Introduction to NEMSis:
Accessing and Utilizing NEMSIS EMS Data
Information modified on October 22, 2013
Accessing and Using the NEMSIS Cube
Accessing the Cube:

**Step 1:** Go to the NEMSIS webpage (www.nemsis.org)

**Step 2:** Place the mouse over **Reporting Tools** and then move the mouse down to **Reports**

**Step 3:** Move the mouse to the right and hover over **National Reports**

**Step 4:** Move the mouse to the right again and click on **Create a Report (Cube)**
Step 5: Scroll down to the section titled Accessing the NEMSIS National Event Cube.

Accessing the NEMSIS National Event Cube:

To access to the national cube:
Use the username and password listed below:

Username: nemsispublic
Password: Nemsis@tac

Connect to:
https://www.nemsis.org/reportportal

Step 6: The username and password have been provided.

Step 7: Click on the link above to be directed to the NEMSIS Cube.
Step 8: Once you have clicked on the Report Portal link, the box below will appear. Enter the username and password.

Helpful Tip: You may copy and paste the username and password into the designated areas.

Step 9: Click OK

Step 10: First, click on Design
Step 11: Next, click on OLAP Report
Step 12: Click on *Connect to Cube*

Step 13: Click on *NEMSIS Enhanced*; it will turn *red*

Step 14: Check the box next to *Make default connection*

Step 15: Click *OK*
Becoming Familiar with the Cube:

**Measures**
Numeric facts about the data, such as Count of Events and Average EMS Run Times

**Data Elements**
Ways to describe a measure; Patient gender, type of EMS service requested, or date of EMS run are examples
Available Measures/Elements:

- NEMSIS Enhanced
  - Measures
    - Event Measures
      - Events
        - Count of Events
      - Average EMS Times
        - Avg Dispatch Time in Seconds
        - Avg Total Call Time in Minutes
        - Avg Chute Time in Minutes
        - Avg Scene Response Time in Minutes
        - Avg Scene Time In Minutes
        - Avg Scene To Patient Time In Minutes
        - Avg System Response Time In Minutes
        - Avg Transport Time In Minutes
    - Medication Measures
      - Count of Medications Given
    - Procedure Measures
      - Count of Procedures Performed
    - Alcohol Drug Indicators
      - Alcohol Drug Indicators
    - Barriers To Patient Care
      - Barriers To Patient Care
    - Cardiac Arrest Elements
      - Cardiac Arrest
      - Cardiac Arrest Etiology
    - Condition Codes
      - Condition Codes
    - Dispatch Delay
      - Dispatch Delay
  - EMS Call Date
    - Year - Quarter - Month - Day
    - Year - Week - Day
    - Day Of Year
    - Day Of Quarter
    - Day Of Month
    - Day Of Week
    - Week Of Year
    - Month Of Year
    - Month Of Quarter
    - Quarter Of Year
    - Holiday
  - EMS Scene Information
    - Incident Location Type
    - Mass Casualty Incident
    - Number of Patients
    - Scene Time Greater Than 20 minutes
  - EMS Unit Agency Info
    - Level Of Service
    - Organizational Type
    - Organizational Status
    - Type Of Service Requested
    - EMS Unit Role
    - Response Mode To Scene
  - EMS Unit Dispatch Info
    - Complaint Reported By Dispatch
    - EMD Performed
  - Geographic Information
    - Census Region
    - Census Division
    - NASEMSO Region
    - Urbanicity Region
  - Medications Given
    - Medication Name
  - Other Symptoms
    - Other Symptoms
  - Outcome and Linkage
    - ED Patient Disposition
    - Hospital Patient Disposition
  - Patient Billing Information
    - CMS Service Level
    - Payment Method
  - Patient Demographics
    - Patient Age
    - Patient Gender
    - Patient Race
    - Patient Ethnicity
Available Measures/Elements:

- Patient Disposition
  - Transport Mode From Scene
  - Reason For Choosing Destination
  - Type of Destination
  - Incident Patient Disposition

- Patient Situation
  - Prior Aid Outcome
  - Chief Complaint Anatomic Location
  - Chief Complaint Organ
  - Primary Symptom
  - EMS Primary Impression
  - EMS Secondary Impression

- Prior Aid Performed By
  - Prior Aid Performed By

- Procedures
  - Procedures
  - Procedures Code

- Response Delay
  - Response Delay

- Resuscitation
  - Resuscitation

- Scene Delay
  - Scene Delay

- State Specific Information
  - Patient Home Zip Codes
  - Agency Home Zip Codes
  - Incident Zip Codes
  - Patient Destination Zip Codes
  - Submitting State
  - Agency Number
  - Agency Home State

- Transport Delay
  - Transport Delay

- Trauma Elements
  - Cause Of Injury
  - Possible Injury

- Turn Around Delay
  - Turn Around Delay
**Filter Area**: In this area, queries can be refined by filtering certain values of an element.

**Column Area**: Measures are automatically placed here when they are selected. Elements can be added to the Column Area by dragging and dropping the element into the Column Area or by simply right clicking on the element and selecting Add to Columns.

**Row Area**: Elements are automatically placed here when they are selected. Measures cannot be placed in this area.

**Results Area**: The results of a query will be displayed here.

**Delete Area**: Measures and elements can be removed from the Results Area by dragging and dropping them outside of the box.
Filtering a Single Value in the Cube:

Step 1: Click on a measure (i.e. Count of Events)

Step 2: Click on an element that will be filtered (i.e. Day of Week)

Step 3: Drag the element from the Row Area to the Filter Area

Helpful Tip: To filter an element, right click on the desired element and select Add to Filter instead and dragging and dropping the element into the Filter Area.
Filtering on a Single Value in the Cube (cont.):

Step 4: Click on the blue filter arrow

Step 5: Click on the plus sign next to All

Step 6: Select the value on which you want to filter
Filtering on Multiple Values in the Cube:

Steps 1-3: Identical to filtering on a single value (View previous pages)

Step 4: Click on the **Multi Select Filter icon** (A single check mark will be replaced with two check marks)

