



Agency for Healthcare Research and Quality  
Advancing Excellence in Health Care • [www.ahrq.gov](http://www.ahrq.gov)

## Instructions for Using the Diabetes Cost Calculator for Employers

### About the Calculator

The diabetes cost calculator was developed in response to a request from members of the Mid-Atlantic Business Group on Health for a tool that would allow its employers to demonstrate the potential savings that could be realized with improvements in diabetes care. The calculator provides estimates of an employer's current diabetes-related medical costs and costs due to lost productivity. The calculator also projects potential savings associated with improvements in hemoglobin A1c (HbA1c), a key measure of diabetes control, among the organization's employees and dependents who have diabetes. (HbA1c levels indicate how successfully patients are managing their diabetes, with lower levels indicating greater success.)

#### Activating Text-to-Speech Function for Users with Visual Impairments

Users with visual impairment may activate the calculator's text-to-speech function. To turn on text-to-speech, press Ctrl-Shift-s from the Welcome screen of the calculator. The keyboard shortcuts that users can activate from the Welcome screen follow:

Ctrl-Shift-s turns the text-to-speech on and off.

Ctrl-Shift-c starts a scenario (equivalent to clicking "1 run scenario").

Ctrl-Shift-r shows results (equivalent to clicking "2 View Results").

Ctrl-Shift-a shows additional data (equivalent to clicking "3 View Additional Data").

Persons with disabilities experiencing problems accessing portions of the Excel file should contact Sarah Stout at [sarah.stout@ahrq.hhs.gov](mailto:sarah.stout@ahrq.hhs.gov)

### Information Needed To Use the Calculator

In order to provide more precise estimates for individual employers, the calculator requires employers to enter basic information about their organizations. The information that you will need to have to use the calculator is listed below.

The following are **required inputs** to the calculator:

- 1. State.** If your organization operates in more than one State, you will need to create a separate scenario for each State.
- 2. Industry.** Choose from the drop-down menu the industry category that is the best match for your organization.

---

**3. Number of employees by age group.**

- a. # employees ages 18-44
- b. # employees ages 45-64
- c. # employees age 65 and over

**4. Sick leave policy.** To estimate costs of employees being absent from work due to illness (i.e., absenteeism), the calculator will ask if your employer provides paid sick leave.

In addition to the four items listed above, the calculator will allow you to enter other information about your organization if you have it. If you have this information, the estimates that the calculator produces will be more precise for your organization. However, if you do not have this information, the calculator will use default data based on your location, industry, and firm size.

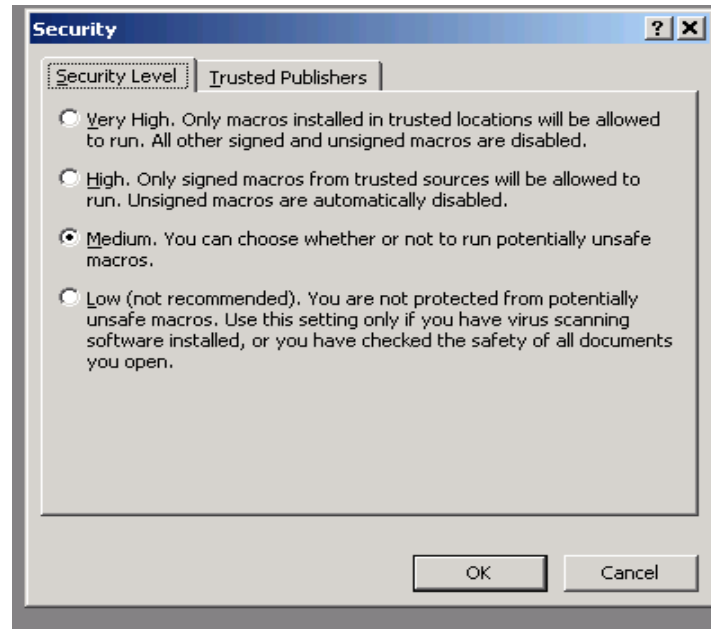
The following are **optional inputs** in the calculator:

- 1. Number of covered lives with diabetes
- 2. HbA1c levels of covered lives with diabetes
- 3. Average hourly wage by age group
- 4. Percentage of employees who select family medical coverage
- 5. Total number of covered children or average number of children per employee with family medical coverage
- 6. Percentage of minority employees
- 7. Percentage of female employees

