

# CHRONIC KIDNEY DISEASE (CKD) INTEGRATION ACROSS THE CARE CONTINUUM BETWEEN PRIMARY CARE-TERTIARY HOSPITAL

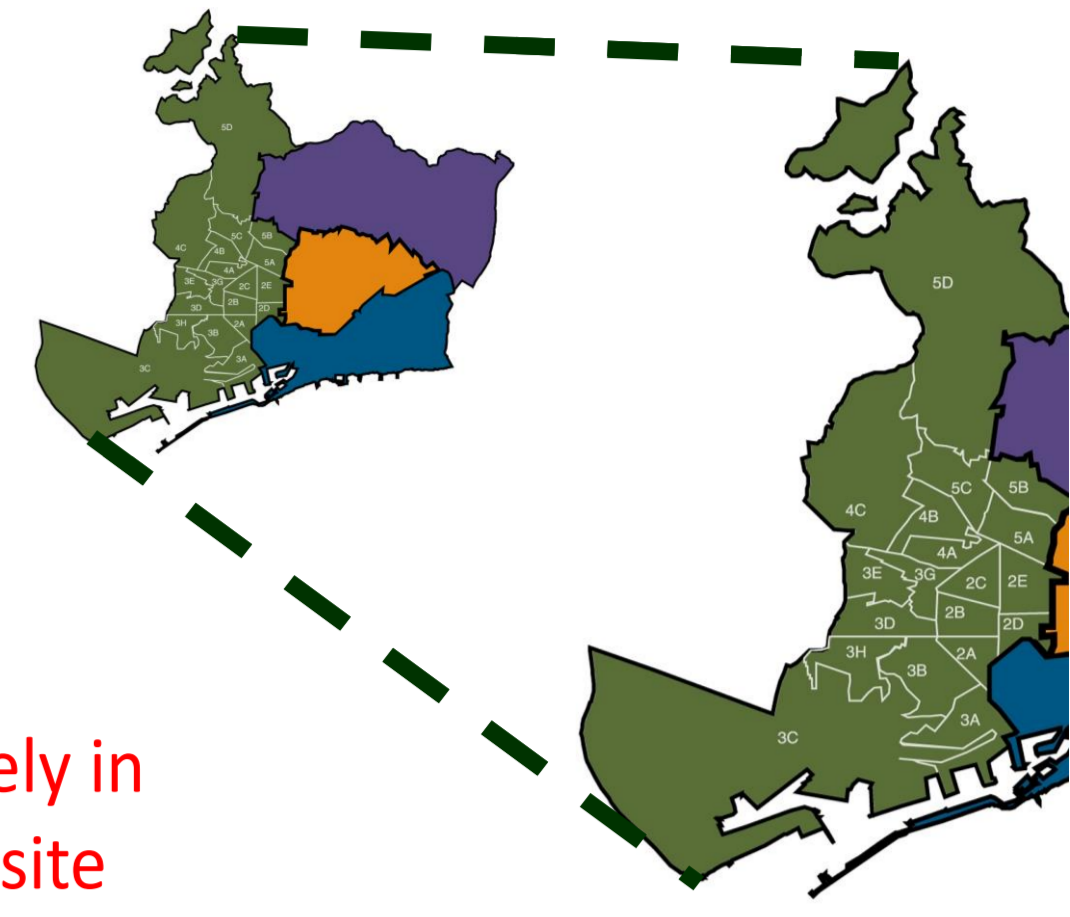
Pilar Arrizabalaga<sup>a</sup>, Mónica Gomez<sup>b</sup>, Ignacio Menacho<sup>c</sup>, Lidia Pallisa<sup>c</sup>, Vanesa Jorge<sup>c</sup>, Esteban Poch<sup>a</sup>

<sup>a</sup> Institut Clínic de Nefrologia i Urologia, <sup>b</sup> Strategic and Planning, Hospital Clínic. <sup>c</sup> Consorci d'Atenció Primària de Salut de Barcelona Esquerra. Spain.

