

# Patients-reported outcomes according to the stage of chronic kidney disease

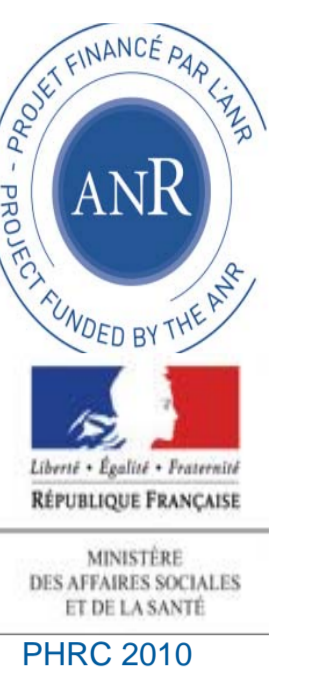
C. Ayav<sup>a,\*</sup>, K. Legrand<sup>a</sup>, E. Speyer<sup>b,c</sup>, W. Ngueyon Sime<sup>a</sup>, B. Stengel<sup>c</sup>, S. Briançon<sup>a</sup>

<sup>a</sup> CIC 1433 Epidémiologie clinique, Inserm, CHRU de Nancy, Nancy, France

<sup>b</sup> EA 4360 Apemac, Université de Lorraine, Université Paris Descartes, Nancy, France

<sup>c</sup> Équipe 5, Epidémiologie rénale et cardiovasculaire, Inserm U1018, Villejuif, France

\* Corresponding author: [c.ayav@chru-nancy.fr](mailto:c.ayav@chru-nancy.fr)



## Introduction and objective

Patients on renal replacement therapy (RRT) for end-stage renal disease (ESRD) have a reduced health-related quality of life (HRQoL) as compared to the general population.

Most studies have compared the HRQoL of dialysis patients with patients living with a functional kidney transplant, or with the general population. But, HRQoL studies in non-end-stage chronic kidney disease (CKD) patients are scarce.

The aim of this study was to compare HRQoL between patients with CKD stages 3 and 4, on dialysis, or transplanted and the general population.

## Methods

Representative sample of four French cohort studies

- ❖ CKD-REIN Cohort (2014-2016): 2,572 patients with CKD stages 3-4
- ❖ REIN-DIADEM/QUAVI-REIN (2011): 748 dialysis patients
- ❖ REIN-CRISTAL/QUAVI-REIN (2011): 1,061 transplanted patients
- ❖ INSEE general population study (2011): 20,574 french inhabitants

Collected data

- ❖ HRQoL: generic MOS-SF12 questionnaire
- ❖ Physical component summary (PCS) and Mental component summary (MCS) scores
- ❖ Scores varied from 0 (worse) to 100 (best HRQoL)
- ❖ Scores were transformed to have a mean of 50 and standard deviation of 10
- ❖ Perceived health status
- ❖ Socio demographic and clinical data

## Results

	General population	CKD Stage 3	CKD Stage 4	Dialysis patients	Transplanted patients
N	20,574	1,479	1,093	748	1,061
Sex, % Men	47%	68%	63%	59%	62%
Age, mean(SD)	48.0	59.2 (12.0)	58.9 (13.1)	63.9 (14.7)	45.9 (14.2)
Duration of disease (yrs)	-	7.2	9.3	6.0	10.0
Perceived health status % mediocre or poor	10% (≥60yrs)	33%	43%	48%	13%

## Conclusions

- Different levels of HRQoL, particularly in physical dimensions, were observed between general population and CKD patients.
- Patients with non-end-stage CKD reported intermediate level of PCS as compared with the general population or transplanted patients and dialysis patients.
- Interventions are needed to improve HRQoL in CKD patients, whatever the disease stage.
- Further investigation is needed to better understand the evolution of HRQoL and its determinants, particularly during the transition between pre-ESRD and ESRD.
- The CKD-REIN cohort will help achieving this goal in the future.

