588 women). Statistics Direct costs were extracted from the Danish Ministry of Health, Danish Medicines Agency and National Health Security and indirect costs were based on data from the Coherent Social Statistics. Results: After 12 years only 33.1% of the COPD patients were still alive compared to 61.4% of the control citizens. COPD were associated with significantly higher rates of health-related contact, medication use, unemployment, and accounted for increased socioeconomic costs. The annual mean excess health-related cost for each patient with COPD was €6121 before and €5909 after diagnosis, respectively, compared to controls. Patients with COPD had medication, hospital and total health costs 2-3 times higher than controls and overall employment rates 30% lower than controls. Employed COPD patients earned only around 58% of the income of controls. These socioeconomic consequences were present even 11 years prior to the first diagnosis in patients with COPD, and increased with disease advancement. Conclusion: COPD has major socioeconomic consequences for the individual and for society. Mortality and morbidity from COPD is very high and earlier disease detection could have a greater impact on disease complications.