Digital Innovation Users Conference 2013

Formatting Report Output to MS Excel®

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TABLE OF CONTENTS

Formatting Output to MS Excel®

<u>Overview</u>

This session demonstrates how to use DI Report Writer tools with Microsoft Excel®. Instructions are provided on how to create and export a Data Table Report to Excel and how to then manipulate the data within Excel.

The skill sets demonstrated in this session can be applied to any data in Excel to fit the needs of each individual user.

Course Objectives

1. Demonstrate the process to export data from the DI Report Writer into Microsoft Excel

2. Apply native Excel functions to report output:

    o   *Format Spreadsheet*
    o   *Use Audit Filters*
    o   *Create Formulas*
    o   *Create Pivot Tables*
   o   *Create Graphs*

Prerequisite

DI Report Writer Concepts (Report Writer Module 1)

Exporting Data to MS Excel®

This training document describes the steps to export data from a user-defined data table report to MS® Excel, and the techniques used to graph the data once it is imported. Other DI Report Writer objects use similar data export methods, and, if opened in Excel would then utilize the same graphing techniques as described within this document.

1. Select the <User> radio button on the <Run Report> screen.

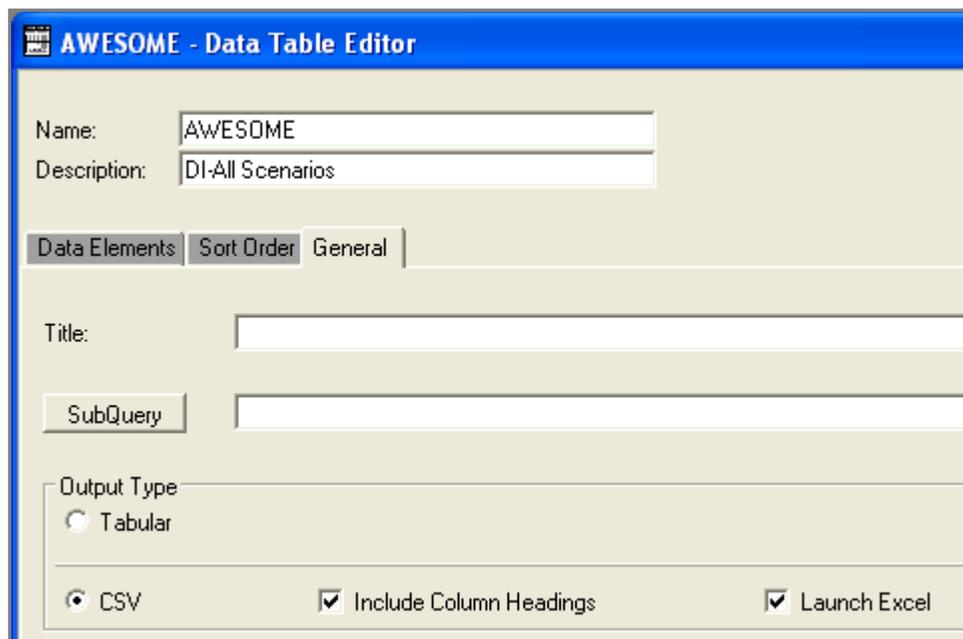2. Click on the <Report> Button.
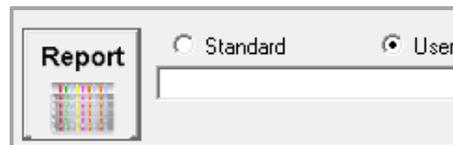
3. The <User Report Manager> screen will appear. Double click the AWESOME Data Table report from the menu (AWESOME is a core report built in the Data Table Concepts class).
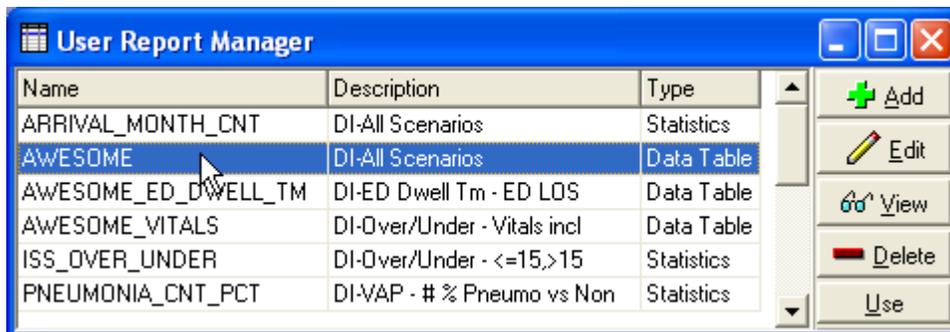
Any Data Table report can defined to be sent to Excel when created. Within the Data Table Editor window, click on the General tab and select CSV, Include Column Headings and Launch Excel.