Step 5: Click on the blue filter arrow

Step 6: Click on the plus sign next to **All**

Step 7: Select the values on which you want to filter

Step 8: Click **OK**
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New report</td>
<td>Resets the application to the initial state so that a new query can be created.</td>
</tr>
<tr>
<td>Open report</td>
<td>Opens a saved report.</td>
</tr>
<tr>
<td>Save report</td>
<td>Saves a new or an existing report.</td>
</tr>
<tr>
<td>Connection</td>
<td>Sets a new connection to an analysis services cube.</td>
</tr>
<tr>
<td>Field List and Drop Area</td>
<td>Shows the list of dimensions, levels and measures for the cube selected in the connection panel. Also shows the drop area that has rows, columns, measures and filters sections. When building a query, the dimensions, levels and measures from the &quot;Field List&quot; need to be dragged into the panel.</td>
</tr>
<tr>
<td>Charts</td>
<td>Show a number of charts for the report. The chart will be interactive if the drill down or expand mode is selected.</td>
</tr>
<tr>
<td>MDX</td>
<td>Shows the underlying MDX statement for the selected query. One can &quot;build&quot;, manually modify and then &quot;execute&quot; a statement. The MDX statement will not be saved if a query filter is selected.</td>
</tr>
<tr>
<td>Pivot</td>
<td>Move dimensions on rows to columns and those on columns to rows.</td>
</tr>
<tr>
<td>Drill Down/Expand/Expand All</td>
<td>Selects a navigational mode. Expand mode is enabled by default.</td>
</tr>
<tr>
<td>Show Only Top</td>
<td>Show Top number, Top percent, Sum of cells limit, Bottom number, Bottom Percent, Sum of cells limit.</td>
</tr>
<tr>
<td>Add Percent of Total to Measures</td>
<td>Add Percent of Total, Percent of Filtered Result, Percent of Dimension, Percent of Parent</td>
</tr>
<tr>
<td>Sparkline</td>
<td>Line chart that depicts the general trend of data without axes or coordinates.</td>
</tr>
<tr>
<td>Add Calculated Field</td>
<td>Add a calculated field to measures.</td>
</tr>
<tr>
<td>Add Named Sets</td>
<td>Add, change or delete named set from a report.</td>
</tr>
<tr>
<td>Conditional formatting</td>
<td>Apply conditional formatting to cells that fall within a given value range</td>
</tr>
<tr>
<td>Break results into pages</td>
<td>If a query returns too many rows, the query can be broken down into pages.</td>
</tr>
<tr>
<td>Options</td>
<td>Sets report options such as show/hide empty items, rows and columns summary</td>
</tr>
<tr>
<td>Zoom</td>
<td>Allows scaling of the result table before it is printed</td>
</tr>
<tr>
<td>Export</td>
<td>Export the result table to Excel, PDF or HTML</td>
</tr>
<tr>
<td>Print Data</td>
<td>Prints the result table and charts</td>
</tr>
<tr>
<td>Email Report</td>
<td>Email application to an application user or to a specified email</td>
</tr>
<tr>
<td>Snapshot</td>
<td>Create a report snapshot for a report. A report can have multiple report snapshots.</td>
</tr>
</tbody>
</table>
Guided Queries
**QUERY 1**

**Scenario:** A training program is being developed in your state for the Emergency Medical Dispatchers. To help guide the training program curriculum, the person planning the program wants to know the leading causes of dispatch complaints.

**Research Question:** What are the most common complaints reported by dispatch for all patients?

**Query Description:** View frequency counts of the causes of complaint reported by dispatch for all patients. Sort the frequency counts in ascending order to easily identify the most common cause.

**Query Steps:**

1. Expand **Measures** > Expand **Event Measures** > Expand **Events** > Check **Count of Events**
2. Expand **EMS Unit Dispatch Info** > Right click on **Complaint Reported by Dispatch** and select **Add to Rows**
3. Expand **Complaint Reported by Dispatch** in the Results Area
4. Sort the Count of Events in descending order by clicking on **Count of Events** in the Results Area

**Final Result:**

![EMS Data Cube](image)
Supplementary Queries:

1. What is the most common cause of complaint reported by dispatch for all ages? ____________

2. How many psychiatric problems were reported by dispatch for all ages? ____________

3. How many assaults were reported by dispatch for all ages? ____________

4. For something different: Choose a query that involves one element and generates a table of counts.
   a. What did you choose?
   b. Why?
   c. What did you find?

Supplemental Questions:

1. What other additional information would you want to know about complaint reported by dispatch for all ages that is not available from a frequency table?
**QUERY 2**

**Scenario:** Halloween is approaching. The local news station wants to create the following story:

*What do parents need to know to protect their children when trick or treating?*

The investigative reporter has contacted your EMS Director, asking “On Halloween, how are kids getting hurt?” Your EMS Director has sent you an email asking you to provide this information.

**Research Question:** Holidays can be dangerous for children. However the risk factors are different, depending on the age of the child and the holiday. What were the most common causes of injury (top 3) for pediatric patients (age 0-19 years) on Halloween, 2012?

**Query Description:** View counts of Cause of Injury in descending order on a holiday (Halloween) for pediatric patients.

**Query Steps:**
1. Expand Measures > Expand Event Measures > Expand Events > Check Count of Events
2. Expand Trauma Elements > Right click on Cause of Injury and select Add to Rows > Expand All
3. In the Results Area, sort the Count of Events column from greatest to least by clicking on Count of Events in the Results Area
4. Expand EMS Call Date > Right click on Holiday and select Add to Filters
5. Click on blue down arrow in the Filter area > Expand All > Select Halloween
6. Expand EMS Call Date > Right click on Year-Quarter-Month-Day and select Add to Filters
7. Click on blue down arrow in the Filter Area > Expand All > Select Calendar 2012
8. Expand Patient Demographics > Right click on Patient Age and select Add to Filters
9. Click on the single check mark in the Patient Age filter box to get double check marks > Click on the blue down arrow in the Filter Area
10. Expand All > Check <1 year, 01-09, and 10-19 > Select OK
Final Result:

Supplementary Queries:

1. List the top 3 injuries for patients 0-19 years old for Halloween, 2012. *(Do not include: Not Applicable, Not Recorded, Not Available, Not Known, or Not Reporting)*
2. List the top 3 injuries for each of the following age groups for Halloween, 2012. (Do not include: Not Applicable, Not Recorded, Not Available, Not Known, or Not Reporting)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>01-09</th>
<th>10-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td></td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td></td>
<td>______</td>
<td>______</td>
</tr>
</tbody>
</table>

How do the age groups differ in type of injuries?

