Conclusions

Using a nationally representative data set that allows us to develop unique instruments for measuring overall diet quality and nutrition knowledge, we found that the mother's knowledge of nutrition has a significant positive influence on preschool children's diet quality and children's dietary intakes and that such influence decreases as children grow older. These findings have growing significance as more nutrition researchers, economists, and policymakers are focusing on the determinants of children's diets. Among the numerous factors affecting diets and nutrient intakes, health and nutrition knowledge is one factor that can be manipulated by health authorities through the use of tools such as public information campaigns. Therefore, the potential impact of this factor on diets is of considerable policy interest.

In this study, we used household production theory to formulate empirical models of children's diet quality and nutrient intakes. Household production theory attributes a positive effect for education on health and nutrition outcomes through greater allocative efficiency, that is, the ability of the more educated to acquire and process a greater amount of health information than the less educated (Grossman and Kaestner, 1995). Thus, if the allocative efficiency hypothesis is valid, a mother's knowledge of health and nutrition should be positively related to her education level, and children's diet should be positively related to their mothers' knowledge of health and nutrition. Our results support this model for preschool children with respect to overall diet quality and nutrient intakes. For children older than 5 years, the evidence is less strong, although significant effects were found for cholesterol and fiber.

Our results suggest that some information-related racial and ethnic effects on child diet quality exist and that targeting non-White and Hispanic mothers for nutrition education is likely to increase diet quality of preschoolers. Our results also point to other powerful determinants of child diet quality that may need special attention from nutrition educators. Preschool children of mothers who smoke have significantly lower diet quality, although these mothers are as informed about nutrition and diet-health links as nonsmoking mothers. Therefore, special strategies may be needed to alert smoking mothers to the dietary risk facing their preschoolers. At the same time, having a member in the household who is on a vegetarian diet appears to significantly improve preschoolers' diet quality. The recent addition of vegetarian diets as a means to attain dietary goals in the *Dietary Guidelines for Americans* (1995) is therefore likely to help improve children's diet quality.