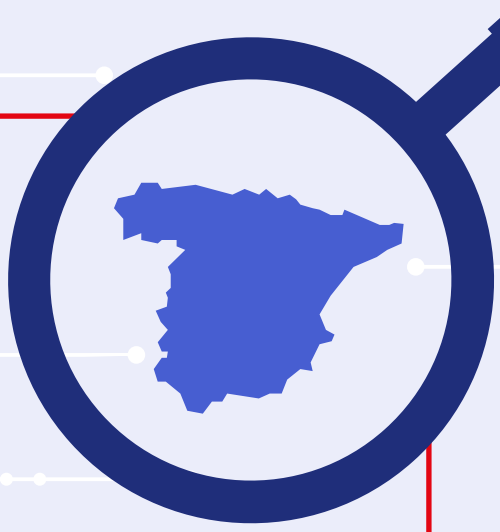
ECONOMIST IMPACT

Country profile: Spain



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Key takeaways

- **Spain has a national guideline on chronic kidney disease (CKD).** It has adopted recommendations from the Kidney Disease Improving Global Outcomes (KDIGO) international guidelines. It extended these using a multidisciplinary consensus process, supported by the Ministry of Health and Consumer Affairs to provide referral criteria and a referral pathway. These provide a solid foundation for practice, but will require regular reviewing and updating.
- **National policies could give more attention to CKD.** The rapidly rising health burden of CKD warrants more policy attention at national and regional levels.
- **Several renal registries help capture the burden for severe disease.** Spain has regional registries and two national registries. The linkage of these datasets could provide a good overview of CKD management and disease progression and allows for analysis of regional variations. Extension to earlier stages of disease could help monitor policies for prevention.
- **Implementation of electronic health records (EHRs) is under way.** For over a decade there have been initiatives to standardise health information across Spain's autonomous regions. To date, EHRs are implemented in most regions, but rates of development and adoption are varied. A national data picture should positively impact on chronic disease management, including for CKD.
- **Awareness among primary care doctors remains low.** General practitioners (GPs) have knowledge gaps around CKD testing, care and how to best identify at-risk patients for early detection. Clinical education could help improve early diagnosis and appropriate referral.

Clinical guidelines

Spain has adopted the evidence-based, international guidelines developed by KDIGO as a basis for its own national clinical guidelines and referral pathways.[1]

The Spanish Society of Nephrology (SEN) and the Spanish Society of Family and Community Medicine (semFYC) developed a CKD guideline by consensus, supported by the Ministry of Health. The guideline provides recommendations for screening at-risk individuals, testing for and staging of CKD, the optimum treatment of people with CKD and referral pathways.[1]

National policies

CKD ranks as the eighth most common cause of death in the Spanish population, but it receives relatively little attention in the country's health policies.[2,3]

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For example, the Spanish National Institute of Statistics (Instituto Nacional de Estadística, INE) publishes a list of the top causes of death and is the country's main source of health information for informing public policy. The 2016 Global Burden of Disease (GBD) study assessed CKD as the eighth most common cause of death in Spain, whereas the INE list does not include chronic kidney disease specifically and places "diseases of the kidney and of the ureter" as the 17th leading cause of death in Spain in 2016.[3] This is the only major discrepancy between the INE and GBD.[3]

Renal registries

Spain has several regional registries as well as two national registries, which have been improving in quality over the years.[4, 5, 6] Many, but not all, make their data available for researchers and publish regular reports of their findings.[5,6]

One national registry captures information on children and young adults with CKD (table 1), and the other focuses on the adult population (table 2). [6,7] And both capture data on CKD stages 2-5, which is considered best practice.

Table 1: [6]

Renal Registry	Spanish Pediatric Non-End-Stage Chronic Disease Registry (REPIR) For those <18 years of age with CKD
Year established	2007
Stages included	2-5
Outcome data	ECKD, loss during follow-up, transfer to another centre, transfer to adult nephrology department, death, recovery and/or loss of kidney function
Data collected	Demographic data, types of renal disease, list of diagnoses, anthropometric parameters, clinical data, laboratory parameters and treatment data

Table 2: [7]

Renal Registry	Spanish Renal Disease Patients Registry (REER)
Year established	2005
Accessibility	Unknown
Patient-level data availability	Unknown
Stages included	2-5
Outcome data	Mortality, transplant and dialysis
Data collected	Demographic data, treatment method, comorbidities and dialysis

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Given these multiple data sources, standardisation is key to enable data linkage and analysis—this would enable Spain to form a clearer understanding of the national disease burden.

Digital health and integrated health information

Spain has 17 autonomous regions and a decentralised health system. This prompted national initiatives in 2010 to enable data sharing, mainly via EHRs.[8] Connecting data from these autonomous regions would enrich the ability to analyse data on disease detection and management, including for CKD. EHRs now are in different stages of development and adoption across Spain's autonomous regions.[8]

Awareness

While studies on CKD awareness could not be found, our interviews with national experts and researchers suggest that awareness is low among the general population.

It is also considered low among GPs, according to an expert consulted in Spain. While nephrologists meet with GPs every few months to consult on patients, our expert interviewee indicated that they do not train GPs on how to improve CKD testing and identification of at-risk patients. This could be a missed opportunity, as nephrologist training and support for GPs are linked with better CKD awareness and earlier-detection in other countries.[9]

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