3. List the top 3 injuries for patients 0-19 years old for 4th of July, 2012. (Do not include: Not Applicable, Not Recorded, Not Available, Not Known, or Not Reporting)

| ______ |
| ______ |
| ______ |

How do the 4th of July injuries differ from the Halloween injuries for pediatric patients?
**QUERY 3**

**Scenario:** Pediatric calls strike a chord with EMS professionals. They drive a little faster to pediatric calls – at least that is the perception. You have been tasked with clearing up this EMS myth.

**Research Question:** Do EMS providers respond faster to pediatric calls (age 0-18 years)? Or do all ages have a similar response time?

**Query Description:** View counts of Cause of Injury, Patient Age, and Avg EMS Scene Response Time in Minutes as a crosstab.

**Query Steps:**

1. Expand **Measures** > Expand **Event Measures** > Expand **Average EMS Times** > Check **Avg Scene Response Time in Minutes**
2. Expand **Patient Demographics** > Right click on **Patient Age** and select **Add to Filters**
3. Click on the single check mark in Patient Age to get double check marks > Click on the blue down arrow in the Patient Age filter box
4. Expand **All** > Check **<1 year, 01-09, 10, 11, 12, 13, 14, 15, 16, 17, and 18** > Select **OK**
5. Under Patient Demographics, right click on **Patient Age** and select **Add to Columns**
6. Expand **Trauma Elements** > Right click on **Cause Of Injury** and select **Add to Filters**
7. Under Trauma Elements, expand **Cause of Injury** > Click in the box next to the second listing of **Cause Of Injury** to add it to the Row Area
8. In the Filter Area, click on the single check mark in Cause of Injury to get double check marks > Click on blue down arrow in the Cause of Injury filter box
9. Expand **All** > Select all options, excluding the Not Values (i.e., Not Applicable, Not Available Not Known, Not Recorded, and Not Reporting) > Select **OK**
### Final Result:

<table>
<thead>
<tr>
<th>Patient Age</th>
<th>01-09</th>
<th>10-18</th>
<th>19-29</th>
<th>30-39</th>
<th>40-49</th>
<th>50-59</th>
<th>60-69</th>
<th>70+</th>
<th>Non-EMS Related (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Cause Of Injury</td>
<td>Avg Scene Response Time in Minutes</td>
<td>Avg Scene Response Time in Minutes</td>
<td>Avg Scene Response Time in Minutes</td>
<td>Avg Scene Response Time in Minutes</td>
<td>Avg Scene Response Time in Minutes</td>
<td>Avg Scene Response Time in Minutes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aircraft impact accident (1694)</td>
<td>7.48</td>
<td>7.36</td>
<td>13.90</td>
<td>6.78</td>
<td>9.99</td>
<td>9.19</td>
<td>15.90</td>
<td>10.05</td>
<td>8.50</td>
</tr>
<tr>
<td>Fall (1266)</td>
<td>7.27</td>
<td>7.36</td>
<td>7.84</td>
<td>7.49</td>
<td>7.36</td>
<td>7.49</td>
<td>7.49</td>
<td>7.49</td>
<td>7.49</td>
</tr>
<tr>
<td>Chemical poisoning (S646)</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
</tr>
<tr>
<td>Fall (1161)</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
</tr>
<tr>
<td>Poisoning, other (1)</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
</tr>
<tr>
<td>Drug poisoning (S644)</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
</tr>
<tr>
<td>Poisoning, other (1)</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
</tr>
<tr>
<td>Poisoning, other (1)</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
</tr>
<tr>
<td>Poisoning, other (1)</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
</tr>
<tr>
<td>Poisoning, other (1)</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
</tr>
<tr>
<td>Poisoning, other (1)</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
<td>7.27</td>
</tr>
</tbody>
</table>

### Supplementary Queries:

1. What is the **Avg EMS Scene Response Time in Minutes** for a 16 y/o fall patient? _____

2. What is the **Avg EMS Scene Response Time in Minutes** for a 10 y/o stabbing/cutting assault patient? _____

3. Expand the 01-09 year olds.

   What is the **Avg EMS Scene Response Time in Minutes** for a 2 y/o fall patient? _____

4. Is the **Avg EMS Scene Response Time in Minutes** for a 2 y/o fall patient faster than for an 18 y/o? _______ (Yes or No)

5. Open the **Patient Age** filter and deselect the 10 through 18 year olds. Select all of the remaining age groups (10-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70-79, 80-89 and 90-99). **Do not select** Blank, >=100, Not Rec, or Not Recorded. What is the **Avg EMS Scene Response Time in Minutes** for falls for the 01-09 age group? _____

6. Does EMS respond quicker on pediatric calls? ________________ (Yes or No)
QUERY 4

**Scenario:** Recently there have been many questions in the media surrounding firearm assaults involving children and teens. Your supervisor has asked you to check what data is available in the national EMS dataset regarding this issue.

**Research Question:** What is the total number of firearm assault related calls for pediatric patients (ages 0-18 years)? What percent of these patients are transported by EMS?

**Query Description:** View counts and percentages of Incident Patient Disposition for Firearm assault related EMS calls for pediatric patients (ages 0-18 years of age).

