

Health Disparities in Chronic Kidney Disease

Incidences of Chronic Kidney Disease (CKD) and End Stage Renal Disease (ESRD) are growing at a rapid rate. With a 30 percent increase in CKD over the past decade, the disease now affects approximately 27 million people in the United States and accounts for more than 24 percent of Medicare costs [1]. CKD, like many other health conditions, disproportionately impacts ethnic minorities. Biological, socioeconomic, cultural, and health care-related issues all contribute to the health disparities that characterize CKD. The Health Resources and Services Administration defines health disparities as "population-specific differences in the presence of disease, health outcomes, or access to health care" [2]. Disparities affect CKD on all of these levels.

The course of CKD begins with risk factors, proceeds to initiation, progression, and treatment, and finishes with the outcome [3]. Each stage of the disease timeline is marked by inequalities. Due to elevated rates of hypertension and diabetes within minorities, this population is at a higher risk of developing CKD. Age-adjusted data reports the prevalence of CKD from 1999-2006 was higher in African Americans (15.4%) and in Mexicans (17.0%) than in Caucasians (13.9%) [4]. Black persons, once afflicted with CKD, progress to ESRD at a faster rate than white persons [5]. For the last three decades, the incidence of ESRD has increased at a rate four times greater among African Americans compared to their white counterparts [6]. Dialysis and kidney transplantation also feel the effects of disparity. Data from the Center of Medical and Medicaid Services revealed that 60 percent of African Americans on dialysis received an "inadequate" dose of dialysis [3]. Health United States 2007 published a special feature revealing that black patients with ESRD make up 33% of the kidney transplant list but only comprise 13% of the general population [5]. Given the complexity of the issue considerable efforts on a number of fronts are needed to provide better health care and reverse the detrimental effects initiated and maintained by health disparities.

Studies have recently begun to expose biological, or physical, components of health disparities and Chronic Kidney Disease. According to an article written by Neil Powe, MD, there is a possibility that genetic factors play a role in the causation and progression of the disease. Several potential genes associated with ESRD have been identified, but more research is necessary to confirm these associations [3]. Other suggested explanations for the accelerated rate of CKD and ESRD in African Americans include the higher prevalence of diabetes mellitus and hypertension, two major CKD initiation risk factors, as well as over expression of TGF-B1 in black individuals [7]. The age-adjusted number of African Americans with kidney disease that could be attributed to diabetes mellitus or hypertension was nearly 12 times greater than their white counterparts [6]. These factors, however, are not the predominate reason for the health disparities associated with CKD.

A number of environmental factors embedded within our social fabric greatly impact the lives of many individuals suffering from CKD. Although the United States spends more money per capita on health care than any other nation, 47 million Americans are still uninsured—another burden falling heavily on the shoulders of minorities. Lack of health insurance contributes to the inability of minority patients to receive adequate CKD care. Studies suggest that African Americans are evaluated later in the course of CKD, likely caused by limited access to care. In one study, 45 percent of African American males were evaluated by a nephrologist less than 4 months before starting dialysis while only 25 percent of white males received such late stage evaluations [8]. Late diagnosis of CKD, like many other diseases, can lead to a higher incidence of morbidity. Minority patients with CKD also struggle against bias, prejudice, and discrimination within the health care system. Some physicians, according to evidence from patients with different diseases, "perceive minorities more negatively than their majority counterparts" in aspects likely to influence CKD treatment, such as patients' likelihood of risky behavior and adherence to medical advice [3]. Multiple factors outside of the health care system also influence health disparities related to CKD.

Residential segregation, which was not outlawed until the 1960s, creates divided communities along economic, and therefore often racial, lines. These low-income communities often lack health resources and receive inadequate care. Rodriguez et al show that dialysis facilities in predominately black communities have higher mortality rates and lesser compliance with performance targets [9]. Marginalization from society and discrimination leave minorities subject to low-employment rates, inadequate housing, poor nutrition, and other health hazards. Lack of culturally sensitive health care and effective communication mechanisms put minorities at greater health risks, and facilities that do accommodate this population tend to have scarce resources.

Although black individuals with CKD progress to ESRD at a faster rate than white individuals, they experience greater barriers to renal transplantation. In one study of 7125 patients, African Americans were less likely to be placed on the transplant list, to move up on the waiting list, and to receive a kidney [3]. Kidney donor supplies are also marked by racial disparities. Rates of cadaveric kidney donation are higher for whites than blacks. According to one study African Americans were more likely to consider religion and spirituality extremely important in their life and were more likely to mistrust their health care provider. Both of these findings accounted for a large percent of the racial difference in kidney donation [10].

Researchers have only recently begun to examine health disparities. Although much information has been elucidated, there is still a great deal of room for necessary improvement. In their article on health disparities and CKD, Keith Norris, MD and Allen Nissenson, MD urge providers to address these issues. "As a medical profession, we too frequently believe that many health issues are beyond our impact, citing them as societal issues, not realizing that we are society," they write. Physicians need to place renewed emphasis on education and training for sensitivity to cultural, socioeconomic, and gender diversity, advocate for improved health care systems, and dig deeper by conducting more research relevant to health disparities [7]. Neil Powe, MD advises physicians to be more attentive to their biases and to eliminate any variation in quality of care on the bases of race. He also notes the necessity of increasing kidney disease awareness, providing adequate health insurance, and eliminating segregation of care [5]. Inequities in health incidence, diagnosis, treatment, and outcomes are well documented. The means to reverse these effects and provide uniform quality care are available, and there is an imperative ethical and economic obligation to do so.

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