Saving the Data Table Output as an Excel Workbook (.xls or .xlsx)

Notice that the document is titled <SCREEN.CSV – Microsoft Excel>. The spreadsheet will need to be saved as an .xls document in order to preserve formatting changes
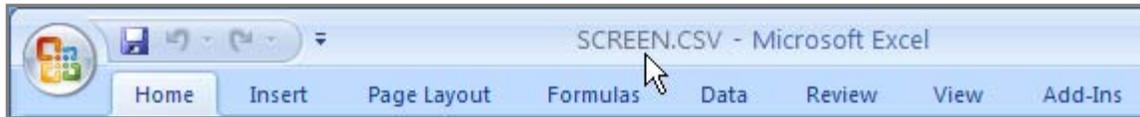
1. Click on the <Office> button, then select <Save As> and then select <Excel Workbook> (older versions of Excel don't have the Office button. In these older versions Save As is under File menu)
2. The Excel <Save As> screen will appear with a default storage location in the Node0001 folder and a default name of <Screen.xlsx>.
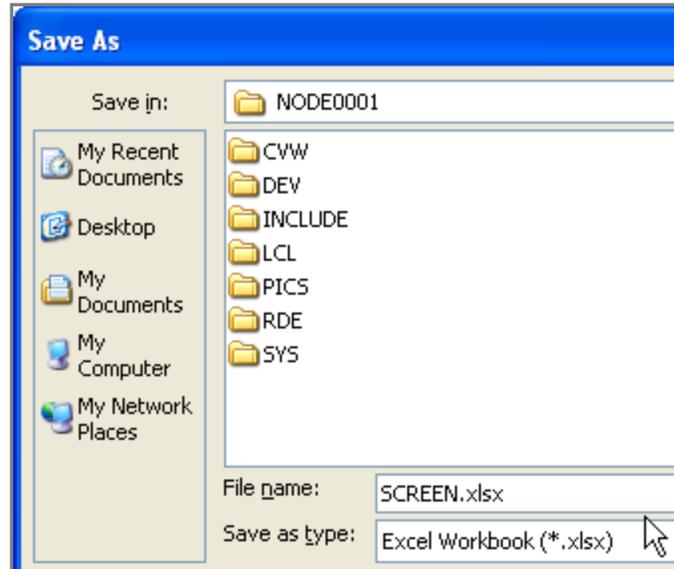
3. Change the storage location and file name as desired. (Verify the appropriate version of Excel ® in the <Save as Type> field).
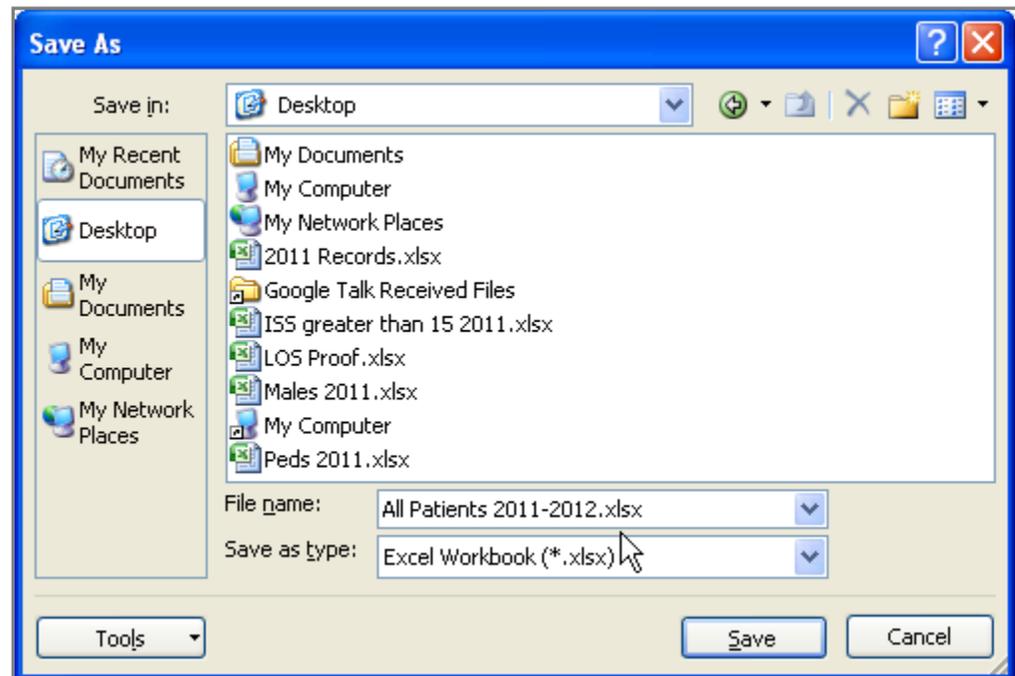
4. Click on the <Save> button.(Notice the name change of the Excel document)