**Query Steps (4 parts):**

**Part 1**

1. Expand **Measures** > Expand **Event Measures** > Expand **Events** > Check **Count of Events**

2. Expand **Patient Disposition** > Right click on **Incident Patient Disposition** and select **Add to Rows**

3. Expand **All** in the Results Area > Sort **Incident Patient Disposition** alphabetically if it has not already been done so

4. Expand **Trauma Elements** > Right click on **Cause of Injury** and select **Add to Filters**

5. Click on the blue down arrow in the Cause of Injury filter > Expand **All** > Click on **Firearm assault**

6. Expand **Patient Demographics** > Right click on **Patient Age** and select **Add to Filters**

7. Click on the single check mark in the Patient Age filter to get double check marks > Click on the blue down arrow in Patient Age

8. Expand **All** > Check <1 year, 01-09, 10, 11, 12, 13, 14, 15, 16, 17, and 18 > Select **OK**

9. Add a column for percents by clicking on the **Percent icon** on the toolbar:

10. Once you have clicked on the Percent icon, the Percent Dialog Box will be displayed. Do not alter the default selections and click **OK**.
Your Results Area should look similar to the example below:

![Example Results Area]

**Part 2**

Your supervisor now wants to know what the data looks like when viewed by gender.

11. Under Patient Demographics, right click on **Patient Gender** and select **Add to Filters**

12. Click on the single check mark in the Patient Gender filter box to get double check marks
   > Click on the blue down arrow in Patient Gender

13. Expand **All** > Check **Female** and **Male** > Select **OK**

14. Under Patient Demographics, right click on **Patient Gender** and select **Add to Columns**

15. Expand **All** in Results Area for Incident Patient Disposition (if needed).
Final Result:

<table>
<thead>
<tr>
<th>Cause Of Injury</th>
<th>Female</th>
<th></th>
<th>Male</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Firearm assault (E965.6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incident Patient Disposition</td>
<td>Count of Events</td>
<td>Count of Events %</td>
<td>Count of Events</td>
<td>Count of Events %</td>
</tr>
<tr>
<td>All</td>
<td>587</td>
<td>100.00%</td>
<td>2,856</td>
<td>100.00%</td>
</tr>
<tr>
<td>Cancelled</td>
<td>8</td>
<td>0.29%</td>
<td>8</td>
<td>0.29%</td>
</tr>
<tr>
<td>Dead at Scene</td>
<td>23</td>
<td>4.22%</td>
<td>40</td>
<td>4.22%</td>
</tr>
<tr>
<td>No Treatment Required</td>
<td>27</td>
<td>5.20%</td>
<td>146</td>
<td>5.20%</td>
</tr>
<tr>
<td>Patient Refused Care</td>
<td>41</td>
<td>6.00%</td>
<td>2,210</td>
<td>70.79%</td>
</tr>
<tr>
<td>Treated and Released</td>
<td>27</td>
<td>4.00%</td>
<td>78</td>
<td>2.78%</td>
</tr>
<tr>
<td>Treated, Transferred Care</td>
<td>37</td>
<td>6.30%</td>
<td>257</td>
<td>7.38%</td>
</tr>
<tr>
<td>Treated, Transferred by Law Enforcement</td>
<td>41</td>
<td>71.04%</td>
<td>2,210</td>
<td>70.79%</td>
</tr>
<tr>
<td>Treated, Transferred by Private Vehicle</td>
<td>2</td>
<td>0.34%</td>
<td>11</td>
<td>0.39%</td>
</tr>
</tbody>
</table>

Part 2 - Supplementary Queries (based on the total percent by gender NOT by incident patient disposition – column percentage):

a) When responding to a male victim of a firearm assault, what will most likely be the Incident Patient Disposition? _____________________________  Is this the same for females? _______ (Yes or No)

b) When responding to a female victim of a firearm assault, is the patient more or less likely to have No Treatment Required compared to a male victim? More Likely or Less Likely?

c) Of all females involved in firearm assaults, is a higher or lower percentage of female victims found Dead at the Scene than males? __________ (Higher or Lower)

d) According to Count of Events, how many male pediatric patients were Treated, Transported by EMS? _________ How many female patients? ___________

Part 3

Since you know that more male pediatric patients are Treated, Transported by EMS, your supervisor would like you to create a pie chart showing the possible Incident Patient Disposition for male pediatric patients.

15. Click on the blue down arrow on the Patient Gender filter, uncheck Female. Click on OK.
16. Now click on the **Chart icon** located on the cube toolbar.

17. The chart dialog box will be shown. Select **Pie Chart 2D** and then click **OK**.

**Note:** For additional instructions on creating charts, go to the section entitled, “Using the Toolbar Chart Icon to Display the Data Visually,” in the Additional Reference Material section of this booklet.

**Final Result:**

![Pie Chart](image)

**Part 4**

Your supervisor wants to know, of the total percentage of pediatric victims who are found dead at the scene, is the victim more or less likely to be male?
18. Remove the chart by clicking on the Chart icon and selecting No Chart.

19. Click on the blue down arrow in the Patient Gender filter box > Click the box next to Female to add females back into the table.

20. Remove Count of Events % from the Column Area by dragging it to the Delete Area.

21. Click on the Percentage icon on the toolbar. This time choose Patient Gender as the dimension > Click OK

Final Result:

![Image of table]

Part 4- Supplementary Queries (based on the total percent of each incident patient disposition NOT by patient gender – row percentage):

a) What percentage of the pediatric patients found Dead at Scene are male? __________
What percentage are female? ____________

b) How does looking at the data as row percentages change your perceptions of the results versus looking at the data as column percentages? Why is this important?

b) Why does the row percentage for Treated, Transported by EMS not add up to 100%?
QUERY 5

**Scenario:** A recent front page newspaper article indicated that patient transports to the hospital seem to take a long time, especially when it involves volunteer agencies. This has been a concern for some time according to city and county officials, and they want to make changes. To help in making some informed decisions, your boss has asked you to find any national information you can about transport times to see how agencies in your area might compare.

**Research Question:** What is the average national EMS transport time for volunteer agencies on 911 calls in 2011? How does the time vary by age group?

**Query Description:** View the average EMS Transport Time in Minutes for 911 Response during the year 2011. Look at this information by Organization Status and Age Group.

