



Respiratory diseases: the PONS Study

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Respiratory diseases

- chronic obstructive pulmonary diseases (COPD)
- asthma
- infections
- tumours
- restrictive diseases
- pulmonary vascular diseases (embolism, edema)

Obstructive respiratory diseases

- Chronic obstructive pulmonary diseases (COPD)
- Asthma

Symptoms:

- Wheezing
- Coughing with phlegm

Symptoms of COPD & asthma in PONS

Self reported:

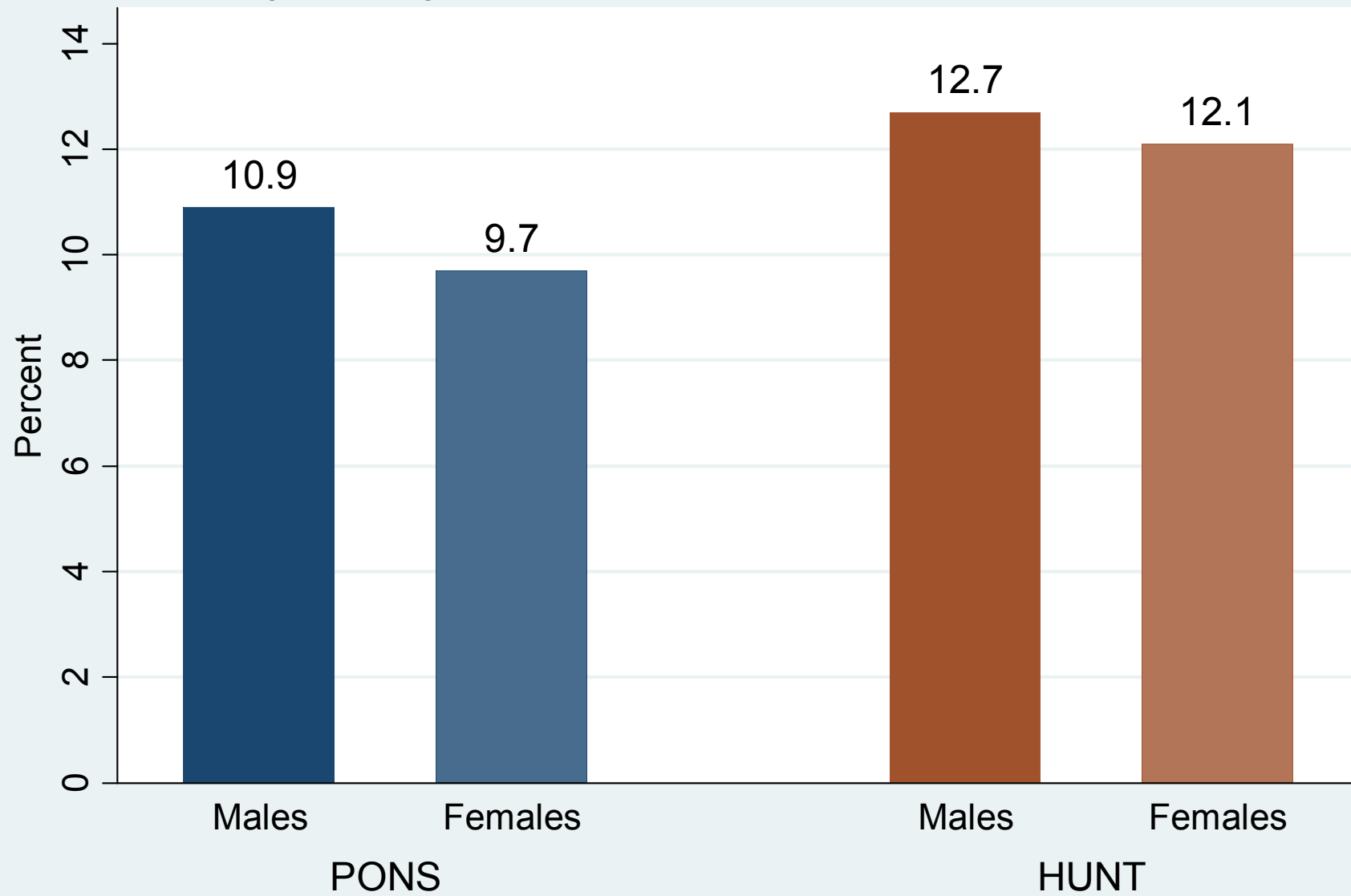
Have you experienced any of the following symptoms or health problems in the past 6 months?