Add Formatting to Spreadsheets

Auto-Sizing Columns

There are times when the default size of a column does not allow for the data to be displayed in its entirety. A display of #### may be seen instead of the actual data. In these cases the columns must be widened to view the data. All the columns can be auto-sized at one time.

5. Highlight the entire sheet by clicking on the box to the left of Column A and directly above Row 1.

6. Double click on any column divider line. All columns will auto-size to the largest width in each column. Notice that the display of #### has been replace by actual data

	A	B
1	Medical Record #	Patient Arrival Date & Time
2	712147963	11/10/2012 12:41
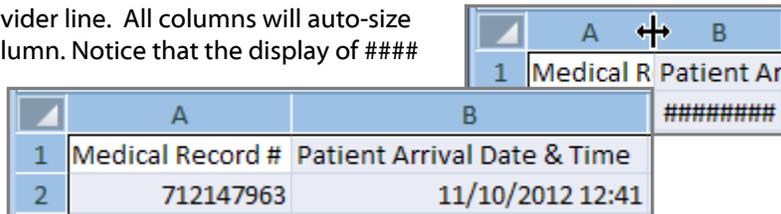
Text Wrapping

Some of the column headers may be much longer than others and in fact, be longer than the data contained in the column. In these cases, the header text can be wrapped within the cell to allow for shortening of the column width.

	A	B
1	Medical Record #	Patient Arrival Date & Time
2	712147963	11/10/2012 12:41
3	454637813	9/21/2011 6:00

1. With the entire sheet still selected, right click anywhere on the sheet and select Format Cells
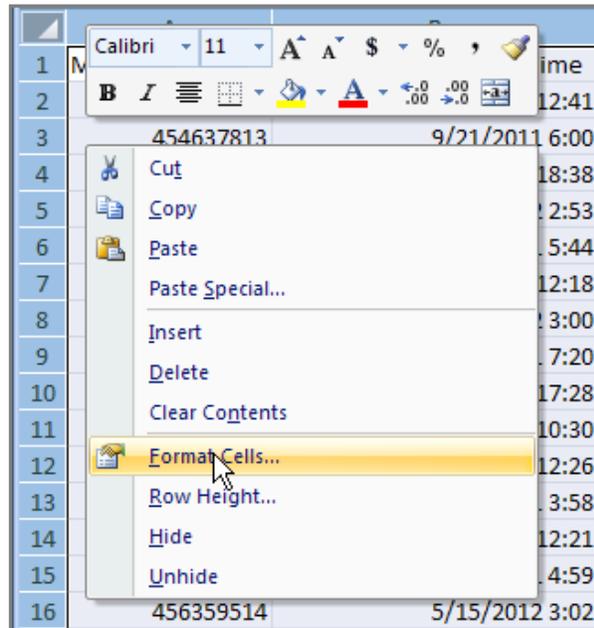
2. Click on the <Alignment> tab