**Query Steps:**

1. Expand **Measures** > Expand **Event Measures** > Expand **Average EMS Times** > Check **Avg Transport Time in Minutes** to add it to the Column Area
2. Expand **EMS Call Date** > Right click on **Year-Quarter-Month-Day** and select **Add to Filters**
3. Click on blue down arrow in Year-Quarter-Month-Day > Expand All > Click on **2011**
4. Expand **EMS Unit Agency Info** > Right click on **Type of Service Requested** and select **Add to Filters**
5. Click on blue down arrow in Type of Service Requested > Expand All > Click on **911 Response (Scene)**
6. Under EMS Unit Agency Info, right click on **Organization Status** and select **Add to Columns** > Expand the All in the Results area
7. Expand **Patient Demographics** > Right click on **Patient Age** and select **Add to Rows** > Expand All
8. In the Results Area, sort on **Avg EMS Transport Time In Minutes for Volunteers**
Final Result:

<table>
<thead>
<tr>
<th>Patient Age</th>
<th>All</th>
<th>Mixed</th>
<th>Non-Volunteer</th>
<th>Volunteer</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 y</td>
<td>15.00</td>
<td>16.34</td>
<td>15.52</td>
<td>20.42</td>
</tr>
<tr>
<td>1 to 4 y</td>
<td>20.70</td>
<td>21.23</td>
<td>20.59</td>
<td>22.48</td>
</tr>
<tr>
<td>5 to 19 y</td>
<td>18.18</td>
<td>18.79</td>
<td>17.85</td>
<td>21.15</td>
</tr>
<tr>
<td>20 to 49 y</td>
<td>16.67</td>
<td>17.36</td>
<td>16.28</td>
<td>19.63</td>
</tr>
<tr>
<td>50 to 69 y</td>
<td>14.98</td>
<td>15.37</td>
<td>14.55</td>
<td>13.32</td>
</tr>
<tr>
<td>70 to 79 y</td>
<td>15.31</td>
<td>15.85</td>
<td>14.97</td>
<td>19.96</td>
</tr>
<tr>
<td>80 to 89 y</td>
<td>15.46</td>
<td>16.07</td>
<td>15.11</td>
<td>19.77</td>
</tr>
<tr>
<td>90 to 99 y</td>
<td>15.87</td>
<td>16.55</td>
<td>15.48</td>
<td>20.69</td>
</tr>
<tr>
<td>≤ 100 y</td>
<td>16.03</td>
<td>17.34</td>
<td>16.46</td>
<td>21.81</td>
</tr>
<tr>
<td>Not Recorded</td>
<td>16.71</td>
<td>17.20</td>
<td>16.31</td>
<td>21.60</td>
</tr>
</tbody>
</table>

Supplementary Queries:

1. De-select **Avg EMS Transport Time in Minutes**. Select **Avg EMS Scene Time in Minutes**. Which age group (on average) has the longest scene time for all years for 911 Response?
   ________

   Now look by **Organization Status**.
   Which organizational type has the highest overall average scene time, and by how much? ________________ by ___________ minutes

2. Delete **Patient Age**. Expand **Trauma Elements**. Check on **Cause of Injury** and expand the All box to see the various injury types. For what type of injury is the scene time substantially higher for Non Volunteer services than Volunteer services?
   ______________________

3. Delete **Organization Status**. Check **Quality Assurance**. Move **U.S Census Region** to the Measure area. Which census region has the longest average scene time? ______
   The shortest? ______________

4. Re-expand **Cause of Injury**. What type of injury involves the longest average scene time for all regions? ______________
   The shortest? ____________
5. Now look at the patients who were actually transported by EMS. Expand **Patient Disposition**. Move **Incident Patient Disposition** to the Filter Area. Filter on **Treated, Transported by EMS**. How do the numbers change? ________________

Why do you suppose this is?
Additional Reference Material
INTERPRETING THE DATA
Interpreting Cube Results

- General Suggestions
- Counts
- Percents
- Average Times
- Not Values
General Suggestions

• Become familiar with the elements and use the data dictionary

• Know and understand the steps you used to reach your result

• You do not need to report every detail of what you did to reach your result, but the way you state your result should be accurate
Counts

• Instead of simply stating the count, provide a reference point

Example:

No reference point: “Wow, 929 people were struck by lightning!”

Reference point: “Out of 20.4 million events in the Cube, lightning was recorded as the cause of injury for 929 events.”
Counts

- Consider stating results without the use of specific counts

Example:

“Over half of the events in the NEMSIS National Event Data Cube are from the South U.S. Census Region.”

“The most frequent method of payment for the events in the Cube was Medicare.”
Counts

• Be aware that if a count is zero, there could possibly be a blank cell in the table. More often, an entire row or column will be completely omitted from the table.

![Table Image]

Date of Screenshot: 3/9/12
Counts

• The counts in the NEMSIS National Event Data Cube are **not** estimates of national counts

**Example:**

**Question:** Nationwide, how many total EMS events were there in 2010?

**Answer:** The Data Cube cannot display this information.
Percents

• Percent = (Numerator/Denominator) X 100
• For percents in the Data Cube, the numerator is the Count of Events
• There are options in the Cube that can affect which number is used as the denominator. If the denominator is altered, the percent will be changed as well.
Percents

• When reporting percents, it should be clear what the denominator is

Example:

“Traumatic Injury is recorded as the EMS Primary Impression for 10.2% of the events in the NEMSIS National Event Data Cube.”
Percents

• Be careful when using more than one element

Example:

10 children total

– 4 boys, 6 girls
– 2 with blue eyes, 8 with brown eyes
– 67% percent of the girls are brown-eyed
– 50% percent of the brown-eyed children are girls
– 40% of the children are brown-eyed girls
Percents

Question: “Some people refuse care when EMS shows up. Does this happen more with men or women?”

What percent of females refuse care?
What percent of males refuse care?
Which gender refuses care more often?

Of those people who refuse care, what percent are female? What percent are male? Which gender accounts for more of the people who refuse care?

