

## **CACFP Kitchen Equipment Survey – Final Report**

*Submitted by the Epidemiology, Planning & Evaluation Branch, CDPHE (September, 2013)*

### **Executive Summary**

In July 2013, a 36-item survey was completed by 121 responding CACFP-participating child care centers. The survey, delivered through an online survey tool, was created to gauge the types and amounts of kitchen equipment being used by centers for their food storage, preparation and cooking activities in order to gain insight to inform CACFP planning to assist and support our centers in meeting Healthier Meals Initiative recommendations. Items on the survey requested that respondents select from available answers to describe their kitchen equipment in the areas of storage, refrigeration, cooking, food preparation, cookware, knives/small wares/hand tools, measuring, and cleaning in addition to asking about equipment challenges and their current ability to meet HMI recommendations. Findings across each of these categories are summarized. Respondents reported numerous challenges involving inadequate kitchen space and equipment. Between 10-30% report a lack of appropriate equipment in their kitchens to meet the HMI recommendations.

### **Background**

This in-depth equipment survey was initiated to gather further data as a follow-up response to a July 2010 survey in which Colorado CACFP center-based child care providers indicated that additional or updated equipment would be needed to meet the forthcoming Healthier Meals Initiative (HMI) recommendations. Culinary experts assert that having a properly equipped kitchen in the early child care center meal program setting is critical for preparing the highest quality food with maximum efficiency. With proper equipment, along with the necessary training and support for child care food service staff, healthy delicious meals can be more easily prepared for children every day. The purpose of this assessment was to gain insights, at the state level, about what CACFP child care providers already have and what they most need with regard to food preparation and storage.

The Epidemiology, Planning, and Evaluation (EPE) Branch (a centralized unit serving CDPHE's Prevention Services Division) was contracted to design, administer, and compile results of this assessment. The assigned Program Evaluator met with CACFP program staff multiple times from October 2012 to present in order to understand the overall program, intentions behind this assessment, and to develop the instrument. CACFP staff administered the assessment via email in July 2013 and EPE was responsible for compiling results, conducting analysis, interpretation and reporting.

### **Method**

#### **I. Survey**

The survey instrument was developed by the Program Evaluator from EPE, in consultation with CACFP staff. It contains 36 questions, including 6 demographic items, 29 multiple choice items many of which have added open-ended "write-in" comment options, and 1 item is strictly an open-ended "write-in" response. The instrument content was informed by findings from the 2010 CACFP survey of centers as well as current kitchen equipment recommendations from Chef Andrea Martin, LLC. Administration of the survey was accomplished through an online survey tool, the link to which was included in the initial invitation letter (see Appendix A). Following the letter of invitation, two subsequent email reminders were sent at two week intervals before closing the survey.

#### **II. Respondents**

One hundred twenty one (121) child care centers responded to the survey out of the 330 who were invited, a response rate of 37%. The majority of centers responding was non-profit, corporate, serving between 50-99 clients daily, and located in Region 1 (counties of Adams, Arapahoe, Denver, Douglas, Jefferson, Boulder, and Broomfield). More detail regarding the respondent pool can be found in Tables 1-5 below.

### III. Analyses

EPE’s Program Evaluator compiled and synthesized the descriptive analysis provided herein, some of which were generated using the online survey reporting tool as well as statistical software as appropriate. For the open-ended “write-in” response on Question 32, the Evaluator used qualitative coding to categorize responses by theme to facilitate interpretation and reporting.

## Results

### Demographics

The majority of centers that responded to the survey are licensed to serve more than 50 individuals on any given day (78%). Sixty-five percent reported average daily attendance of greater than 50 children. More than half of the responding centers operate as non-profit. Of the 90 centers who provided information about their center type, 66% identified themselves as corporations. Centers located in Adams, Arapahoe, Denver, Douglas, Jefferson, Boulder, and Broomfield counties account for just over half of the responses (53%). Tables one through five provide greater detail about the demographics of the responding centers.

**Table 1. Center designation**

| My child care organization is which of the following: |                  |                |
|---|------------------|----------------|
| Answer Options  | Response Percent | Response Count |
| non-profit  | 55.8%            | 67             |
| for-profit  | 37.5%            | 45             |
| public  | 6.7%             | 8              |
| Other (please specify)                                |                  | 3              |
| <i>answered question</i>                              |                  | 120            |
| <i>skipped question</i>                               |                  | 1              |

**Table 2. Center type**

| My child care organization is which of the following: (NOTE: This information can be found on your center’s most recent CACFP claim for reimbursement, Question #6) |                  |                |
|---|------------------|----------------|
| Answer Options  | Response Percent | Response Count |
| corporation   | 65.6%            | 59             |
| religious   | 11.1%            | 10             |
| military installation   | 1.1%             | 1              |
| local school district   | 7.8%             | 7              |
| post-secondary institution  | 4.4%             | 4              |
| city, county or town  | 12.2%            | 11             |

|                          |    |
|--------------------------|----|
| Other (please specify)   | 23 |
| <i>answered question</i> | 90 |
| <i>skipped question</i>  | 31 |

**Table 3. License capacity**

| <b>My center's license capacity is?</b> |                  |                |
|---|------------------|----------------|
| Answer Options                          | Response Percent | Response Count |
| Less than 25                            | 10.9%            | 13             |
| 25-49                                   | 10.9%            | 13             |
| 50-99                                   | 36.1%            | 43             |
| 100 or more                             | 42.0%            | 50             |
| <i>answered question</i>                |                  | 119            |
| <i>skipped question</i>                 |                  | 2              |

**Table 4. Average daily attendance**

| <b>My center's average daily attendance is? (NOTE: This information can be found on your center's most recent CACFP claim for reimbursement, Question #5)</b> |                  |                |
|---|------------------|----------------|
| Answer Options  | Response Percent | Response Count |
| Less than 25  | 15.0%            | 18             |
| 25-49   | 20.0%            | 24             |
| 50-99   | 42.5%            | 51             |
| 100 or more   | 22.5%            | 27             |
| <i>answered question</i>  |                  | 120            |
| <i>skipped question</i>   |                  | 1              |

**Table 5. Center location**

| <b>My center is in the following region of Colorado?</b>   |                  |                |
|--|------------------|----------------|
| Answer Options   | Response Percent | Response Count |
| Region 1: Counties of Adams, Arapahoe, Denver, Douglas, Jefferson, Boulder, Broomfield,  | 52.9%            | 64             |
| Region 2: Counties of Teller, El Paso, Fremont   | 17.4%            | 21             |
| Region 3: Counties of Saguache, Rio Grande, Alamosa, Conejos, Costilla, Las Animas, Huerfano, Custer, Pueblo, Crowley, Otero, Bent, Baca, Prowers, Kiowa             | 9.1%             | 11             |
| Region 4: Counties of Archuleta, Mineral Hinsdale, Gunnison, Chaffee, Pitkin, Lake, Delta, Mesa, Montrose, San Miguel, Dolores, Montezuma, La Plata, San Juan, Ouray | 8.3%             | 10             |
| Region 5: Counties of Routt, Rio Blanco, Moffat, Jackson, Park, Summit, Gilpin, Grand, Garfield, Eagle, Summit, Clear Creek  | 5.8%             | 7              |
| Region 6: Counties of Larimer, Weld, Morgan, Logan, Sedgwick, Phillips, Yuma, Kit Carson, Cheyenne, Lincoln, Elbert, Washington                                      | 6.6%             | 8              |
| <i>answered question</i>   |                  | 121            |
| <i>skipped question</i>  |                  | 0              |

### Storage Equipment

Nearly all of the responding centers indicated that they have a dry storage area for storing canned goods and items that do not require refrigeration (98%, n=118). The majority use shelving units (79%), either alone or in conjunction with large storage bins or containers with lids. Seventeen percent (17%) of the responding centers indicated that they have neither shelving units nor storage bins/containers. Chart 1 below provides detail about the type of storage available in responding centers.

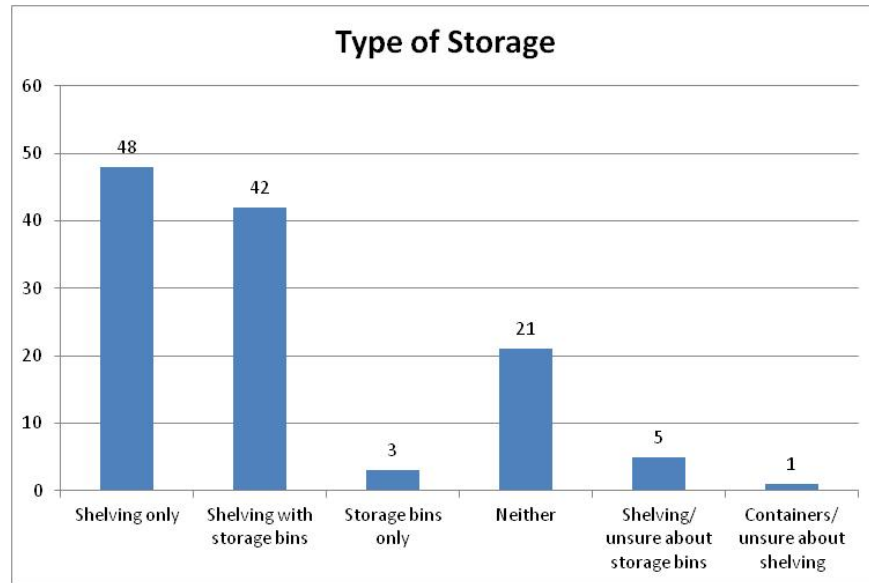


Chart 1. Type of Storage

### Refrigeration Equipment

Forty-five percent of the centers surveyed indicated that they have at least one commercial refrigerator. Twelve percent have at least one commercial and one residential refrigerator. Of the 55 centers that have at least one commercial refrigerator, 50 indicated that they are reach-in units (91%). Tables 6 and 7 and Chart 2 provide more detail about the type of refrigeration available at responding child care centers.

