



## EDITORIAL

# No more *hic sunt dracones*: Portugal is in the COPD map

## Sem mais *hic sunt dracones*: Portugal encontra-se no mapa da DPOC

Oceanic explorers used to denote dangerous or unexplored territories with the Latin quote “*Hic sunt dracones*”, that is “Here be dragons”, in imitation of the medieval practice of putting dragons, sea serpents and other mythological creatures into uncharted areas of maps. We do not know whether Fernão de Magalhães (1480–1521) and his acolytes ever smoked, and it is very unlikely that he ever performed any archaic lung function testing, but now the analogy would no longer pertain to COPD in Portugal. This is why the first Burden of Lung Disease (BOLD) study report in Portugal is so welcome.<sup>1</sup>

The European Community Respiratory Health Survey (ECRHS),<sup>2</sup> initially studied the prevalence of asthma in young adults, and then the International Study of Asthma and Allergies in Children (ISAAC) analyzed the child population,<sup>3</sup> and the Portuguese participation provided valuable data widely used elsewhere.<sup>4–7</sup> In the very same way BOLD has aimed to obtain population prevalence data of COPD using standardized spirometry and definitions. From its onset in 2004,<sup>8</sup> and up to December 2012, BOLD was completed in 23 centres worldwide, and another six sites are expected to complete data collection in 2013.

The highly cited, influential Global Burden of Disease (GBD) studies estimated that COPD causes the death of at least 2.9 million people annually. Estimates of COPD as sixth in the global mortality ranking in 1990,<sup>9</sup> were revised upwards to fourth in 2006 and were projected to be the third by 2020.<sup>10</sup> To many people’s surprise, a GBD 2010 new update, which has just been released, identified some mortality trends were declining.<sup>11</sup> So, from all the non-communicable diseases (NCDs) at a global level, only COPD and congenital anomalies have declined, yet chronic respiratory diseases as a group accounted for 4.7% of global DALYs, with COPD making up two-thirds of the total and asthma nearly a fifth of the total.<sup>12</sup> Data from Barbara et al.<sup>1</sup> are expected to be included in any new GBD update.

It is a fact, as discussed in their introductory remarks,<sup>1</sup> that there were very little previous data on COPD in Portugal; they had been minimally represented by a small non-comparative study, which only had pre-BD spirometry data, from 2002.<sup>13</sup> Now, using data with the highest validity, clinicians, investigators and health administrators can start quoting figures about the prevalence of COPD in Portugal; it is 14.2%, 18.7% in men and 10.5% in women, and the vast majority (86.8%) is as yet undiagnosed. Using back of an envelope calculations, one can extrapolate that from a total population of 10.5 million, among 5.4 million Portuguese adults aged 40 years and older,<sup>14</sup> at least 750,000 suffer from COPD, and more than 660,000 are still undiagnosed.

These estimates, using the COPD GOLD fixed ratio definition of post-BD FEV<sub>1</sub>/FVC < 0.70, place Portugal in the European average. COPD in Portugal is more frequent in men, and it increases with age, and with more smoking exposure. These very basic, confirmatory estimates of descriptive epidemiology have been long awaited. As well as its novelty factor, the use of a random digit dialling (RDD) telephone sampling to screen for potential responders is innovative and appropriate. However, critical appraisal of limitations include the 27% response rate, although the non-response study seems reassuring in relation to the final representativity of the obtained sample to the general population, with no differences in responders vs. non-responders in terms of age, smoking, previous respiratory diseases, or comorbidities; only for gender. Overall, the 20.2% crude prevalence was downgraded to 14.2%. Data only relates to Lisbon, while high heterogeneity is seen in other national studies with multiple centres and areas.<sup>15,16</sup> Given that the fieldwork was carried out in 2008, an update will be deemed necessary in due course. Of interest are the high frequency of airflow limitation in never-smokers, to exploring other centres within the Portuguese geography, and local determinants of COPD in women,<sup>17</sup> all are potential avenues for future research.

Monitoring epidemiological trends is an arduous, lengthy undertaking. With an estimated 210 million people

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worldwide suffering from COPD, but with 80% or higher yet undiagnosed, there remain many large areas in the Globe with blank data regarding spirometry-based COPD estimates.

Since you cannot manage what you do not measure, the first step to counter any major health problem is to measure its burden. This very basic, fundamental Public Health principle applies well to COPD. Thanks to Barbara et al.,<sup>1</sup> Portugal is no longer a blank spot in the COPD map.

### Conflicts of interest

The authors have no conflicts of interest to declare.

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