

EIGHT YEARS AFTER DIALYSIS SERVICES PRIVATIZATION: WHAT CHANGED?

A REPORT FROM THE ROMANIAN RENAL REGISTRY



Gabriel Ștefan^{1,2}, Gabriel Mircescu^{1,2,3}

1. "Carol Davila" University of Medicine and Pharmacy
2. "Dr. Carol Davila" Teaching Hospital of Nephrology
3. Romanian Renal Registry

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BACKGROUND

The number of dialysis patients in Romania increased rapidly after 2004, when the privatization of dialysis services was initiated. In 2012, according to Romanian Renal Registry data, 88% of the dialysis patients were treated in private centers. Therefore, we aimed to evaluate the impact of privatization on end stage renal disease (ESRD) epidemiology in Romania.

METHODS

We retrospectively examined the outcome at 31 December 2012 of 20737 patients (56.7 [56.5-56.9] years, 57% male) who started dialysis between 1 January 1997 and 31 December 2012. The patients were stratified in four groups by dialysis initiation period: 1997-2000 (A), 2001-2004 (B), 2005-2008 (C) and 2009-2012 (D). We excluded patients younger than 18 years, those who had recovery of renal function or were lost to follow up during the first 90 days. Survival analyses were conducted with the Kaplan-Meier method. Variables related to survival were further evaluated in a multivariate Cox proportional hazard (CPH) model.