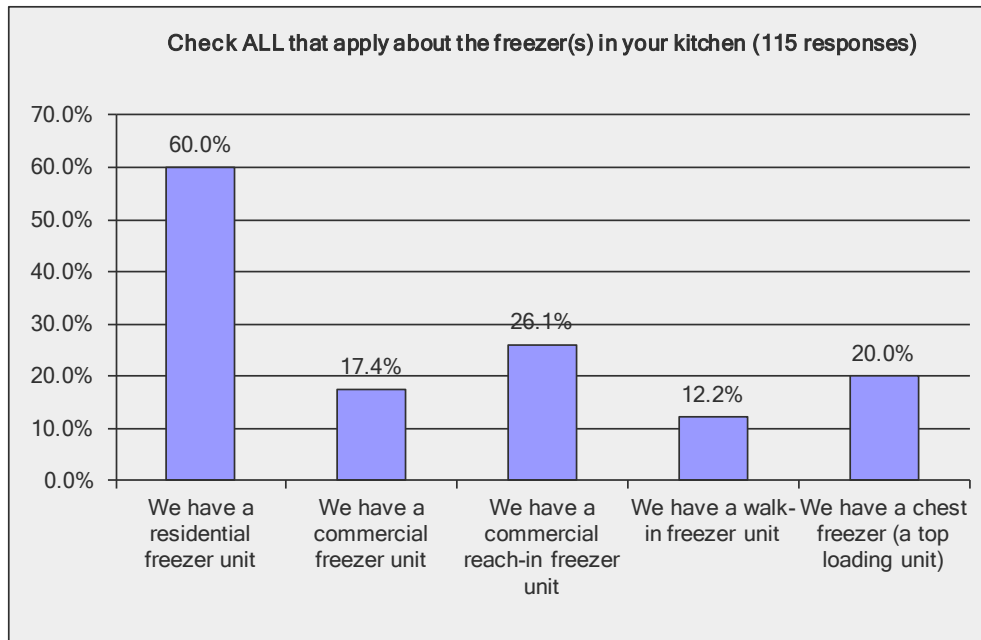
Table 6. Type of refrigeration unit

| Do you have a commercial reach-in refrigerator unit? (A reach-in refrigerator is the kind you have to reach-in to get items, instead of the kind you can walk into). |   |            |                                   |                  |                |
|--|---|------------|-----------------------------------|------------------|----------------|
| Answer Options   | Is your refrigerator a residential unit or a commercial unit? |            |                                   | Response Percent | Response Count |
|  | Residential   | Commercial | We have at least one of each type |                  |                |
| Yes  | 17  | 37         | 13                                | 56.3%            | 67             |
| No   | 46  | 3          | 2                                 | 42.9%            | 51             |
| Not sure   | 1   | 0          | 0                                 | 0.8%             | 1              |
| Other (please specify)   |   |            |                                   |                  | 4              |
| <i>answered question</i>   |   |            |                                   |                  | 119            |
| <i>skipped question</i>  |   |            |                                   |                  | 1              |

Table 7. Combined vs. separate refrigeration/freezer units

Do you have combined refrigerator/freezer units or separate units?

| Answer Options   | Response Percent | Response Count |
|--|------------------|----------------|
| Combined   | 26.4%            | 32             |
| Separate   | 43.0%            | 52             |
| We have BOTH a combined unit AND a separate refrigerator or freezer unit | 30.6%            | 37             |
| Not sure   | 0.0%             | 0              |
| Other (please specify)   |                  | 1              |
| <i>answered question</i>   |                  | 121            |
| <i>skipped question</i>  |                  | 0              |



**Chart 2. Freezer Types**

### **Cooking Equipment**

Residential ranges are present in more than half of the responding centers (58%). Approximately one third of centers have a commercial range (34%). Thirteen centers (11% of responding centers) indicated that they did not have either a commercial or residential range. Electric burners are only slightly more common than gas burners. Similarly, residential conventional ovens are more common than commercial ovens and convection ovens. The majority of responding centers have a microwave (87%), and only one center indicated it uses a portable butane burner. Tables 8 through 11 provide more detail about the types of cooking equipment found in responding child care centers.

**Table 8. Range type**

| What type of range(s) (stove top) do you have? |                  |                |
|--|------------------|----------------|
| Answer Options                                 | Response Percent | Response Count |
| commercial range                               | 31.4%            | 37             |
| residential range                              | 55.1%            | 65             |
| both   | 2.5%             | 3              |
| neither  | 11.0%            | 13             |
| Other (please specify)                         |                  | 6              |

|   |                          |     |
|---|--------------------------|-----|
|   | <i>answered question</i> | 118 |
|   | <i>skipped question</i>  | 3   |
| Selected write-in responses to "Other":   |                          |     |
| <ul style="list-style-type: none"> <li>• Steam table</li> <li>• We have a range at only one of our sites. The others use microwave</li> </ul> |                          |     |

**Table 9. Range burners**

| Check ALL that apply about the BURNERS on your range(s): |                  |                |
|--|------------------|----------------|
| Answer Options   | Response Percent | Response Count |
| Induction  | 0.0%             | 0              |
| Gas  | 45.0%            | 50             |
| Electric   | 50.5%            | 56             |
| Not sure   | 4.5%             | 5              |
| Other (please specify)                                   |                  | 5              |
| <i>answered question</i>                                 |                  | 111            |
| <i>skipped question</i>                                  |                  | 10             |

**Table 10. Oven Type**

| What type of oven(s) do you have? |                  |                |
|-----------------------------------|------------------|----------------|
| Answer Options                    | Response Percent | Response Count |
| commercial oven                   | 35.8%            | 43             |
| residential oven                  | 55.0%            | 66             |
| both                              | 0.8%             | 1              |
| neither                           | 8.3%             | 10             |
| Other (please specify)            |                  | 3              |
| <i>answered question</i>          |                  | 120            |
| <i>skipped question</i>           |                  | 1              |

**Table 11. Convection vs. Conventional Oven**

| Answer Options  | Response Percent | Response Count |
|---|------------------|----------------|
| Convection (fan circulates hot air around inside the oven)                        | 23.2%            | 26             |
| Conventional (heat radiates from the bottom of the oven)                          | 65.2%            | 73             |
| Not sure  | 17.0%            | 19             |
| Other (please specify)  |                  | 7              |
| <i>answered question</i>  |                  | 112            |
| <i>skipped question</i>   |                  | 9              |
| Selected write-in responses to "Other":   |                  |                |
| <ul style="list-style-type: none"> <li>• Neither</li> <li>• Combi Oven</li> </ul> |                  |                |

***Food Preparation Equipment***

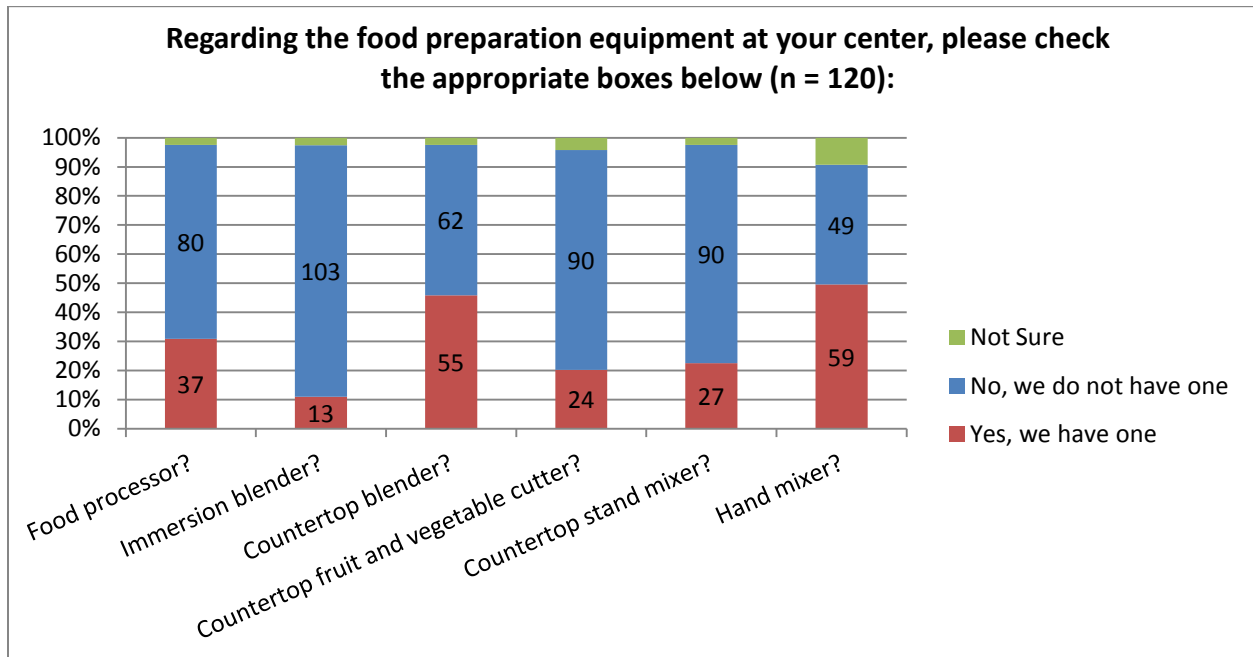
Over half (58%) of the responding centers reported having typical counter tops for kitchen work surfaces, while just over one-quarter (26%) have stainless steel tables, and some have both. With

regard to food preparation equipment, a strong majority of centers indicated they do not have the equipment we asked about, with the exception of a hand mixer, which most centers do have. Further details about work surfaces and food preparation equipment are displayed below in Table 12 and Chart 3.

