

CHILD AND ADULT CARE FOOD PROGRAM (CACFP) FAMILY DAY CARE HOMES
MEAL CLAIMS FEASIBILITY STUDY (SUMMARY)

Overview

The U.S. Department of Agriculture, (USDA) Food and Nutrition Service (FNS) administers the Child and Adult Care Food Program (CACFP) through grants to State agencies that are used to reimburse program providers for nutritious meals and snacks served in child care centers, day care homes, and adult day care centers. Independent centers and sponsoring organizations (“sponsors”) sign agreements with States to assume administrative and financial responsibility for CACFP operations. For family day care homes (FDCHs), sponsors receive and verify meal reimbursement claims, forward claims to State CACFP offices, receive reimbursement payments, and distribute payments to FDCHs.

Under the Improper Payments Elimination and Recovery Improvement Act (IPERIA) of 2012, Federal agencies must periodically review and identify programs that may be susceptible to significant improper payments, including CACFP. To comply with IPERIA, this study sought to design and test a data collection method that enables FNS to better estimate the number of meals claimed in error by FDCHs. The specific purpose is to accurately measure the number of meals that are claimed for reimbursement but not served. In order to meet IPERIA requirements, the data collection method would have to be viable for potential national-level adoption.

FNS has conducted three previous efforts to identify a methodology for estimating FDCH meal claiming errors. The first effort used data recorded by sponsors during FDCH monitoring visits to compare the observed number of children with the number of meals claimed for reimbursement, but it was found to be unreliable due to a significant amount of

missing data.¹ A second pilot evaluation used four data collection methods (on-site observation, parent-recall interviews, and two parent sign-in sheet approaches) for validating FDCH meal claims.² While the parent-recall interviews were identified as having promise for estimating improper FDCH meal claims, further analysis found low concordance between parent recall of meals served to their children compared to meals actually served.³

Methods

This study tested the use of a Meal Service Reporting System (MSRS) and a Child Attendance Reporting System (CARS), both of which supported real-time data collection. During November 2017, the study collected information from a non-representative sample of 63 FDCH providers and 174 parents of 215 children in Virginia and Texas using MSRS and CARS. The MSRS allowed providers to report real time meal-serving times for each child in attendance through a smartphone application. The CARS allowed parents to report daily drop-off and pick-up times for their children through text messages. Using these data, two approaches (triangulation and modeling) were used to estimate and validate improper payments:

1. *Triangulation*: Triangulation was used to derive accurate records of meals served by providers during the study month using three data sources (child attendance records, MSRS data, and CARS) and estimate meals claimed in error. The first step involved creating rules for flagging meals that should not be claimed (e.g., exceeding maximum number of meals allowed, child not in attendance). Next, parent-reported data on child attendance for a given day from CARS were compared to provider-reported data

¹ <https://www.fns.usda.gov/results-feasibility-study-estimating-risk-meal-claiming-error-cacfp>

² <https://www.fns.usda.gov/child-and-adult-care-food-program-cacfp-improper-payments-data-collection-pilot-project>

³ FNS Internal Report 2010

from MSRS to identify meals reported as served when the child was not in attendance. MSRS data were then compared to administrative records to identify meals that were ineligible for reimbursement. Lastly, the triangulated meal records were compared with the actual meal claims sponsors reimbursed for providers to generate estimates of meals claimed in error.

2. *Modeling*: Regression modeling used meal claims data to estimate changes in meal claims over time between pre-study months and the study month for the treatment (providers who reported via CARS and MSRS) and a control group (providers that did not use CARS and MSRS). A difference-in-differences (DD) model then estimated the two groups' difference in their between-period differences in meal claims and tested whether this difference was substantial and statistically significant. The model examined whether using the data collection tools resulted in fewer meals claimed in error for the treatment group during the study month and produced an estimate of the meals that were over claimed.

Findings

The two approaches - triangulation and DD modeling - estimated similar overall meal claiming error rates. The triangulation method generated a 20.6 percent meal claiming error rate across all meal types. The modeling estimated that 18.3 percent were over claimed meals. In addition, DD modeling also showed statistically significant reductions in meals claimed in the treatment groups across all meals and by meal (breakfast, lunch, and dinner/supper) compared to the control group. These findings suggest that the intervention (data collection with CARS and MSRS) reduced the treatment group's meal claims in the study month. This supports the hypothesis that the reporting tools improved the accuracy of meal services because providers in the treatment group were aware of the study and may have been more vigilant about meal claiming during the study month. However, the study had important limitations, including a sampling approach that prevents generalizing findings to all settings and a low response rate that

resulted in imputation of missing data and the introduction of potential bias.

Study Limitations

Although FDCH providers and parents were generally able to use the MSRS and CARS reporting systems to submit same day/real time information on child attendance and meals served, these data collection approaches are not feasible on a national scale because:

The response and participation rates for FDCH providers and parents were low. Of the 142 providers across Virginia and Texas that were contacted, only 63 providers (44 percent) agreed to participate. This low participation made analysis for certain subcategories difficult. For example, only four providers provided information on evening snacks.

Due to missing data, a high percentage of data were imputed. When multiple data sources were merged and reconciled, there remained missing information that was not reported or collected, particularly in CARS, necessitating imputation. Between 17 to 21 percent of child attendance drop offs and pick-ups were imputed to augment information collected via CARS. Imputation on a national scale would be time consuming and introduce error.

The estimated costs of implementing these data collection systems on a national scale are substantial and cost prohibitive. The costs of collecting data via CARS and MSRS from a nationally representative sample are estimated at \$5-8 million. An increase in incentives from the \$60 and \$25 offered to providers and parents, respectively, to improve on low participation rates would further increase costs.

For More Information

Zhang, Y., Geller, D., Young, A., Huang, G., Walters, T., Simpson, A., & Belyea, M. (2020). CACFP Family Day Care Homes Meal Claims Feasibility Study Prepared by Manhattan Strategy Group Under Contract No. AG-3198-C-11-0009. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service. Project Officer: Dr. Chan Chanhatisilpa. Available online at: www.fns.usda.gov/research-and-analysis