

## Project 4: Demonstration Guide to Website for Querying Linked Health and Financial Data

This document is not intended to serve as a full-featured User's Guide. Rather it is a simple demonstration of some capabilities of the Website. With feedback from the Agency and users it designates at other state agencies, future iterations of this tool are expected to become more user friendly and provide more relevant information.

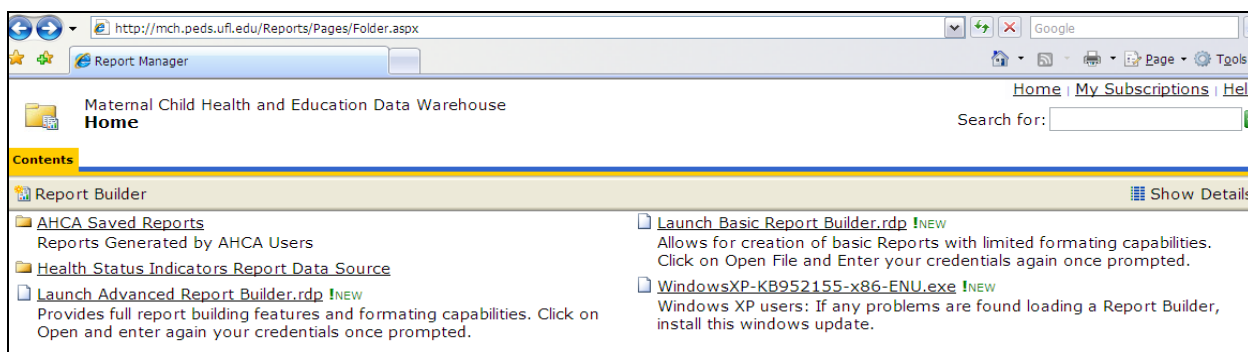
The data resides on a Dell PowerEdge enterprise-level server in a secure facility. Multiple levels of physical and electronic security are employed. Data backup, battery backup, and security patches are applied to keep the software up to date. The operating system is Microsoft Server 2008 Enterprise and Microsoft SQL Server 2008 Enterprise is the software environment for this product. This tool uses the ad-hoc Report Builder query tool developed by Microsoft.

The website prefers the use of the Microsoft Internet Explorer (IE) browser but other browsers such as Firefox have been tested to work. Some of the screenshots in this document may differ when using other internet browsers, but concepts are presented in a manner that will allow users of other browsers to use this product.

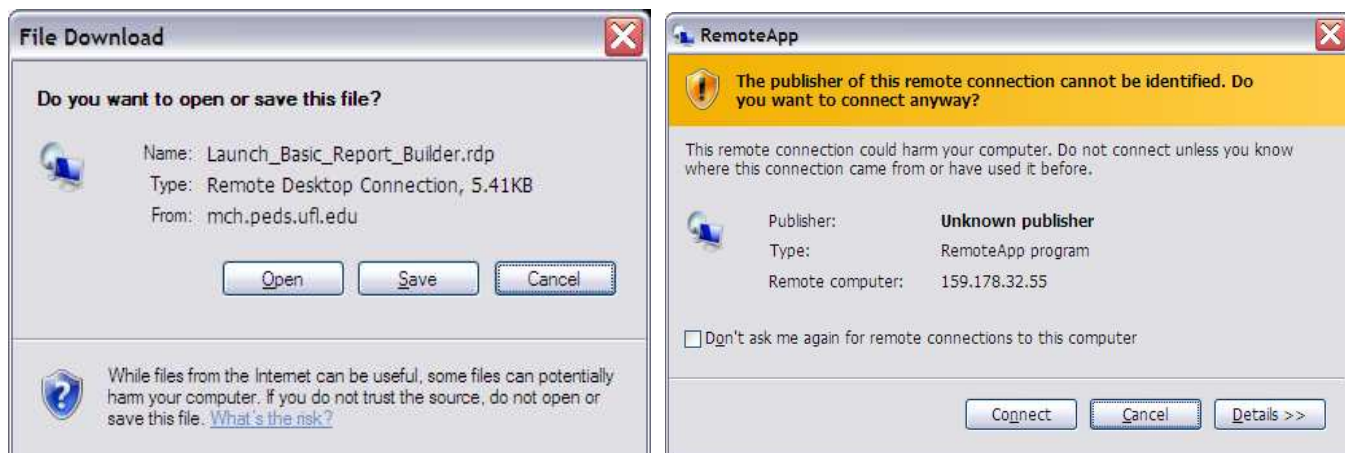
The website is secure and requires authentication. To obtain a login and password, please contact MCHERDC's system administrator at 352.334.1360, or [mcherdc@peds.ufl.edu](mailto:mcherdc@peds.ufl.edu).