Wheezing and whistling in the lungs or chest?

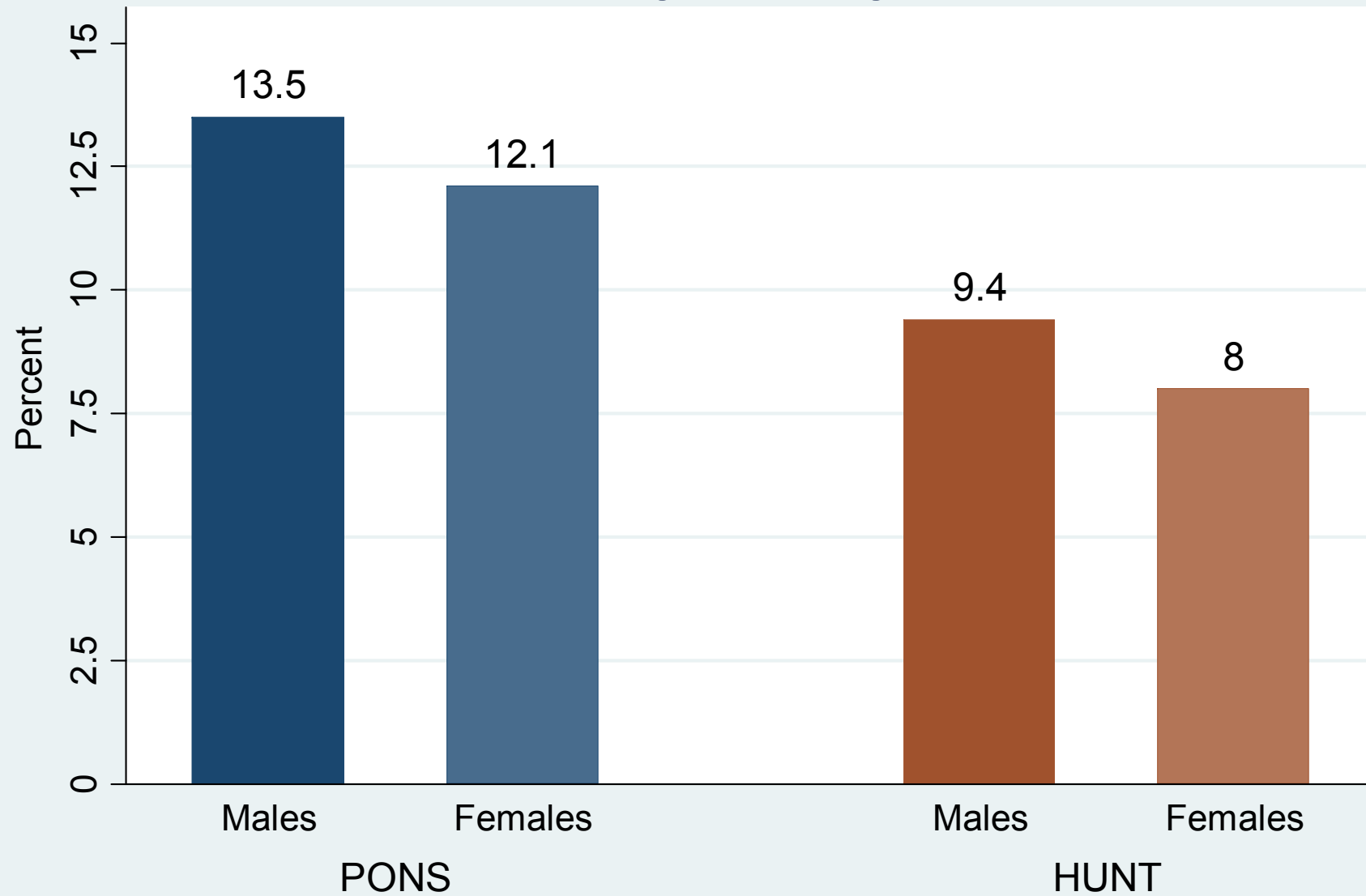
'Wet' Cough/ cough with phlegm?