**Table 12. Work surfaces**

| How would you best describe your kitchen work surfaces? (Check all that apply) |                  |                |
|--|------------------|----------------|
| Answer Options   | Response Percent | Response Count |
| Counter tops   | 58.3%            | 70             |
| Stainless steel tables   | 26.7%            | 32             |
| Combination of both  | 16.7%            | 20             |
| Other (please specify)   | 4.2%             | 5              |
| <i>answered question</i>   |                  | 120            |
| <i>skipped question</i>  |                  | 1              |

Selected write-in responses to "Other": Butcher block



**Chart 3. Food Preparation Equipment**

**Cookware**

Of the cookware items we inquired about, a majority of centers possessed sheet pans (59%) and stockpots (57%), though most without lids. A majority did not have commercial hotel pans (only 27% had these), and a strong majority had neither perforated hotel pans (only 9% had these) nor a rice cooker (only 9% had these). Table 13 and Chart 4 below show these details in various formats.

**Table 13. Cookware**

Please let us know about the cookware you have at your center by checking the appropriate boxes below (Check as many as apply):

| Answer Options         | No, we do not have any | Yes, we have at least one | Not sure | We have a lid(s) for this | We have enough of these to meet our needs | Response Count |
|------------------------|------------------------|---------------------------|----------|---------------------------|---|----------------|
| Sheet pans?            | 6                      | 70                        | 2        | 3                         | 52  | 119            |
| Commercial hotel pans? | 61                     | 32                        | 2        | 6                         | 34  | 119            |
| Perforated hotel pans? | 96                     | 11                        | 2        | 1                         | 14  | 118            |
| Stockpots?             | 20                     | 68                        | 3        | 21                        | 35  | 119            |
| Rice cooker?           | 102                    | 11                        | 2        | 4                         | 5   | 119            |
|                        |                        |                           |          |                           | <i>answered</i>                           | <b>119</b>     |
|                        |                        |                           |          |                           | <i>skipped</i>                            | <b>2</b>       |

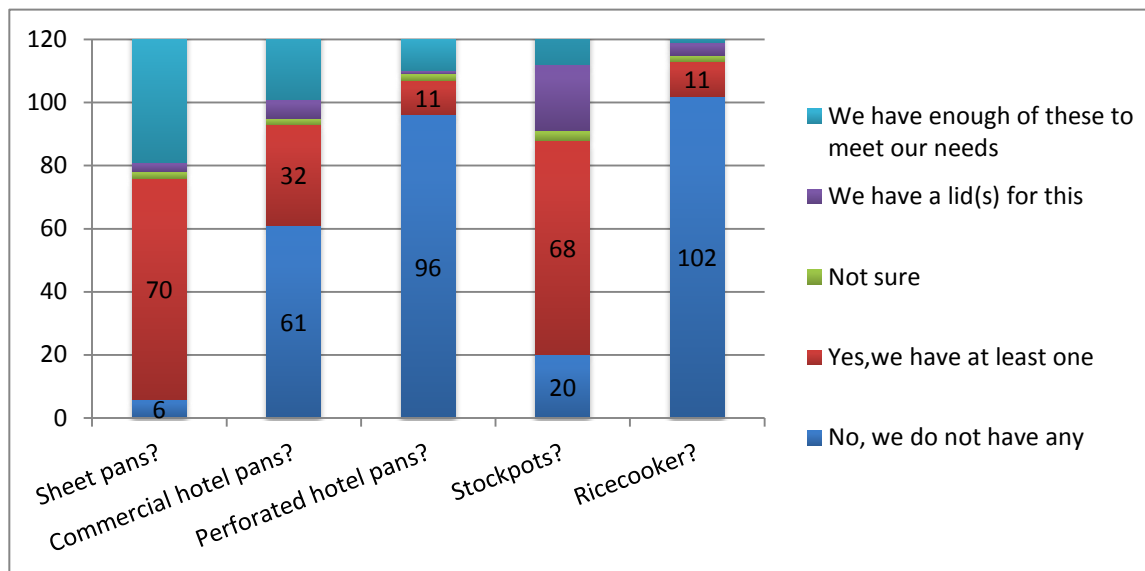


Chart 4. Cookware

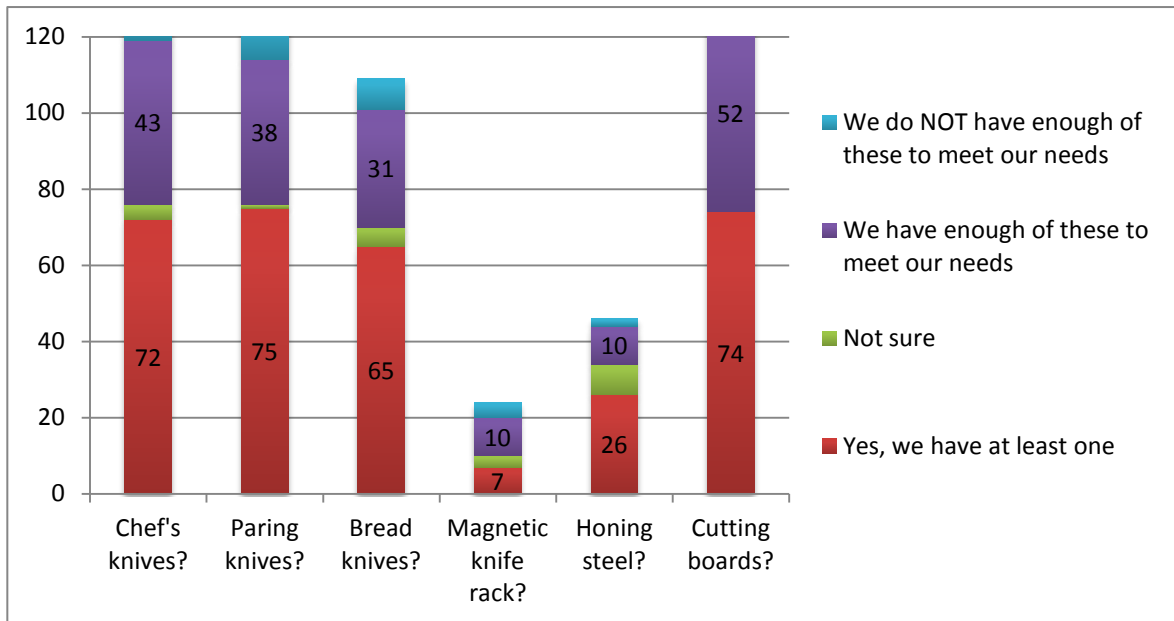
### Knives, small wares, & hand tools

With respect to the cutting tools and related accessories we asked about, a majority of centers indicated that they both did possess these and felt they had enough to meet their needs. The only exceptions were a magnetic knife rack and a honing steel, which a strong majority did not have. In the realm of small ware, the strong majority of centers reported having all the equipment asked about with the exception that almost none had a salad spinner. With respect to hand tools most centers reported having at least one of all the tools with the following exceptions that were more sparse: wooden spoon, spider, offset spatula, spoodle, and pizza cutter. It is noteworthy that, consistently, even though centers reported having a piece of equipment, only about half the number of centers indicated that they had *enough to meet their needs* (with the exception of mixing bowls and cutting boards). More detail on these items is offered in the tables and charts below.