Date of Screenshots: 3/9/12
Percents

- The percents in the Cube can be used as estimates of national percents

- Some percents are better national estimates than others

- As the number of states submitting data increases, the national estimates will become more accurate
Percents

• Percents that are strongly affected by the fact that the NEMSIS data comes from a limited number of specific states/territories may **not** be good national estimates
Example: U.S. Census Region

• Is this a good estimate? “57% of all EMS events occur in the South U.S. Census Region”

• Probably **NOT** a good national estimate. The percent is high because there are currently so many states and agencies from the South that submit to NEMSIS. These percents will change dramatically as increasingly more states submit to NEMSIS.

<table>
<thead>
<tr>
<th>Quality Assurance.US Census Region</th>
<th>Count of Events %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Island Areas</td>
<td>0.07%</td>
</tr>
<tr>
<td>Midwest</td>
<td>16.46%</td>
</tr>
<tr>
<td>Northeast</td>
<td>16.39%</td>
</tr>
<tr>
<td>South</td>
<td>57.06%</td>
</tr>
<tr>
<td>West</td>
<td>10.02%</td>
</tr>
</tbody>
</table>
Example: Patient Disposition

• Is this a good estimate? “72% of all EMS patients are treated and transported by EMS”

• Probably a good national estimate. We would not expect this percent to be systematically different between states that are submitting to NEMSIS and states that are not.
Average Times

- Average times **can** be used as estimates for national average times

**Example:**

“The average EMS total call time for rural agencies in 2010 was 87.1 minutes.”

<table>
<thead>
<tr>
<th>Urbanicity Region</th>
<th>2010 Avg EMS Total Call Time In Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>62.7</td>
</tr>
<tr>
<td>Suburban</td>
<td>65.9</td>
</tr>
<tr>
<td>Rural</td>
<td>87.1</td>
</tr>
<tr>
<td>Wilderness</td>
<td>99.4</td>
</tr>
</tbody>
</table>
Not Values

• In the Cube, counts, percents, and average times are the same with or without Not Values included.

Date of Screenshots: 3/9/12
Not Values

• “Of all of the events in the NEMSIS National Events Data Cube, 48% are for female patients and 41% are for male patients.”

• “Of just the events in the Cube for which patient gender is provided, 54% are for female patients and 46% are for male patients.”

• Because the Cube does not adjust totals and percents when Not Values are excluded, the values would have to be found manually.

<table>
<thead>
<tr>
<th>Gender</th>
<th>With Not Values</th>
<th>Without Not Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>%</td>
</tr>
<tr>
<td>Female</td>
<td>9,809,854</td>
<td>48%</td>
</tr>
<tr>
<td>Male</td>
<td>8,316,954</td>
<td>41%</td>
</tr>
<tr>
<td>Total</td>
<td>20,424,716</td>
<td>100%</td>
</tr>
</tbody>
</table>
Helpful Tip

• You can begin a report or presentation with overall statements about the dataset and the population of interest, then use simple statements to describe your findings.
Helpful Tip

**Example:** “We identified diabetic patients as those events where *Diabetic symptoms* was recorded as the EMS Primary Impression in the NEMSIS National Events Data Cube. There were 288,406 such events.”

– “58% of diabetic patients were treated and transported by EMS.”

– “50% of diabetic patients were male.”

– “The average scene time for these events was 15.4 minutes.”
Summary

- Know and understand the elements and measures that you use
- Counts should have some reference points – avoid reporting a count by itself
- Percents should have a clear denominator
- In the Cube, counts, percents, and average times are the same with or without Not Values included
Using Percents in the Cube

**Purpose:** The Percent tool located on the NEMSIS Data Cube toolbar can be used to display counts as percents.

**Example Steps:**

1. Expand **Measures** > Expand **Event Measures** > Expand **Events** > Check **Count of Events**

2. Expand **Geographic Information** > Check **Census Region**

3. In the Cube, expand **Census Region** to view counts for all regions

Below is the information that will be displayed in the Results Area:

<table>
<thead>
<tr>
<th>Census Region</th>
<th>Count of Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>42,320,040</td>
</tr>
<tr>
<td>Island Areas</td>
<td>22,203</td>
</tr>
<tr>
<td>Midwest</td>
<td>6,332,325</td>
</tr>
<tr>
<td>Northeast</td>
<td>9,197,697</td>
</tr>
<tr>
<td>South</td>
<td>23,199,182</td>
</tr>
<tr>
<td>West</td>
<td>3,668,633</td>
</tr>
</tbody>
</table>

To express the counts as percents, continue on to Step 4.

4. Click the **Percent icon** on the toolbar
5. The Percent Dialog Box will appear. There are several options within the dialog box for the name, measures, and dimensions to be altered. Oftentimes, the settings do not need to be adjusted.
   a. **Name**: In this space, type in the name of the percent column as you would like it to appear in the results table. **Tip**: Change this name only after you select other options within this dialog box or it will return to the default name, Count of Events %.
   b. **Type**: There are four options for Type in the drop down menu. **It is recommended to use Percent of Parent**. The other options either give the same result or do not apply for most queries. However, you are welcome to experiment.
   c. **Measure**: It is recommended that you keep the default Measure, Count of Events. The other measures can be used but have a different interpretation.
   d. **Dimension**: Select an element from the Cube. The element chosen for Dimension should be one of the elements that are being used in the current query. If the query only has one element, the Percent Dialog Box will automatically pick that one. In our example, the Percent Dialog Box correctly picked US Census Region because it is the only element we are currently using. If you are using more than one element, the Percent Dialog Box will choose one of the elements you are using as the Dimension, but not necessarily the one you want. You may need to choose the Dimension manually.

   In our example, the default options in the Percent Dialog Box are exactly what we need. **Click OK**.

