

Chronic kidney disease requiring healthcare services: a new approach to evaluate epidemiology of renal disease

Gianluca Trifirò, Janet Sultana, Francesco Giorgianni, Ylenia Ingrassiotta, Michele Buemi, Marco Muscianisi, Daniele Ugo Tari, Margherita Perrotta, Valeria Canale, Vincenzo Arcoraci, Domenico Santoro
Department of Clinical and Experimental Medicine and Pharmacology,
Unit of Nephrology and Dialysis,
University of Messina, Italy.

Introduction

The number of patients worldwide with chronic kidney disease (CKD) is continuously increasing. CKD estimates based on screening of general population do not provide a real insight into the impact of CKD on the use of healthcare resources in clinical practice.

The aim of this study is to evaluate the epidemiology of “medicalized” CKD, i.e. CKD requiring healthcare services in outpatient setting.

Design, setting, participants, and measurements

This is a retrospective, longitudinal population-based study which was conducted in a large general practice of Southern Italy (Caserta) using a healthcare database.

Over the years 2006-2011, we identified all patients with CKD diagnosis, as either indication of use associated to any drug prescription or cause of hospital discharge diagnoses/procedures using this database. The prevalence of “medicalized” CKD in the general population of Caserta by age, gender and calendar year was estimated.

Results

Overall, we identified 1,989 (1.3%) patients with a diagnosis of CKD during the years 2006-2011 in the Caserta general population. The one year prevalence increased from 0.9% in 2006 to 1.6% in 2011, which is much lower as compared to previous screening-based studies. The prevalence was slightly higher in males and increased significantly with advancing age (in 2011, 0.2% in ≤ 44 years old vs. 9.2% in >80 years old).