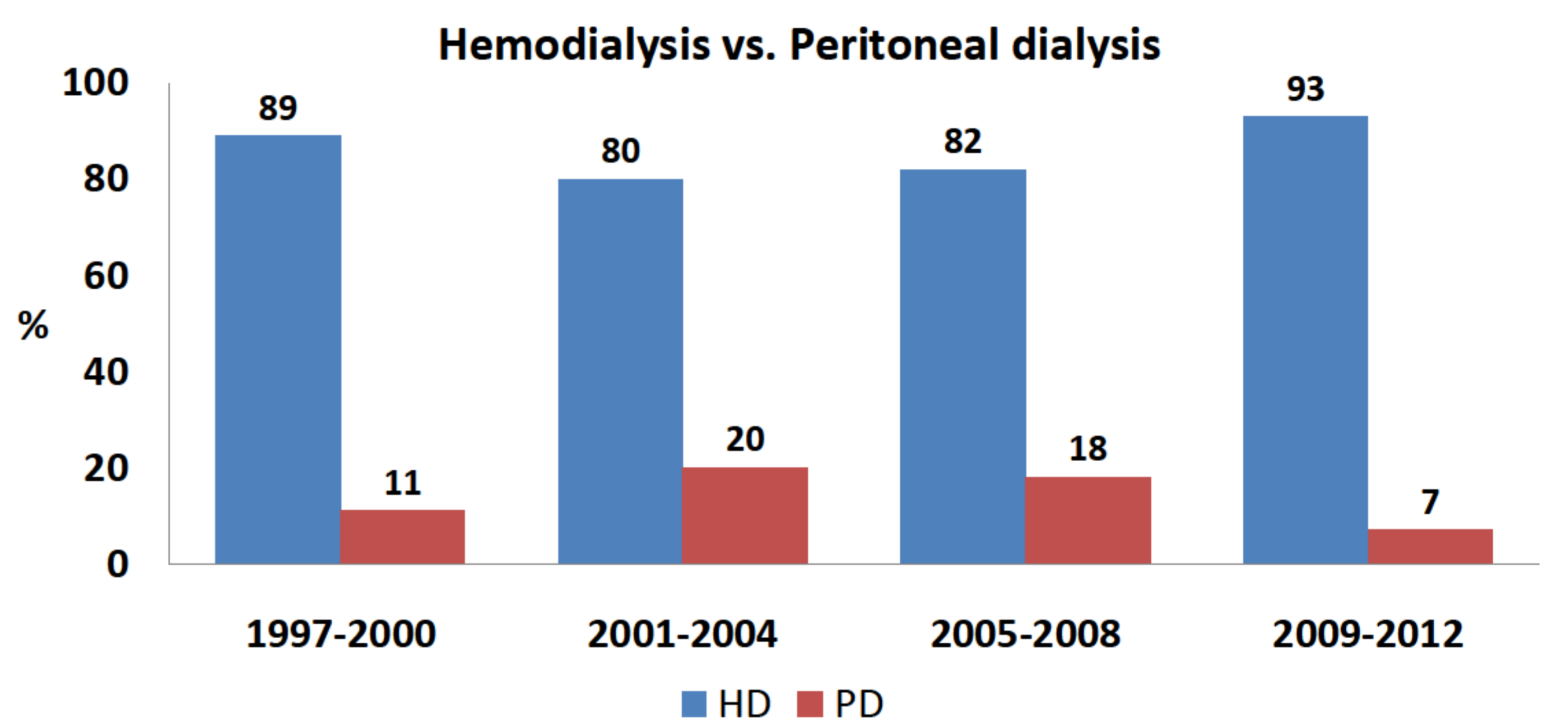
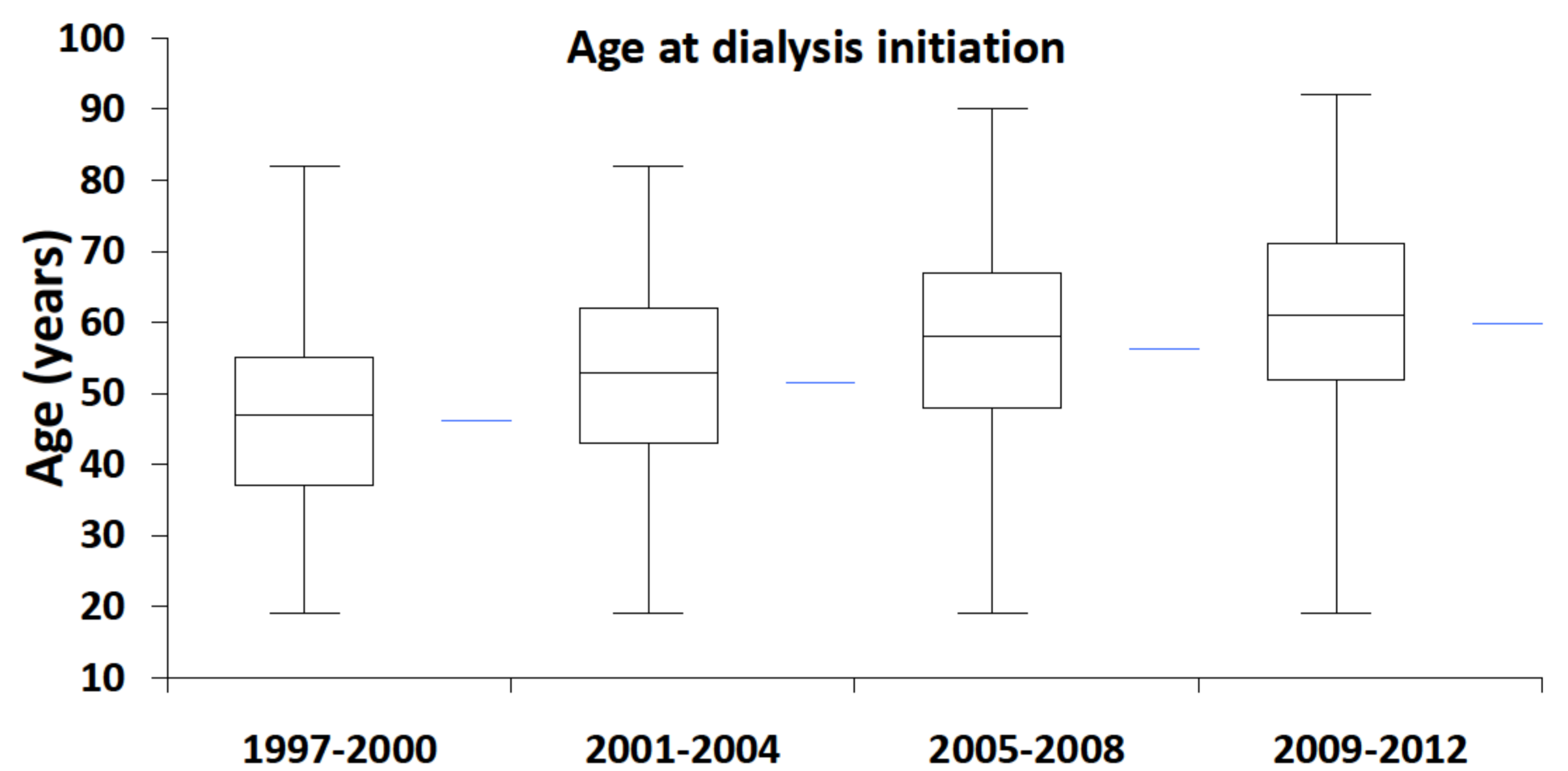