**Table 14. Cutting tools and related accessories**

| Please describe the cutting equipment in your kitchen by checking the appropriate boxes below (Check as many as apply): |                        |                           |          |   |  |                |
|---|------------------------|---------------------------|----------|---|--|----------------|
| Answer Options  | No, we do not have any | Yes, we have at least one | Not sure | We have enough of these to meet our needs | We do NOT have enough of these to meet our needs | Response Count |
| Chef's knives?  | 8                      | 72                        | 4        | 43  | 12   | 116            |
| Paring knives?  | 11                     | 75                        | 1        | 38  | 13   | 117            |
| Bread knives?   | 21                     | 65                        | 5        | 31  | 8  | 114            |
| Magnetic knife rack?  | 96                     | 7                         | 3        | 10  | 4  | 116            |
| Honing steel?   | 74                     | 26                        | 8        | 10  | 2  | 115            |
| Cutting boards?   | 2                      | 74                        | 0        | 52  | 8  | 117            |
| <i>answered question</i>  |                        |                           |          |   |  | 117            |
| <i>skipped question</i>   |                        |                           |          |   |  | 4              |



**Chart 5. Cutting tools and related accessories**

**Table 15. Small ware**

| Please let us know about the small ware in your center's kitchen by checking the appropriate boxes below (Check as many as apply): |                        |                           |          |   |  |                |
|--|------------------------|---------------------------|----------|---|--|----------------|
| Answer Options   | No, we do not have any | Yes, we have at least one | Not sure | We have enough of these to meet our needs | We do NOT have enough of these to meet our needs | Response Count |

|                          |    |    |   |    |    |            |
|--------------------------|----|----|---|----|----|------------|
| Salad spinner?           | 97 | 10 | 3 | 10 | 5  | 117        |
| Mixing bowls?            | 4  | 68 | 2 | 56 | 7  | 117        |
| Kitchen scissors?        | 27 | 68 | 3 | 26 | 9  | 116        |
| Can opener?              | 6  | 88 | 2 | 29 | 10 | 117        |
| Kitchen timer?           | 36 | 63 | 5 | 23 | 3  | 116        |
| Colander / strainer?     | 11 | 80 | 2 | 34 | 8  | 117        |
| Food thermometer?        | 10 | 73 | 5 | 36 | 7  | 117        |
| <i>answered question</i> |    |    |   |    |    | <b>117</b> |
| <i>skipped question</i>  |    |    |   |    |    | <b>4</b>   |

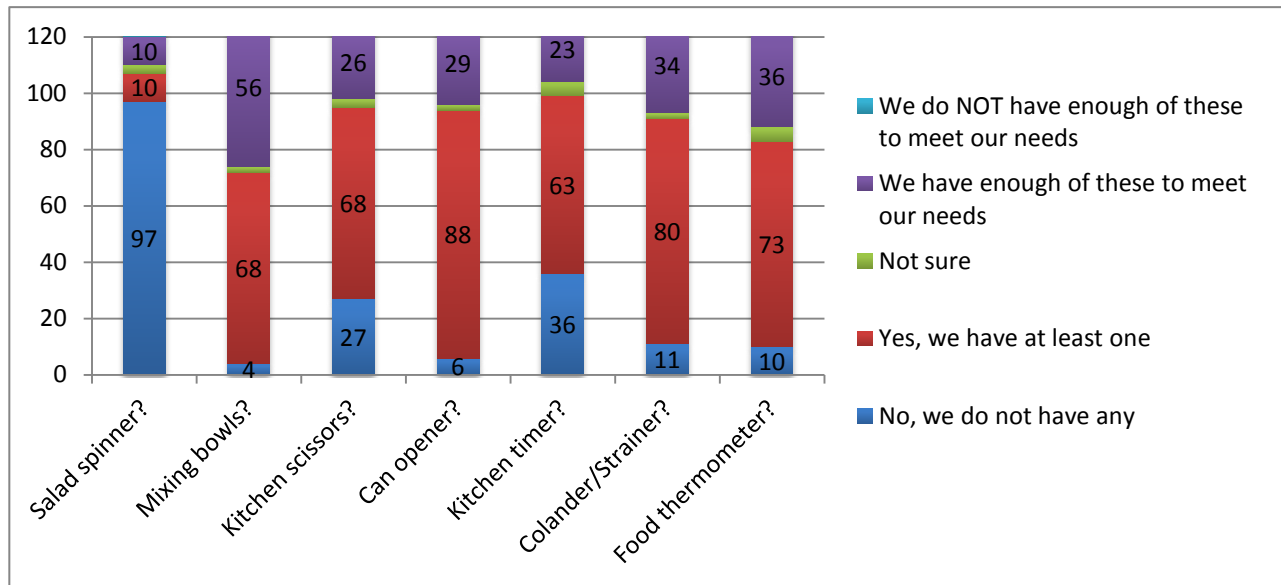


Chart 6. Small wares

Table 16. Hand tools

Please let us know about the hand tools in your center's kitchen by checking the appropriate boxes (Check as many as apply):

| Answer Options      | No, we do not have any | Yes, we have at least one | Not sure | We have enough of these to meet our needs | We do NOT have enough of these to meet our needs | Response Count |
|---------------------|------------------------|---------------------------|----------|---|--|----------------|
| Perforated spoon?   | 11                     | 66                        | 8        | 42  | 7  | 116            |
| Slotted spoon?      | 6                      | 68                        | 8        | 45  | 7  | 116            |
| Wood spoon?         | 46                     | 44                        | 7        | 23  | 2  | 116            |
| Whisk?              | 9                      | 74                        | 5        | 39  | 6  | 117            |
| Tongs?              | 5                      | 71                        | 2        | 47  | 8  | 117            |
| Scoop?              | 10                     | 68                        | 3        | 46  | 6  | 117            |
| Long-handled ladle? | 9                      | 71                        | 5        | 44  | 3  | 117            |
| Spider?             | 76                     | 21                        | 13       | 11  | 0  | 115            |
| Offset spatula?     | 65                     | 26                        | 13       | 15  | 4  | 116            |
| Rubber spatula?     | 17                     | 70                        | 3        | 35  | 6  | 117            |
| Spoodle?            | 49                     | 41                        | 11       | 22  | 4  | 116            |
| Peeler?             | 18                     | 73                        | 3        | 30  | 4  | 116            |
| Pizza cutter?       | 25                     | 61                        | 7        | 29  | 5  | 115            |

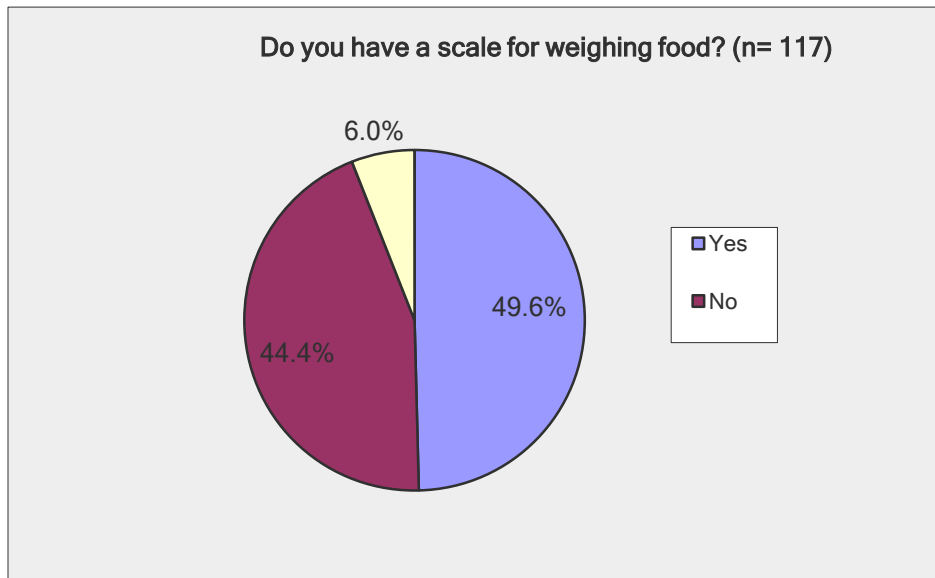
|  |     |
|--|-----|
| If you feel you do NOT have all the hand tools you need for preparing meals in your kitchen, please explain: | 15  |
| <i>answered question</i>   | 117 |
| <i>skipped question</i>  | 4   |

Selected write-in responses to "Other":

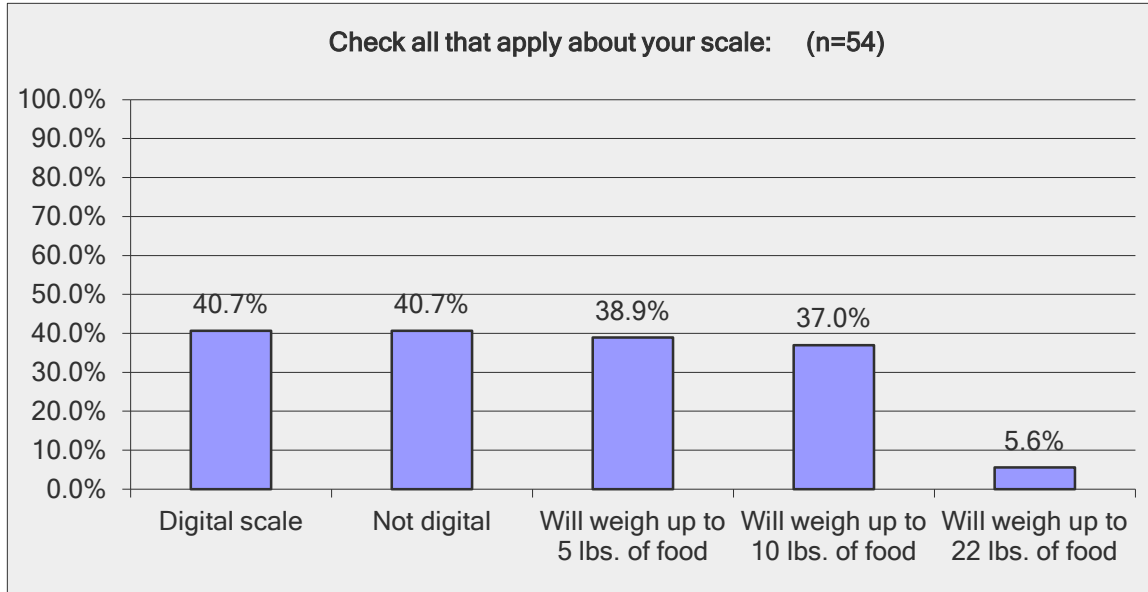
- Of the equipment we do have most of it is over 20 years old. Although it does "work" for what we are using it for, new and updated equipment would make for a more efficient process
- Ours are really old and outdated could always use new
- The highest struggle is scoops. They tend to wear out or disappear often
- Most of our kitchen tools have been donated to use.
- We work with what we have, but are regularly looking for a different tool to do the job.