6. In our example, each Census Region now has a Count and a corresponding Percent. The count of all events (38,489,992) is being used as the denominator for each percent. It appears that the percents add up to 100% as expected.
7. Expand **EMS Call Date** > Right click on **Year-Quarter-Month-Day** and select **Add to Columns**

8. In the Cube, expand **Census Region** to view each region and expand **Year-Quarter-Month-Day** just once to view each year

<table>
<thead>
<tr>
<th>Census Region</th>
<th>All Count of Events</th>
<th>Calendar 2011 Count of Events</th>
<th>Calendar 2012 Count of Events</th>
<th>Calendar 2013 Count of Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>42,320,040</td>
<td>14,687,331</td>
<td>19,862,555</td>
<td>7,789,154</td>
</tr>
<tr>
<td>Island Areas</td>
<td>22,203</td>
<td>8,850</td>
<td>9,785</td>
<td>3,568</td>
</tr>
<tr>
<td>Midwest</td>
<td>6,332,326</td>
<td>2,492,263</td>
<td>3,484,161</td>
<td>858,911</td>
</tr>
<tr>
<td>Northeast</td>
<td>9,497,947</td>
<td>2,712,692</td>
<td>4,646,500</td>
<td>1,839,505</td>
</tr>
<tr>
<td>South</td>
<td>23,199,182</td>
<td>8,256,727</td>
<td>10,133,604</td>
<td>4,808,801</td>
</tr>
<tr>
<td>West</td>
<td>3,568,633</td>
<td>1,216,509</td>
<td>1,579,455</td>
<td>772,369</td>
</tr>
</tbody>
</table>

9. We still have a count and corresponding percent for each US Census Region, but now the count and percents are broken down by each year. The percents are still the percent of events from each specific region, but now the denominator is the count of events from a specific year instead of all of the events in the Cube.

10. Percents become a little more complicated when viewing more than one element in the Row Area.
    a. Drag **Count of Events %** to the Delete Area so that percents are no longer showing.
    b. Drag **Year-Quarter-Month-Day** from the Column Area to the Row Area.
    c. Drag **Census Region** below **Year-Quarter-Month-Day** so that Year-Quarter-Month-Day is the left column in the results table.
    d. In the Cube, expand **Year-Quarter-Month-Day** just once to view each year, and expand **Census Region** within each year to view each region.

11. Click the **Percent icon** on the toolbar. The Percent Dialog Box will appear. If you click OK, the default option for Dimension in the Percent Dialog Box may not be what you would like. The possible elements to choose for Dimension in our example are Year-Quarter-Month-Day.
and Census Region. These two choices will give different results in the table. It is recommended that you choose the element that appears furthest to the right in the table as the Dimension.

For our example, the Dimension is Census Region. Select Census Region as the Dimension, and then click OK.

12. The reason that it is recommended to choose the element that appears furthest to the right in the table is that this will arrange the percents in groups that add up to 100%, and that all have the same denominator.

13. It is a valid option to choose the other element (the element on the left) as the Dimension, but the percents are not grouped with their common denominator, and the groups do not add up to 100% so it is difficult to analyze and interpret.
Using the Toolbar Filter to Hide Not Values in Rows

The filter located on the NEMSIS Data Cube toolbar can be helpful to hide Not Values from a row when displaying a long list of values. This function only works with data elements in the Row Area and does not work with data elements that are in the Column Area.

Some data element values contain the word or letters, “Not,” that you need to be aware of if you are going to exclude the Not Values. You will want to check the data dictionary as these values will also be filtered out using this method. Some examples are:

- **ED Patient Disposition**: “Not Applicable (Not Transported to ED)”
- **Patient Ethnicity**: “Not Hispanic or Latino”
- **Payment Method**: “Not Billed (for any reason)”

**Example Steps:**

1. Expand **Measures** > Expand **Event Measures** > Expand **Events** > Check **Count of Events**
2. Expand **Patient Situation** > Expand **EMS Primary Impression** > Check **EMS Primary Impression**
Suppose that you wanted to remove the Not Values from the long table from this query so you could view only the primary impressions. If you used a Multi-Select Filter on this data element it may take you a long time to check all the 20+ values you want to display (see image on the right). This is where the Toolbar Filter comes in handy.

3. Click the Filter icon on the toolbar.

4. The Filter Rows Webpage Dialog Box will open.
5. This dialog box can assist you in filtering your data in various ways. In this example, we are only going to demonstrate the way to filter the data by removing the Not Values from a table. You will need to first access the drop down menu next to Count of Events in the dialog box by clicking on the down arrow to the right as shown below.

![Filter Rows -- Webpage Dialog](image)

6. You will need to find the data element that is currently listed in the rows in your table. In this example, our data element is EMS Primary Impression. In this case we need to find and select **EMS Primary Impression** – this can be accomplished by simply clicking on the name.

   Clicking on the name puts that data element into the main box as shown below.

![Filter Formula](image)
7. We now need to select how we are going to filter on this data element. The easiest way to remove the Not Values is to choose **not containing** from the type of filter drop down box.
8. The box next to this drop down box is an open text box that allows you to type in the string to filter on. In this case, we are going to type the word **Not** into this box as shown below. The filter is not case sensitive.

We are building a filter that shows **ONLY** rows in our table where the values do not contain the word “Not.”

9. **This next step is important. DO NOT click on OK yet.** This filter dialog box allows users to create very complex filters so you must think in terms of building a filter. You need to add the filter you just created into the filter formula area by clicking on the arrow to the right of the text box.
Once you click on the arrow, the filter is added into the filter language building area using the MDX language of the data cube.

10. You can now click on the **OK** button to apply the filter to your table.
Final Result:
Removing a Toolbar Filter that Has Been Applied to a Table

**Purpose:** If a toolbar filter has been applied to a table in the data cube, the Filter icon will be turned on as shown in the image to the right. These instructions demonstrate how to turn off a toolbar filter.

**NOTE:** This example is based on the instructions from the previous pages entitled “Using the Toolbar Filter to Hide Not Values in Rows.”

**Example Steps:**

Previous Result
1. To remove the filter from the table shown above, click on the **Filter** icon in the toolbar.

2. The Filter Rows Dialog Box opens and displays the current filter that is active in your table. To remove this filter from your data table, click on the **Delete** button.
**Final Result:**

The Not Values are now shown in the table below as they are no longer filtered from the display.