Similar questions asked in the Norwegian pop.based study HUNT2 (Age: 45-65 in Pons and 45-69 years in Hunt)

Self reported prevalence of wheeze in PONS and HUNT



Self rep. prevalence of cough w/phlegm in PONS and HUNT



Asthma

A chronic inflammatory disease of the airways

- Asthma causes recurring episodes/attacks of wheezing, breathlessness, chest tightness, particularly at night or in the early morning
- Asthma is clinically classified according to the frequency of symptoms, forced expiratory volume in 1 second (FEV_1), and peak expiratory flow rate

Asthma in PONS

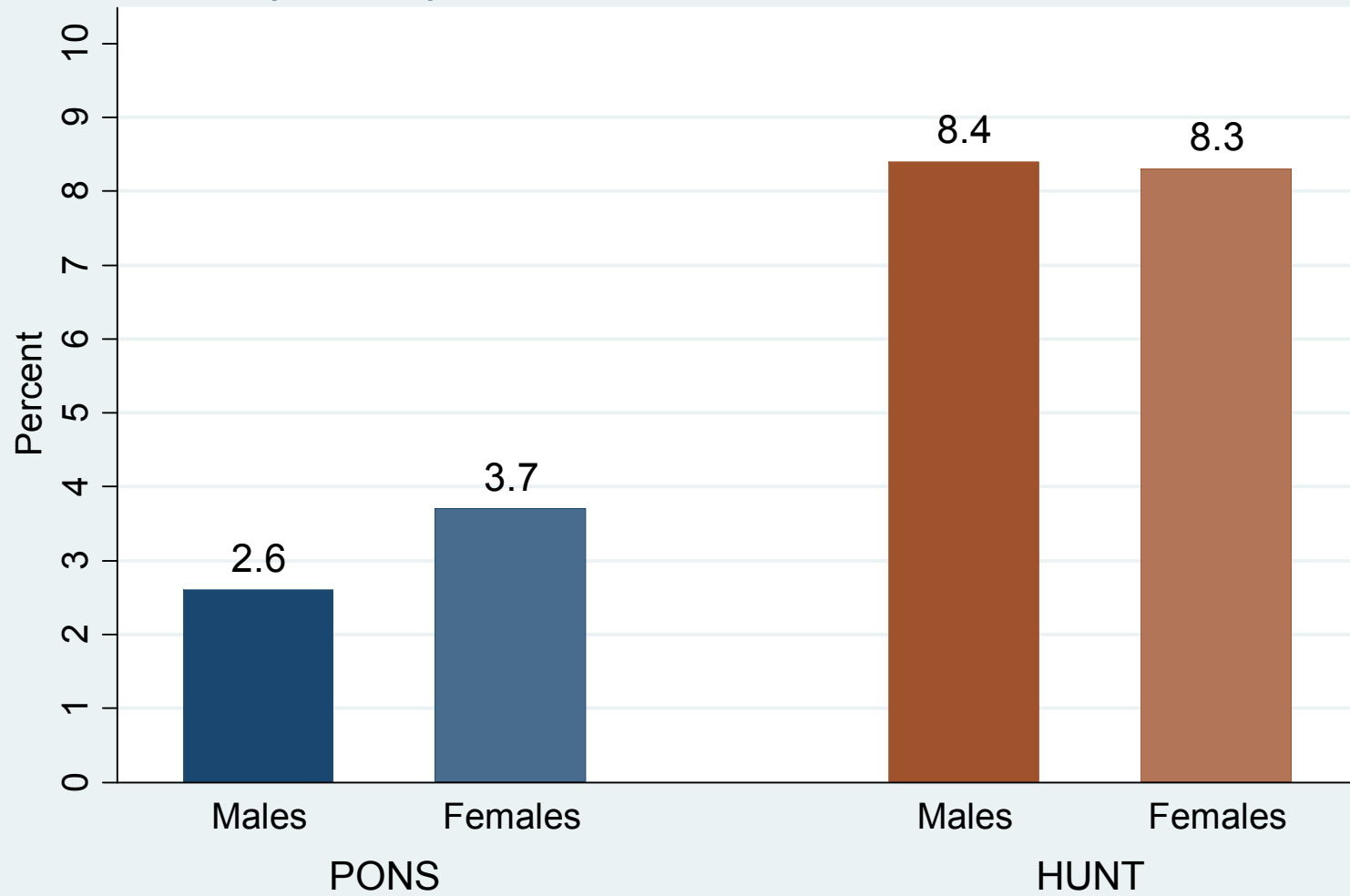
Self reported:

Have you ever been diagnosed with any of the following diseases?

Asthma?