3. Click on the <Wrap Text> box and then click on the <OK> button.
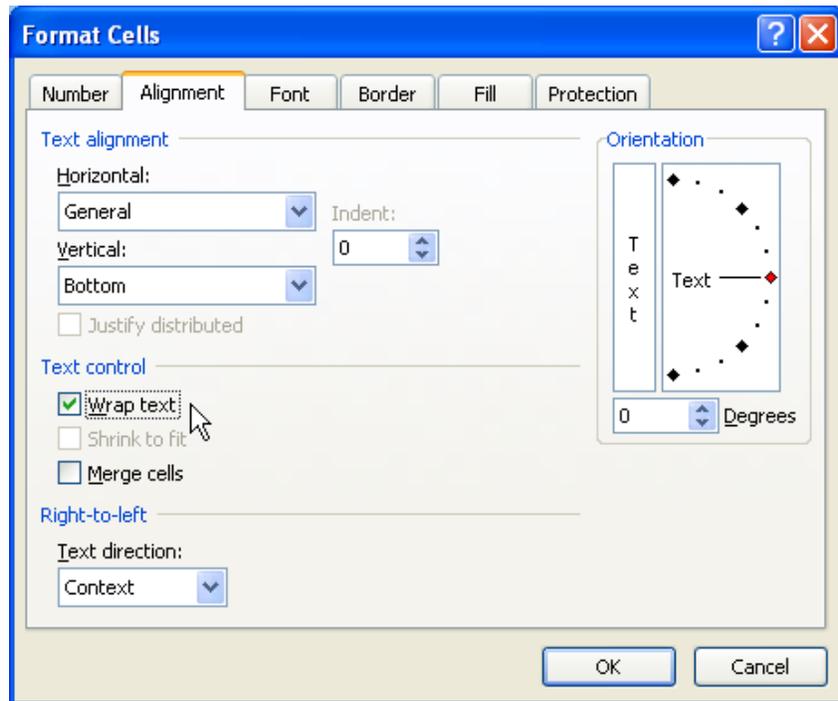
4. Unselect entire sheet by clicking on any field

5. Drag any column divider to resize the columns as desired (The divider will resize the column to the left)
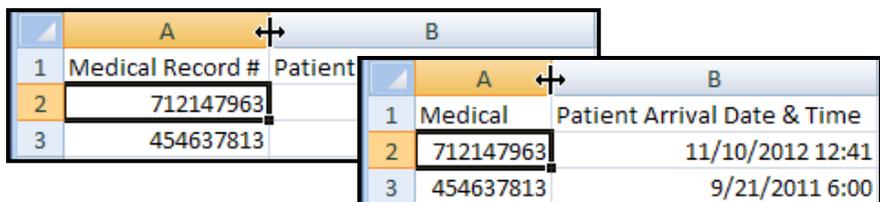
6. Double Click between rows (row divider) to resize the row above

Freeze Panes

When scrolling through the worksheet it can be beneficial to see the column headers for all of the data regardless of the cursor's location on the page. This can be accomplished by freezing the column header panes.

1. Freeze Rows/Columns by selecting the Cell below and to the right of the group of rows/columns to freeze (selecting Cell B2 as shown will freeze both Row 1 and Column A)

2. Click on the <View> tab

3. Click on <Freeze Panes> and select <Freeze Panes>

Notice that the divider lines appear and, regardless of where the cursor is located, the header column still shows.

Using AutoFilters

An AutoFilter will limit what data is shown on a spreadsheet based on a selected subset of data within a particular column. Using AutoFilters provides an easy way to find and work only those rows of the spreadsheet that contain the selected data in the Auto-Filtered column.