---

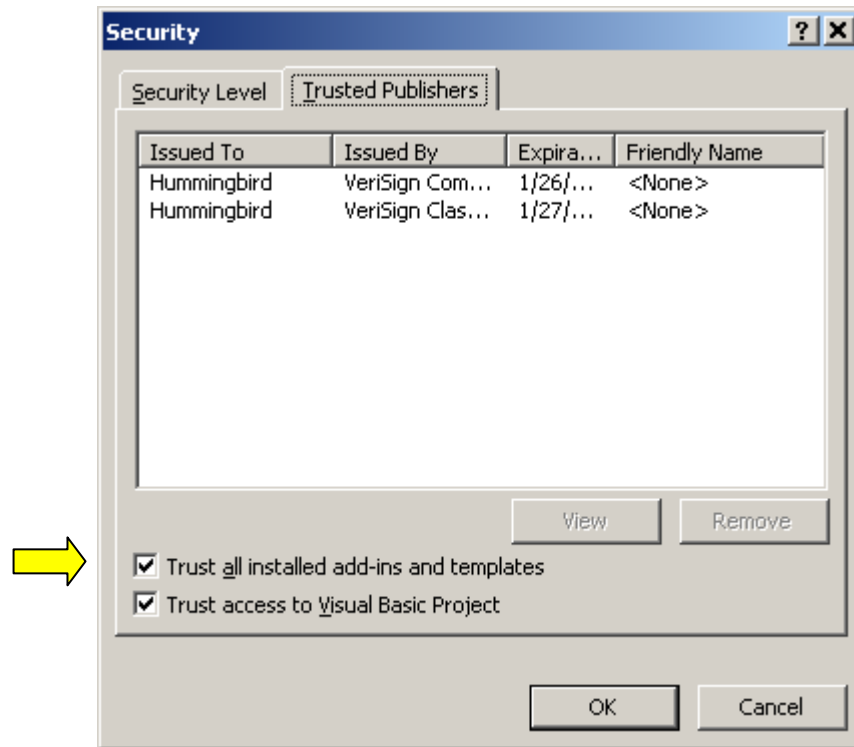
## Getting Started with the Calculator

1. **Check your security settings in Excel.** The calculator is powered by macros, which means you may need to modify your security settings in Excel to allow the macros to operate. From the toolbar in Excel, go to Tools > Macro > Security > Security Level. On the Security Level tab, select a security level of **Medium** (see below).



**Note:** The calculator was developed in Microsoft Excel and operates with a Visual Basic interface. Because the calculator is in Excel, it may not function for a user who does not operate in a Microsoft environment.

- 
2. **Tell Excel to trust access to Visual Basic Project.** From the toolbar in Excel, go to Tools > Macro > Security > Trusted Publishers. On the Trusted Publishers tab, be sure that the box next to “Trust access to Visual Basic Project” is checked.

