HCH Costing Tool Overview

National Health Care for the Homeless Council
February 2016

NATIONAL
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for the
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What is the Costing Tool?

Health Care for the Homeless (HCH) providers are uniquely challenged to effectively address the health care needs of individuals who face extraordinary biopsychosocial hurdles to managing their care. Adding to this complexity is the difficulty of determining the impact of individual programs and services, planning the best use of limited resources, and presenting a compelling, data-driven argument to potential funders.

Developed by economists and researchers Donald Shepard and Cynthia Tschampl at Brandeis University Schneider Institutes for Health Policy, the HCH Costing Tool was created to help HCH grantees conduct a cost-benefit analysis of existing and potential programs. This type of analysis differs from other economic and program evaluations, in that it compares program cost to the expected benefits.

The HCH Costing Tool is an Excel based tool best used by administrators, directors, and financial officers at HCH programs, and assumes that the user will have access to information about the clients served, the output or outcome being evaluated, and the year and region the program data originated. Typically, each program is evaluated independently by service, so case management would be evaluated separately from supportive housing or a mobile medical program.

The tool is divided into several sections and worksheets to organize data entry. Each section outlines the data needed and explains the calculations used to complete the analysis. A comprehensive table of contents provides a roadmap to ensure that all required information is entered. The tool was designed and formatted to make the process as simple as possible and uses data that should be readily available to program administrators.

How is the tool useful for an HCH?

The HCH Costing Tool was designed specifically for Health Care for the Homeless Grantees and can help demonstrate the value of services. It offers compelling evidence for funders, policy makers, and community partners, including hospitals, to continue, develop, or expand programs and services.

The tool uses the health center's data to:
- calculate total cost for a program,

- calculate unit costs (units of supportive housing, case management encounters, etc.),

- find cost offsets for supportive housing or case management, and

- calculate a cost per outcomes.

In addition to demonstrating value, a cost benefit analysis of services can be used to plan programs by determining which program models are proving to be most cost effective while achieving the desired health and/or housing outcomes. This same information can be a valuable advocacy tool when working with supporters, policy makers, and community-stakeholders by examining trends in unit costs to measure efficiencies.

Information on program costs broken out by unit has been used in a variety of scenarios by different health centers depending on their program and interest. This tool has been used in the following ways:

- to prepare a data-driven proposal to encourage a local hospital to hire community health workers as a way to reduce uncompensated hospital cost while improving health benefits.

- to compare program and staffing models to determine how best to maximize resources. For example, one health center compared the unit cost of two case management programs to determine the cost benefit of a model with two case managers compared to a second model with three case managers. Another health center compared per unit costs of a mobile clinic versus a fixed clinic location. Each of these analyses helped to design an effective program while making the best use of available resources.

What data will I need?

Using the Costing Tool requires having access to cost and basic utilization data related to the program being evaluated. The tool is divided into six sections, with five main worksheets to calculate overall program cost per unit for a variety of program types and cost offsets related to supportive housing and case management. A few optional calculations are also available in the appendix, which includes three additional worksheets.

[Click here for a summary of all data needs.](#)

Six Sections:
1. Context
2. Input
3. Outputs
4. Calculations
5. Supplements
6. Appendices

Main worksheets with data input forms:
1. Basic Introduction to the Tool (Basics)
2. Line Item Cost Allocation (Line)
3. Program Outputs (Outp)
4. Cost Offsets for Supportive Housing (OffSH)
5. Cost Offsets for Case Management (OffCM)

Additional worksheets with data input forms:
1. Capital Costs (Cap)
2. Outcomes Measurement (Outc)
3. Cost Adjustment for Region and Time (Region)

Figure 1: Table of Contents

Worksheet 1: Basics Introduction to the Tool

The first data entry worksheet asks for basic program information. On this tab, information such as the name of the program, type of program, year from which the data was pulled, and the geography and urban or rural status of the community is entered into the appropriate data cells. The type of program is broken down into one of several categories including:

- Case management
- Supportive housing
- Emergency shelter
- Transitional housing
- Meals program
- Drop-in shelter
- Outreach

- Health Care for the Homeless
- Harm prevention
- Domestic violence program
- Homeless prevention
- Youth program

- Employment or training program
- Mental health program
- Housing voucher program

The user is encouraged to select the most accurate description of the specific program that is to be evaluated even if there may be some overlap with other programs. For example, a domestic violence program likely has a case management component. If case management is the specific intervention being analyzed, then it would be the most useful to select the narrowest descriptor, being case management.