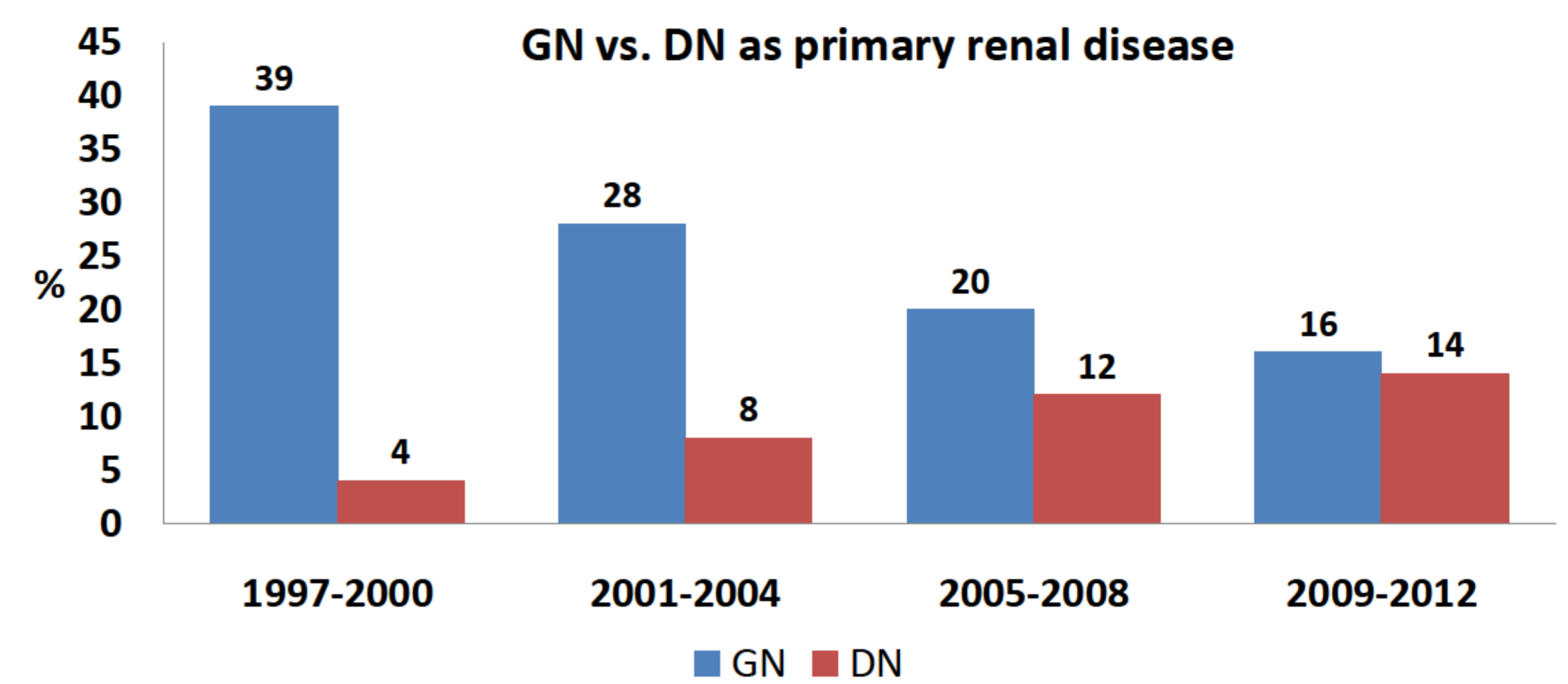
RESULTS