To access the report builder, type: <http://mch.peds.ufl.edu/reports> in the Internet Explorer address bar. Login with the username and password given by the MCHERC system administrator.

After successfully logging in, the first screen should look similar to the one below. To launch the ad-hoc Report Builder query tool, click on "Launch Basic Report Builder.rdp" (upper right column). If there are problems, install the Windows XP update found on the same first screen. The other clickable links on the page will be developed for future iterations of this tool.

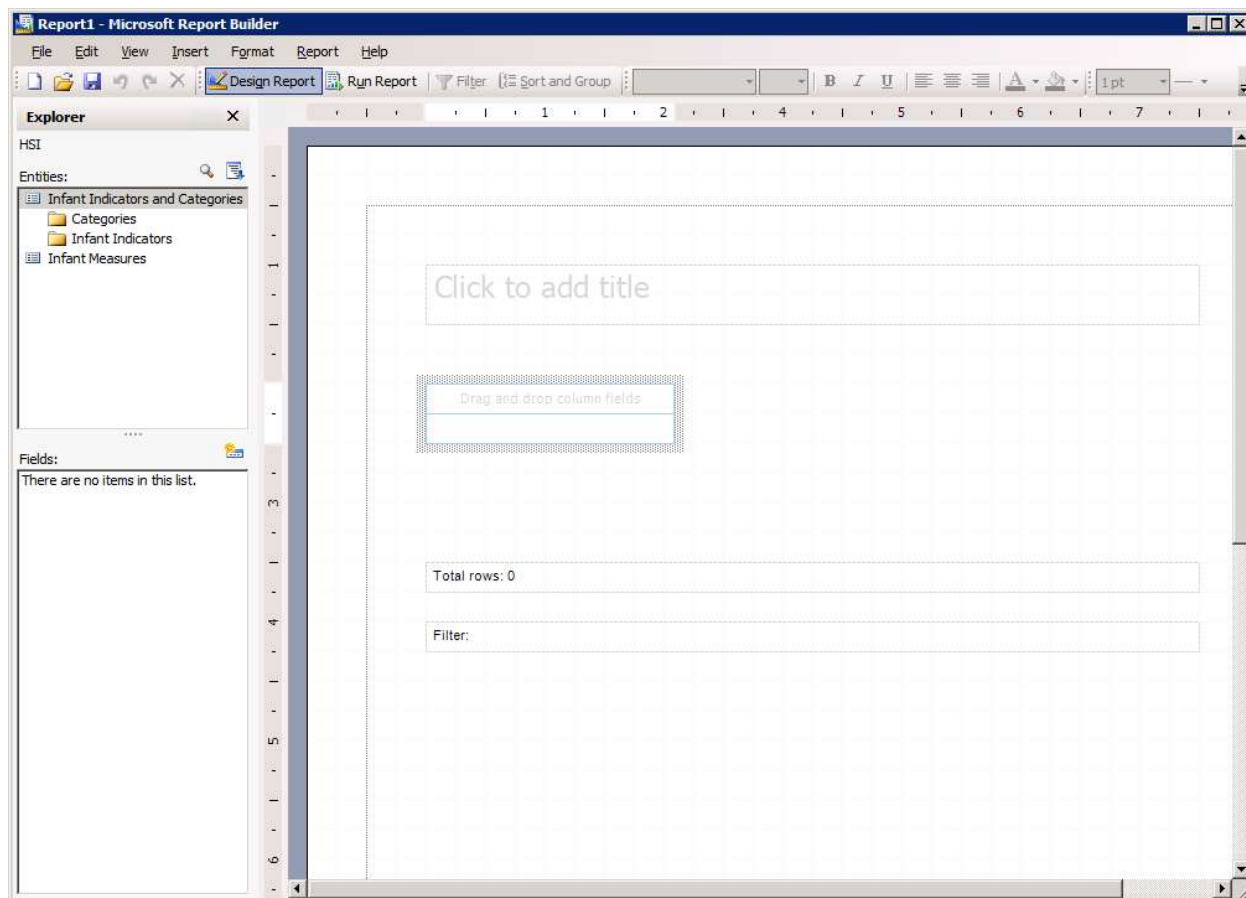


When the following two screens appear, click open and connect (other browsers will show similar screens).