Similar question in the HUNT study

Self reported prevalence of asthma in PONS and HUNT



Chronic obstructive pulmonary diseases (COPD)

Caused by noxious particles/gas – eg. Smoking

- Triggers abnormal inflammatory response
- The diagnosis of COPD requires lung function tests (spirometry)

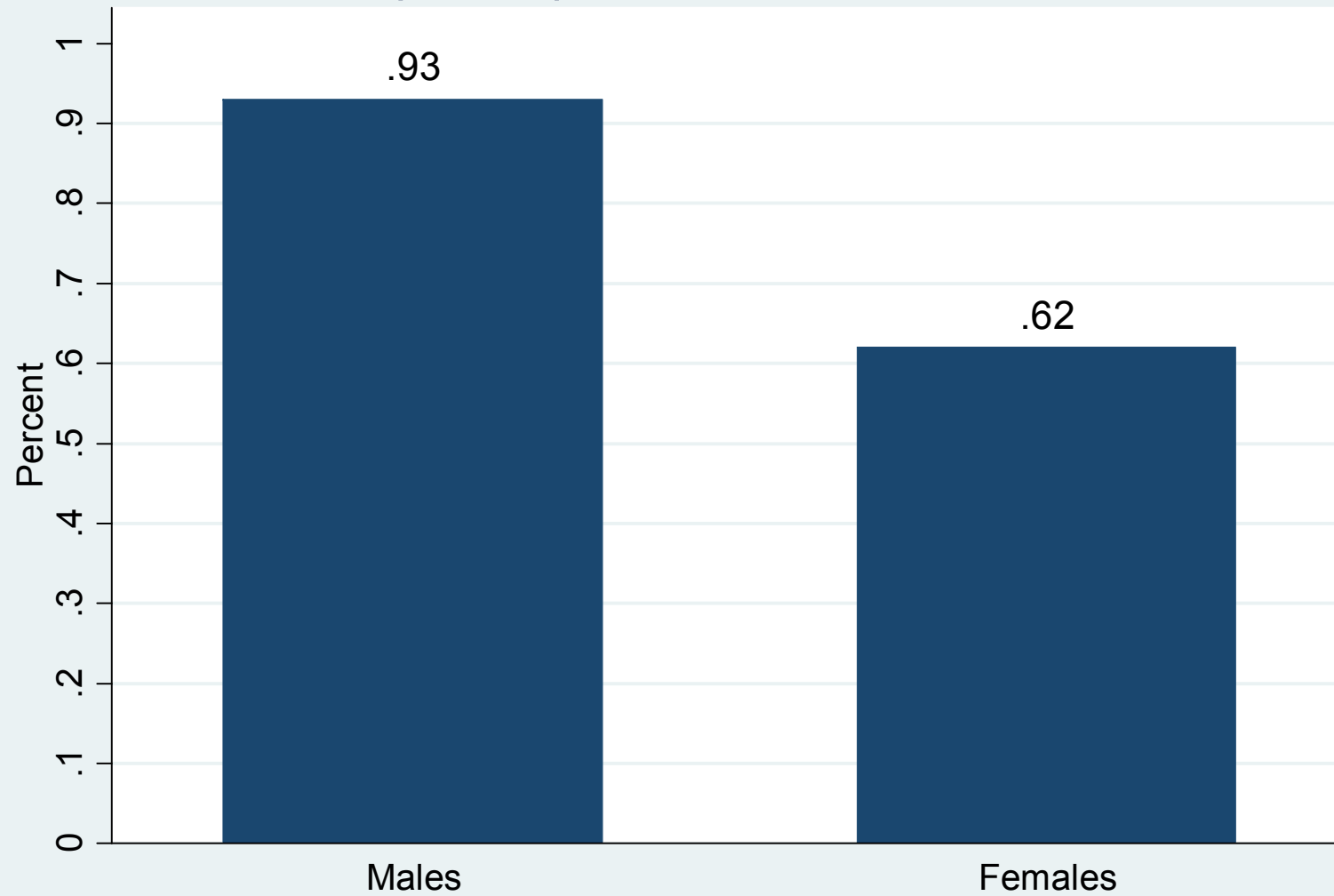
COPD in PONS

Self reported:

Have you ever been diagnosed with any of the following diseases?

Chronic obstructive pulmonary disease (COPD)?

