Chronic Kidney Disease

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PROGRESS REVIEW

In the fourth of a series of assessments of *Healthy People 2010,* Assistant Secretary for Health Eve Slater chaired a focus area Progress Review on Chronic Kidney Disease. She was assisted by representatives of the National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, which has the lead for this focus area. (For information about this area and its eight objectives, see the chapter text at **www.healthypeople.gov/document/html/volume1/04ckd.htm**.) In opening the Review, Dr. Slater noted that chronic kidney disease (CKD) fully deserves its status as a separate focus area in *Healthy People 2010,* given its tremendous impact on society in terms of treatment costs for its victims and their concomitant loss of productivity and years of life. Hence, prevention is of the utmost importance as a means to reduce this toll, she said.

Data Trends

Dr. Edward Sondik, Director, National Center for Health Statistics (NCHS), reported on the latest data for objectives in the CKD focus area. (For the meeting agenda, summary data tables, and charts, refer to the following NCHS Web site: www.cdc.gov/nchs/about/otheract/hpdata2010/fa4/ckd.htm.) In 2000, there were 334 new cases of end-stage renal disease (ESRD) per million population, an incidence that would need to decline by 35 percent to meet the 2010 target of 217 (Obj. 4-1). Currently, there are nearly 100,000 new cases of ESRD, a total that has been increasing by about 5 to 6 percent annually. Geographically, almost all States and counties for which data are available showed an increasing trend in ESRD incidence from 1990 to 2000. Compared to whites, the rate of ESRD is four times as great among blacks, three times as great among American Indians/Alaska Natives, and 50 percent greater among Asian Americans. Of the total burden of ESRD in 2000, 145 new cases per million population were due to diabetes as the primary diagnosis, for which the 2010 target is 78 (Obj. 4-7). Among racial/ethnic groups, American Indians/Alaska Natives had the highest incident rates of diabetes-induced ESRD in 2000, followed by blacks. Even though blacks and American Indians/Alaska Natives have higher rates of ESRD than do most other population groups, they generally respond better to dialysis treatment. In general, the increasing incidence of diabetes-induced ESRD closely tracks the sharply rising prevalence of obesity over the last decade. Mortality from cardiovascular disease (CVD) in persons with ESRD was 82.6 per 1,000 patient years at risk in 2000. To meet the 2010 target of 52 per 1,000 patient years at risk (Obj. 4-2) would require that rate to be reduced by more than a third. CVD mortality in ESRD patients is highest for whites, second highest for blacks.

Arteriovenous fistulas were used by 27.2 percent of new hemodialysis patients aged 20 years and over in 1999, a rate that has varied only slightly since the baseline year of 1997.

The 2010 target is 50 percent (Obj. 4-4). In 2000, 21.3 percent of dialysis patients under 70 years of age were registered on the waiting list for kidney transplantation, a proportion that must increase to 66 percent to meet the 2010 target (Obj. 4-5). Asian Americans/Pacific Islanders, followed by whites, have the highest percentage of their ESRD population registered on the waiting list. In 1996, American Indians/Alaska Natives rated highest as a group (56 percent) in being counseled on nutrition, treatment choices, and cardiovascular care at least a year before the start of renal replacement therapy, followed by whites at 46 percent. More recent data are not available. The 2010 target is 60 percent for all groups (Obj. 4-3).

The percentage of persons under 70 years of age who received a kidney transplant within 3 years of renal failure decreased in every year of the latter half of the 1990s in which data were collected. The most recent data for that decade show 19.6 percent of such persons receiving a transplant in 1997. The 2010 target has yet to be determined (Obj. 4-6). New but incomplete data were presented for the developmental objective 4-8. A target for it is expected to be set in 2003.

Salient Challenges and Current Strategies

- Early detection of CKD, the kidney impairment leading to ESRD, is often difficult because it is frequently an asymptomatic condition.
- By 1995, over 73,000 new cases of ESRD were being reported annually, with most of the increase over the previous two decades occurring among persons aged 65 years and over and among persons with diabetes.
- Six percent of Medicare funds are expended for ESRD care and support.
- Over 70 percent of dialysis centers are commercial, chain establishments, a situation which has serious ramifications in equity and public health policy.
- In 2003, the National Kidney Disease Education Program will launch a CKD Awareness Campaign targeted at blacks who have hypertension, diabetes, or a family history of ESRD. The four pilot sites selected for the initial phase of this activity are in Jackson, Mississippi; Atlanta, Georgia; Baltimore, Maryland; and Cleveland, Ohio.
- HHS Secretary Thompson has made organ donation a national priority. Under his "Workplace Partnership for Life" program, one person in a workplace commits to educating his colleagues on the benefits of donation. Over 3,000 organizations are now enrolled as Workplace Partners.
- To encourage families to discuss the issue of organ donation, the Health Resources and Services Administration contracted for production of the documentary film, "No Greater Love." Since its first screening on public television in April 2002, it has been presented countrywide and has become the most frequently shown documentary of the kind.
- The Secretary's Advisory Committee on Organ Transplantation has the mission to examine all aspects of the issue, with the goal of fundamentally reforming the organ allocation process.
- The ratio of living to cadaver donors of kidneys has been increasing in recent years.

Approaches for Consideration

Presentations by lead agency staff and comments by others present at the Review provided suggestions for followup strategies as follows:

- Promote increased interaction and understanding between the nephrological and public health communities.
- Seek to identify and correct sources of provider bias that result in members of minority groups being referred for kidney transplants at lower rates than whites.
- Seek changes in laws and regulations so that Medicare entitlement for kidney transplant recipients extends beyond the 3-year current limit.
- Expand data collection to improve reporting on the prevalence of CKD, especially with regard to particular population groups.
- Encourage reporting of the estimated Glomerular Filtration Rate (GFR) on laboratory reports to increase physician awareness that modest elevations in serum creatinine can reflect marked reductions in the GFR.
- Translate the GFR to a scale comprehensible to laymen that would yield a convenient index of kidney health, comparable to the ideal 120/80 reading for normal blood pressure.
- Include warnings about the increased risk of developing ESRD in health messages intended for people with diabetes or hypertension.
- Make sure the public knows that effective therapy can be applied in most cases of ESRD.
- Effect improvements in collection and analysis of facility- and population-specific data on CKD prevalence within integrated systems.
- Stress the importance of prevention in all education campaigns addressing CKD.
- Make greater use of the Internet as a resource for educating the public about laboratory values, for example.
- Examine commercial hemodialysis centers with a view to better determining the nature, quality, and objectives of their management. Pay particular attention to whether the centers provide incentives for their patients to become healthier and less dependent on dialysis.
- Use the Institute of Medicine reports as the starting point and impetus for setting quality standards for renal disease diagnosis, treatment, and followup.

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