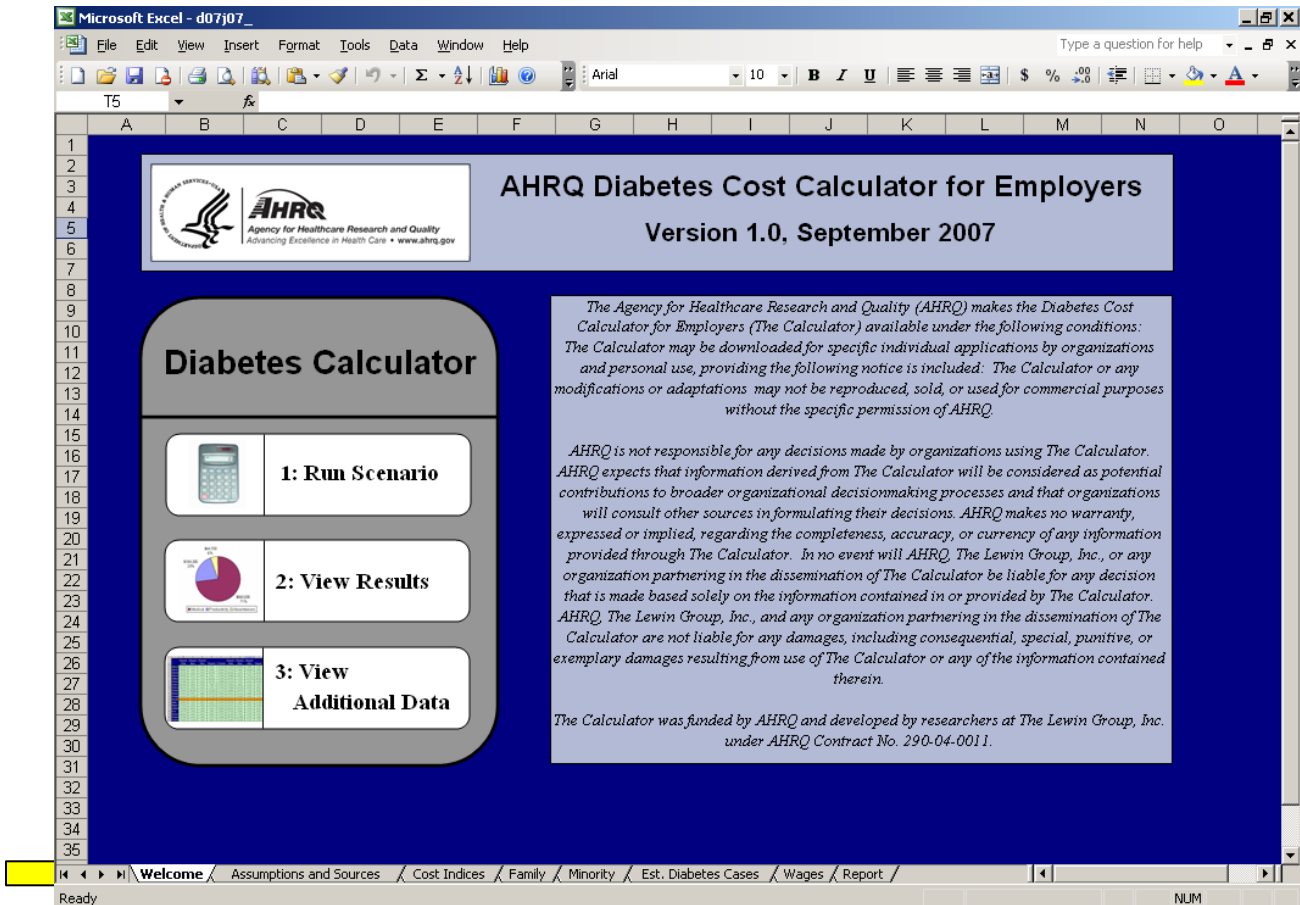


3. **Save the calculator and report templates to your desktop or to a file folder.**

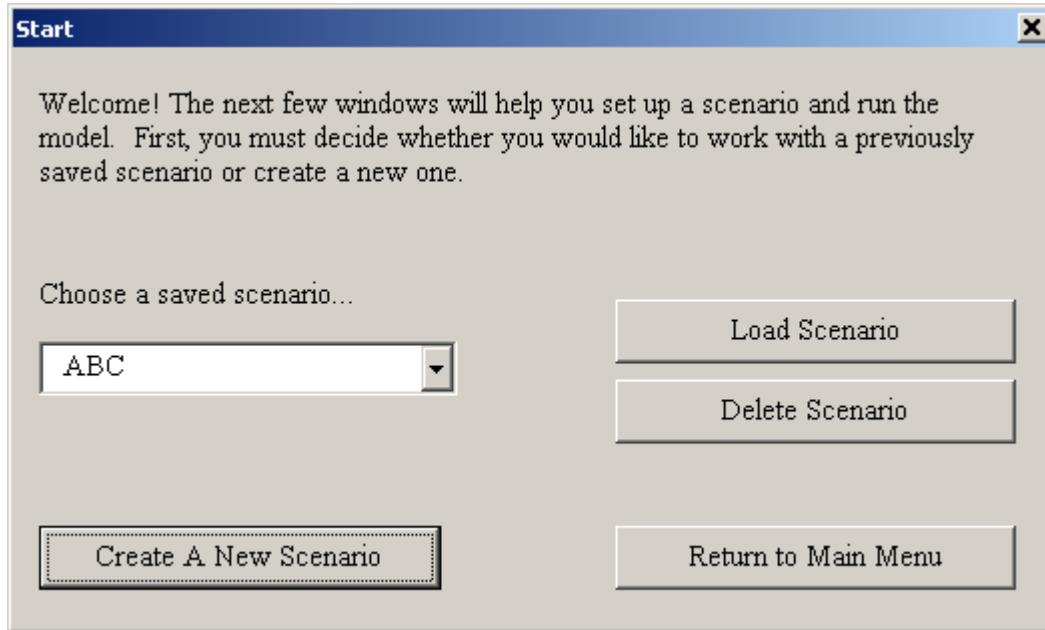
Before you start working in the calculator, save the calculator and the three report templates to your desktop or a file folder. Any reports generated from the calculator will be saved to the same location. If the calculator and the reports are not saved to the desktop or a file folder, the company-specific reports generated by the calculator will not save correctly. **Note that the report templates must be named as follows:**