## Introduction and Aims

The coordination between nephrology and primary care is well documented in the management of chronic kidney disease (CKD), but the real impact is uncertain.

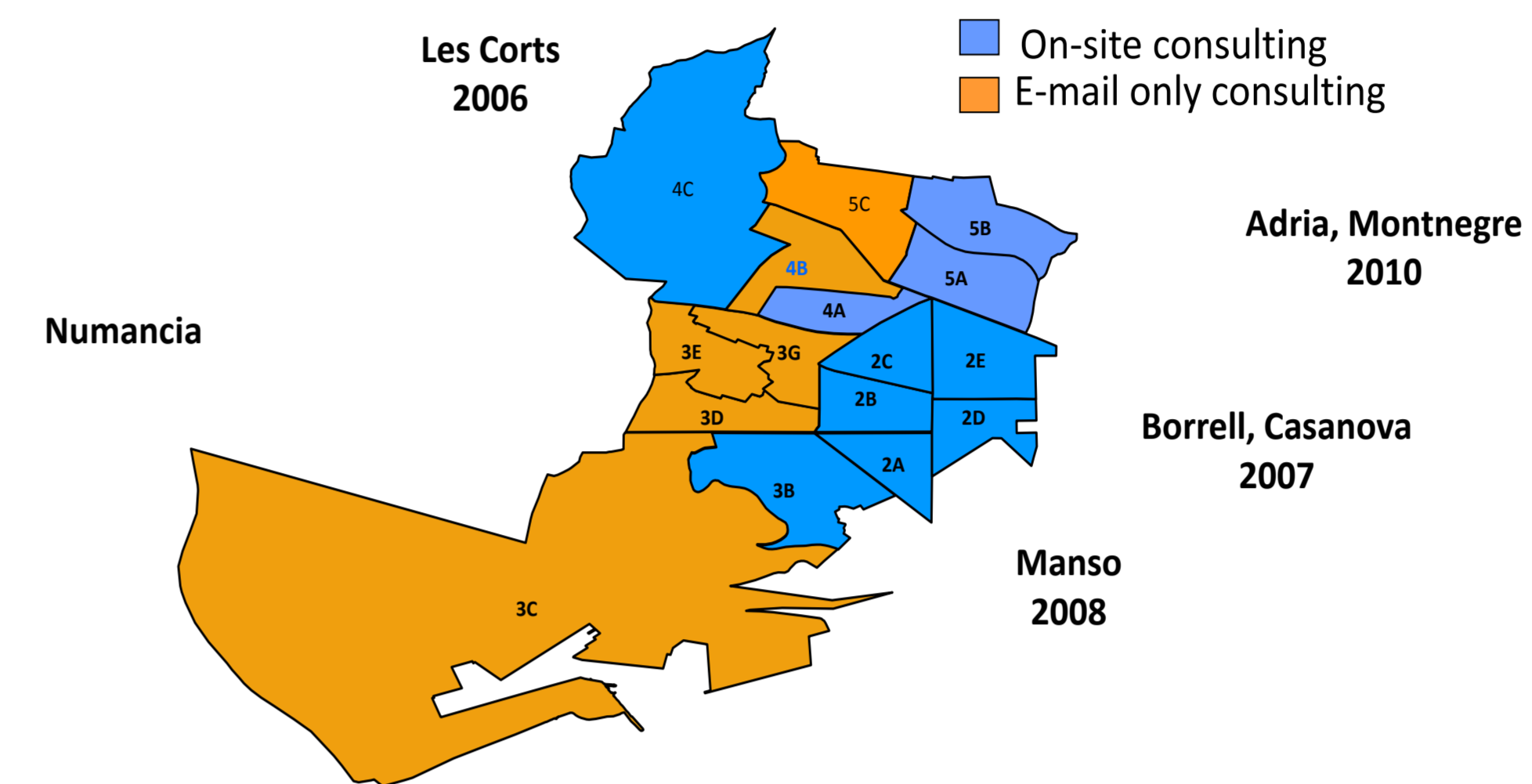
We estimate the prevalence of Chronic Kidney Disease (CKD) and evaluate an outpatient nephrology program (ONP) implanted progressively in "Barcelona Esquerra", an area with 524,395 inhabitants, accounting for more than 30% into Barcelona's population.