**Measuring**

In terms of measuring equipment, almost all centers reported having measuring cups (97%) and measuring spoons (93%). However only half (50%) of the respondents said they have a scale for weighing food. Of those who do have a scale, nearly half (41%) are digital while an equal number are not digital. The charts below display this and more information regarding the available scale at centers.



**Chart 7. Scale**



**Chart 8. Scale characteristics**

***Cleaning***

The survey asked centers to report on the types of sinks present in their kitchens, whether those sinks were commercial or residential in design, and to indicate whether or not their sinks had indirect drains. Over half the centers (60%) indicated they have either a commercial or residential 3-compartment sink. Over half the centers (53%) indicated they have either a commercial or residential 2-compartment sink. Over one quarter of the centers (35%) indicated they have either a commercial or residential 1-compartment sink. The strong majority (82%) has a hand-washing sink, whether commercial or residential. With respect to the indirect drain, only approximately one-third of the 1, 2, or 3-compartment sinks reported are said to have indirect drains, and this number drops to only 14% of hand sinks with this recommended type of drain. Table 15 and Chart 9 display this information, along with some of the write-in responses, below.

In addition, centers were asked to describe the type of dishwashing system used at their center. Only one-quarter (26%) of centers have a commercial under-counter dishwashing machine, and approximately the same (25%) reported that they have a variety of dishwasher racks that properly hold their cooking equipment. Just over one-third (37%) of respondents reported having one under-counter residential dishwashing machine, while only 7% reported having two machines of this type. Finally, less than half (44%) indicated that they have shelving in their kitchen for air-drying dishes. In addition, several respondents wrote in comments to this question indicating that they had commercial above-counter or free-standing dishwashing machines (10 respondents) or that they used a sanitizer rather than a dishwasher (5 respondents). This information is visually displayed in Chart 10 below along with some additional write-in responses in Table 18.

**Table 17. Sink characteristics**

**Regarding the sinks at your center, please check appropriate boxes below: (n=115)**

| Answer Options  | Yes, it's a commercial one                          | Yes, it's a residential one | Not Sure | If YES, check here if THIS sink has an indirect drain? (see drawings below for examples) |
|---|---|-----------------------------|----------|--|
| Does your kitchen have a 3-compartment sink for washing, rinsing, & sanitizing?   | 59  | 10                          | 9        | 25   |
| Does your kitchen have a 2-compartment sink for food preparation?   | 27  | 34                          | 9        | 16   |
| Does your kitchen have a 1-compartment sink?  | 26  | 14                          | 10       | 13   |
| Does your center have a hand sink designated for hand-washing?  | 53  | 41                          | 5        | 13   |
| Other (please specify)  | <i>answered question 115<br/>skipped question 6</i> |                             |          |  |
| Selected write-in responses to "Other":   |   |                             |          |  |
| <ul style="list-style-type: none"> <li>• We have a 2-compartment sink for washing and rinsing and then a sanitizing machine in addition to a 2-compartment sink for food prep.</li> <li>• Our center only has a residential two-compartment sink in the kitchen.</li> <li>• 3 sink operation set up using tubs</li> </ul> |   |                             |          |  |

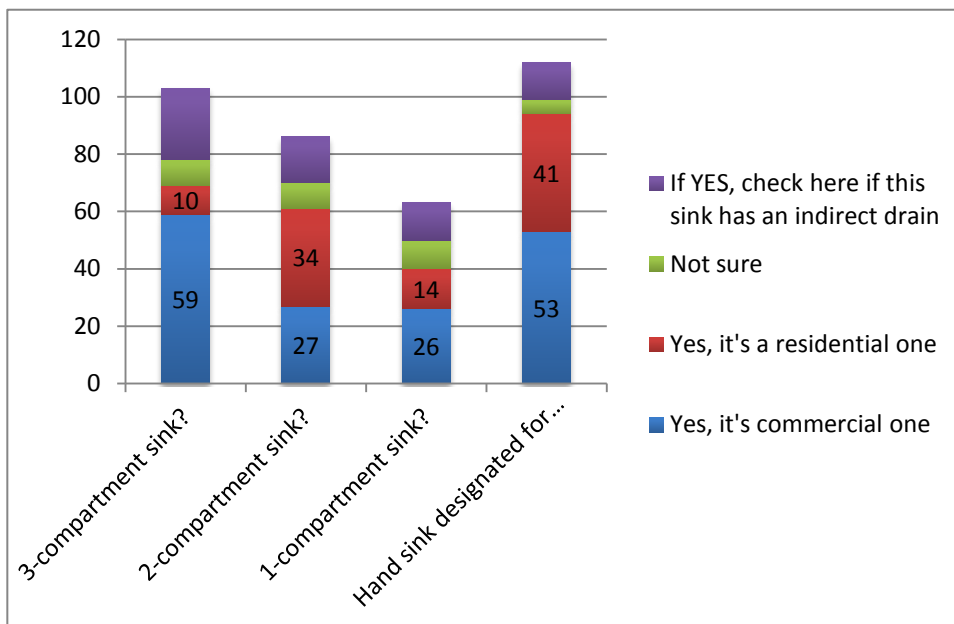
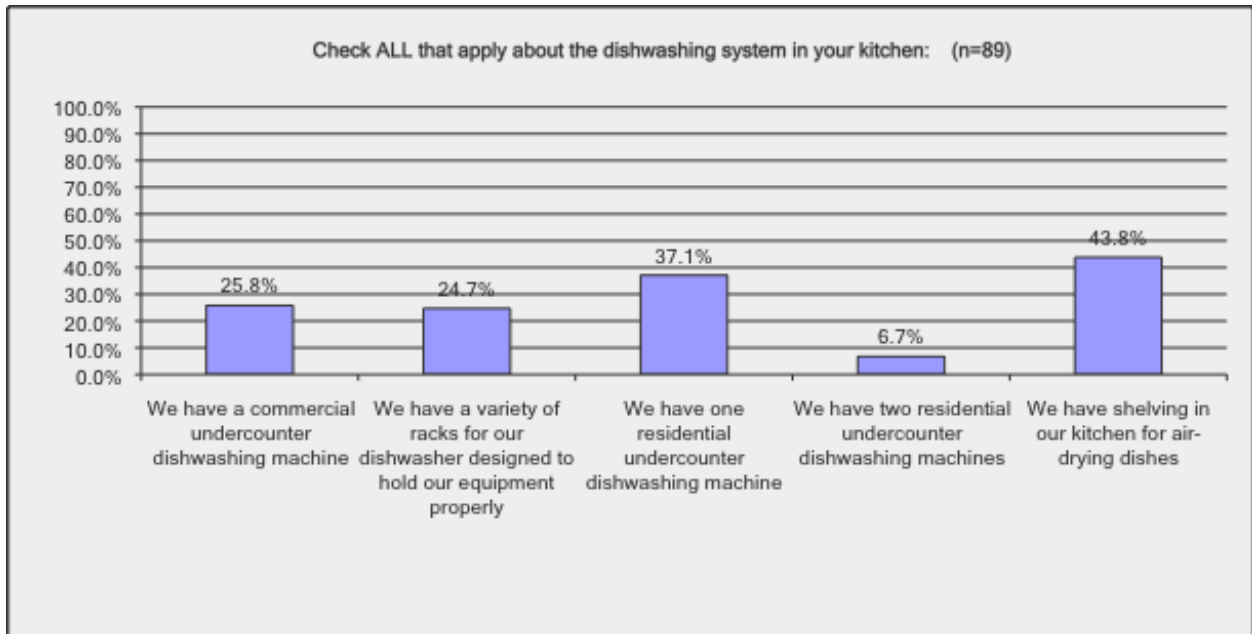


Chart 9. Sink characteristics



**Chart 10. Dishwashing systems**

**Table 18. Dishwashing Systems, Write-in comments**

Selected write-in responses to "Other":

- Pass-thru dish washer
- We have a large sanitizing machine and use the 3 sinks for dishwashing.
- We have an old hook up to the sink dishwasher
- Restaurant Dish cleaning system with pre-spray table
- Residential portable dishwasher
- We do not have one

### Challenges

Item #32 on the survey was entirely open-ended, consisting strictly of a 'write-in' response box for respondents to type in their answer. The responses on this item were inductively coded and categorized according to the themes that emerged. The two predominant themes in responses were "space" and "equipment". Responses that reported challenges not fitting either of those two categories were compiled into the theme "miscellaneous." In addition a small number of respondents indicated that they had no challenges. Each of these categories is described in more detail below, along with selected excerpts from the responses under each theme.