- [Calculator](#) (Persons with disabilities experiencing problems accessing portions of the Excel file should contact Sarah Stout at [sarah.stout@ahrq.hhs.gov](mailto:sarah.stout@ahrq.hhs.gov). See AHRQ accessibility notice at <http://www.ahrq.gov/accessibility.htm>.)
- [ReduceA1c](#)
- [TargetA1c](#)
- [Intervention](#)

4. **Go to the Welcome Tab.** When you open the Excel file, it should automatically take you to the Welcome tab, from which you enter the calculator. If it does not take you to this tab automatically, you can switch to this tab by clicking on the Welcome tab at the bottom left corner of the screen. To enter the calculator, click the **Run Scenario** button.



- 
5. **Choose Run Scenario.** The calculator will ask you if you want to Create A New Scenario or Load Scenario. If this is your first time using the calculator, choose **Create A New Scenario**. You can save any of the scenarios that you enter into the calculator and return to them at any time.



---

## Navigating the Calculator

After you get through the pages with the required and optional user inputs described earlier, you will be asked to choose between two approaches to modeling costs and savings:

Scenarios

### Model Type

Choose one of the following two approaches to model the costs/savings associated with controlling diabetes:

**Choose Goal**

This option allows you to estimate the potential costs and savings associated with reaching a specific reduction in your member's HbA1c levels.

Select one of the following:

Reduce average HbA1c level [View Samples of HbA1c Reductions](#)

Shift a portion of your population below a target HbA1c level [Recommended average HbA1c level](#)

or

**Choose Intervention**

This option allows you to estimate the potential cost and savings associated with implementing an intervention such as disease management.

Back    Print    Next

- If you select **Choose Goal**, you can use the calculator to estimate the impact of improvements in diabetes control (as measured by blood glucose control) regardless of the intervention used to achieve the improvements. You can choose one of two options: (1) reduce the average HbA1c level of a population with diabetes, or (2) shift a portion of a population with diabetes below a target HbA1c level.
- If you select **Choose Intervention**, you can select from five interventions that have been found to lead to improvements in diabetes control. If you know the estimated costs of the intervention you select, you can enter that as well. If intervention costs are entered, the calculator will provide a net savings that includes the cost of the intervention. Note that you cannot select more than one intervention at a time.

---

## Calculator Outputs

The calculator yields several outputs that are available in different formats. After you choose an approach and an intervention or goal, the calculator will automatically take you to a **Results** page that summarizes key outputs of the calculator, such as estimates of:

- Number of employees and dependents with diabetes
- Medical and indirect costs associated with diabetes
- Potential medical and indirect savings associated with improvements in diabetes control

From this page, you can link to a number of charts and graphs with additional information that may be useful in interpreting the calculator results. The page also has a link to an **Executive Summary** that presents your results in a brief narrative document.

## Assumptions and Sources

Throughout the calculator there are help buttons that provide definitions, assumptions, and sources. There is also an **Assumptions and Sources Tab** in the calculator, where you can find additional information about the calculator's methodology and the evidence on which it is based. Wherever possible, citations to the original source are provided for users who would like more information.

## Questions/Feedback

If you have questions about the calculator or need assistance, please send an e-mail to [calculator-support@ahrq.hhs.gov](mailto:calculator-support@ahrq.hhs.gov). We welcome feedback about the calculator. If you have any comments or suggestions, please send them to [calculator-support@ahrq.hhs.gov](mailto:calculator-support@ahrq.hhs.gov).