There will be another prompt to authenticate. Reenter the same user name and password in the next dialog box.

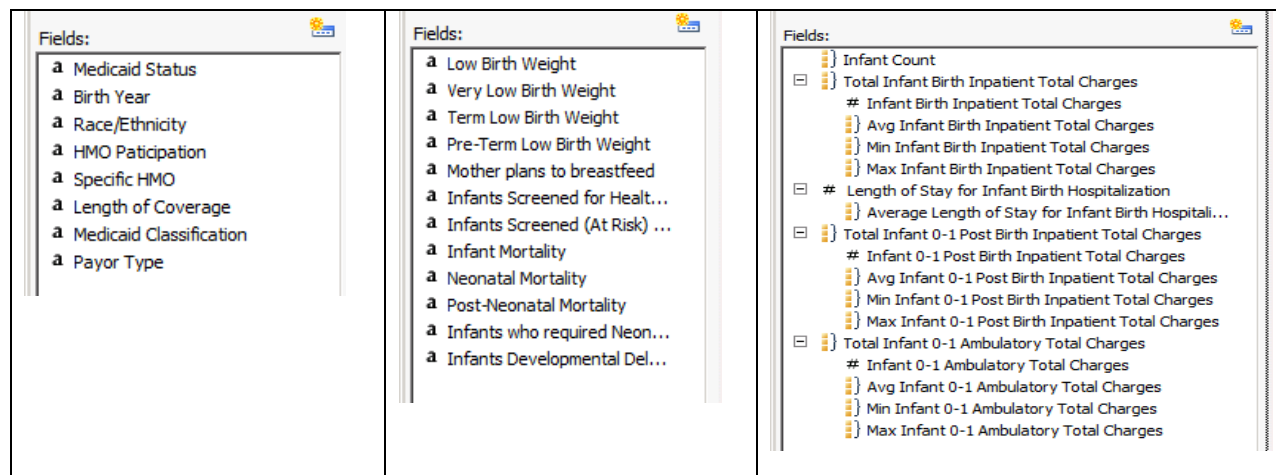
Finally, we see the Report Builder screen as shown in the next screenshot. The layout should look familiar because it is similar to most Microsoft applications. There is a menu bar across the top, an explorer sidebar on the left, and the design space occupying most of the screen on the right. Conceptually, Report Builder allows a user to create a report by using a drag-and-drop paradigm. Fields displayed on the left in the explorer sidebar are dragged to the right into the design space.



The tool can make any cross classification of the measures it contains. To keep things organized, the explorer sidebar contains two boxes. The top box groups available fields into logical divisions, called Entities. Clicking on an entity will display variables in the lower box, called Fields.

The available fields change depending on what Entity is selected in the top portion of the explorer bar.

Categories Entity	Infant Indicators Entity	Infant Measures Entity
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Fields from the Explorer sidebar can be dragged to the design surface with the mouse. Double clicking a field also moves it to the design surface. The Explorer sidebar may display ellipses (...) on some entities or fields. The sidebar can be expanded to read the complete text label by clicking and holding the mouse button down just left of the vertical ruler and sliding the mouse to the right. Delete a field on the the design surface by highlighting it and pressing the Delete key.

