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US Renal Data System 2018 Annual Data Report: Epidemiology of Kidney Disease in the United States

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The US Renal Data System (USRDS) remains the largest and most comprehensive resource for those seeking detailed information, data, and trends on a wide variety of kidney disease topics covering both end-stage renal disease (ESRD) and earlier stages of chronic kidney disease (CKD). Supported by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) at the National Institutes of Health and the Centers for Medicare & Medicaid Services, the USRDS Coordinating Center has operated from the Kidney Epidemiology and Cost Center (KECC) at the University of Michigan, in partnership with Arbor Research Collaborative for Health, in Ann Arbor, Michigan, since 2014. The annual report is published both online (www.usrds.org), and as a supplement to AJKD.

Trends in the prevalence of CKD and ESRD are important for health care policy and planning. According to data from the National Health and Nutrition Examination Survey (NHANES), the prevalence of CKD among US adults is estimated at just under 15%, indicating that over 30 million American adults may have CKD. This is likely due to the high prevalence of risk factors for the disease, including an aging population, diabetes, hypertension, obesity, cardiovascular disease, and other conditions.

The report highlights the fact that US rates for ESRD (ie, dialysis or transplantation) rank among the highest in the world, and continue to rise. In 2016, there were 124,675 new cases registered as ESRD, compared to 124,111 new cases the prior year. The prevalence of ESRD continues to rise and reached 726,331 in 2016. Additionally, there are many "hot spots" of the condition around the country as highlighted in the maps and tables contained in the Annual Data Report.

Caring for those with kidney disease is expensive. The total Medicare spending on both CKD and ESRD patients was in excess of $114 billion in 2016. Accompanying chronic diseases such as diabetes and heart failure compound the cost of caring for these individuals.

In sharp contrast to this high burden and cost, the USRDS continues to highlight low awareness about the presence of the condition among patients with laboratory evidence of early stages of kidney disease (CKD stages 1-3). Encouragingly, in recent years, there has been some increase in awareness among those with CKD stage 4.

In the newly expanded chapter on hospitalization, the trend in falling hospitalization rates is shown to be countered by rising rates of emergency room visits and short-term observation stays for those on dialysis. A new chapter on CKD among children and adolescents is introduced in the 2018 USRDS Annual Data Report, along with the continued extensive coverage of ESRD among children, adolescents, and young adults. The international comparisons chapter now includes descriptive ESRD data from over 70 countries. A decrease in the kidney transplant waiting list by 3% over 2 successive years is a noteworthy observation—very likely the result of recent changes in the kidney allocation system.

We hope that researchers, practitioners, and policy makers will continue to derive value not only from the Annual Data Reports, a regularly updated comprehensive resource for epidemiology of kidney disease in the nation, but also from the data-provisioning activities of the USRDS and assistance to researchers through its help desk.

Article Information