Turning on AutoFilters

1. Click on any cell within the spreadsheet that lies below a column header or select the row containing the column headers.

NOTE: Selecting a cell with no data will result in an error message when turning on the AutoFilters.

2. Click on the Sort & Filter select Filter

Each column header now has a small box with a down arrow in the lower right hand corner of the cell. This down arrow key will be used for filtering values within the spreadsheet.

Viewing Data Subsets

Once AutoFilters have been activated, each value within a specific column can be selected. When selected, only records containing that value in that column(s) are viewable - until AutoFilters is turned off or another selection is made.

To Identify Blunt injuries with the discharge status of Dead, the columns for those fields would need to be filtered

3. Click the down arrow for Injury Type

4. Check only Blunt. This can happen 2 ways:

5. uncheck all the values not wanted

6. uncheck (Select All) then check Blunt

7. Click OK
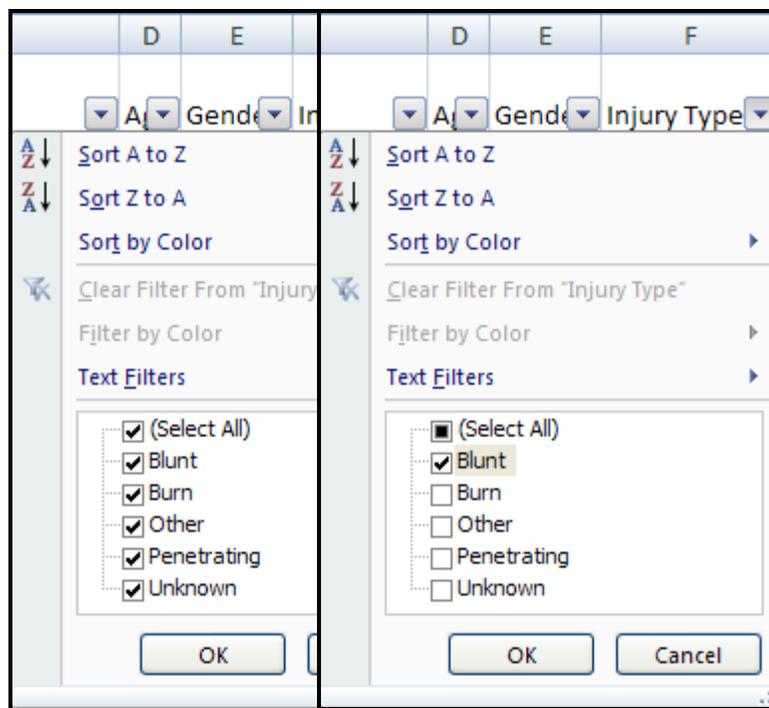
8. Click the down arrow for Discharge Status

9. Check only Dead

10. Click OK

11. Review the data. Notice that there are gaps in the row numbers. Any row containing an injury type other than Blunt and a Discharge Status other than Dead has been hidden. Also note that the filtered columns (I and J) now have a funnel showing where the down arrow key was previously.

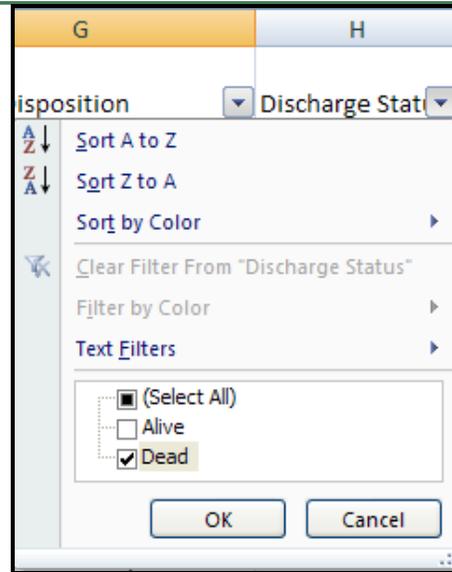|	A	B	C	D	E	F	G	H
1	Medical Record #	Patient Arrival Date & Time	Patient Name	Ag	Gender	Injury Type	Post ED Disposition	Discharge Status
9	775754296	8/7/2011 7:20	White, Edward	41	Male	Blunt	Intensive Care Unit	Dead
24	578714640	4/14/2011 21:49	Johnston, Emily	92	Female	Blunt	Intensive Care Unit	Dead
41	841278163	4/22/2011 17:37	Thornton, Bertha	89	Female	Blunt	Telemetry Unit	Dead
62	229848879	7/12/2012 16:13	York, Beverly	38	Female	Blunt	Intensive Care Unit	Dead

