



THE KIDNEY LINK

Connecting State Legislators to
Kidney Health Policy Resources

The Kidney Link

Quarterly Publication Volume 2 : Issue 1, March 2007

SIX STEPS TO REDUCE THE HEALTH BURDEN OF KIDNEY DISEASE

With kidney disease affecting more than 20 million Americans in the United States, it is important to incorporate preventive measures that will help reduce the health burden of kidney disease. The **first step** is to educate individuals about kidney health. Healthy kidneys are able to regulate the body's fluid levels, filter wastes and toxins from our bodies, and release a hormone that helps regulate blood pressure. The risks for developing kidney disease include diabetes, high blood pressure, cardiovascular disease and having a family history of kidney disease. The **second step** is evaluating the risk factors for developing kidney disease. Research has demonstrated that additional risk factors include prolonged use of painkillers, obesity, obesity, age (60 and over), kidney stones, and chronic urinary tract infections. It is important to note that there are at-risk populations that are disproportionately affected by chronic kidney disease including: African Americans, Native Americans, Hispanics, and Asian and Pacific Islanders.

Keeping these risk factors in mind, the **third step** is to recognize symptoms of kidney disease, which include: fatigue or weakness, puffy eyes, a poor appetite, difficulty sleeping, muscle cramps (especially at night), swelling in the feet and ankles, puffiness around the eyes (especially in the morning), dry/itchy skin, and the need to urinate often (especially at night). If these symptoms persist, it is imperative for an individual to get tested, which is the fourth step. Speaking to a primary care physician about getting tested is

the **fourth step** and most important preventive measure an individual can take in order to prevent the progression of kidney disease to kidney failure. There are four simple tests that will reveal the level of kidney function in an individual: blood pressure test, urine test, serum creatinine test, and calculating the estimated glomerular filtration rate (eGFR). Blood pressure is the second leading cause of kidney disease and it is important that individuals learn to control their blood pressure if it is higher than 120/80 to avoid damaging their kidneys. The urine test can detect traces of albumin, a protein, which is a premature sign of kidney disease. The serum creatinine test detects levels of creatinine, a waste product from muscle activity that is usually filtered by the kidneys, in the blood and individuals with kidney disease have elevated levels of creatinine in their blood. Calculating eGFR can determine the level of an individual's kidney function and stage of kidney disease, both of which are necessary to recommend the most appropriate disease management program to prevent the progression of kidney disease to kidney failure.

After determining the level of kidney function, the **fifth step** is for individuals with kidney disease to maintain healthy habits through the following measures: lowering high blood pressure, reducing intake of sodium, if diabetic, controlling one's levels of blood sugar, consuming moderate amounts of protein, avoiding NSAIDs (type of



Women In Government members participate in a discussion on kidney disease at a recent Women In Government regional conference.

painkillers), getting the annual flu shot. For individuals without kidney disease, it is important to maintain their kidneys by: exercising regularly, avoid smoking, monitoring their levels of cholesterol, controlling their weight, following a balanced diet, getting annual physical examinations, and knowing the family history. Finally, the **sixth step** is to continue education and awareness efforts that screen individuals for kidney disease early on to avoid progression to kidney failure. Since March is National Kidney Month, it is important that individuals learn about these preventive measures and incorporate them into their personal health behaviors to reduce the risk of developing kidney disease and preventing the progression of kidney disease to kidney failure.

For more information, please visit our website at www.womeningovernment.org/kidney or contact Kirtana Kalavapudi, Graduate Policy Fellow, at KKalavapudi@womeningovernment.org.

Source: *The National Kidney Foundation. The National Kidney Foundation Calls Chronic Kidney Disease Growing Public Health Problem. November 14, 2006.*

NATIONAL AND LOCAL INITIATIVES FOR ADDRESSING KIDNEY DISEASE

SEIZE CHRONIC KIDNEY DISEASE, CELEBRATE COLLABORATION A PROGRAM OF THE NATIONAL KIDNEY FOUNDATION (NKF)



Chronic kidney disease (CKD) is a complex disease associated with adverse outcomes such as cardiovascular disease, kidney failure, and death. Common co-morbid conditions and complications are diabetes, hypertension, anemia, bone disease, and disordered mineral metabolism, and others that worsen with decreasing kidney function, and which contribute to morbidity and mortality. Recent data from the United States Renal Data System (USRDS) shows the yearly mortality rate for patients on dialysis is 23 percent. Given the complex, multiple needs of people with CKD, the role of nephrology nurses, dietitians, patient care technicians, and social workers is absolutely pivotal to holistic care.

A new initiative from the NKF's Kidney Learning System™ (KLS), Seize Chronic Kidney Disease, Celebrate Collaboration, focuses on these four professional disciplines caring for patients with stages 4 and 5 CKD in either office-based or dialysis settings. Educational outreach to clinicians in the nephrology office improves care for CKD patients not yet on dialysis. Such efforts to help slow progression to kidney failure provide patients with earlier intervention for known CKD complications, with the goal that those who do require dialysis will be healthier. In turn, these efforts may impact cost associated with multiple hospitalizations, complications from co-morbidities and premature dialysis.