The region and urban/rural status is also selected using a drop-down menu option, which breaks the country regionally by South, Midwest, Northeast, and West. There are also options to select urban, suburban, and rural for each region. Entering this information allows the calculation to adjust costs based on regional differences.

Worksheet 2: Line Item Cost Allocation

Once basic program information has been entered, the line item budget items must be listed, including the yearly expense, overhead rate (if available), type of program expense (either personnel, recurrent, capital, or other), and the percent of the line item that is allocated to the selected program. The calculation will show the total yearly cost allocated to the specific program, broken down by category. Information in this section spans from salaries to transportation and should reflect all costs incurred by the program. For example, the line item costs may include:

- Salaries
- Payroll taxes
- Benefits
- Insurance
- Contacted services
- In-kind (volunteer) labor

- Fees and charges
- Occupancy
- Supplies
- Communications
- Equipment rent, maintenance, etc.
- Depreciation

- Printing & advertising
- Transportation
- Conference & training
- Client assistance
- Administration

Worksheet 3: Program Outputs

The program outputs worksheet houses basic measures that allow the tool to calculate the program cost per unit. On this worksheet, the total number of unduplicated clients can be entered, in addition to a primary service measure that is appropriate for the program. For example, for a permanent supportive housing program, this may be housing person months or occupied housing units. A case management program may track encounters or clients who achieved a desired outcome. Other service measures might include hours of services provided, bed-nights for an emergency shelter, meals provided, or targeted types of medical encounters.

Worksheets 4 & 5: Cost Offsets for Supportive Housing or Case Management

If the program being analyzed is a supportive housing or a case management program, the cost offsets of this program can be calculated. In this case, the next step is to select a program description that most closely matches that of the program.

For example, if the program being analyzed is a supportive housing program, the user is offered nine different models of supportive housing programs to choose from. For each model, an overview describes the types of clients and services typically engaged in this type of model, average offset types (such as reduction in public costs or service utilization) and value (cost offset per client per year), and a link to the literature along with a study rating. This format is duplicated on a separate worksheet listing four case management models along with the average offsets for case management.

After reviewing the descriptions, consider which most closely matches the program being evaluated in terms of services provided, client type, service intensity, and offsets, and select the best fit. It is important to make sure that the appropriate program type has been selected on

the Basics tab/worksheet 1 (either supportive housing or case management) or the tool will not calculate this value.

Results: Cost Summary, Cost per Unit, and Cost Offsets

Once all necessary information is entered, which can be confirmed by reviewing the completion status on the table of contents, the results page will populate with the program specific evaluation information. This will include a cost summary and breakdown by type of cost, a summary of services provided, and cost per unit of services. If information is entered into the cost offsets worksheets for either supportive housing or case management, the cost offset per unduplicated client as well as the net cost per client and benefit-cost ratio will also be populated, as shown below.
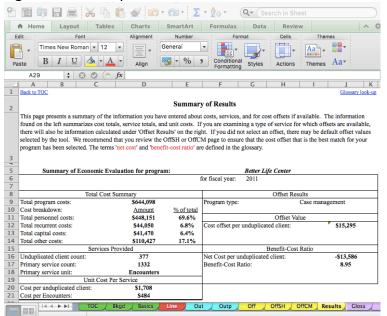
Figure 2: Summary of Results Worksheet

Additional Data Calculations: Capital Costs

In addition to calculating program costs and cost offsets, the Costing Tool can also calculate annual amortized capital costs. To come up with the total capital costs, assets are listed, including the number of units and the cost to replace a unit. The calculation then takes into account the life years of the asset and the percentage of the asset that is dedicated to the program, such as the percentage floor space used or the share of equipment.