Using Filters to Create Additional Worksheets

The filters work great to show a group of records temporarily. But moving the results to another worksheet will create a permanently place for the group of records. In this example, a worksheet for deaths will provide a permanent place to for deaths and allow deaths to be specifically analyzed

1. Filter on Dead Only

2. Highlight the visible data only by clicking and dragging the cells wanted (Start at A1 and drag down to the last cell with data bottom right)

	A	L	M	N	O
1	Medical Record #	Total Vent Days	ISS	TRISS	Admit Service
631	798729699	0	25	-	Trauma
661	256475910	0	9	0.968	Emergency Medicine
671	852506618	1	16	-	Neurosurgery
677	720417411	1	38	0.048	Trauma
702	518558838	n/a	25	-	Trauma
705	369901678	n/a	16	0.886	Trauma
707	883856928	1	25	0.319	Trauma
711	311634463	1	38	0.048	Trauma
732	817681537	4	19	0.196	Trauma
837	467879767	4	26	0.437	Trauma
842	229134443	1	4	0.978	Trauma
848	532204339	1	26	0.666	Trauma

3. Right click anywhere in the highlighted area and Copy (The results should be many dotted groups similar to what is shown here.

	A	L	M	N	O
1	Medical Record # ▼	Total Vent Days ▼	ISS ▼	TRISS ▼	Admit Service ▼
631	798729699	0	25	-	Trauma
661	256475910	0	9	0.968	Emergency Medicine
671	852506618	1	16	-	Neurosurgery
677	720417411	1	38	0.048	Trauma
702	518558838	n/a	25	-	Trauma
705	369901678	n/a	16	0.886	Trauma
707	883856928	1	25	0.319	Trauma
711	311634463	1	38	0.048	Trauma
732	817681537	4	19	0.196	Trauma
837	467879767	4	26	0.437	Trauma
842	229134443	1	4	0.978	Trauma
848	532204339	1	26	0.666	Trauma

4. Click the Insert Worksheet tab

5. Select the newly created Sheet1 tab

6. Paste using enter (Now there is a permanent Worksheet with the only Deaths in it

Restoring All Rows / Changing Filter Parameters

Restoring or showing all values, including those that were hidden by using the auto-filter function can be done in one of two ways:
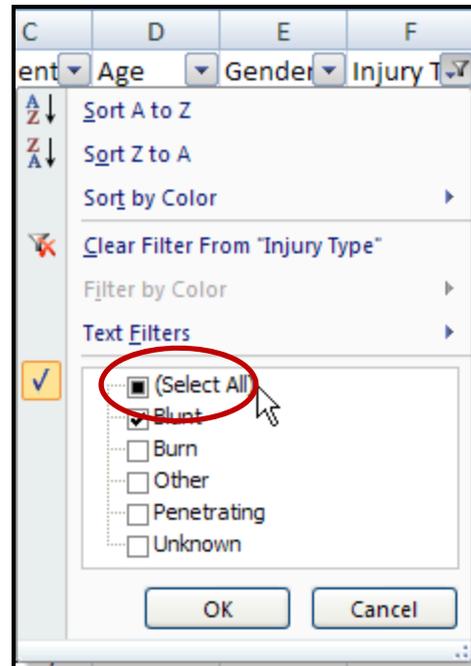
Method 1 –