**Table 19. Response count for Question 32**

| What are the three biggest challenges for you about the equipment or space in your center's kitchen? |                |
|--|----------------|
| Answer Options   | Response Count |
|  | 97             |
| <i>answered question</i>   | 97             |
| <i>skipped question</i>  | 24             |

### **Biggest Challenge: Equipment**

#### Q32 - Response Summary:

Eighty eight (88) respondents (91%) mentioned equipment-related problems as one of the three biggest challenges they face. While many respondents simply wrote phrases such as “equipment is old” or “not enough equipment,” many were more descriptive about a particular type of equipment issue. Responses were further organized into two sub-categories of “inadequate equipment” and “equipment related cost” which are strongly inter-related since cost is commonly the reason why equipment does not get repaired, replaced, or upgraded as needed. The most frequent comments related to inadequacy of existing equipment were inadequate capacity of large appliances such as refrigerators, freezers, ovens, stoves, and dishwashers. In some cases some of these appliances were entirely absent, whereas in others, respondents are working with residential grade equipment and feel that what they need would be commercial grade. A large number of respondents also reported their equipment was old, outdated, and in disrepair. Many indicated that the expense to make these repairs or replacements was a barrier. Less frequently mentioned were facility-level equipment issues such as a lack of electrical power in the building, the absence of air-conditioning, or inadequate hot water capacity.

#### Selected write-in responses:

- Eventually we need to purchase a commercial stove which requires an expensive hood vent. Space is okay, and we get by with the regular stove. When our population reaches 30, Weld County requires that we purchase a stove.
- We don't have a dishwasher so we have to use paper products or hand wash the dishes ourselves.
- Our dishwasher is also a challenge to move back and forth.
- We need an additional sink but will lose that as counter space.
- The age of the equipment. We are in need of updated pots, pans, knives, apple slicers etc.
- Dishwasher takes too long on shortest cycle
- Electrical capacity of the building to support additional refrigeration

### **Biggest Challenge: Space**

#### Q32 - Response Summary:

Sixty three (63) respondents (65%) mentioned inadequate space as one of the three biggest challenges they face. While many respondents simply wrote phrases such as “lack of space” or “kitchen too small,” many were more descriptive about a particular type of space issue. The most frequently mentioned type of space issue was inadequate “storage” (including cabinet/cupboard space, shelving for dry storage, and the overall square footage of the kitchen area itself). The other commonly mentioned type of space limitation was inadequate counter space, including space for food preparation and cooking. Less frequently mentioned challenges were limited space for air-drying dishes, space to put equipment, and space for floor carts.

#### Selected write-in responses:

- Space is small, lack of counter/prep space
- Kitchen area is part of the classroom
- We don't have a kitchen so we have to use a food vendor
- If had the space for a larger freezer could have more frozen vegetable

- |  |
|--|
| <ul style="list-style-type: none"> <li>• Our center is so small we don't have the space or the money to have appropriate equipment.</li> </ul> |
| <ul style="list-style-type: none"> <li>• Not enough space for big pots and pans</li> </ul>   |

**Biggest Challenge: Miscellaneous**

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|--|
| <p><u>Q32 - Response Summary:</u></p> <p>Fourteen percent (14%) of respondents mentioned a barrier that could not be easily characterized as either a space or equipment issue, and thus was labeled in the ‘miscellaneous’ category. Specifically, the barriers reported in this category included cleaning/washing, time, transportation of food, measuring portion sizes, and organization.</p>   |
| <p><u>Selected write-in responses:</u></p> <ul style="list-style-type: none"> <li>• All of our equipment is residential. In addition, our kitchen is very small and our sink is located on the other side of a wall. Also, due to our limited space our fridges and dishwashers are scattered throughout the center. It is also a struggle not having a stove. Because of these issues we currently use a food vendor. We did our own food service for several years but due to our limited kitchen equipment we were very limited.</li> <li>• We need to remove household cabinets</li> <li>• Turnover of kitchen staff, so different things are needed for each one</li> </ul> |

**Biggest Challenge: None**

|  |
|--|
| <p><u>Q32 - Response Summary:</u></p> <p>Nine percent (9%) of respondents mentioned having no barriers or challenges at the time of the survey. While a few respondents simply wrote phrases such as “none” or “none at this time,” others offered some explanation for their positive perspective, such as the excerpted comments below.</p>                    |
| <p><u>Selected write-in responses:</u></p> <ul style="list-style-type: none"> <li>• Kitchen is well equipped and organized.</li> <li>• No challenges at this time. We have enough space now that we are moving to a new site</li> <li>• Finding adequate floor and counter space for equipment at each site, although this is well under control now.</li> </ul> |

***The Healthier Meals Initiative***

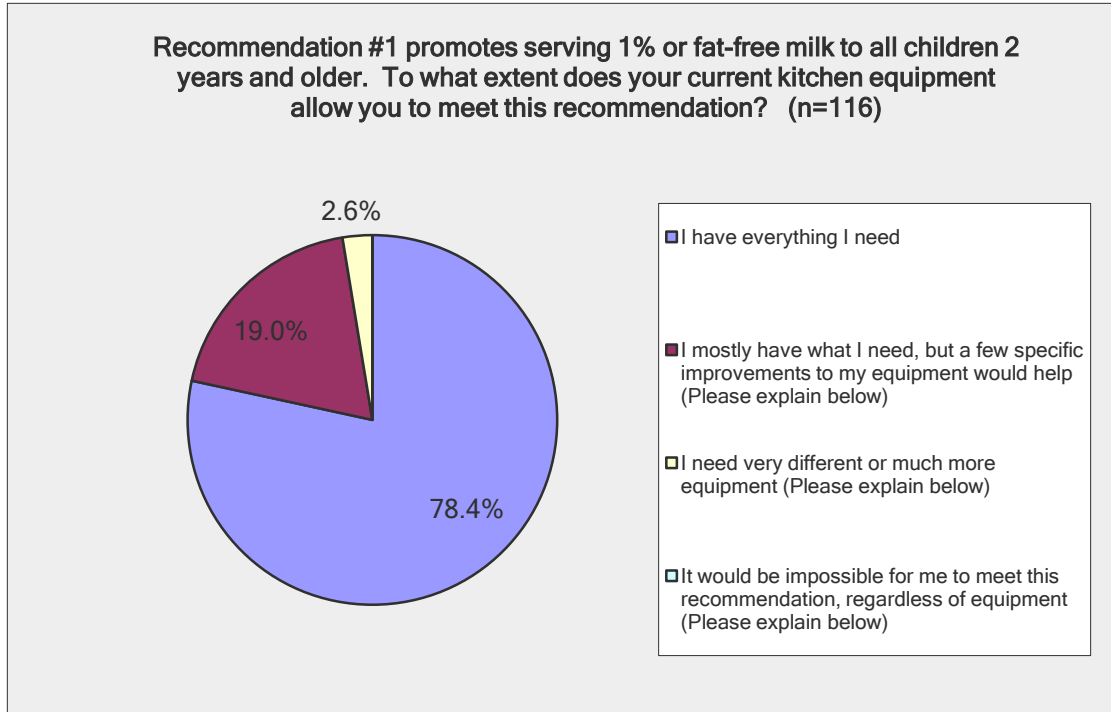
The last four items of the survey asked respondents about their perspectives regarding each of the Healthier Meals Initiative recommendations in terms of the extent to which they felt their current kitchen equipment enabled them to meet the recommendation. Responses to these four items, including selected write-in comments, are presented below in Tables 20-23 and Charts 11-14. Across all four recommendations, a majority of responding centers indicated feeling as though their current equipment is adequate to meet the recommendation. Nonetheless, a notable portion reported they would need additional or different equipment to meet the recommendations.



**HMI Recommendation #1:** Twenty-two percent (22%) felt they did not have what they need to meet this requirement. The primary theme from write-in comments surrounding this recommendation was that respondents felt they would need additional refrigeration space to store more milk.