From A to D period the number of incident dialysis patients markedly changed from 824 to 10280; the greatest increase (>300%) was seen immediately after privatization. Glomerulonephritis (GN) was the main PRD (19%), followed by diabetic (DN) (12%) and vascular (VN) (8%) nephropathies; 61% were other or unknown (NA). The proportion of GN continuously declined, but that of DN increased. The median age at dialysis initiation became significantly higher. After privatization the proportion patients treated by PD declined. The leading causes of death were cardiovascular (45%). The mean survival time of the entire cohort was 9.33 [9.18-9.47] years. **The cumulative chances of survival at 12, 24, 36 and 48 months were 87%, 81%, 77% and 72%, respectively. Survival rates were better in the 1997-2004 than in the 2005-2012 cohort (12, 24, 36, 48 months: 99% vs. 85%, 98% vs. 78%, 96% vs. 73%, 92% vs. 68%, respectively; p<0.001).**

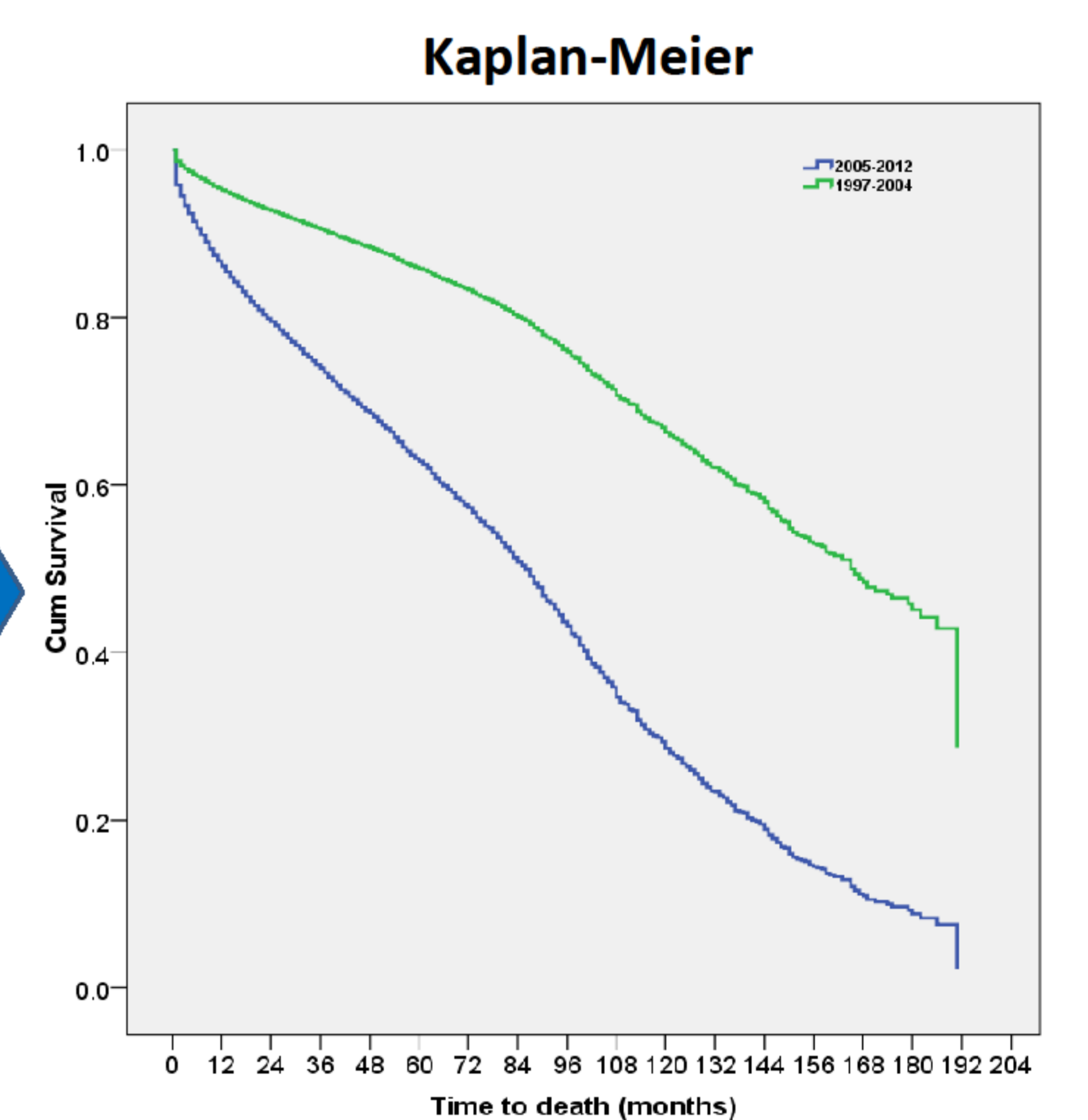
In the multivariate CPH model, higher age at dialysis initiation, male gender, 2005-2012 initiation period and DN as PRD were associated with a poorer survival.

CONCLUSIONS

The privatization of dialysis services increased the accessibility to renal replacement therapy, especially for elderly and diabetic patients. The change in incident patients profile was associated with reduced chances of survival. Efforts should be made to improve pre-dialysis care.



Median survival time (months)
1997-2004: 165 [156-173]
vs.
2005-2012: 93 [91-94]
p<0.001



Cox proportional hazard model

	HR (95%CI)	p
1997-2004 vs. 2005-2012	0.42 [0.39-0.46]	<0.001
Male vs. Female gender	1.10 [1.05-1.16]	<0.001
Age at initiation	1.036 [1.033-1.038]	<0.001
Peritoneal Dialysis vs. Hemodialysis	0.96 [0.89-1.03]	0.3
PRD vs. Diabetic Nephropathy		
Glomerulonephritis	0.60 [0.54-0.66]	<0.001
NA	0.71 [0.65-0.77]	<0.001
Other	0.62 [0.57-0.68]	<0.001
Vascular Nephropathy	0.69 [0.61-0.77]	<0.001

HR hazard ratio, 95% confidence interval