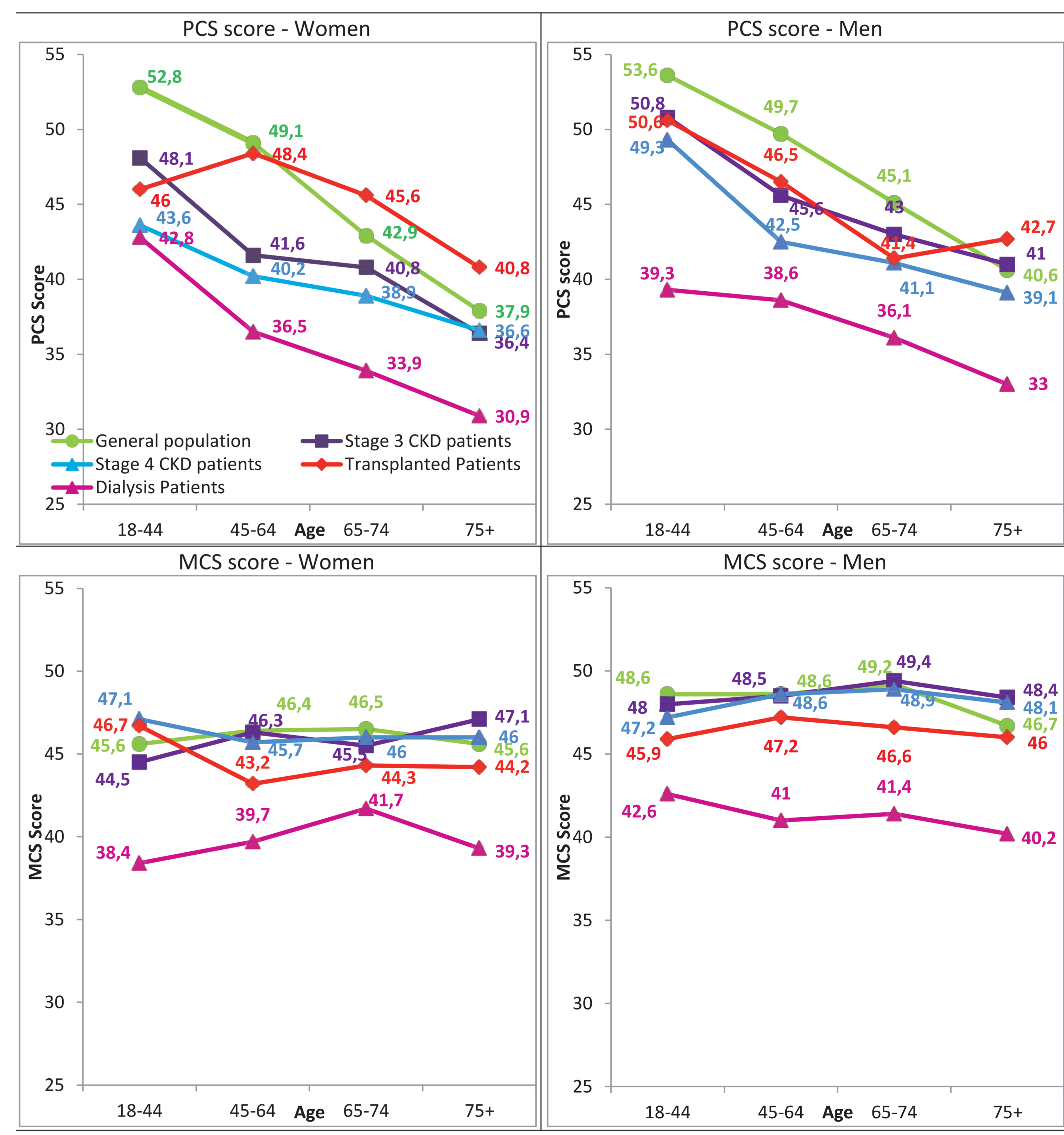


Figure 1 : PCS and MCS scores according to the sex, age and CKD Stage

- HRQoL levels were different between samples (figure 1):
  - Mean **PCS score** was 35.8 in dialysis patients, 41.6 in CKD patients (with no significant HRQoL difference between CKD patients in stage 3 (42.7) and stage 4 (40.4)), 45.8 in transplanted patients and 50.3 in the general population sex.

- Mean **MCS score** was 40.7, 47.7 (47.9 in stage 3, 47.5 in stage 4); 46.0 and 47.2 respectively
- Dialysis patients reported always the lowest HRQoL (PCS and MCS) whatever age and sex.

