P035
Geographical variation of prevalence, and under-diagnosis of COPD in urban and rural communities of China: Finding from China Kadoorie Biobank of 0.5M people
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Results:
COPD is a major cause of mortality and morbidity in China. But, relatively little is known about the interregional variation of the disease prevalence and rate of under-diagnosis in the general population. We estimate the prevalence of air flow obstruction (AFO) using increased lung function in a large population-based study and compare it to self-reported physician diagnosed COPD.

Methods:
China Kadoorie Biobank involves 512,891 adults, aged 30-79, who were recruited during 2004-8 from 10 diverse regions of all China. All the participants performed spirometry and gave information on self-reported history of doctor-diagnosed chronic bronchitis/emphysema, current medication and possible COPD risk factors.

Results:
The prevalence of AFO (ie, FEV1/FVC<0.7) was much higher in rural than in urban areas (men: 8.2% vs. 4.6%; women: 5.2% vs. 3.0%). In both sexes, the prevalence was also higher in those with poor education, lower income and older age. Similar trends were seen when using the lower limit of normal of FEV1/FVC for diagnosing AFO. Compared with self-reported COPD, 86.4% of the AFO cases were identified prior to the survey; higher in urban than in men (88.4% vs. 83.5%) but lower in rural than in urban areas (45.9% vs. 87.5%) with clear heterogeneity across regions for both men (75.4%-96.1%) and women (77.1%-98.3%). In both sexes, >40% of doctor diagnosed COPD were currently under medication.

Conclusion:
There was wide heterogeneity in prevalence of AFO across the ten different regions of China, with the large majority of them being undertreated in both men and women.

P036
Heterogeneity in prevalence and under-diagnosis of COPD: Results from BOLD, EPE-SCAN, PLATINO, and PREPOCOL
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Methods:
Representative samples of adults aged ≥40 yrs were randomly selected from well-defined administrative areas at studied sites. Post-bronchodilator spirometry and face-to-face interviews were performed. Post-BD FEV1/FVC<0.7 was used to define chronic airflow limitation consistent with COPD. Doctor-diagnosed COPD was self-reported. Under-diagnosed COPD was considered when participants had a FEV1/FVC<0.7 and did not report previous diagnosis of COPD by a doctor or health professional.

Results:
Among 30,874 participants with a mean age of 56 yrs, 55.8% were female, and 22.9% were current smokers. Prevalence of reported doctor-diagnosed COPD ranged from 0.1% in Pune (India) to 27.4% in Lenexa (US). 34.0% of all participants reported having had a lung function test before, with a major rate of 87.6% in Norway and the lowest rate of 0.5% in Nigeria. Prevalence of COPD ranged from 3.6% in Burnquilla (Columbia) to 19.0% in Cape-Town (SA). 81.4% were undiagnosed with the highest rate in Il-Ilé-Ife, Nigeria (98.3%) and the lowest rate in Lexington, US (90.0%). Male gender, lower age, current smoking, and less severe airflow limitation were associated with underdiagnosis.

Conclusion:
There is substantial heterogeneity in prevalence and underdiagnosis of COPD worldwide. The majority of COPD cases remain undiagnosed.

P037
Spirometry during public events
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The main cause to offer spirometry during public events is to increase the awareness of lung diseases. However, in some participants an impairment of lung function is detected in absence of known cardiac or lung diseases.

Method:
At the world spirometry day in 2012 and the german lung day in 2011 we analysed 2182 lung function tests and questionnaires, which are supplied by the European lung foundation (ELF).

Results:
In 1231 participants (55.5% women, 45.5% men) spirometry and questionnaires were of sufficient quality. The mean age was 58 ± 20 yrs, 15 % were smokers, 29% were ex-smokers and 56% non smokers; 22% of smokers and ex-smokers and 11% of non smokers showed an obstructive impairment. In 13% and 14% of smokers and ex-smokers, respectively, and 11% of non smokers lung function showed a restrictive impairment. In 30 % of all participants a pulmonary disease had already been diagnosed. However, in 9% of the participants without a known cardiac or pulmonary disease spirometry was abnormal.

Conclusion:
In 9% of participants without a known pulmonary or cardiac disease spirometric impairment was detected. Unfortunately there is no information about follow-up tests and underlying diagnosis.

P038
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Background:
There is a weak knowledge of the population in Poland about respiratory diseases causes, symptoms and effects. Dissemination of knowledge on these issues was one of the objective of Polish and World Spirometry Day.

Material:
4088 persons (from 490 different places) were investigated in a study made during Polish Spirometry Day in 2011 and World Spirometry Day in 2012. Pulmonary function tests were completed (Easy One, Srohiro Spirometer) and occurrence of respiratory system diseases symptoms, allergies, smoking, etc. were proved. Final analyses encompassed the results of 2881 people.

Results:
For 1860 people it was the first pulmonary function test in their life. 357 cases of obstruction were identified (among smokers 16.5% of this group) and among non-smokers 209 (11.0% of group). Of those people who have not previously been diagnosed with asthma or COPD (N=2452), spirometry tests showed obstruction among 266 individuals (10.9% of this group).

Comparison of spirometric parameters depending on the place of residence have shown (using Kruskal-Wallis test) statistically significant differences.