1. Click on the funnel showing in the lower right-hand corner of the filtered column.
2. Select the box to the left of <Select All).
3. Click the <OK> Button and repeat this process for each filtered column
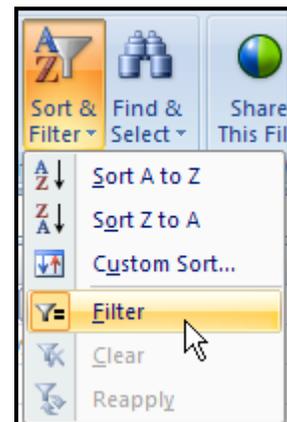
Method 2

1. Reselect Filter from the Sort & Filter button (This way will remove all the down arrows)

Renaming Sheets

There are now 2 Worksheets with non-descript default names. The names can be changed to something more descriptive.

1. Double click on the Sheet1 label

2. Type in the desired name.(Deaths)
3. Double click the SCEEN label and rename it (All Patients)

Creating Formulas

Excel has many formulas that can be used to assess and/or manipulate the spreadsheet. Average, Sum and Count are 3 that can be used for analysis of a Data Table report.

Average Age

1. Scroll down to the bottom of the spreadsheet.

2. Select the Cell to display the average in

	Medical Record #	Patient Arrival Date & Time	Patient Name	Age
856	159234764	10/24/2011 9:04	Gardner, Sarah	79
857	611791752	8/12/2011 19:28	Herring, Howard C	12
858	389973081	4/19/2012 22:45	Patrick, Yvonne N	0
859	923713778	4/9/2012 3:34	Torres, Michael	15
860				

3. Select Average Under AutoSum drop down
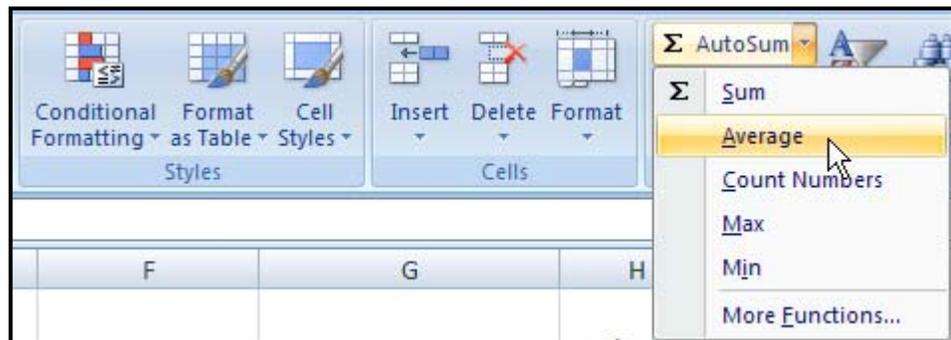
4. Check the formula cell range (The default range will assessed by Excel will stop at any gap in data, first row missing age, therefore check and possibly change the range starting at Cell 2)
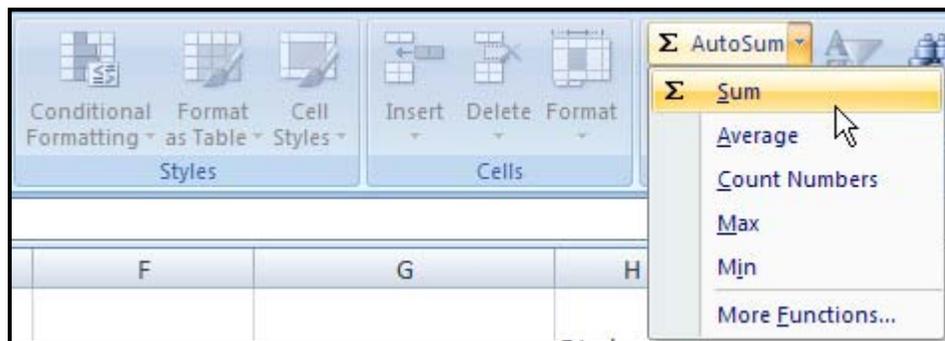
5. Enter and the calculation will appear

Sum of Hospital Days

1. Scroll down to the bottom of the spreadsheet.

2. Select the Cell where the Sum will be displayed.

H	I	J
Discharge Status ▼	Discharge To ▼	Total Hospital Days ▼
Alive	Skilled Nursing Facility	8
Alive	Correctional Facility	1
Alive	Correctional Facility	4
Alive	Correctional Facility	5

3. Select Sum Under AutoSum drop down.

4. Check the formula cell range (The default range will assessed by Excel will stop at any gap in data, first row missing age, therefore check and possibly change the range starting at Cell 2).

