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To: <input checked="" type="checkbox"/> Area Agency on Aging Directors <input type="checkbox"/> <input type="checkbox"/>	TECHNICAL ASSISTANCE MEMORANDUM
	Number: 97-TAM-06
FYI: Nutrition Program Coordinators	Date: December 16, 1997
Subject: Determining Meal Costs	Supersedes:
	Response Due Date:
Programs Affected: <input type="checkbox"/> Title III-B <input checked="" type="checkbox"/> Title III-C-1 <input checked="" type="checkbox"/> Title III-C-2 <input type="checkbox"/> Title III-D <input type="checkbox"/> Title III-F <input checked="" type="checkbox"/> CSE <input checked="" type="checkbox"/> SNAP <input type="checkbox"/> Energy <input type="checkbox"/> EISEP <input type="checkbox"/>	
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Purpose:

This Technical Assistance Memorandum (TAM) is the second in a series focusing on Stretching Resources in the Nutrition Program (please refer to 96-TAM-03, Nutrition Program Purchasing Strategies also available on the share area of the SOFA home page).

The purpose of this TAM is to assist area agencies on aging (AAA) to define, collect and interpret cost data to determine accurate congregate and home delivered meal costs. The attached instructions and worksheets provide a tool with the flexibility to capture the many varied local provider arrangements in the aging network.

Accurate cost information is essential for effective program management, planning and coordination, program evaluation, data and trend analysis and decision making involving future program direction.

Increasingly, AAAs are requested to justify costs in terms of efficiencies, program impact and outcomes. Determining the actual cost of the meals provided to participants is necessary for justifying budgets, advocating for program needs and evaluating alternative operational models. For example, for AAAs considering catering meals or establishing private pay components, knowing true meal costs is critical.

Please note that this tool is designed for internal use by program operation staff and is not intended to be a reporting tool. Recognize also that the costs you calculate may not agree with unit costs in CAARS reports since this calculation will reflect total costs and total meals. CAARS calculates meal costs by dividing the number of meals served by the amount of state/federal funds expended. Other funds and USDA reimbursement are not included, nor are other meals.

Background:

In 1992, the United States Congress authorized the Department of Health and Human Services to conduct an evaluation of the Elderly Nutrition Program (ENP). Mathematica Policy Research, Inc. conducted the evaluation which reviewed the efficiency and effectiveness of the delivery of nutrition program services. Many nutrition programs in New York State participated in the review. (Please refer to 94-IM-19, Department of Health and Human Services Nutrition Program Evaluation.)

Mathematica found that "The average total cost of the Title III congregate meal is \$5.17. This includes \$4.46 in direct monetary costs and another \$.71 in the value of volunteer labor and donated goods. The overall cost for a home-delivered meal is slightly higher, at \$5.31 (\$4.57 in direct monetary costs and \$.74 in the value of volunteer labor and goods)." In the Northeast, the average meal cost for a congregate meal was \$5.49 (including \$.59 in volunteer and donated services). The average cost of a HDM was \$6.17 (\$.39 in volunteer and donated goods). Lower average meal costs were noted with programs serving over 1,000 meals per week which benefitted from economies of scale, rural programs and programs using a central kitchen. Seventy-five to eighty percent of the meal costs were for labor and food.

The meal cost tool transmitted with this TAM drew substantially from the Mathematica methodology. Several AAAs field tested the tool and their suggestions and comments have been incorporated. Previous guidance on determining meal costs was provided by this office in 1979 and 1984. (79-TAM-VII-1, 80-TAM-IIIC-1, and 84-IM-55).

Using this Information:

Below are examples of how accurate meal costs can be used:

* **Contracting**

If subcontracting is a consideration, knowing how the bidder arrived at the meal cost is essential to evaluating a Request for Proposal; comparisons can be made and savings determined. Including the meal cost tool in your RFP will ensure that the respondents have all considered the same cost categories such as utilities and administrative costs in their bids.

* **Evaluating Service Delivery Options**

This tool may be used in weighing specific options for service delivery, such as the decision to subcontract the Nutrition Program. Looking at the actual full cost is beneficial in evaluating the potential savings from subcontracting or with decentralized meal preparation. Knowing where the potential savings are is vital to planning.

* **Selling Meals**

Meal cost information is useful when negotiating contracts for selling meals, such as to the Long Term Home Health Care Program.