Self reported prevalence of COPD in PONS

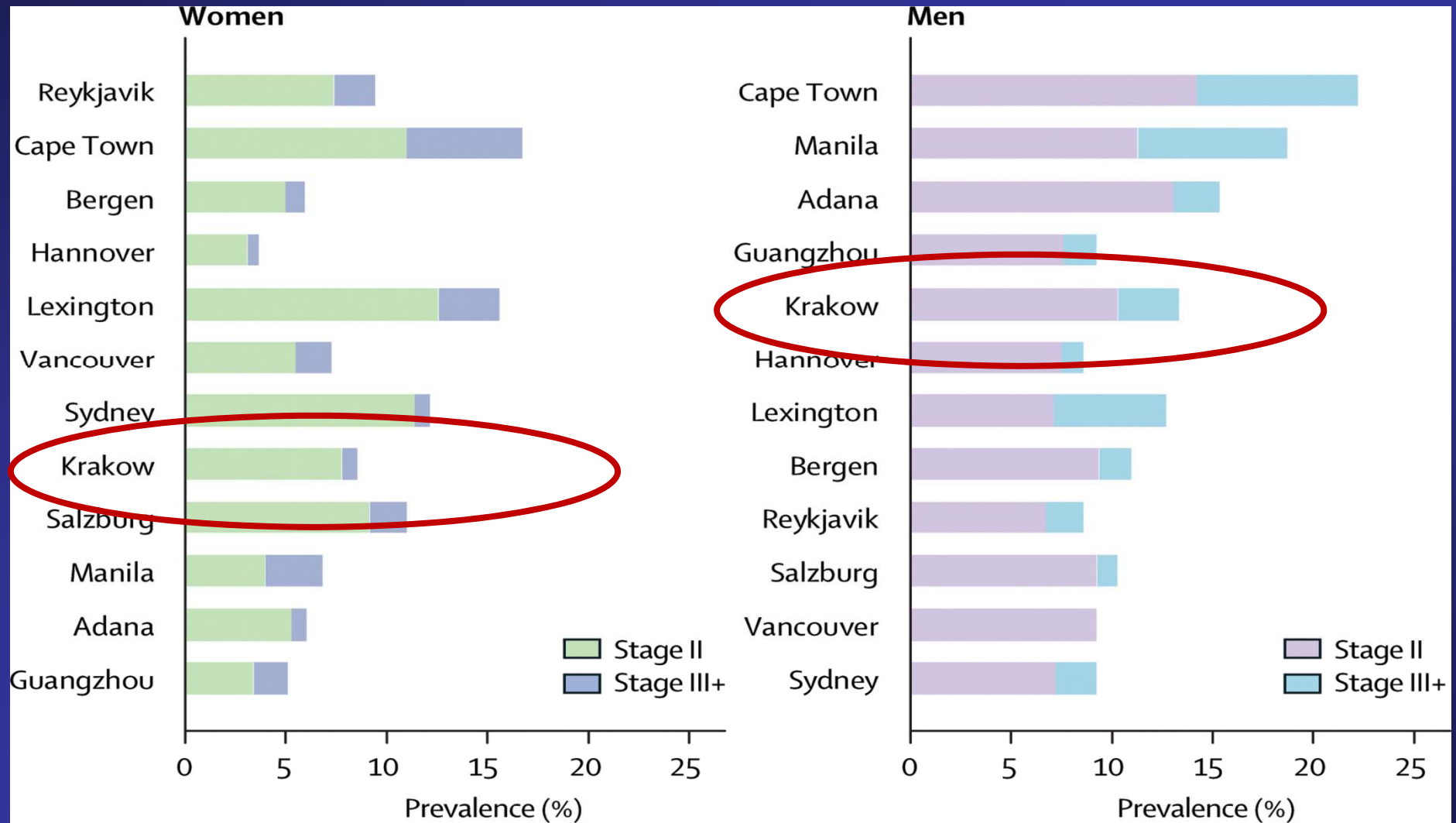


Chronic obstructive pulmonary diseases (COPD)



- Worldwide, COPD ranked as the sixth leading cause of death in 1990
- projected to be the third by 2020 (Rabe, 2007)
- The Bold study estimated the prevalence of COPD in 12 locations worldwide
- also Krakow, Poland

International variation in the prevalence of COPD (The BOLD Study)



