

Conclusion

In an effort to focus the family child care component of the CACFP more closely on low-income children, the PRWORA reduced the level of meal reimbursement for Tier 2 providers. It was unknown how Tier 2 providers that remained in the program would respond to the reduced revenue from meal reimbursements. One possibility was that providers would cut back on food expenditures by offering fewer meals or snacks, or by serving smaller portions, less costly foods, or a less varied menu. If such adjustments occurred, they might in turn reduce the quantity or quality of the nutrition provided to children served by the program.

The analyses presented in this report make it clear that PRWORA had no substantial impact on the food and nutrient composition of meals offered in Tier 2 homes. Comparisons are between a nationally representative group of Tier 2 providers surveyed in 1999 and a sample of providers in 1995 surveyed using the same methods. Regression analyses were used to control for known tier-related differences between the two groups of providers. However, it is not possible to differentiate between the effects of lower reimbursement rates and trends over time in factors unrelated to tiering. Therefore, the differences (or lack of difference) found between meals offered by Tier 2 providers in 1999 and meals offered by similar providers in 1995 cannot be attributed entirely to tiering.

There is no evidence that Tier 2 providers responded to the reduced reimbursement rates by cutting back on the meals and snacks they served or by offering less nutritious foods. Most Tier 2 providers offered breakfast, lunch, and at least one snack, and no meal or snack was served less often in 1999 than by similar providers in 1995. Nine out of 10 of these meals are in compliance with CACFP meal component requirements, and Tier 2 meals meet or exceed the compliance rates and degree of variety achieved by providers in 1995. This is not particularly surprising as most providers who answered the operations survey said that following the meal pattern is not particularly burdensome. While some small differences in the particular components offered may represent an effort on the part of Tier 2 providers to control costs, these affect only foods offered above and beyond the required servings. Thus it is clear that Tier 2 meals have not compromised the overall goal of the CACFP meal component requirements—to provide a mix of foods that make an important contribution to children's major nutritional needs.

Because the CACFP does not impose nutrient-based standards or goals for meals and snacks, we could not directly assess the adequacy or appropriateness of the nutrient levels in the meals offered. Instead, benchmarks based on standards for the school meal programs and expert recommendations for health promotion that apply to children were used in describing the nutrient composition of Tier 2 meals and snacks. The new DRIs might have been appropriate benchmarks for this study, but they are not yet available for most of the nutrient measures examined here.

The nutrient analysis does not find that average meals and snacks offered by Tier 2 providers are of inferior nutritional quality because of tiering. Nonetheless, there is some room for improvement, as was the case before tiering.

Overall, Tier 2 providers offer a substantial proportion of children's RDAs for food energy, protein, vitamins A and C, calcium, and iron; only snacks showed any reductions relative to providers in 1995, and these were few. If DRIs had been available, results would likely have been even more positive, as the recommended standards for assessing groups are set lower than the RDAs.

Less positively, the average lunch provides more than the *Dietary Guidelines* and NRC's recommended maxima for total fat, saturated fat, and sodium. The average percentage of food

energy from saturated fat exceeds the *Dietary Guidelines* recommendation for all meals and snacks offered, although this did not change with tiering.

Tier 2 providers offered a nutrient package with more food energy and sodium than providers in 1995, a result of serving larger portions and more high sodium foods, respectively. Offering larger quantities of food would not logically be a consequence of tiering, and may represent a general trend unrelated to the CACFP. Unfortunately, no national data are yet available to determine whether typical portion sizes outside the CACFP have also increased between 1995 and 1999, although this type of analysis could be done with the 1994-96 and 1998 CSFII data.

One obvious concern with the program offering an increasing amount of food energy is the implication for the growing problem of obesity among children.⁴⁸ However, when children's consumption habits are taken into account, it appears that the level of energy provided is within the recommended range. For example, the two most commonly offered combinations of CACFP meals and snacks provide, on average, between 63 and 85 percent of children's recommended energy allowance. Most children are in CACFP family child care enough hours that they receive all of the meals and snacks provided under one of these combinations. Data on foods and amounts actually consumed were not collected in 1999, but the 1995 *Early Childhood and Child Care Study* found that children typically consume only three-quarters to 80 percent of the energy in the meals and snacks offered to them by CACFP family child care providers. Applying this to the amounts of food energy offered in 1999, children in Tier 2 homes would be likely to consume about half of their daily energy requirements from the breakfast-lunch-one snack meal combination and two-thirds from the breakfast-lunch-two snack combination. Making the assumptions that children are offered roughly the same amount of food energy at supper as lunch (30 percent of RDA), and that the .75-.80 factor for consumption also applies to meals consumed outside of CACFP care, the total proportion of energy RDA likely to be consumed by children in Tier 2 homes ranges from 74 to 90 percent. This leaves reasonable leeway for any additional snacks, especially for the one-snack combination.

Although energy intake is just one of the contributors to the obesity problem, the analysis presented here does not suggest any disproportionate contribution of food energy from CACFP meals, on average. Of course, some children may consume too much and some too little relative to their energy needs. Additional research would be needed to obtain the necessary information on children's food consumption and activity levels, both in and outside of Tier 2 CACFP care, in order to determine if they were at greater risk of obesity.

As mentioned above, this analysis did not address tiering's effect on the dietary intake of children participating in the CACFP, as the study collected no data on food consumption. No conclusions can be drawn about total daily intakes, which would include meals consumed outside of CACFP child care. If the relationships between nutrients offered and nutrients consumed that were found in the 1995 study still apply, the proportion of energy derived from saturated fat in meals consumed in CACFP care is likely to exceed recommendations. The level of iron provided in lunches may also need to be monitored. Family child care providers may need additional guidance on the types of food needed to provide adequate levels of iron, especially in lunches, while lowering the saturated fat content of all meals and snacks offered.

Although we conclude that tiering had little effect on nutritional aspects of Tier 2 CACFP meals, many questions about the CACFP remain unanswered:

⁴⁸ The prevalence of overweight children (ages 6-11) has almost doubled in the past 20 years (CDC, 2000).

- How do meals and snacks offered by Tier 2 providers compare with homes receiving higher level of meal reimbursements during the same time period (i.e., Tier 1 homes)?
- How do portion sizes offered in former CACFP homes compare with those observed in Tier 2 homes?
- Is the CACFP meal pattern designed to provide a similar level of nutrients relative to the RDAs at breakfast and lunch as the nutrition guidelines for school meals, or are these unrealistic goals?
- Should providers be trained to serve different foods to younger and older children because of different nutrient requirements?

Further research would be needed to address these issues.