Underlying this program are the concepts of Collaboration, Knowledge, and Diversity, suggesting that multidisciplinary

efforts, new science, and diversity in application and implementation, shape best practice. The 4 key program components are:

- A CKD curriculum for integrated approaches to best practice;
- A series of live, interactive multidisciplinary continuing education (CE) programs;
- Free CE activities in web-based and CD-ROM formats, based on the live symposia; and
- Online, interactive, multidisciplinary patient care plans for instruction or reference in care planning for patients with stages 4 and 5 CKD.

The NKF has other initiatives to identify patients at risk for or with early stages of CKD. The Kidney Early Evaluation Program (KEEP) is a community-based screening program specifically for those with diabetes, hypertension, or a family history of those or CKD. Also, the NKF is collaborating on a state-wide initiative to develop team-based CKD task forces among state health-care agencies, voluntary health-care agencies, and health-care providers. Through these team efforts, states can develop policies and processes to identify people at risk for or at early stages of CKD, and provide services to reduce health care expenses and improve outcomes. *For more information about the Seize Chronic Kidney Disease, Celebrate Collaboration program, please contact Genevieve Coorey at genevievec@kidney.org.*

KNOCK OUT KIDNEY DISEASE (KOKD)—LOCAL HEALTH PROGRAM TO REDUCE BURDEN OF KIDNEY DISEASE IN THE DISTRICT OF COLUMBIA

Knock Out Kidney Disease (KOKD) is a new initiative of the National Kidney Foundation of the National Capital Area (NKF/NCA). It incorporates many prevention activities created by the Foundation, including: preventive screening (Kidney Early Evaluation Program, KEEP, and Project Prevention), medical consultation, referral, follow up, public education, and primary care physician education. The NKF/NCA conducted its largest KEEP screening at the NBC4 Health and Fitness Expo. The KOKD initiative expects to screen 1,650 individuals by October 2007.



preventable. With goal of education and early detection, the KOKD initiative was implemented to significantly reduce the number of District residents affected by kidney disease and reducing the number of residents in need of dialysis or kidney transplants. With close to 452 participants screened at the NBC4 Health and Fitness Expo this past January, the KOKD initiative emphasizes the importance of awareness and prevention of kidney disease in the District. The results of this screening recorded that close to 90 percent of the participants showed at least one test abnormality, and more than half learned they may have kidney disease.

Since the KOKD Initiative has solely been implemented in the District, NKF/NCA hopes to secure funding in order

Nearly two-thirds of all new cases of kidney disease are caused by diabetes or uncontrolled high blood pressure. In most cases, kidney disease is

KIDNEY-RELATED HEALTH ISSUES – ORGAN DONATION AND TRANSPLANTATION

PAIRED KIDNEY DONATION—A NOVEL EFFORT TO ENCOURAGE ORGAN DONATION

On a daily basis, 17 people die while on the waiting list for an organ transplant.¹ To reduce the waiting period for individuals in need of an organ transplant, federal legislation is addressing the importance of paired kidney donation, which can potentially benefit individuals on the national waiting list for kidney transplantation. The **Living Kidney Organ Donation Clarification Act** is a bipartisan agreement to encourage paired kidney donation and clarify the provisions set forth by the 1984 National Organ Transplant Act regarding valuable compensation for organ donation.

Paired kidney donation is defined as follows: a potential donor (Donor A) who is immunologically incompatible with intended recipient (Recipient A) but instead is compatible with another intended recipient (Recipient B); at the same time, another potential donor (Donor B) is immunologically incompatible with intended recipient (Recipient B) but is compatible with Recipient A.² A study has indicated that paired kidney donation could have significant long-term results for recipients, thereby improving their quality of life.³

Currently, the 1984 National Organ Transplant Act has strict restrictions on donating or receiving organs that are defined as valuable compensation. The Living Kidney Organ Donation Clarification Act will ensure that paired kidney donation is not defined as valuable compensation, and does not

conflict with the guidelines set forth by the 1984 National Organ Transplant Act.⁴ Paired kidney donation can substantially increase the organ supply and potentially reduce the time spent on the national waiting list. A recent study predicted a 14 percent increase in the number of live kidney donor transplants completed if paired donation is permitted.⁵

In addition to reducing the number of individuals on the national waiting list, it is important to consider the cost savings as a result of an increase in organ supply. Individuals with end-stage organ failure face significant financial burden. The overall costs of end-stage renal disease are six times higher than the overall costs for chronic kidney disease (CKD). The increase in costs is attributed to the fact that ESRD patients have increased inpatient medical and surgical costs in comparison to CKD.⁶ It has been estimated that for every individual who obtains a kidney transplant, Medicare could potentially save \$220,000 in costs related to dialysis treatment.⁷ Taking all of this into consideration, it is apparent that permitting paired kidney donation would greatly enhance the national donor registry across the country and reduce the number of individuals on the waiting list. *For more information, please visit our website at www.womeningovernment.org/kidney or contact Kirtana Kalavapudi, Graduate Policy Fellow, at KKalavapudi@womeningovernment.org.*