* **Volunteer Contributions**

Calculating the monetary value of volunteer labor allows the AAA to show how many additional meals are served and the savings in program dollars.

One of the field test counties, Genesee County, for example, noted that volunteer and donated goods and services account for one-third of their meal cost. They plan to share this information with their volunteers as a way to illustrate their value. This AAA believes it is important that the county legislators understand that the program leverages many other resources in the community.

* **Budget Planning and Cost Controls**

Budget planning requires the use of accurate cost information, particularly in times of tight fiscal constraints. Additionally, increases and decreases in the various cost components can be identified and addressed appropriately. An increase in raw food costs may prompt the program manager to seek a different purchasing method or vendor for food supplies. Decreases in volunteer value may indicate a need to do additional recruitment.

* **Advocacy**

When advocating for program resources with various funding sources, the monetary value of the Nutrition Program may help to inform legislators, for example, of the community resources leveraged by the ENP. Legislators are concerned about cost effectiveness and efficiencies. Breaking the costs into the cost per client, cost per meal, volunteer value and contrasting economical in-home services with more expensive institutional care provides a way to interpret the real value and savings resulting from the program's in-home services.

MEAL COST TOOL AND INSTRUCTIONS

Introduction:

Identifying the expenses which make up the cost of a meal is essential in determining meal cost. The actual cost is broken down into cost categories which make up the elements needed to provide a meal:

- * **Personnel**
- * **Contract Services**
- * **Raw Food and Supplies**
- * **Service**
- * **Capital Expenses**

Funding sources are not relevant to this calculation. Actual cost, not projected budgets, should be used in meal cost calculations.

The process for calculating the meal cost involves collecting data, determining which costs are associated with providing meals and computing the meal cost in a consistent way for a designated period of time such as a month or a quarter. Figures based on a quarter allow for variations and a reasonable period of time. The number of meals, salaries, and payments to vendors **all must be based on the same time frame.**

For programs that are both directly operated and subcontracted, the AAA may find it beneficial to make separate calculations for the two operations. The result would be two meal costs.

The AAA will need to make decisions concerning time estimates, monetary value and other factors to include in the meal cost calculations. These decisions should be based on the local program's knowledge and experience. If a section of the worksheets does not "fit" the local situation, adjustments may need to be made. SOFA staff are available to assist AAAs with completing the worksheets or interpreting the information.

Personnel Costs:

The purpose of these worksheets is to determine the labor cost associated with the ENP meals. These costs are separated into three categories: staff assigned to meal preparation, service, and delivery; staff with administrative responsibilities such as bookkeepers, HDM assessors, and receptionists; and volunteers who donate their time. Include staff involved in the ENP meal program regardless of the funding sources to which the salaries are charged.

Salaries and fringe benefits of workers must be computed for all essential staff. The salary line should show the actual salary. The fringe benefits refer to the cost to the employer, as a percentage of an individual's salary, for the FICA contribution, health insurance payment, pension contribution, and other benefits.

The equitable allocation of personnel time among the various services must be determined prior to completing this form, (e.g., a cook is shared between congregate and home delivered meals or a bookkeeper spends 20% of his/her time in nutrition program activities). This can be accomplished by conducting a time study or simply dividing the salary proportionally for HDM and congregate meals, (e.g., 50% of all meals are congregate, 50% are home delivered, 50% of the cook's salary is assigned to each service). Where Case Managers are assessors for HDM clients, the time spent conducting HDM client assessments should be allocated to meal costs. The portion of the salary will need to be determined.

Worksheet 1

Food Preparation/Service/Delivery

Personnel expenses which are associated with preparing, serving or delivering meals are direct costs and are easily tracked, accumulated, recorded and charged to a specific service. They consist of wages and fringe benefits for staff such as cooks and site manager who provide service. If employees work in more service areas than nutrition, the salary must be separated according to service areas.

Worksheet 1

Food Preparation/Service/Delivery Congr. HDM Total

1. Salaries charged to food preparation			
2. Fringe benefits charged to food preparation			
3. Salaries charged to meal service			
4. Fringe benefits charged to meal service			
5. Salaries charged to transportation and delivery of meals			
6. Fringe benefits charged to transportation and delivery of meals			

Total: _____

Worksheet 2

Administration

Administrative expenses may not be associated with a specific service but with several services which benefit the entire operation. These costs are indirect and must be distributed across the direct services they benefit. Administrative personnel costs include such positions such as director, HDM assessors, receptionists.