5. Hit Enter and the calculation will appear.

| Total Hospital Days ▼	Total Hospital Days ▼
6	6
12	12
1	1
1	1
1	1
10	10
8	8
1	1
4	4
5	5
=SUM(J2: J859)	2900

Count Number TRISS

To assess the completion of data or to assess the number of records with a specific value, Counts can be used. The default behavior of Count is to assess the number of rows with a numeric value in the specified column. This example is to assess the number of records containing a TRISS value.

1. Scroll down to the bottom of the spreadsheet.

2. Select the Cell where the Count will be displayed.

ISS	▼	TRISS	▼
9		0.968	
1		0.996	
16		0.958	
4		0.993	

3. Select Count Number from AutoSum button.
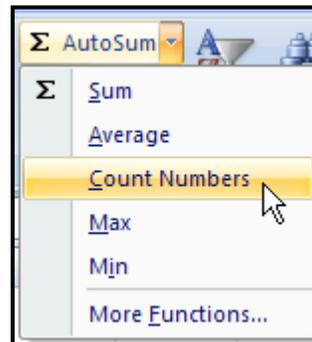
Σ AutoSum ▼

Σ	Sum
	Average
	Count Numbers
	Max
	Min
	More Functions...

4. Check the formula cell range (The default range will assessed by Excel will stop at any gap in data, first row missing age, therefore check and possibly change the range starting at Cell 2).

5. Hit Enter and the calculation will appear.

TRISS ▼
0.968
0.996
0.958
0.993
=COUNT(
N855:
N859)

TRISS ▼
0.968
0.996
0.958
0.993
=COUNT(
N2:N859)

| TRISS ▼ |
|---------|
| 0.968 |
| 0.996 |
| |
| 0.958 |
| 0.993 |
| 635 |

Count of Post ED Disposition Valued

To get a count associated with a non-numeric column the COUNT formula needs to be changed to COUNTA.

1. Scroll down to the bottom of the spreadsheet.

2. Select the Cell where the Count will be displayed.

Injury Type	▼	Post ED Disposition	▼
Blunt		Correctional Facility	
		Neonatal/Pediatric	
Blunt		Care Unit	
Penetrating		Operating Room	

3. Select Count Numbers from AutoSum button.
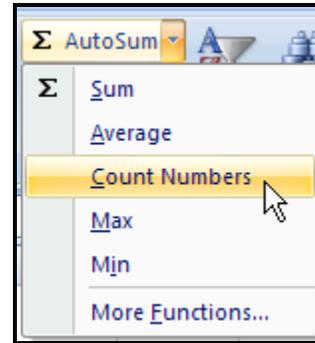
4. Check the formula cell range. The default range is shown enclosed in dotted line. If the dotted line is placed in the incorrect column, change the location by highlighting part of the correct column starting with the last cell.

5. Make sure it starts with Cell 2.

6. Change COUNT to COUNTA.
7. Hit Enter and the calculation will appear.

Average ISS for Deaths

Because the deaths were separated out on a separate tab any formula can be ran on just the deaths.

1. Select the Deaths tab.
2. Select the Cell where the Average will be displayed.
3. Select Average from the AutoSum drop-down menu.
4. Check the formula cell range.
5. The average displayed is the average ISS for Deaths.

	A	K	L	M
1	Medical Record #	Total ICU days	Total Vent Days	ISS
28	467879767	4	4	26
29	229134443	6	1	4
30	532204339	1	1	26
31				21.46