CONNECTION BETWEEN ORGAN DONATION AND PREVENTING CHRONIC DISEASE

The health burdens associated with chronic diseases have significant impacts on the demand for organ transplantation as well as the quality of care. A recent study demonstrated that in 2004, 40.5 percent of individuals on the organ transplant list had chronic disease as their primary diagnosis. Influenced by interplay between genetic and environmental factors, chronic disease contributes to 70 percent of deaths in the United States. Studies have also demonstrated that in 2000, 48 percent of preventable deaths were attributed to changeable behavioral risk factors. With such a huge percentage of our population being affected by chronic disease, there is no doubt as to why the number of individuals on national waiting lists for organ transplants is on the rise.

Specifically, the prevalence of kidney disease is significant among Americans: one in nine Americans is affected by it. Taking a look at the statistics: in 1996, there were 8,714 kidney donors (deceased and living) and ten years later, there are 11,438 kidney donors. It is evident that the number of deceased and living donors is on the rise, yet it isn't suf-

ficient to meet the demand of the 69,695 individuals on the national waiting list for a kidney donation. The rise in prevalence of kidney disease can be attributed various factors: lack of awareness and education among our citizens, behavioral risk factors and genetic predisposition. Individuals are un-

aware of the risk factors associated with developing kidney disease and increasing the health literacy of our population in regards to kidney disease as well as chronic disease in general can improve the overall health of our citizens.

Behavioral risk factors such as sedentary life styles and poor dietary habits contribute to the rising prevalence of obesity in our country. Numerous studies have linked obesity to an increased risk for developing kidney disease, type II diabetes, hypertension, heart disease, and stroke. Scientific evidence has demonstrated that obesity triples the risk of developing kidney disease. Furthermore, diabetes and hypertension are the two main causes of kidney disease. It is important to note that candidates for organ transplants with diagnoses of type II diabetes or hypertensive kidney-related health issues represented close



KOKD con't from page 2

to expand this initiative to areas in Maryland and Virginia. In general, the Washington metropolitan area has the highest prevalence of kidney disease in the nation: the rate is almost two and a half times the national average. Keeping these statistics in mind, it is essential to improve and expand education and awareness efforts, which results in significant reductions of health burdens associated with kidney disease. *For more information about the KOKD initiative, please visit the NKF/NCA website at: www.kidneywdc.org.*

ORGAN con't from page 3

to 63 percent of the total number of candidates for organ transplants. With an increasing prevalence of obesity, diabetes and hypertension among our citizens, it is obvious why the number of individuals on the national waiting list for kidney donation is so high. Focusing on the notion of prevention is essential to reducing the health burdens associated with chronic disease and end-stage organ failures as well as the demand for organ transplantation. *For more information, please visit our website at www.womeningovernment.org/kidney or contact Kirtana Kalavapudi, Graduate Policy Fellow, at KKalavapudi@womeningovernment.org.*

Source: Laeng RA, Fant GV, Martin LM. Preventable Chronic Disease and the Need for Organ Transplantation in the United States: A Descriptive Report. Accessed from <http://www.organdonor.gov/pdf/prevention.pdf>.



WOMEN IN GOVERNMENT'S KIDNEY HEALTH POLICY RESOURCE CENTER

Women In Government's Kidney Health Policy Resource Center has launched an updated website and expanded its educational content to cover a range of kidney-related health issues. The Policy Resource Center will be adding content over the next couple of weeks so please check back often for updates! For more information, please contact the Policy Resource Center at kidney@womeningovernment.org or by calling 1-888-333-0164.

(ENDNOTES)

- ¹ United Network for Organ Sharing, 2007.
- ² Montgomery RA, Zachary AA, Ratner LE, et al. (2005). Clinical results from transplanting incompatible live kidney donor/recipient pairs using kidney paired donation. *JAMA*. 294:1655-1663.
- ³ Matas AJ and Sutherland DER. (2005). The Importance of Innovative Efforts to Increase Organ Donation. *JAMA*. 294(13):1691-1693.
- ⁴ Norwood C (January 29, 2007). Norwood/Inslee Introduce Paired Kidney Donation Bill in House. Press Release. http://www.house.gov/apps/list/press/ga10_norwood/KidneyBill.html
- ⁵ Norwood C and Inslee J. Living Organ Kidney Donation Clarification Act. January 30, 2007.
- ⁶ Smith D et al. (2004). Cost of Medical Care for Chronic Kidney Disease and Comorbidity among Enrollees in a Large HMO Population. *J Am Soc Nephrol* 15:1300-1306.
- ⁷ Norwood C and Inslee J. Living Organ Kidney Donation Clarification Act. January 30, 2007.

CONTACT INFORMATION FOR: KIDNEY HEALTH POLICY RESOURCE CENTER
Email: kidney@womeningovernment.org • Website: www.womeningovernment.org/kidney
2600 Virginia Avenue, NW, Suite 709 • Washington, DC 20037
Phone: 1-888-333-0164 • Fax: 202-333-0875