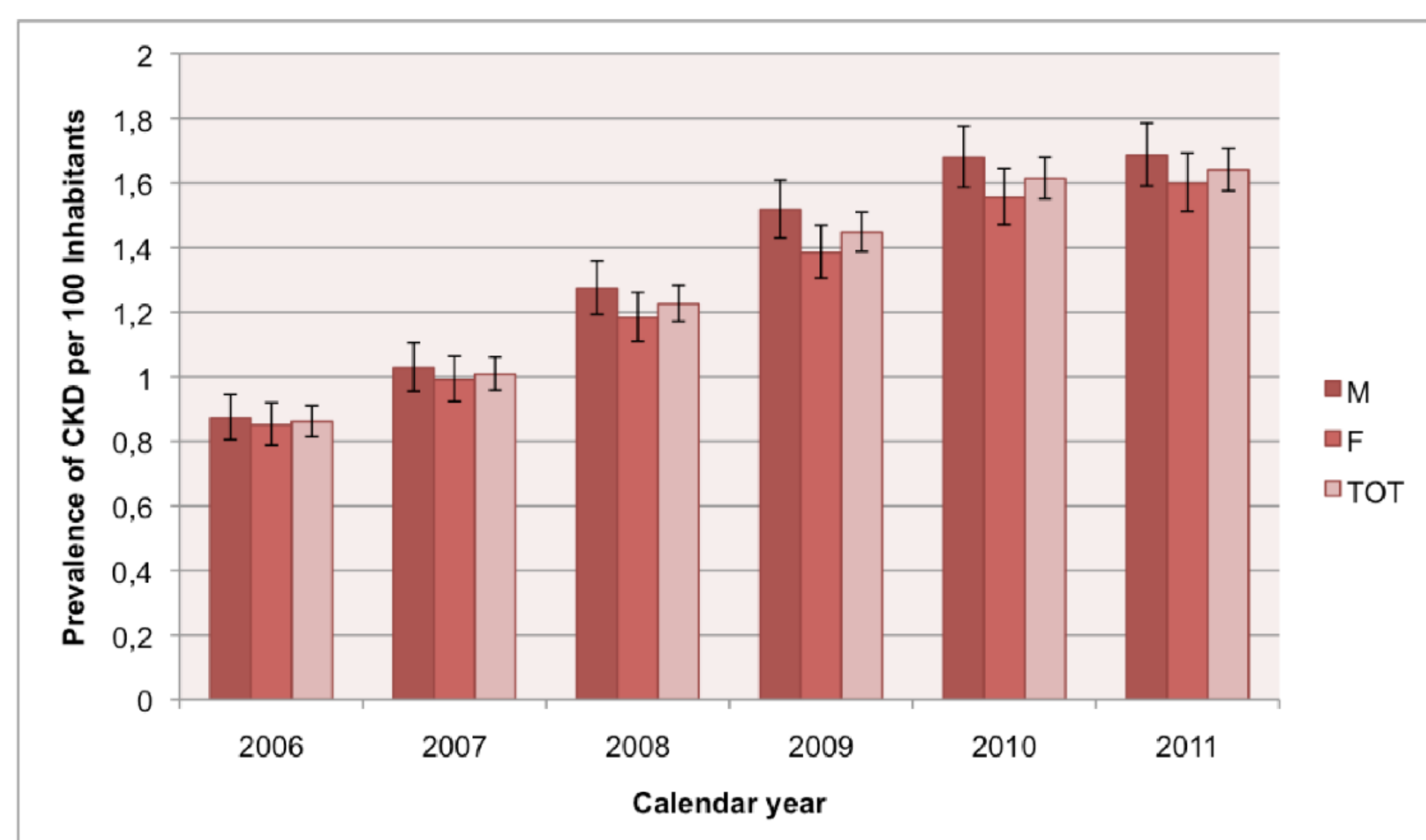


Figure 1. Annual prevalence (%) of “medicalized” chronic kidney disease in general population of Caserta in the years 2006-2011, overall and stratified by sex.

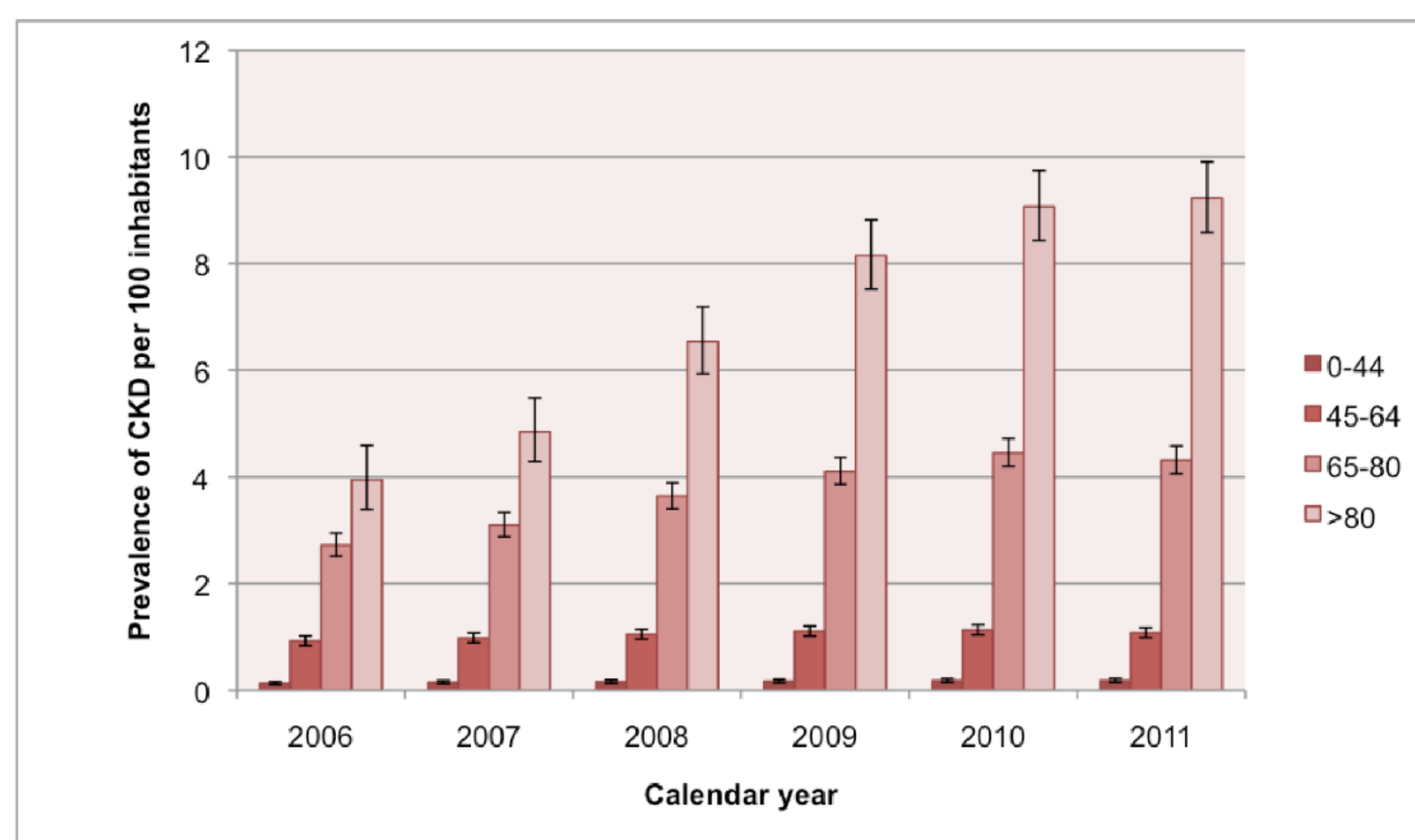


Figure 2. Annual prevalence (%) of medicalized chronic kidney disease in the Caserta general population in the years 2006-2011, stratified by age groups.

Conclusion

We demonstrated that, in general population, the prevalence of CKD requiring healthcare resources, i.e. “medicalized” CKD, is lower as compared to the screening-based CKD prevalence.

