PREVALENCE OF CHRONIC KIDNEY DISEASE IN POLAND

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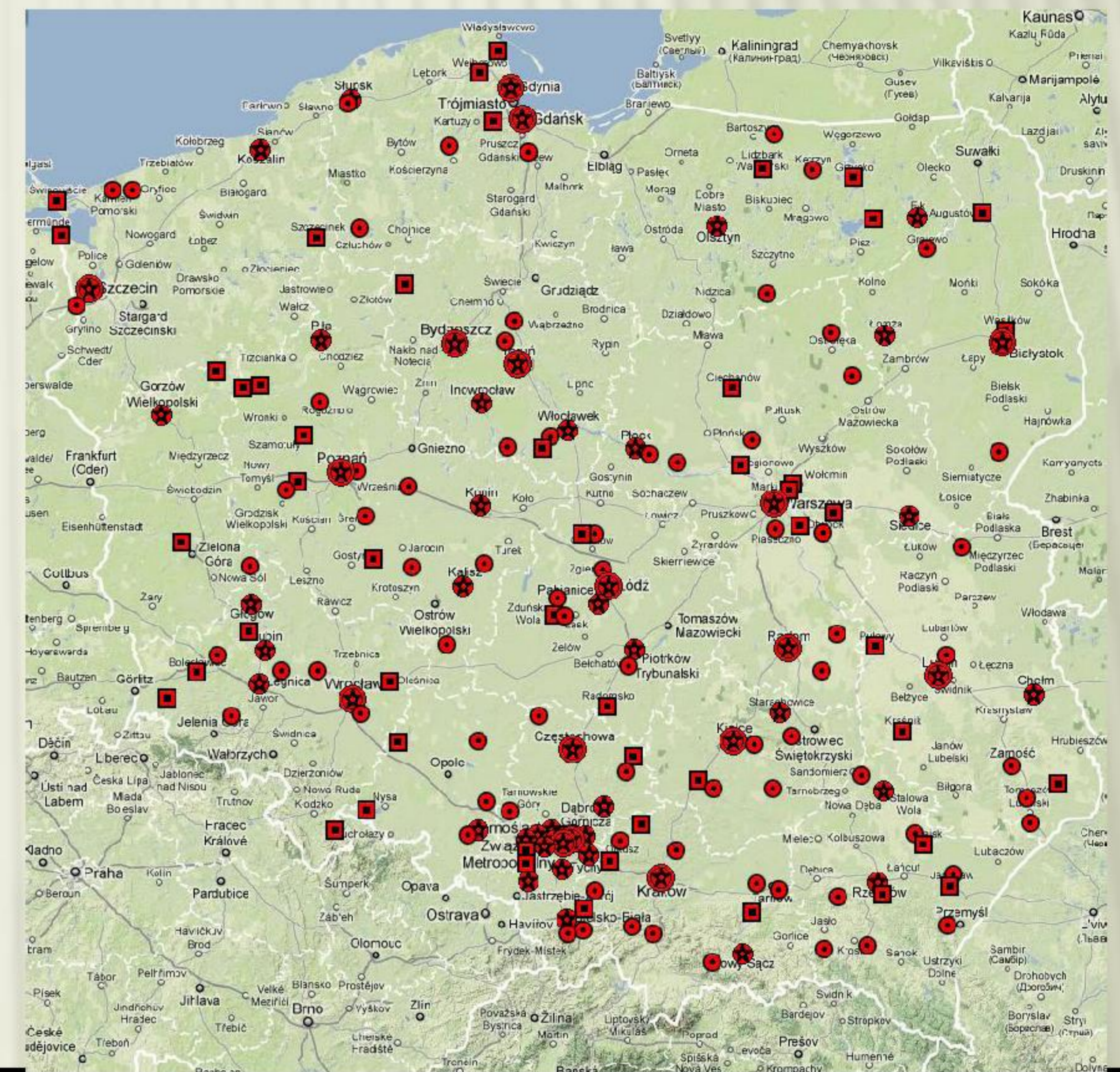
Background
Albuminuria and/or lowered estimated glomerular filtration rate (eGFR) – symptoms of chronic kidney disease (CKD) are also risk factors of cardiovascular and general morbidity. Until now, data on prevalence of chronic kidney disease (CKD) in Poland were based on the PolNef study conducted in one selected country region. The aim of the NATPOL 2011 study was to assess prevalence of CKD in a representative sample of adult Polish citizens.

Aim
To assess the prevalence of chronic kidney disease (CKD) in Poland.