Buist et al. Lancet 2007: vol 370

Spirometry in PONS and COPD

FEV1=Forced expiratory volume in 1 sec

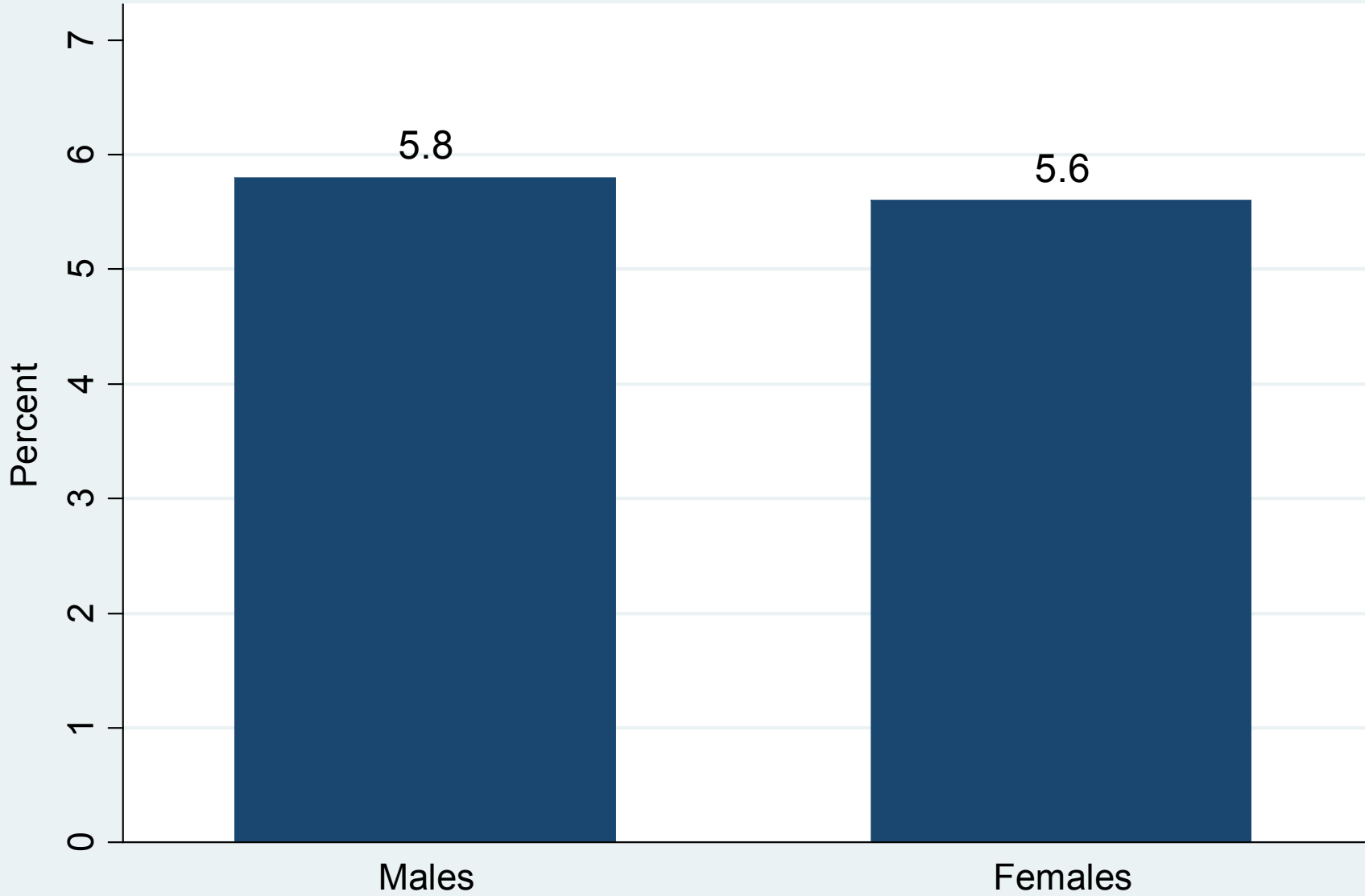
VC=Vital capacity

COPD defined as $FEV1/VC < 0.7$

”Preliminary analyses due to uncertainty with spirometry data”

Eg. several persons have FEV1/VC values exceeding 1

Prevalence of COPD in PONS using FEV1/VC <0.7



Concluding remarks 1.

- Prevalence of self reported symptoms of obstructive lung diseases is broadly in line with other studies
- Prevalence of self reported asthma is lower than in a Norwegian study and may be underestimated in PONS

Concluding remarks 2.

- Burden of chronic obstructive pulmonary diseases is expected to increase due to the ageing of the population and current and previous exposure to smoking
- The low proportion of self reported COPD in the PONS study suggests that COPD is substantially under-diagnosed in Poland
- Estimates of the prevalence of this disease are needed to anticipate the future burden of COPD