**Table 20. Perspectives on HMI Recommendation #1**

| <b>Recommendation #1 promotes serving 1% or fat-free milk to all children 2 years and older. To what extent does your current kitchen equipment allow you to meet this recommendation?</b>   |                          |                       |
|--|--------------------------|-----------------------|
| <b>Answer Options</b>  | <b>Response Percent</b>  | <b>Response Count</b> |
| I have everything I need   | 78.4%                    | 91                    |
| I mostly have what I need, but a few specific improvements to my equipment would help (Please explain below)   | 19.0%                    | 22                    |
| I need very different or much more equipment (Please explain below)  | 2.6%                     | 3                     |
| It would be impossible for me to meet this recommendation, regardless of equipment (Please explain below)  | 0.0%                     | 0                     |
| Please explain:  |                          | 28                    |
|  | <i>answered question</i> | <b>116</b>            |
|  | <i>skipped question</i>  | <b>5</b>              |
| Selected write-in responses to "Please Explain":   |                          |                       |
| <ul style="list-style-type: none"> <li>• I could use a commercial fridge to keep temps more consistent for mass milk storage</li> <li>• Implemented for over 10 years, except for change from 2.5 to 2 years for 1% milk this was implemented immediately upon change.</li> <li>• It is difficult to find a vendor that carries 1% or non-fat lactaid. It is also difficult to find the required soy milk at grocery stores.</li> <li>• We make sure to have 2 residential refrigerators to keep the amount of required milk to give the children if not we buy more mid week and restock.</li> <li>• We have plenty of storage space for all milk</li> <li>• The amount of milk required for our number of children is wasted or expired before used. Even after trying different methods of serving them the correct portions over two months the milk is in excess of what is needed.</li> <li>• I will need another refrigerator to storage more milk</li> <li>• Bigger fridge would help</li> <li>• More space to store milk.</li> <li>• We are always looking for small milk containers for easy pouring for kids with measurements on it.</li> <li>• This can be challenging in the 1-2 year old classroom as children switch from whole milk to 1%. Knowing which children receive which milk can be challenging.</li> </ul> |                          |                       |



**Chart 11.** Perspectives on HMI Recommendation #1

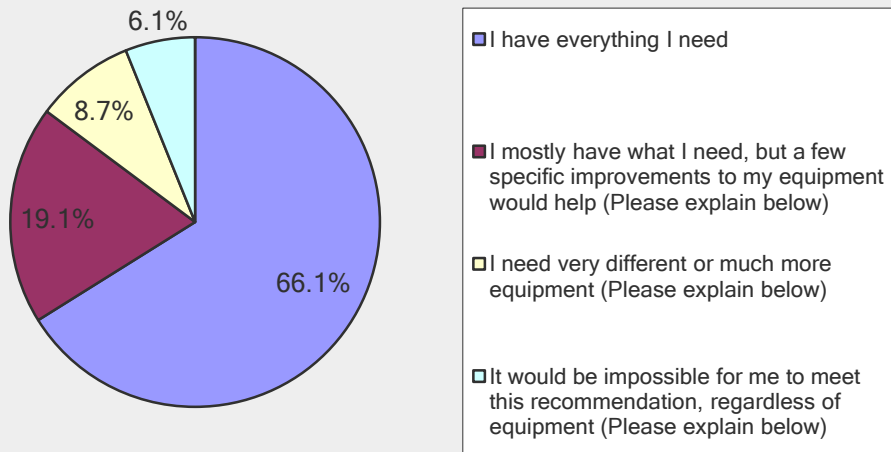
**HMI Recommendation #2:** Thirty-four percent (34%) felt they did not have what they need to meet this requirement. In particular, for Recommendation #2 regarding serving fresh versus processed meats, 15% of the responding centers expressed needing very different equipment or believing it would be completely impossible to meet this recommendation. The most frequently mentioned barriers were inadequate refrigeration/freezer space or stove/oven for storing and preparing fresh meats, need for additional money to purchase or to pay staff for additional preparation, and perceived regulatory prohibitions to cooking fresh meats in their facility.

**Table 21.** Perspectives on HMI Recommendation #2

| <b>Recommendation #2 encourages serving more fresh meats by decreasing processed meats to 1x/week or not at all. To what extent does your current kitchen equipment allow you to meet this recommendation?</b> |                          |                       |
|--|--------------------------|-----------------------|
| <b>Answer Options</b>  | <b>Response Percent</b>  | <b>Response Count</b> |
| I have everything I need   | 66.1%                    | 76                    |
| I mostly have what I need, but a few specific improvements to my equipment would help (Please explain below)   | 19.1%                    | 22                    |
| I need very different or much more equipment (Please explain below)  | 8.7%                     | 10                    |
| It would be impossible for me to meet this recommendation, regardless of equipment (Please explain below)  | 6.1%                     | 7                     |
| Please explain:  |                          | 36                    |
|  | <i>answered question</i> | <b>115</b>            |
|  | <i>skipped question</i>  | <b>6</b>              |
| Selected write-in responses to "Please Explain":   |                          |                       |
| <ul style="list-style-type: none"> <li>• Not cost effective</li> </ul>   |                          |                       |

- The fire department will not allow to raw meat unless I install an Ansel system which costs 15,000 dollars
- I need more \$\$ to pay staff for extra time involved
- I currently need to receive permission from the Health Department to cook fresh meats. I was told I must have a commercial kitchen in order to cook fresh meat.
- Equipment is not an issue - this is a planning an staffing issues.
- My kitchen is not equipped with a hood fan so I can cook meat, but nothing can be cooked on top of stove really
- To hold this level of fresh food we would need an additional commercial refrigerator and freezer.
- These items are expensive and require much more preparation than processed meats. We would need more equipment to prepare these such as a meat thermometer and knives.
- Larger commercial freezer
- We have not used processed foods for approximately 3 years
- Due to our limited prep and storage capacity we are limited in our meat prep/service
- We would need additional freezer space, we do not any fresh meat
- Our company policy prevents us from preparing raw meat. We use commercial CN labeled frozen meats that have been processed.
- Having one residential oven makes it challenging to cook fresh meat.
- Need more refrigeration
- Although having another freezer to store more meat when it's on sale would be nice (but we don't have the space)
- Having commercial oven would allow us to pre cook meals and reheat the next day.
- The overall cost would be completely prohibitive.
- We need a stove so we can cook fresh meat.

**Recommendation #2 encourages serving more fresh meats by decreasing processed meats to 1x/week or not at all. To what extent does your current kitchen equipment allow you to meet this recommendation? (n=115)**

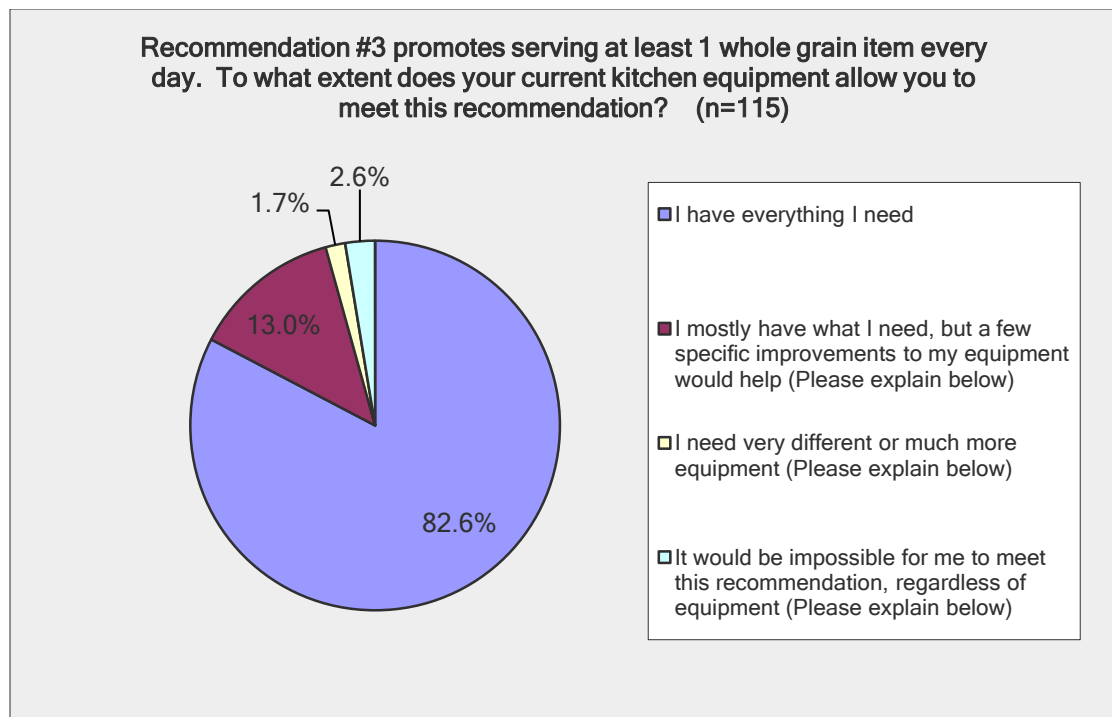


**Chart 12. Perspectives on HMI Recommendation #2**

**HMI Recommendation #3: Seventeen percent (17%)** felt they did not have what they need to meet this requirement. Primary themes in barriers mentioned were the need for commercial ovens, mixers, and additional dry storage space. One respondent mentioned the perception that children tend to throw away and avoid eating whole grain products.