Worksheet 2

Administration

Congr.

HDM

Total

Administration	Congr.	HDM	Total
1. Salaries charged to Nutrition Program			
2. Fringe Benefits charged to Nutrition Program			

Total: _____

Worksheet 3

Volunteers & Auxiliary Staff

Volunteer labor costs represent a dollar value. The fair market value of noncash support should be computed to determine full meal cost: otherwise the agency will not know how much in-kind support is required to fulfill the obligations of a particular service. The value of volunteer labor should be calculated based on the prevailing wage rate of paid staff performing similar tasks. It is only necessary to calculate the salary for those volunteers without whom paid staff would need to be hired. In addition to volunteers, include the monetary value of any auxiliary staff who are paid from other sources, such as Title V, workfare, etc.

Worksheet 3

Volunteers & Auxiliary Staff Congr. HDM Total

1. Equivalent salary-food preparation			
2. Equivalent fringe benefits-food preparation			
3. Equivalent salary-meal service			
4. Equivalent fringe benefits-meal service			
5. Equivalent salary-transportation & delivery			
6. Equivalent fringe benefits-transportation & delivery			

Total: _____ _____ _____

Raw Food and Supplies:

Use this worksheet to determine the non-labor costs associated with producing and serving nutrition program meals. These expenses include non-labor costs associated with preparing, serving, and delivering meals such as the ingredients for meals, supplies, rent, utilities, gasoline and insurance.

Worksheet 5

Raw Food and Supplies

The raw food cost is determined by adding the total monthly purchases to the value of the food inventory at the beginning of that month and subtracting the ending inventory. This amount will equal total food costs for the month and represents the next month's beginning inventory.

Participants in the USDA commodities program must record the value of the food they receive. This amount is recorded as a cost. Bonus commodities are recorded similarly as donated food.

To enter the value for donated goods, estimate the fair market value of the item and determine the percentage allocated. Use only those items which would need to be purchased if not donated (e.g., calculate bread used on the menu, but not pastries made available as an extra).

Nonfood supplies include administrative items such as office supplies, janitorial supplies, food service supplies (nonfood), vehicle supplies necessary for vehicle operation (item not included under travel) such as tires and parts.

Worksheet 5

Raw Food and Supplies

Cong

HDM

Total

	Cong	HDM	Total
1. Raw food			
2. Value of USDA commodities used			
3. Value of donated food			
4. Disposable supplies (paper plates, HDM trays, napkins)			
5. Value of donated disposable supplies			
6. Nonfood supplies (cleaning supplies, office supplies)			
7. Value of donated nonfood supplies			

Total: _____

Service:

This worksheet collects the necessary information to determine the cost per meal associated with providing service.

Worksheet 6

Service Costs

Travel covers all non-capital expenses associated with transportation by volunteers and staff (e.g., gas and oil for the agency van, reimbursement at an agreed upon mileage rate for those using their own vehicles). Not included are daily commuting expenses, out of town trips or vehicle purchases which are covered in other sections.

Small equipment for meal service should be included in this section: kitchen utensils, pots and pans, insulated carriers and other nonconsumable supplies.

Rental costs and/or expenses associated with facility ownership are entered under maintenance and operations (e.g., rental charge, taxes, insurance, and utilities). Costs must be allocated to each service (congregate and HDM) sharing space based on the proportion of total space used or the percentages of time that space is used. Donated space and travel should be based on an estimate of the fair market value and the percentages allocated. Often this is the case in a congregate site in which the rent is free. The fair market value may be determined by comparing the rent free site with other sites or assign the rent charged previously.

All expenses that do not fall within any of the other categories should be entered here. Specifically, this would include: communication (telephone), printing, licenses, permits, insurance and staff training.

Worksheet 6

Service Costs	Cong	HDM	Total
1. Travel directly related to meal service: Reimbursement, vehicles, gasoline.			
2. Value of donated travel expenses.			
3. Equipment (small equipment-under \$1,000) for meal service.			
4. Maintenance and Operations			
a. Rent			
b. Utilities			
c. Taxes			
d. Insurance			
5. Value of donated space/utilities etc.			
6. Related Needs: Permits, training, licenses, communications			

Total _____

Capital Expenses:

The treatment of capital expenditures is an important factor in determining meal cost. Including a capital expense in the meal cost, as opposed to presenting it as a separate one-time expenditure, increases the meal cost but its elimination from the calculation would reduce the reliability of the final cost. Capital expenditures should be factored into the meal cost using depreciation.