Methods
We studied a representative sample of 2413 of adults in Poland (1245 females – F; 1168 males – M), aged 18 to 79. The response rate was 66,5%. For each subject a detailed medical history was taken, arterial pressure and anthropometric parameters measured, blood and urine samples were taken. The concentration of serum and urine creatinine were measured with an enzymatic method, whereas urine albumin concentration was estimated once in a morning urine sample with an immunoturbidimetric method. CKD was diagnosed for eGFR (estimated with abbreviated MDRD formula) < 60 ml/min/1,73 m^2 or eGFR>60 ml/min/1,73 m^2 with coexisting albuminuria (albumin-to-creatinine ratio: M >17 mg/g, K >25 mg/g).
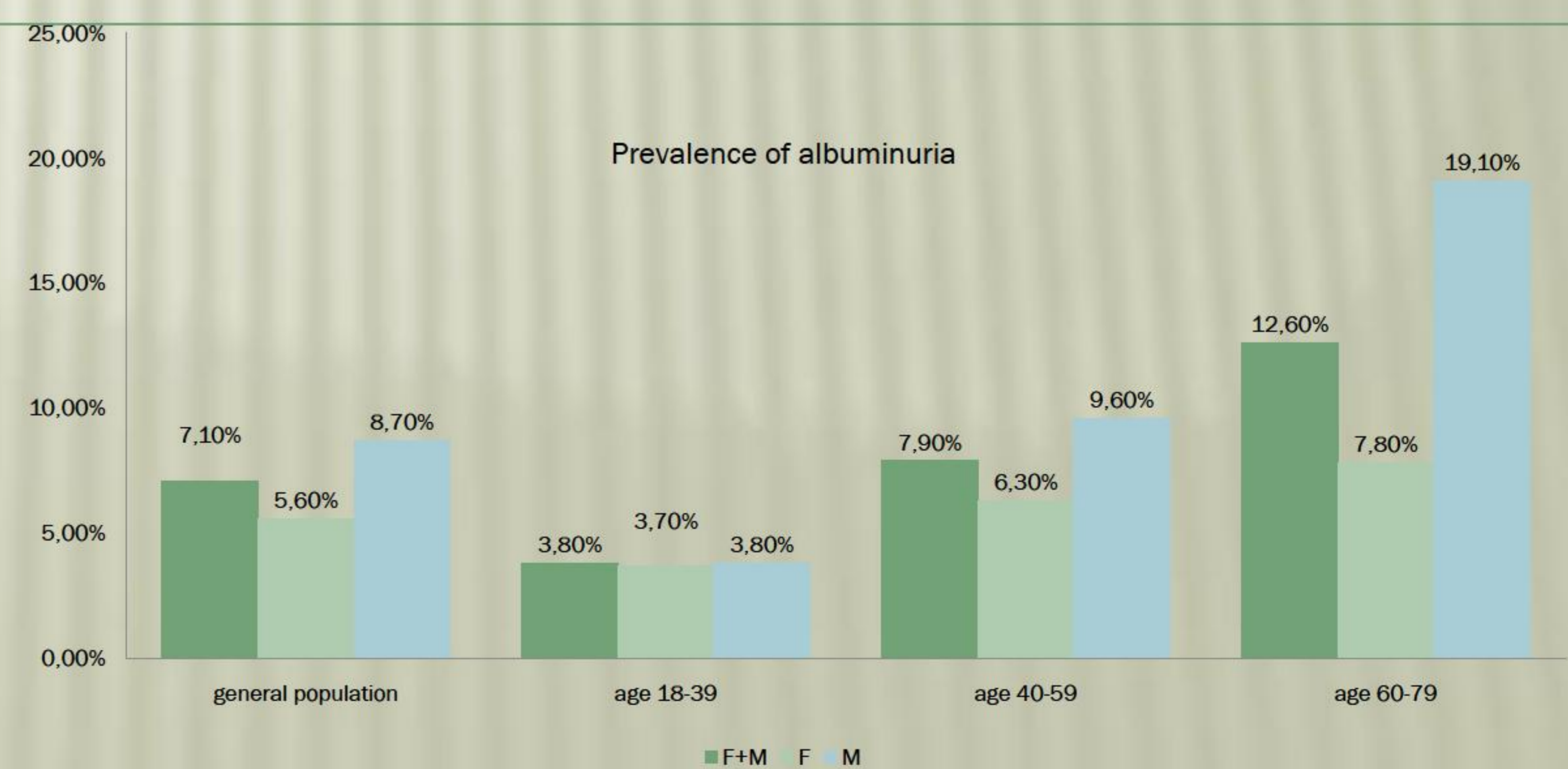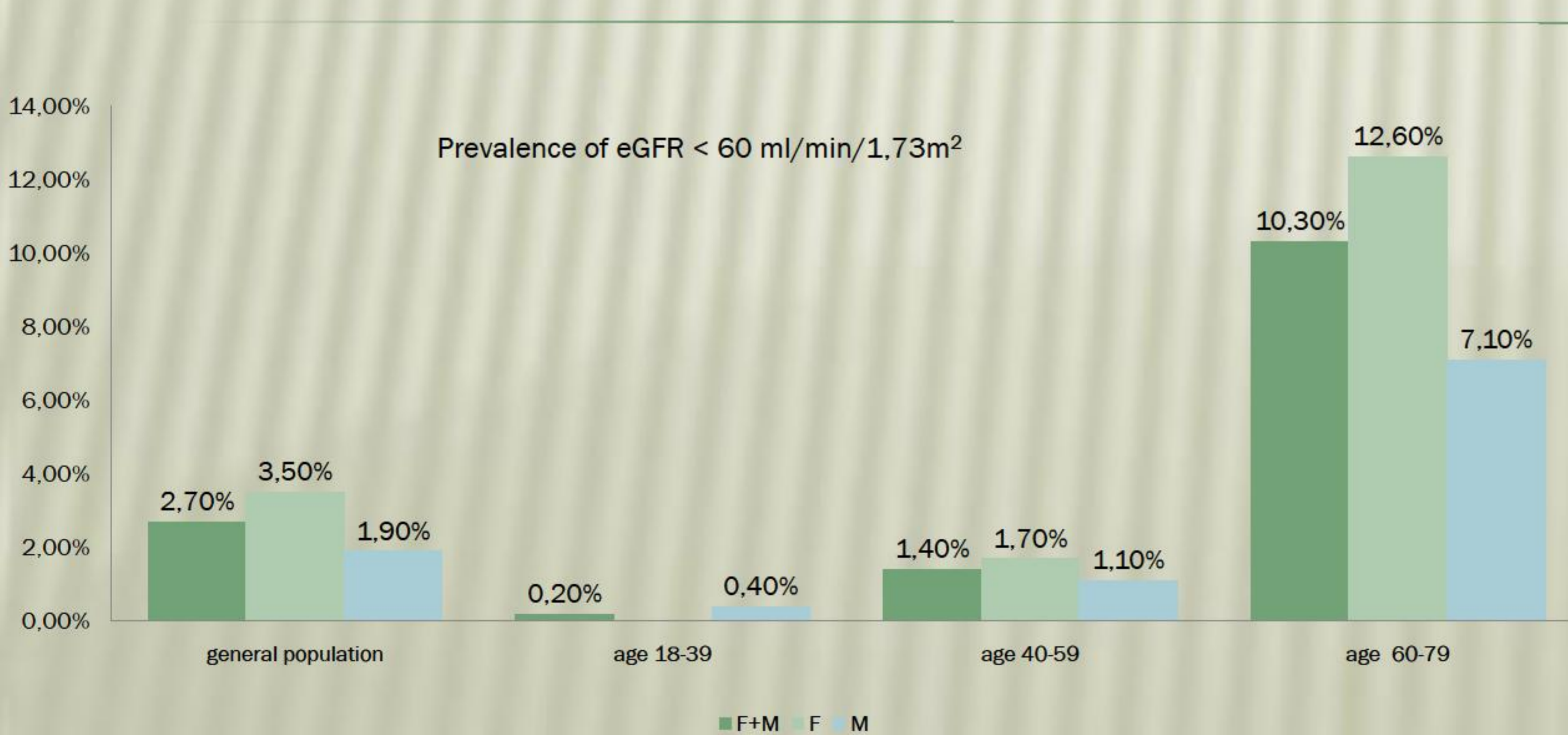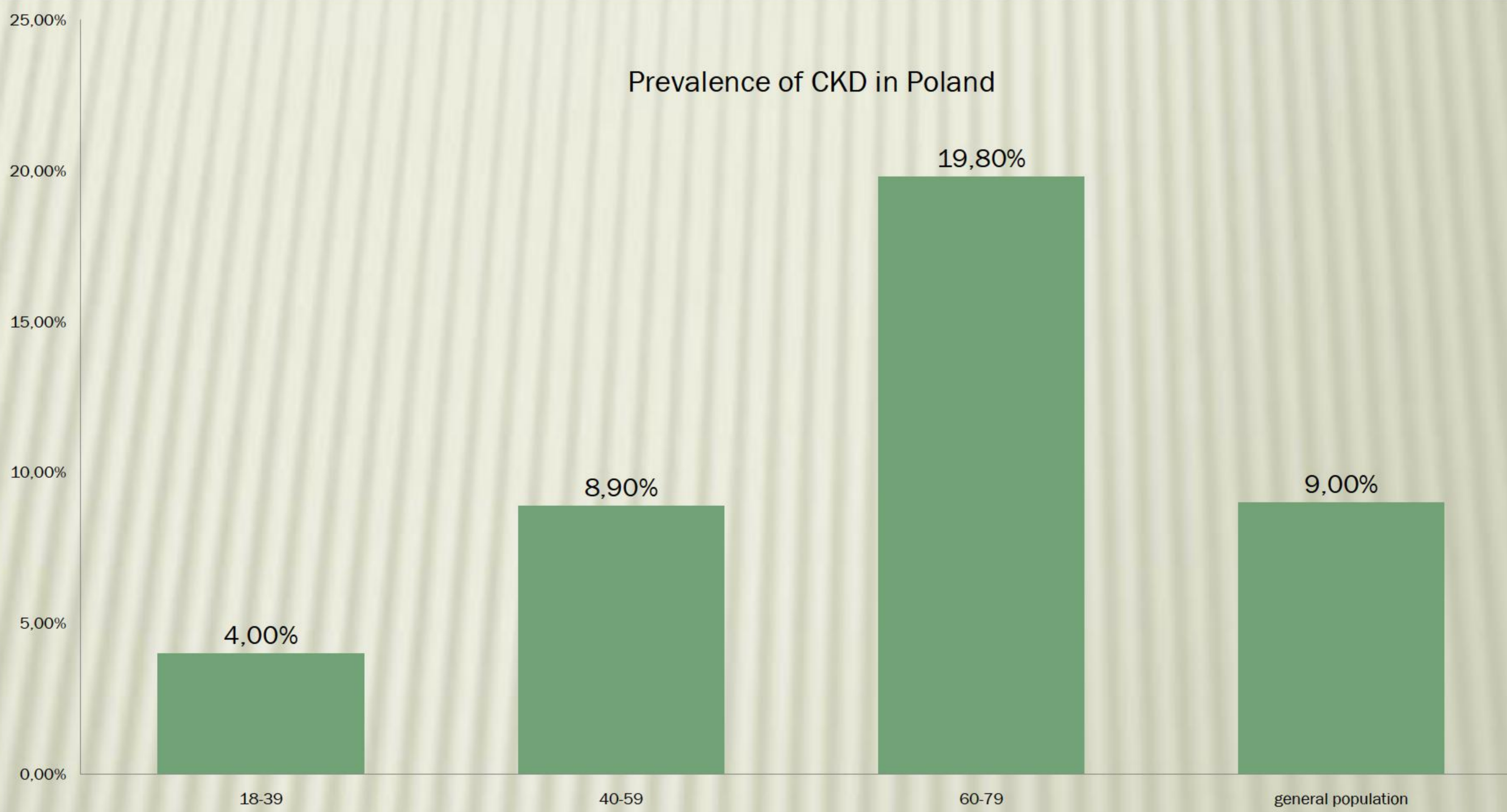
Results
Prevalence of CKD in adults in Poland aged 18 to 79 years is 9,0% (7,8–10,4, CI 95%) and is higher in males (F 8,5% vs M 9,6%; p=0,194). It increases with age and in the age group 18 to 39 equals 4,0% (F 3,7%; M 4,2%; p=0,416), 40 to 59 years - 8,9% (F 7,6%; M 10,2%; p=0,117). The highest prevalence was observed in the age group 60 to 79 years - 19,8% (F 18,2%; M 21,9%; p=0,163). The prevalence of decreased eGFR<60 ml/min/1,73 m^2 is 2,7% (F 3,5%; M 1,9%.; p=0,009).
Prevalence of albuminuria is 7,1% (F 5,6%; M 8,7%; p=0,002) and increases across the age groups (18-39: 3,8%, 40-59: 7,9%, 60-79: 12,6%). It is higher in males in the age groups 40 to 59 and 60 to 79 (9,6% vs 6,3%, and 19,1% vs 7,8%, respectively). In the age group 18 to 39, albuminuria is almost as frequent in males as in females (F 3,7%; M 3,8%, p=0,542). Albuminuria is found 2,5 times more frequent than decreased eGFR (<60 ml/min/1,73 m^2) and its prevalence is comparable with results from other countries.

Prevalence of CKD in Poland

Prevalence of eGFR < 60 ml/min/1,73m^2

Prevalence of albuminuria

Conclusions
Prevalence of CKD in population of adults in Poland aged 18-79 years is high and comparable with other countries in Europe and worldwide. Data prove CKD to be an essential problem and burden to public health in Poland.

Poster presented at: