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United States Senate Committee on Agriculture, Nutrition and Forestry
Hearing on: "Nutrition for America's Children in Difficult Economic Times"
Senator Tom Harkin, Chairman
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Thank you, Mr. Chairman, for the opportunity to address the Committee this morning. I am Dr. David M. Paige, Professor of Population, Family and Reproductive Health with a joint appointment in Human Nutrition at The Johns Hopkins Bloomberg School of Public Health and in Pediatrics at the Johns Hopkins School of Medicine. I am a member of the Maryland State WIC Advisory Panel and Director of the Johns Hopkins WIC Program.

My comments will focus on the critical role the U.S. Department of Agriculture's Special Supplemental Nutrition Program (WIC) plays in safeguarding the health and well being of the Nation's most economically disadvantaged women, infants and children.

The USDA WIC Program represents the Nation's most successful nutrition program addressing the needs of the most economically disadvantaged and vulnerable populations of pregnant women, infants, postpartum mothers and preschool children. The past thirty-six years have demonstrated that WIC is a potent force in improving the health and nutritional well being of the women, infants and children it serves.

THE WIC PROGRAM: A PROFILE

Poverty

WIC serves the most economically disadvantaged population in the nation. Three quarters of all WIC participants are at or below the poverty line. A USDA Study of WIC Participants and Program Characteristics indicates 39% of WIC participants were at or below 50% of poverty, compared to 4.4% of the U.S. population. Thirty-four percent were between 50% to 100%, with only 7.2% of WIC clients above 150% of poverty.

Risk

Prenatal: Poverty results in poor health, nutritional compromise, and increased disease burden. The WIC population is in poorest health. Among pregnant women, 60% have a clinical, health or medical condition at certification. Thirty-eight percent of the above categorized women have an obstetrical problem. Twenty-seven percent of women exhibit hematological risk with a hemoglobin or hematocrit falling below acceptable levels. Six percent have low weight for height and 24% have inappropriate weight gain. The above factors are responsible for most preterm and low birth weight pregnancy outcomes.

Rates of low birth weight among black and white infants are also inversely associated with median family income. Data from the National Longitudinal Survey of Youth confirm that there is higher risk of low birth weight among infants born to poor women. An intergenerational effect is evidenced by the fact that poor women who were low birth weight infants themselves give birth to low birth weight infants.

The WIC program reverses many of these negative outcomes. Devaney and her colleagues, in a carefully designed and skillfully executed study reported perinatal WIC participation led to increased birth weight that ranged from 51g in one state to 117g in another. Among premature birth, less than 37 weeks, the increase ranged from 138g to 259g.

Buescher, et al., also reported a significant increase in birth weights and a reduction in very low birth weight (VLBW) among WIC participants in North Carolina. A comprehensive review of reported studies by the GAO reinforces the finding that WIC was effective in lowering the incidence of low birth weight (LBW) and VLBW. Moreover, the savings realized were sufficient to more than offset the costs of the WIC program.

Bitler and Currie report, "The average reduction of almost one night's hospital stay per infant, and a quarter of a night's stay in hospital per woman, would be enough to repay the cost of the WIC benefits by itself. But the WIC infants are also 14 percent less likely to end up in an intensive care unit, at a cost of thousands of dollars per day." The

data underscore an earlier GAO report conclusion that WIC is an excellent preventive program that is justified financially and otherwise. Devaney's argument that WIC saves the government money by economizing on the costs of treating mothers and infants under Medicaid is reinforced by multiple independent studies as well as by the GAO.

Infant Mortality: Improved birth weight and reduction in preterm births results in a reduction in infant mortality. The U.S. infant mortality rate (IMR) is currently among the highest among industrialized nations, with the highest rates in our economically disadvantaged African American population. The social and dollar costs are enormous. The disease burden among the survivors is life long. The WIC effect on infant mortality is estimated to be a reduction of 1.49 neonatal deaths per 1,000 live births. This estimate is derived from the National Historical Evaluation Study of Pregnancy Outcomes.

Our own estimates, published in the Milbank Quarterly in 1995, proposing, "A strategic Framework for Infant Mortality Reduction: Implications for 'Healthy Start,'" is that full WIC participation will result in a 2% decline in the IMR, a significant number of lives saved and health dollars conserved.

Preschool Children: Toddlers and preschool children in poverty exhibit more subtle effects of poor nutrition, often difficult to measure. They include decreased activity, interaction and stimulation resulting in poor cognitive development as well as compromised growth. Edozien, et al., in an early study, concluded that participation in WIC was associated with an acceleration of the growth in weight and length/height. The data set consisted of 9,143 infants and children who had initial and 6-month follow-up visits and 5,209 infants/children who had initial 11-month follow-up visits. Control children were newly-enrolled WIC participants.

In an analysis of hemoglobin and hematocrit data for children participating in WIC, the Centers for Disease Control estimated 13% of 6 23-month-old children and 29% of 24 47-month-old children were anemic on their initial visit. At the first follow-up visit, the proportion had dropped to 5% and 14% respectively, for the two age groups. A further decrease was observed at the second follow-up visit to 4% and 11% respectively.

The escalating obesity epidemic is a daunting problem in this age group and represents a difficult challenge to the WIC program. Families in poverty often make poor food choices, often choosing calorie dense foods that result in childhood obesity and lifelong disease burden. A comprehensive, targeted education program that is integrated with other federal and state programs will be required to address the multiple causes of the problem and reverse this alarming trend.

Breastfeeding: The most effective nutritional head start for the infant is mother's milk. Breastfeeding imparts numerous health, social, and economic benefits to the breastfeeding infant and mother.

No formula can possibly substitute for human milk. Human milk is a species-specific living tissue that provides not only the most appropriate nutrients; it also provides

antibodies, anti-infectious and other protective elements to optimize the health, development and cognitive skills of the infant, as well as contributing to the psychological well-being of infant and mother.

While WIC strongly promotes breastfeeding as the ideal way to feed infants unless medically contraindicated, socio-demographic factors have been shown to be key predictors of poor breastfeeding initiation rates among low income women. Even within the WIC population, there is a gradient between the lower and higher income quartiles of WIC women. Analysis of breastfeeding among WIC women in Maryland indicates that the odds of breast-feeding initiation in the lowest household income quartile was 33-42% lower than the highest household income quartile, even after controlling for family size and health status.

To encourage breastfeeding the WIC program provides prenatal and post-partum education and support through trained WIC staff, lactation consultants, and breastfeeding peer counselors. The supportive role peer counselors play in increasing breastfeeding initiation and continuation is well-documented in the literature. Peer counselors can be particularly effective in reaching this group of women. Peer counselors usually share certain characteristics with their clients, such as ethnicity and socio-economic status, but have been shown to be effective even when not ethnically matched with their clients.

Peer counselors are effective because: they are drawn from the community; breastfed their own infants; serve as credible models; communicate easily and comfortably with clients; follow up post delivery; provide basic education; are available for telephone support; help manage common concerns; and refer as appropriate.

The services of peer counselors have been shown to be significantly more effective than education alone in increasing breastfeeding duration and exclusivity. Using breastfeeding peer counseling services may help to overcome the negative influences of community and familial pressure that encourages infant formula use. The low breastfeeding rates among economically disadvantaged women require a creative response that embraces a broad range of programs and incentives.

RECOMMENDATIONS

Administration:

1. Enroll all infants and pregnant women below 100% of poverty, thereby acknowledging the nutritional risk inherent in this highly vulnerable, economically disadvantaged population. This shift will emphasize the logic of providing preventive services to the lowest income pregnant women and infants before they develop nutritional indices of poor health and incur the increased health care costs associated therewith. Moreover, streamlining enrollment will result in considerable cost savings.
2. Enroll all infants and pregnant women between 100% and 185% of poverty who meet income and nutritional risk criteria.

3. Enroll all Medicaid recipients.
4. Establish linkages with the health and social services community to maximize the delivery of services in a coordinated and collaborative manner.
5. Integrate WIC services, to the extent possible, with health services to improve communication and better target nutrition and health education, while reducing duplication of costly infrastructure as well as client burden. This will require an improved WIC infrastructure and enhanced information technology.
6. Implement a streamlined uniform qualifying application thereby permitting clients to qualify only once for all federal assistance programs. This will simplify enrollment and reduce cost.
7. Accelerate the expansion and integration of WIC into the Federal Electronic Benefits Transfer System.
8. Enhance outreach to identify and enroll currently un-served populations.
9. Assure that military families who exceed WIC income eligibility criteria as a result of hardship duty and/or hostile fire/imminent danger pay are not subject to a loss of WIC benefits as a result thereof.
10. Implement a national unified approach to negotiating and securing food contracts, thereby maximizing rebates.

Clinic:

1. Establish a common electronic client record across all health and social services providers. A common record will serve to better integrate care, improve communication, target services and manage client education.
2. Establish early identification and recruitment of pregnant women into WIC as a program priority.
3. Emphasize pre- and peri-conception maternal health and nutrition, thereby assuring optimal embryonic development and fetal growth.
4. Provide Vitamin D supplements for exclusively breastfeeding infants and breastfeeding infants who are minimally supplemented with infant formula.
5. Emphasize increased enrollment of preschool children. Toddlers and preschool children experience more subtle and often difficult-to-measure effects of under-nutrition, including decreased activity, interaction and stimulation, resulting in poor cognitive development.
6. Implement preventive programs to reduce the risk of obesity
7. Clinically counsel and periodically evaluate overweight and obese clients.

Education:

1. Target nutrition education to health and nutrition risk.
2. Coordinate education with health care providers.
3. Address incipient overweight and obese patterns in WIC clients. Tailor the food package to reinforce educational objectives.
4. Further expand and refine the food package to more closely reflect regional, cultural, ethnic and racial differences.

5. Breastfeeding peer counselors are effective; employ them to reinforce and augment prenatal and postnatal breastfeeding education.
6. Encourage and support breastfeeding support groups.
7. Require periodic review of the WIC food packages by the Institute of Medicine.
8. Develop and/or expand WIC-generated, client-oriented internet educational information and support services to complement, reinforce and extend clinic-based education.
9. Prepare families for the post-WIC period by addressing household economics, dietary requirements, appropriate food selection and prudent shopping patterns.

Summary

The promise of the WIC program will be realized when all WIC eligible women, infants and children can participate. Current funding levels are insufficient to meet the needs of all potentially eligible women, infants, and children. Furthermore, increased emphasis must be placed on prevention, rather than remediation. To accomplish this, the program can be streamlined through a series of cost-effective programmatic modifications to eligibility requirements and screening, national food contracts, maximum food rebates and elimination of duplicative services and infrastructure through coordination and co-location with health service providers to increase program penetration at reduced cost. Despite the challenges that lie ahead, I would like to end by noting the comments of two lions of the Senate: Senator McGovern recently stated in a program celebrating the history of WIC that the WIC Program is the greatest public health program passed in the Senate, to which, in another venue some months later, in the spirit of true bipartisanship, Senator Dole added his “amen.”