Depreciation is a way to spread large capital expenditures (such as equipment, furnishings, vehicles, building, and renovations) over time. Capital expenses are dispersed over many years, and therefore, do not produce a huge and sudden increase in the meal cost. The cost of large equipment should be depreciated over its useful life, generally recognized as ten years.

For example, a kitchen renovation costing \$60,000 will be divided by 10 years for an annual depreciation of \$6,000. The annual figure (\$6,000) is divided by 12 months for a depreciation cost per month of \$500. This figure (\$500) is divided by the number of meals served per month to calculate the per meal cost.

Less expensive items should be included as an operating expense and not depreciated. If a building or equipment is leased or rented, the item should be included as a service expense and no depreciation taken. In the case of donated equipment or equipment purchased with donated funds, the item is not depreciated. The item should be included in the donated category.

Actual cost records of all capital expenditures should be maintained, because the calculation of depreciation is based on the purchase date and cost. Where these records have not been kept, a reasonable estimate of the original cost can be used.

Worksheet 7

Depreciation

Equipment or other items to be depreciated are entered on this worksheet. List items on worksheet. As equipment becomes fully depreciated or as new equipment is added, adjustments can be made to the worksheet. The items listed may include vehicles, buildings, renovations, equipment. Enter onto the worksheet date of purchase, the date on which the item will become fully depreciated, the original cost and the item's useful life in terms of the time frame used, e.g. monthly, quarterly, etc. If kitchen equipment is expected to be used for ten years, its useful life in quarters would be 40 quarters. To determine the items' quarterly depreciation, divide the original cost by the number of quarters of useful life. For example, a \$60,000 kitchen renovation divided by 40 quarters would be \$1,500 per quarter. Finally, if the item is shared among services, the depreciated figure must be allocated appropriately.

Worksheet 7

Depreciation

Item	Purchase Date	Date fully Depreciated	Original cost	Use-ful life	Depreciation cost cong/HDM

Total: _____/_____

Calculating Final Meal Cost:

Worksheets 8, 9 and 10 summarize the meal costs and can be used to calculate the per meal cost. Worksheet 8 provides a cost for the meal alone. Worksheet 9 calculates the value of volunteers and donated goods and services. Finally, worksheet 10 summarizes all costs for a final total per meal cost.

Worksheet 8

Cost of Meal	Cong	HDM	Total
1. Personnel cost-totals from worksheet #1			
2. Payment to subcontractor for meals from worksheet #4, line 1 & 2 (if applicable)			
3. Raw food from worksheet #5, line 1			
4. USDA Commodities from worksheet #5, line 2 (if applicable)			
5. Disposable supplies from worksheet #5, line 4			
6. Nonfood supplies from worksheet #5, line 6			
7. Travel or transportation cost related to meal service from worksheet #6, line 1			
8. Small equipment supplies from worksheet #6, line 3			
9. Maintenance and Operation from worksheet #6, line 4			
10. Other related costs from worksheet #6, line 6			
11. Capital expenses from worksheet #7			
12. Total of lines 1 - 11			
13. Number of Meals			
14. Cost per Meal (Divide the number of meals-line 13 into the total-line 12).			

Worksheet 9

Value of Volunteers and Donations	Cong	HDM	Total
1. Value of volunteers from worksheet #3			
2. Value from donated food from worksheet #5 line 3			
3. Value of donated disposable supplies from worksheet #5, line 5			
4. Value of donated nonfood supplies from worksheet #5, line 7			
5. Value of donated travel expenses from worksheet #6, line 2			
6. Value of donated space and utilities from worksheet #6, line 5			
7. Total of lines 1-6			
8. Number of meals			
9. Monetary value of volunteers and donations per meal (divide the total-line 7 by the number of meals line 8)			

Worksheet 10

Total cost per meal	Cong	HDM	Total
1. Total from administrative worksheet #2			
2. Contract service costs from worksheet #4, line 3			
3. Total from worksheet #8			
4. Total of lines 1-3			
5. Number of meals			
6. Total cost per meal (divide the total from line 4 by the number of meals-line 5)			
7. Total cost per meal including the volunteer/donation value (add the total cost per meal to the volunteer value per meal on worksheet 9, line 9)			