Additional Data Calculations: Outcomes Measurement

Another component of the Costing Tool assesses the actual effect of the program. Once the number of individuals receiving services and those who meet the desired outcome goal are entered into the Outcomes Measurement worksheet in the appendix, the tool adjusts this number to account for those who would have achieved the goal without intervention (the regression to the mean). The tool assumes that 30% of individuals that participated in the program would have met the desired outcome on their own. This is a reasonable adjustment

based on previous programs that targeted high cost individuals. The percentage (statistical adjustment) can be modified to fit a certain program's assumptions – for example, the higher the necessity of the program to the patient's health, the lower the percentage used for statistical adjustment. The Stat tab in the Costing Tool appendix provides a more in depth description of this adjustment.

Additional Data Calculations: Cost Adjustment for Region and Time

The Costing Tool can also account for inflation and regional cost differences if you are comparing your program data with that of another program in a different region or with data from another year. This calculation requires the year, region, and urban/rural status of your data and the comparison data, and generates correction factors based on this information. The correction factor can then be multiplied with the comparison data and that adjusted value would be used to account for inflation and regional variations in average costs. Thus, this updated data set more accurately shows costs and savings in direct comparison with program data.

Results: Cost per Outcome

Finally, the Costing Tool calculates the cost per outcome. After entering line item cost information and completing the outcomes worksheet, the tool populates a separate table (shown below) showing the cost per achieved goal for the total number of program participants, as well as the cost after adjusting for program effect. (see the Additional Data Calculations: Outcomes Measures section for an explanation of statistical adjustment for program effect).
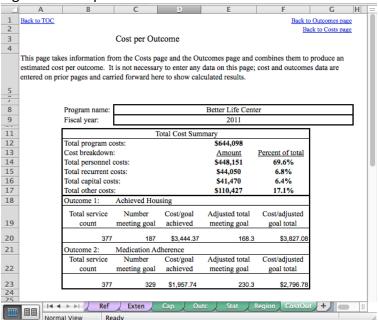
Figure 3: Cost per Outcome Worksheet

[View a summary of all data required for each measure](#).

Where can I find it?

If you are interested in using the HCH Costing Tool, we ask that you fill out a brief form and agree to complete a follow-up survey after you have used the tool. This will help us to learn how you are using the tool and make sure it is meeting your needs. Once you complete the request form, you will receive an email containing the Excel based tool.

Request the HCH Costing Tool now.

Disclaimer

This project was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U30CS09746, a National Training and Technical Assistance Cooperative Agreement for $1,625,741, with 0% match from nongovernmental sources. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

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Suggested citation: National Health Care for the Homeless Council (Feb 2016). *HCH Costing Tool Toolkit.* Nashville, TN: Available at: www.nhchc.org

Appendix

HCH Costing Tool: Summary of Data Needed

Basics

- Name of the program:
- Type of program:
    - Case management, Supportive housing, Emergency shelter, Transitional housing, Meals program, Drop-in shelter, Outreach, Health Care for the Homeless, Harm prevention, Domestic violence program, Homeless prevention, Youth program, Employment or training program, Mental health program, Housing voucher program
- Year from which the data was pulled
- Geography
    - South, Midwest, Northeast, and West
- Urban/Rural Status
    - Urban, Suburban, Rural

Line Items

- Budgeted Item
    - May include: Salaries, Payroll taxes, Benefits, Insurance, Contacted services, In-kind (volunteer) labor, Fees and charges, Occupancy, Supplies, Communications, Equipment rent, maintenance, etc., Depreciation, Printing & advertising, Transportation, Conference & training, Client assistance, Administration
- Yearly expense
- Overhead rate (if available),
- Type of program expense (either personnel, recurrent, capital, or other),
- Percent of the line item that is allocated to the selected program.

Program Outputs

- Total number of unduplicated clients
- Primary service measure
    - Housing person months, Occupied housing units, Encounters, Clients who achieved a desired outcome, Hours of services provided, Bed-nights, Meals provided, or Medical encounters.

Cost Offsets

Data necessary to calculate the cost offsets of supportive housing or intensive case management programs includes:

- Client type

- Service description

- Intensity of services

- Offset types

Capital Costs

- Assets

- Number of units (of the asset)

- Cost to replace a unit.

- Life years of the asset

- Percentage of the asset that is dedicated to the program

Outcomes

- Number of individuals receiving services

- Number who meet the desired outcome goal

Comparing Data

To compare data from different years and/or regions, the data needed for both data sets includes:

- Year

- Region

- Urban/Rural status