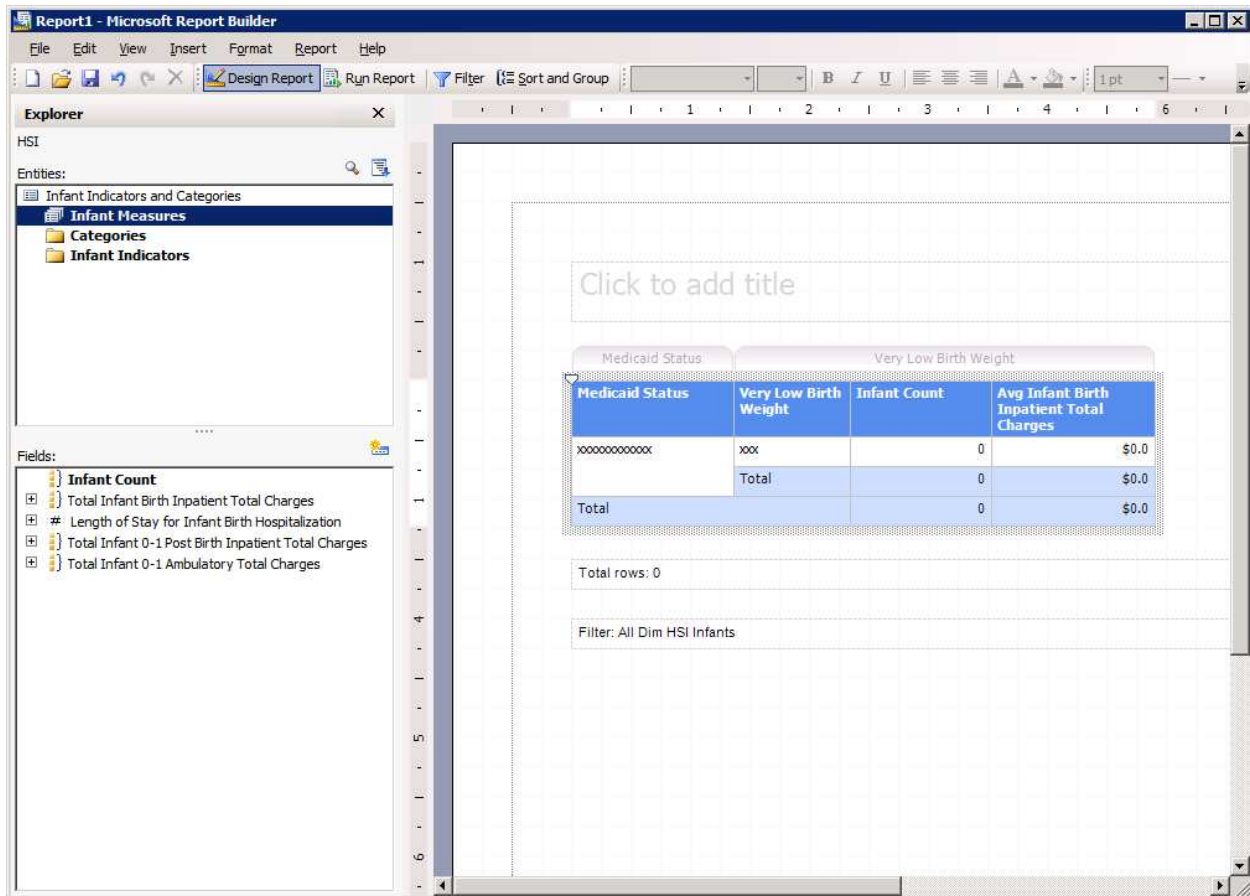
“Infant Measures” are fields that are quantitative in nature and can be summed, averaged, or counted. They are the outcomes of interest. Categories or Indicators are grouping variables, meant to classify individuals into sub-groups or samples of interest. Categories or Indicators create samples that will be populated with counts of the outcomes of interest selected.

### Report Generation Demonstration

In the example that follows, two questions are answered simultaneously:

- How many children were born very low birth weight by Medicaid status?
- What was the average inpatient birth charges to children born very low birth weight by Medicaid status?

In the Entities box double click (or drag onto the design surface): Medicaid Status under Categories and Very Low Birth Weight under Infant Indicators. Expand the Total Infant Birth Inpatient Total Charges tree by clicking the plus symbol. Under infant measures, double click on Infant Count and Avg Infant Birth Inpatient Total Charges. The next screenshot shows how the website looks when you arrange this query.



Click on Run Report, on the toolbar next to Design Report, to query the database. All results may not fit on one page and the tool bar will allow page selection. The result of our query is displayed in the next screenshot.