## Methods

Basic Health Area	Primary Care Team	Primary Care Centre	Provision
BARCELONA 4-C BARCELONA 2-E BARCELONA 2-C	Les Corts Casanova Comte Borrell	Les Corts Casanova Comte Borrell	Consorci d'Atenció Primària de Salut de Barcelona Esquerra (CAPSBE) constituted by ICS and Hospital Clínic
BARCELONA 2-A + 2-B + 2-D + 3-B BARCELONA 4-A + 4-B BARCELONA 5-A + 5-B BARCELONA 3-C	Sant Antoni, Via Roma, Universitat, PobleSec-Montjuich Montnegre, Les Corts-Pedralbes Marc Aureli, Sant Elies Doctor Carles Ribas	Manso Montnegre Adrià Doctor Carles Ribas	Institut Català de la Salut (ICS)
BARCELONA 3-D	Bordeta- Magoria Consell de Cent	Bordeta-Magoria Numància	
BARCELONA 3-E BARCELONA 3-G BARCELONA 3-H	Sants Sants-Carreras Candi Numancia La Marina	Sants Carreras Candi Numancia La Marina	
BARCELONA 5-C + 5 D BARCELONA 3-A	Sarrià, Vallvidrera- Les Planes Poble Sec	Sarrià Les Hortes	

Outpatient nephrology program (ONP) implanted progressively in "Barcelona Esquerra". Year of ONP implementation with on-site consulting.



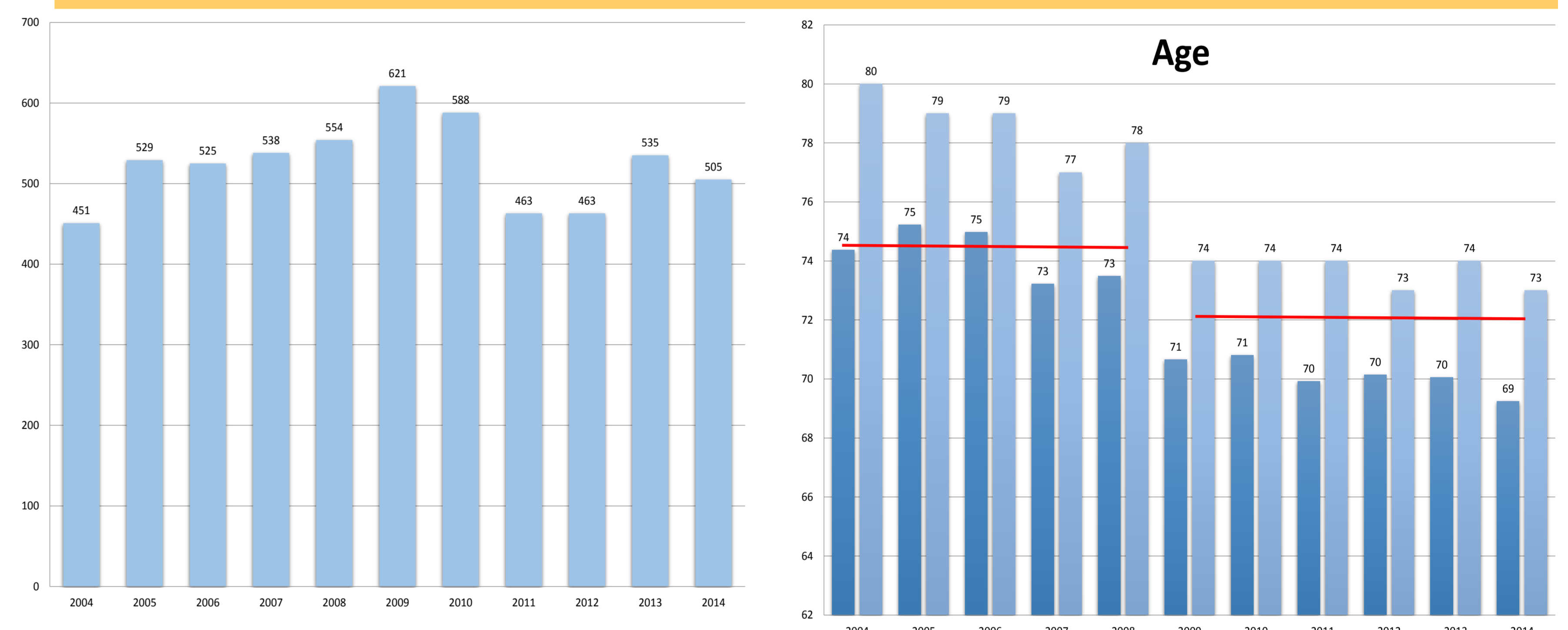
- We have applied the EPIRCE study results in general population between 2004 and 2014 and the EROCAP study in assisted population for estimation of the CKD.
- The number and age of the new referrals to nephrology between 2004 and 2014 were identified. A referral index (RI) was established between the number of new outpatient visit referred from Primary Care to Nephrology and the estimated prevalence of CKD in the population served, available since 2010.