**Table 22. Perspectives on HMI Recommendation #3**

| <b>Recommendation #3 promotes serving at least 1 whole grain item every day. To what extent does your current kitchen equipment allow you to meet this recommendation?</b>   |                          |                       |
|--|--------------------------|-----------------------|
| <b>Answer Options</b>  | <b>Response Percent</b>  | <b>Response Count</b> |
| I have everything I need   | 82.6%                    | 95                    |
| I mostly have what I need, but a few specific improvements to my equipment would help (Please explain below)   | 13.0%                    | 15                    |
| I need very different or much more equipment (Please explain below)  | 1.7%                     | 2                     |
| It would be impossible for me to meet this recommendation, regardless of equipment (Please explain below)  | 2.6%                     | 3                     |
| Please explain:  |                          | 16                    |
|  | <i>answered question</i> | <b>115</b>            |
|  | <i>skipped question</i>  | <b>6</b>              |
| Selected write-in responses to "Please Explain":   |                          |                       |
| <ul style="list-style-type: none"> <li>• A convection oven would allow us to more efficiently bake</li> <li>• We store our whole grains on the shelf</li> <li>• Implemented after last fall's audit (Sep 2012). Whole grains are used for over 90% of grain components.</li> <li>• We could use new equipment in which to store bread.</li> <li>• Our snacks usually include whole grains</li> <li>• Commercial equipment would help</li> <li>• Just need to increase the commercial equipment and convert to commercial oven with gas and a place to store these foods.</li> <li>• Storage space</li> <li>• More conveniently located dry storage space</li> <li>• I purchase whole grain cereals and breads.</li> <li>• The children tend to throw it away if I use whole wheat bread</li> <li>• A newer mixer would allow to bake more of the breads and they would be fresh.</li> <li>• Our current Food Service Management Company serves almost entirely whole grains.</li> <li>• Mostly cost of food</li> </ul> |                          |                       |



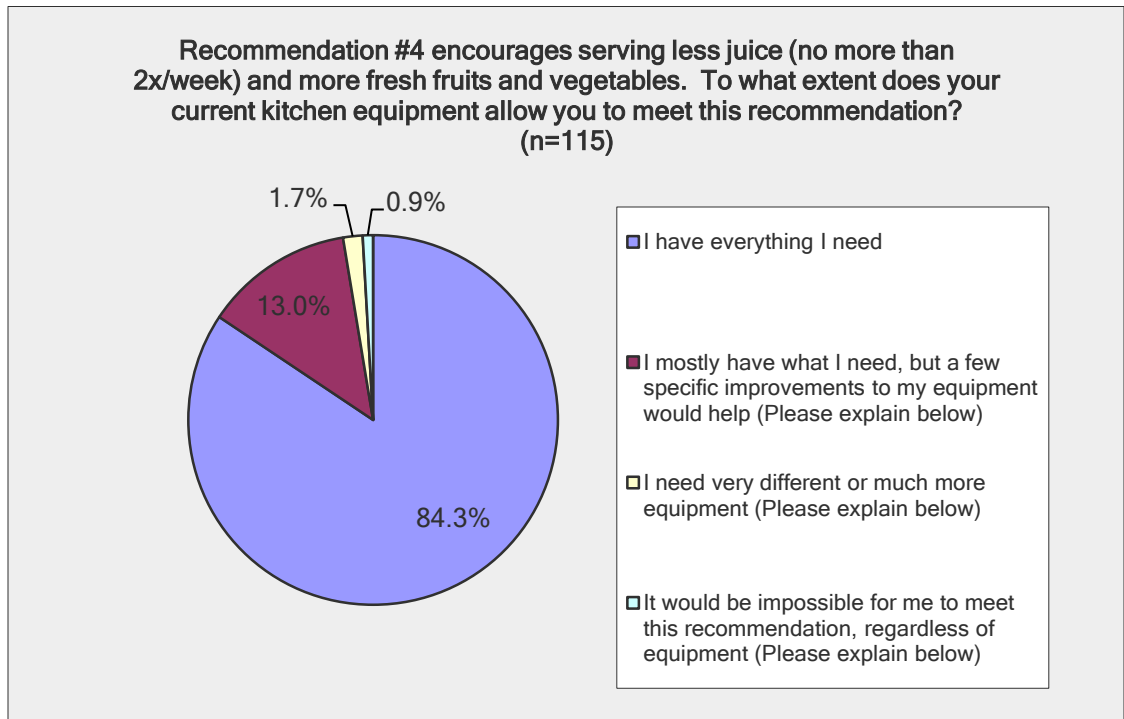
**Chart 13. Perspectives on HMI Recommendation #3**

**HMI Recommendation #4:** Sixteen percent (16%) felt they did not have what they need to meet this requirement. On this recommendation in particularly many respondents wrote in that they are already meeting this requirement and have been doing so for years. Among the barriers most mentioned in write-in comments were the need for more storage space, better equipment for cutting fresh fruits and vegetables as well as space for storing these items.

**Table 23. Perspectives on HMI Recommendation #4**

| <b>Recommendation #4 encourages serving less juice (no more than 2x/week) and more fresh fruits and vegetables. To what extent does your current kitchen equipment allow you to meet this recommendation?</b>   |                          |                       |
|---|--------------------------|-----------------------|
| <b>Answer Options</b>   | <b>Response Percent</b>  | <b>Response Count</b> |
| I have everything I need  | 84.3%                    | 97                    |
| I mostly have what I need, but a few specific improvements to my equipment would help (Please explain below)  | 13.0%                    | 15                    |
| I need very different or much more equipment (Please explain below)   | 1.7%                     | 2                     |
| It would be impossible for me to meet this recommendation, regardless of equipment (Please explain below)   | 0.9%                     | 1                     |
| Please explain:   |                          | 25                    |
|   | <b>answered question</b> | <b>115</b>            |
|   | <b>skipped question</b>  | <b>6</b>              |
| Selected write-in responses to "Please Explain":  |                          |                       |
| <ul style="list-style-type: none"> <li>• Small refrigerator.</li> <li>• Implemented over 10 years ago. Fresh fruits and vegetable are offered as a component in 65% of the 15 meals/snacks we serve each week.</li> <li>• Storage space is our biggest issue</li> </ul> |                          |                       |

- We are a juice free school. Could use more refrigeration space to reduce the amount of canned fruits and frozen veggies
- Could use more shelf space
- Commercial (larger) refrigeration and food prep sink
- Commercial equipment would help
- I believe we meet this standard already, we serve much more whole fruits and vegetables, but do require a more cooler spot during summer fruits go bad if not served the same day as purchased due to lack of ventilation or cool area to hold them
- More cool dry storage space for fresh produce that would allow for ripening when needed at a cool temp.
- More space to store fresh fruits and veggies
- Don't have staff or adequate storage space to purchase daily or store fresh items; Lack appropriate tools for cutting or preparing; Expense; But I'm willing to receive suggestions to overcome these obstacles
- We do not serve juice at all. We prefer using fresh fruit.
- Our Head Start sites almost never serve juice. Our preschool sites rarely serve juice more than once a week. All sites emphasize serving fresh fruits and vegetables a majority of the time.
- Specific cutters (like tomato dicer or slicer) would be nice additions to our equipment
- The cost of more fresh fruit vs. Canned fruit would be prohibitive.



**Chart 14.** Perspectives on HMI Recommendation #4

### Conclusions & Discussion

With this data collection effort, the CACFP staff has successfully accomplished an important and useful assessment of their local constituents' needs. The level of specificity obtained with this instrument, from a sizable and diverse pool of respondents, is to be commended. These findings contain a rich layering of feedback to inform targeted decision-making and prioritization to improve the capacity of Colorado's child care centers to prepare healthy meals for children.

Across all the equipment categories we asked about, the following summarizes the types of equipment most lacking from centers' inventories:

- Shelving units and storage bins/containers (many had none of either)
- Less than half the centers responding have commercial refrigerators and commercial freezers; inadequate refrigerator and freezer space was one of the most commonly stated barriers
- The majority of responding centers are working with residential ovens and 13% had no oven at all. Several respondents mentioned their oven/stove limitations as a barrier to cooking fresh meats and to being able to cook efficiently
- Inadequate counter space was a commonly mentioned barrier to food preparation
- A surprising majority of centers had none of the food preparation devices we asked about including a food processor, an immersion blender, a countertop blender, a fruit and vegetable cutter, or a mixer of any kind
- The cookware items most lacking among responding centers were hotel pans, including perforated hotel pans, and a rice cooker. A surprising majority also said they do not have lids for the stockpots that they do have
- The most absent small ware and hand tools were a knife rack, honing steel, salad spinner, wooden spoon, spider, offset spatula, spoodle, and pizza cutter. Even centers that have one or more of **any** small ware and hand tools failed to indicate that they 'have enough to meet their needs'
- Half of the centers responding do not have a scale for weighing food
- A large majority do not have indirect drains on their sinks; almost half do not have a dishwasher of any kind

Respondents' offered numerous insights in their open-ended comments regarding their greatest challenges with regard to kitchen equipment and space. In terms of equipment, the most prevalent challenges reported were inadequate equipment to meet the need (i.e., not enough refrigeration space) or equipment that is old and in disrepair. Cost was a frequently cited barrier to addressing equipment-related challenges.

With respect to the four Healthier Meals Initiative (HMI) recommendations, it is encouraging to see that a strong majority of responding centers feel they currently have what they need to meet the recommendations. Nonetheless between 10-30% are indicating that they would need either a few, specific improvements or very different/much more equipment in order to meet the recommendations. From the standpoint of increasing centers' capacities to comply with the HMI recommendations, it may be this segment of centers that CACFP may wish to prioritize for any additional support.

## **Appendices**

- I. Letter of Invitation**
- II. Survey instrument**