Medicaid Status	Very Low Birth Weight	Infant Count	Avg Infant Birth Inpatient Total Charges
Medicaid	No	676981	\$5,055.6
	Yes	10703	\$180,496.6
	Total	687684	\$7,671.3
Non-Medicaid	No	641313	\$4,342.7
	Yes	7270	\$171,203.2
	Total	648583	\$6,122.0
Total		1336267	\$6,922.4

Total rows: 4

Filter: All Dim HSI Infants

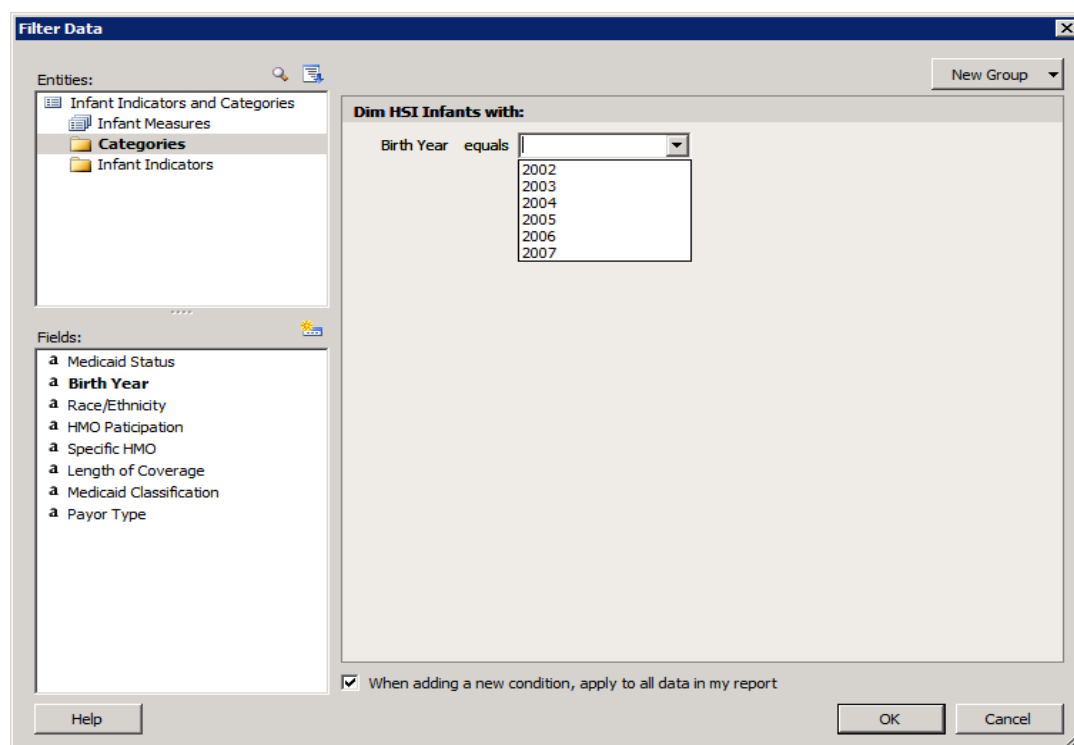
Now we have answers to our questions:

- How many children were born very low birth weight by Medicaid status?
  - Medicaid Yes and Very Low birth Weight Yes = 10703
  - Non-Medicaid Yes and Very Low Birth Weight Yes = 7270
- What was the average inpatient birth charges to children born very low birth weight by Medicaid status?