## Results

### CKD estimated in general population from 2006 to 2014 according the EPIRCE study

Year	Total people	People > 20 years old		People > 64 years old	
		Number	Estimated CKD (6,8 %)	Number	Estimated CKD (21,4 %)
2006	540.600	450.027	30.602	113.477	24.284
2014	524.395	438.782	29.837	113.461	24.280

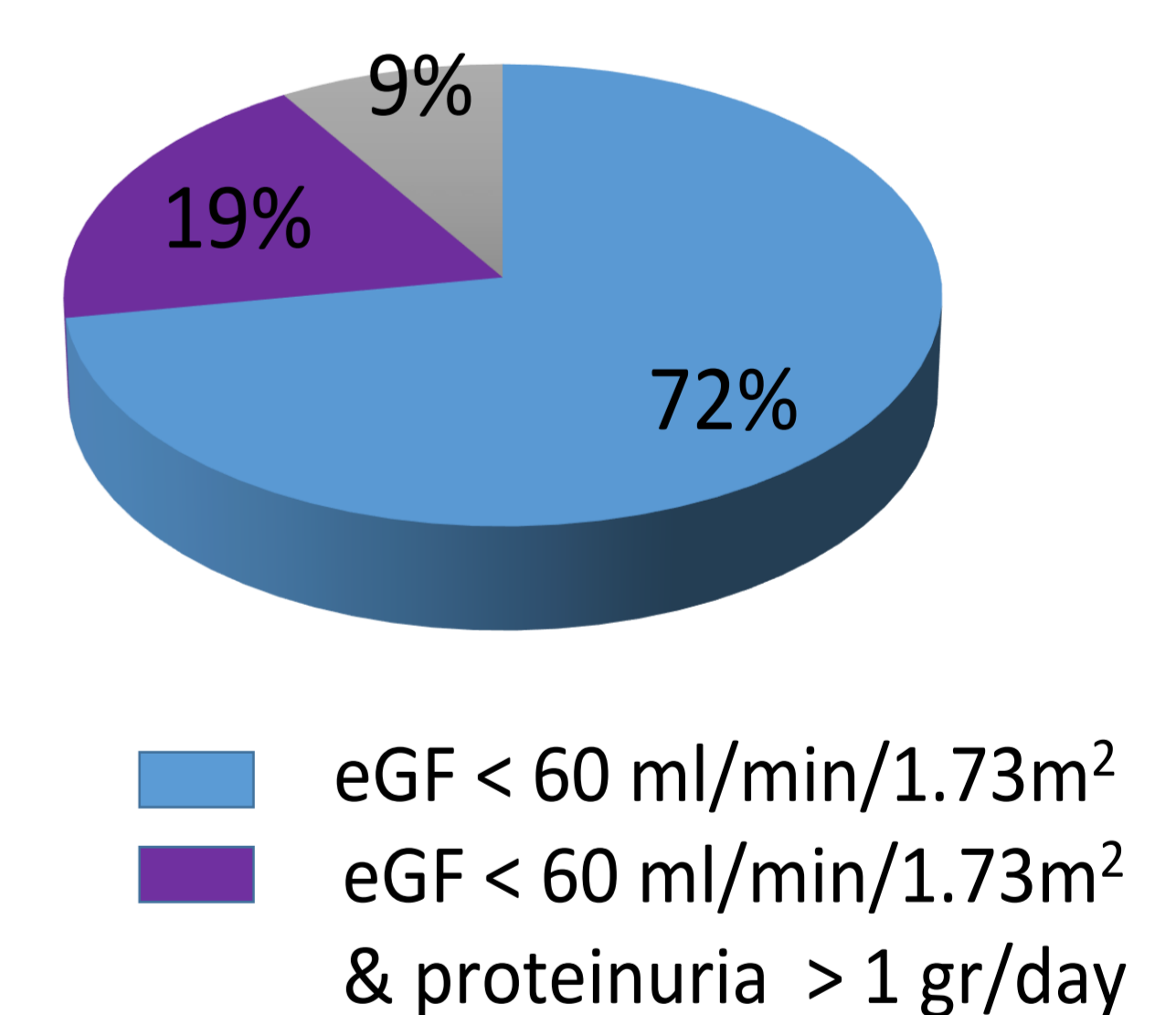
### Number of new outpatient visit referred from Primary Care to Nephrology in "Barcelona Esquerra" between 2004 and 2014



### CKD estimated in served population according the EROCAP study. Referral index (RI) regarding the ONP includes or not the face-to-face consulting from 2010 to 2014

ONP	Basic Health Area	Year	Served people >18 years old				Served people >70 years old			
			Number	Estimated CKD (21.3 %)	Number new patient referred	RI %	Number	Estimated CKD (33.7 %)	Number new patient referred	RI %
Nephrologist On-site	4C + 2 C + 2 E	2010	65.114	13.869	172	12,40	19.289	6.500	99	15,23
		2014	59.600	12.695	97	7,64	15.809	5.328	60	11,26
	2A + 2 B + 2D + 3B	2010	64.503	13.739	120	8,73	15.075	5.080	78	15,35
		2014	60.998	12.993	97	7,47	15.059	5.075	40	7,88
Nephrologist E-mail only	3 C + 3D + 3E + 3G + 3H	2010	54.964	11.707	98	8,37	15.798	5.324	66	12,40
		2014	53.768	11.453	104	9,08	16.665	5.616	52	9,26
Nephrologist E-mail only	3 C + 3D + 3E + 3G + 3H	2010	87.235	18.581	147	7,91	18.642	6.282	98	15,60
		2014	82.387	17.548	159	9,06	19.190	6.467	93	14,38

### Reason of new outpatient visit referred from Primary Care to Nephrology in "Barcelona Esquerra" in 2008 - 2014



## Conclusions

- The decrease in RI suggests a better resolution at primary care.
- The major improvement in the Basic Health Areas Reference (with RI reduced by more than 44%) coincides fully with the ONP implementation.
- The implantation of ONP overcome the gap between primary and hospital care in order to respond to chronicity, aging and dependence.

## References

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