

Research Rundown

Article:

Opportunities and Challenges of Implementing Combination Steam and Convection Ovens in Mississippi School Kitchens

What did this study examine?

This study examined the successes and challenges in installing combination steam and convection ovens (combi ovens) as a replacement for traditional fryers in Mississippi Schools as an effort to eliminate fried foods.

Key findings:

Schools in the sample represented grades K-12. Out of 306 schools examined, 229 schools had at least 1 functioning combi oven:

92 schools
Had 1 combi oven

111 schools
Had 2 combi ovens

26 schools
Had 3 or more combi ovens



Removal of Fryers

80.7% of schools had their fryers replaced with combi ovens
19.3% of schools were planning to have fryers removed in the near future
59% of schools planned to keep one or more fryers as a backup for catering or other school events



Infrastructure Challenges

- 1 Kitchen lacked physical space for new equipment
- 2 Kitchen lacked plumbing capacity for combi steamer capability
- 3 Equipment would require major electrical reconfiguration
- 4 Equipment would require major kitchen remodel



Other Barriers

Financial Burden

Lack of maintenance and repair needs lead to service delay

Lack of Training

Training for maintenance and repair as well as staff usage was widely unavailable

Lack of Funding

Funding sources for new equipment were not consistently available

Put it into practice!

- Consider looking for training resources for all new and existing kitchen staff when introducing new efficient food production technology, or new equipment. The Institute of Child Nutrition (theicn.org) or the equipment vendors/manufacturers are good options.
- Develop positive relationships with manufacturers to ensure consistent maintenance and repair of all equipment.
- Outline the needs and wants of your nutrition program and identify gaps in your kitchen or equipment.
- Consider applying for the NSLP Equipment Grant to obtain new equipment that can meet your kitchen needs!

Reference:

Yunhee Chang, PhD; Devon Kaiser, MS, RD; Jeffrey Blake Bidy, MS, RD; Lauren Carstens, MS, RD; Amber Wade; Teresa Carithers, PhD, RD, LD, FAND (2021). Opportunities and Challenges of Implementing Combination Steam and Convections Ovens in Mississippi School Kitchens. Volume 45, 2021. Pages 1-13.



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