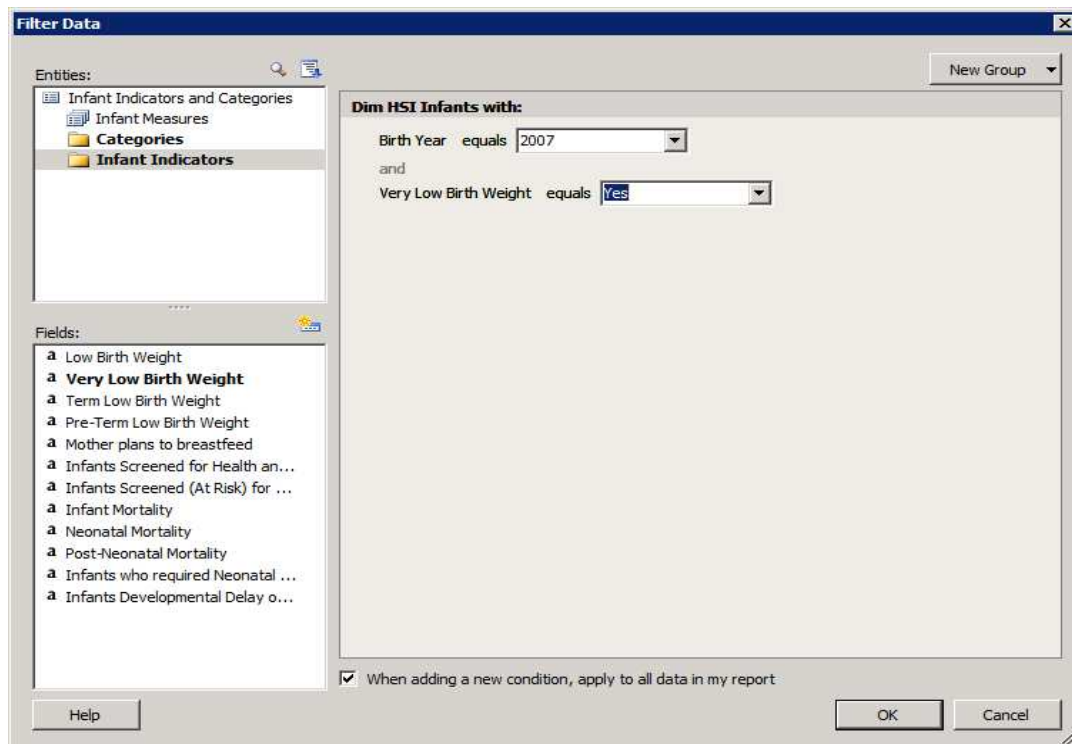
Medicaid Yes and Very Low birth Weight Yes Inpatient charges= \$180,496

Non-Medicaid Yes and Very Low birth Weight inpatient charges = \$171,203

Note that all years are queried. Filters allow selection of specific subsets of data. For example, Birth Year may be added to compare across years, or may be added as a filter to select specific years of interest. To add a filter, click on Filter on the Menu Bar from the design view. In Categories, double click on Birth Year and set its parameter to 2007 as shown in the next screenshot.



In a similar manner, a specific indicator may be used as a filter. In the screenshot below an indicator filter is used jointly with the Birth Year filter.



To add an indicator filter, choose Very Low Birth Weight from the Infant Indicators group, verify that the condition is Equals, and set the value to “Yes.” Now all results will be for children that were born low birth weight for birth year 2007. Run the report again to display the results shown in the next screenshot. The filter conditions are shown in a footer in the report output. The advantage of using filters is that ad-hoc reports do not get cluttered with too much information.

The screenshot shows the Microsoft Report Builder interface. The report output is displayed in a table with the following data:

Medicaid Status	Very Low Birth Weight	Infant Count	Avg Infant Birth Inpatient Total Charges
Medicaid	Yes	2348	\$178,863.4
	Total	2348	\$178,863.4
Non-Medicaid	Yes	1600	\$173,384.9
	Total	1600	\$173,384.9
Total		3948	\$176,647.0

Total rows: 2

Filter: Dim HSI Infants with: All of (Birth Year = "2007", Very Low Birth Weight = "Yes")

To clean the output further, click on Design Report. Remove the Very Low Birth Weight field from the design space by clicking on the title and pressing the delete key on the keyboard. Run the report again by pressing the Run Report button. The output will look exactly the same as the previous screenshot without the two redundant rows of information.

These reports may be saved for retrieval in the future by pressing the Save to Disk icon in the menu bar. It is best to save reports in the “AHCA Saved Reports” directory.

Once a report is generated, it is easy to export the data by making the appropriate selections on the tool bar. Using the drop down menu, first select Excel, and then select Export. A dialog box will pop up asking you to save or open the file. Save the file to an appropriate location. Open the Excel file and manipulate as desired.

Please direct all questions about using this website and suggestions for additional features to MCHERDC, 352.334.1360, or [mcherdc@peds.ufl.edu](mailto:mcherdc@peds.ufl.edu).