



# SCREENING FOR CHRONIC KIDNEY DISEASE AND OTHER ASSOCIATED RISK FACTORS IN RURAL CONGOLESE OIL COMPANY.



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## PURPOSE OF THE STUDY

Although screening programs for chronic kidney disease (CKD) are cost effective, they are very scarce in rural areas where health facilities and health workers are lacking. We report the results of a screening for CKD and other associated risk factors in rural population.

## METHODS

A cross-sectional survey was conducted among 274 healthy (187 men) Oil company employees (n=191) and their relatives (n=83) in Muanda (600 Km from Kinshasa) during February 2007. The following measurements were performed (blood pressure, BMI, glycaemia, proteinuria and calibrated creatinine). Glomerular Filtration Rate was estimated using the simplified Modification of Diet in Renal Disease Study equation (MDRD eGFR). Logistic Regression analysis was used to identify predictors of proteinuria and of CKD stage 3 or more.

## RESULTS

The frequency of CKD stage 3+ according to the MDRD study equation was 27.9%: 27.1% had stage 3 (e GFR 30 to 59 ml/min/1.73m<sup>2</sup>) and 0.8 % had stage 4 (eGFR, 15 to 29 ml/min/1.73 m<sup>2</sup>). Risk factors for CKD were hypertension (52.9%), obesity (15.3%) and diabetes mellitus (9.1%). The frequency of proteinuria was 26.3%. Age and diabetes correlated independently with proteinuria. Proteinuria was the strongest independent risk factor for CKD stage 3 or worse.

## CONCLUSION

This study indicates that CKD and traditional risk factors for CKD are very prevalent in this rural Oil Company. Screenings for these conditions are thus imperative to put high on the health agenda. Additional studies are needed of the causes of CKD in this company and probably in other areas of the DRC..

