Institute for Healthcare Improvement

Age-Friendly Health Systems Outpatient ROI Calculator Instructions

The Business Case for Becoming an Age-Friendly Health System

This content was created especially for:

Age-Friendly Health Systems

An initiative of The John A. Hartford Foundation and the Institute for Healthcare Improvement in partnership with the American Hospital Association and the Catholic Health Association of the United States

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IHI Age-Friendly Health Systems Outpatient ROI Calculator Instructions

For important background information, please see the 2019 report, *The Business Case for Becoming an Age-Friendly Health System,* published by the Institute for Healthcare Improvement. The report and the ROI Calculators for both outpatient and inpatient settings that accompany these instructions are available on IHI's website (ihi.org/AgeFriendly).

Note: At this stage, the Excel spreadsheet calculator is optimized for PC use. While, it will work with the Apple OS, some features work more slowly.

The Outpatient ROI Calculator is to be used by clinicians and financial staff in outpatient settings to determine the financial return to a medical group from the provision of Medicare Annual Wellness Visits (AWVs), as part of their overall assessment of the business case for providing an age-friendly approach to care using the "4Ms" Framework of an Age-Friendly Health System. The user inserts the values for the inputs and the calculator's algorithm reports the financial results. A key feature of the calculator is that it examines not only the net income from the visits, but also assesses the net income from advance care plans (ACPs) and prevention screenings driven by those visits.

Separate calculations for an age-friendly AWV (i.e., the AWV explicitly focuses on the 4Ms Framework as the orientation for the visit) and for a "usual" AWV are possible. If you populate the entries in the column labeled "Usual AWV," you can explore the comparison. If you wish to consider only the age-friendly AWV, you can ignore the second column. In that case, you will be able to measure the ROI for the age-friendly AWV, but unable to compare it to alternative versions.

How to Use the Excel Spreadsheet Calculator

Navigation

The user progresses through three discrete steps, placing inputs in the designated cells, and leading to a fourth section which provides the financial results. Click on the numbered buttons sequentially to go to the corresponding section and make your entries.

Entering Inputs

The cells that require user input are identified by spinner buttons — up and down arrows. The user selects the appropriate value of the variable by clicking until the best estimate appears in the cell. *Do not type in the numbers directly; use only the arrows to select the desired number.*

"Help" Guidance

If you are uncertain as to what you are supposed to enter or what an output means, simply click on the cell with the caption next to that cell. You will then see a question mark (?) and when you click on it, a "help" note appears that explains its meaning.

Section 1: Population and Fees

The user inserts basic information regarding the total number of beneficiaries eligible to receive the AWV, the proportion of that number that elects to receive it, and the revenue per AWV. The number of beneficiaries provides the potential scale of the AWV program. Not all who are eligible will elect it. The higher the proportion that accepts the opportunity, the more attractive the ROI.

For the revenue (fee), the user enters the expected average fee the medical group expects to receive for an AWV. Since the fee for the initial visit differs from that for subsequent ones (i.e., the fee is higher for the initial visit), the user needs to insert a weighted average across all visits. Section 1, when complete, provides all the information required for the calculator to project total revenues from the AWVs.

Section 2: Annual Wellness Visits Costs

The calculator needs information about the costs of providing the AWVs. Total costs comprise those that do not vary with the number of visits, called fixed costs, and those that do vary. Examples of fixed costs might be any IT (re)configuration and training expenses. The costs that do vary with volume are the time-based costs of clinicians. Clinician costs depend on the annual salary, including benefits; the productivity of the clinician, expressed in the number of visits performed per day; and the number of weeks worked annually. Clinicians are generally nurses, nurse practitioners, or physicians.

When this information is entered into the spreadsheet, the total cost of providing all the projected visits along with the cost per visit are automatically calculated. Since the revenues are already established in Section 1, the calculator reports the net income stemming directly from the AWVs.

Section 3: Utilization of Advance Care Plans and Screenings

Section 2 reports the net income generated directly from the AWVs. However, there is a potential secondary, indirect source of ROI in the form of enhanced revenues from more ACPs and screenings that take place as a result of the AWVs. The evidence is very clear that the AWVs lead to more of these encounters. The user is presented with fields for the ACP and for three screenings, two of which are named. The user can input other screenings in place of the two named ones by typing over the names. The third screening is intentionally unspecified, and the user can choose another screening. The calculator can only consider three, so the user should select those screenings that are most common and most profitable, or a combination of both.

The net income from the additional encounters driven by the AWVs should be incorporated into the ROI for the AWVs. To make that calculation, the user must first estimate what the uptake for each of these encounters would have been without the AWVs. After all, ACPs and screenings would occur, albeit in smaller numbers, even in the absence of the AWVs.

After inserting the baseline incidence (without the AWV), the user must estimate the incidence (presumably higher) of these encounters when the AWV has been provided. The user can choose to consider whether the AWV when performed in an age-friendly manner drives these subsequent encounters to a different degree in comparison with a usual AWV. Alternatively, the “Usual AWV” column can be ignored.

The other data required to finalize the ROI calculation are the net income margins for each of the subsequent encounter types. The net income margins are entered in terms of dollars per encounter. The estimates of these margins are made by subtracting the estimated variable cost of each encounter from its corresponding fee. (Of course, if there is no margin on any of these, there is no indirect financial benefit from additional encounters.)

With the incremental incidence levels and the profit margins entered, the ROI for the AWVs has now captured *all* of the financial benefits — combining direct benefits from the AWVs along with the indirect benefits from subsequent encounters.

Section 4: Summary of Results

The user does not need to make any entries in this final section of the spreadsheet. The summary displays the financial return from the AWVs expressed as both an annual net income figure and as an ROI. The ROI is a percentage, defined as the AWV net income divided by its annual cost. If the user has chosen to compare two versions of the AWV — age-friendly versus usual — the comparative results will be displayed. It is possible that the age-friendly AWV will outperform the usual AWV if it leads to more subsequent encounters and does so at little, if any, additional cost.

Optional Tools

Below, two optional tools within the Excel spreadsheet calculator are described: Decision Tree and Scenarios.

Decision Tree

To see a visual representation of the results, the user can click on the button labeled “Switch to Tree.” If two versions of the AWV have been modeled, the tree identifies the more financially advantageous one by highlighting it in green. To switch back to the tabular form, click on “Switch to Model.”

Scenarios

You can save one set of entries in order to compare results with a second set of entries based on different assumptions. For example, you may wish to compare a conservative set of assumptions with a more optimistic one, or to compare results for one service line with another. You can do both with the Scenarios tool.

To use this tool, first complete a set of entries and, when finished, click on “Scenarios.” Select “Save Scenario,” and the calculator will allow recall of this scenario later. Be sure to name the saved scenario. Then, when you wish to examine an alternative scenario, enter a different set of numbers corresponding to that scenario. Make sure to save and name that scenario. When you click on the “Scenario” button again, you will see the “Compare Scenarios” option — displaying a side-by-side comparison of the results for the two scenarios.