<table>
<thead>
<tr>
<th>EMS Primary Impression</th>
<th>Count of Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>438.09: Stroke / CVA</td>
<td>460,903</td>
</tr>
<tr>
<td>515.99: Abdominal obstr</td>
<td>68,041</td>
</tr>
<tr>
<td>622.89: Vaginal hemorrhage</td>
<td>46,818</td>
</tr>
<tr>
<td>659.99: Pregnancy / CID delivery</td>
<td>170,971</td>
</tr>
<tr>
<td>780.09: Altered level of consciousness</td>
<td>1,494,882</td>
</tr>
<tr>
<td>780.29: Syncope / fainting</td>
<td>1,232,466</td>
</tr>
<tr>
<td>780.39: Seizure</td>
<td>782,897</td>
</tr>
<tr>
<td>780.69: Hypothermia</td>
<td>179,429</td>
</tr>
<tr>
<td>780.99: Hypoactivity</td>
<td>14,281</td>
</tr>
<tr>
<td>780.59: Hypovolemia / shock</td>
<td>165,556</td>
</tr>
<tr>
<td>786.09: Respiratory distress</td>
<td>2,082,445</td>
</tr>
<tr>
<td>781.59: Chest pain / discomfort</td>
<td>1,913,384</td>
</tr>
<tr>
<td>789.03: Abdominal pain / problems</td>
<td>2,065,578</td>
</tr>
<tr>
<td>790.99: Obvious death</td>
<td>147,390</td>
</tr>
<tr>
<td>792.19: Respiratory arrest</td>
<td>51,627</td>
</tr>
<tr>
<td>559.59: Sexual assault / rape</td>
<td>11,723</td>
</tr>
<tr>
<td>559.59: Traumatic injury</td>
<td>4,213,299</td>
</tr>
<tr>
<td>977.99: Poisoning / drug ingestion</td>
<td>622,064</td>
</tr>
<tr>
<td>987.93: Inhalation injury (toxic gas)</td>
<td>13,217</td>
</tr>
<tr>
<td>987.99: Smoke inhalation</td>
<td>10,559</td>
</tr>
<tr>
<td>989.59: Stings / venomous bites</td>
<td>19,759</td>
</tr>
<tr>
<td>994.89: Electrocution</td>
<td>5,055</td>
</tr>
<tr>
<td>995.39: Allergic reaction</td>
<td>175,615</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>5,282,975</td>
</tr>
<tr>
<td>Not Available</td>
<td>10,070,840</td>
</tr>
<tr>
<td>Not Known</td>
<td>1,569,696</td>
</tr>
<tr>
<td>Not Recorded</td>
<td>5,634,656</td>
</tr>
</tbody>
</table>
Using the Toolbar Chart Icon to Display the Data Visually

The Chart icon located on the NEMSIS Data Cube toolbar can be helpful in displaying the data in a more visual manner.

Steps for Creating a Chart (Example):

1. Expand Measures > Expand Event Measures > Expand Events > Check Count of Events
2. Expand EMS Scene Information > Expand Incident Location Type > Check Incident Location Type
3. Perform a toolbar filter to exclude the Not Values for the Incident Location Type data element.
4. Sort the counts from highest to lowest by clicking on Count of Events in the Results Area. Your screen should look similar to the image below.

<table>
<thead>
<tr>
<th>Incident Location Type</th>
<th>Count of Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm</td>
<td>34,852</td>
</tr>
<tr>
<td>Health Care Facility (clinic, hospital, nursing home)</td>
<td>9,478,886</td>
</tr>
<tr>
<td>Home/Residence</td>
<td>17,952,166</td>
</tr>
<tr>
<td>Industrial Place and Premises</td>
<td>184,266</td>
</tr>
<tr>
<td>Lake, River, Ocean</td>
<td>31,550</td>
</tr>
<tr>
<td>Mine or Quarry</td>
<td>8,095</td>
</tr>
<tr>
<td>Other Location</td>
<td>1,380,226</td>
</tr>
<tr>
<td>Place of Recreation or Sport</td>
<td>326,093</td>
</tr>
<tr>
<td>Public Building (schools, gov. offices)</td>
<td>1,312,866</td>
</tr>
<tr>
<td>Residential Institution (Nursing Home, jail/prison)</td>
<td>1,798,346</td>
</tr>
<tr>
<td>Street or Highway</td>
<td>4,176,629</td>
</tr>
<tr>
<td>Trade or service (business, bars, restaurants, etc)</td>
<td>1,505,687</td>
</tr>
</tbody>
</table>
5. Click on the **Chart icon** located on the toolbar.

![Chart Icon Image]

6. The Chart Webpage Dialog Box will open.

![Chart Webpage Dialog Box Image]

There are four main tabs found in the Chart Webpage Dialog Box. Each is explained briefly below.

- **Flash** – This tab allows you to create charts automatically using Adobe Flash technology which includes animation. This is the best method to use while viewing data visually inside of the cube as it will give you the most options.
• **HTML** – This tab allows you to create charts automatically using the HTML coding language. This works well for browsers that do not support Flash; however, your options on chart formatting are limited.

• **Geo Map** – This tab allows you to create some geographical maps if the cube contained zip code level data or other geographical data. Zip code level data and other geographical data are not included in this version of the NEMSIS cube.

• **Options** – This tab is useful in altering how the chart looks inside of the cube. You can change the colors of the chart, add values, edit the size, etc.

7. The Flash tab and the Options tab will be demonstrated below. Because the data table in our cube has long labels such as “Health Care Facility (clinic, hospital, nursing home)” we are going to choose to view this data in a Horizontal Bar Chart as it will display the data in a way that is easier to read. Select **Horizontal Bar Chart 2D** from the Flash tab and click on the Apply button.
You will see something like the following in the cube:

8. By using the Apply button we can change the chart options and see what is happening to the chart in the cube area while the Chart Webpage Dialog Box remains open. To make the information a bit easier to read, one option is to remove the legend as the names for each of the bars are already in the graph. Go to the Options tab and uncheck the Show Legend check box and then click the Apply button.
You will see something like the following in the cube:
To alter the chart dimensions as well as the location of the chart relative to the rest of the page, go to the **Options** tab, change the width of the chart to 700 and the chart position to Bottom and then click on the **Apply** button.
You will see something like the following in the cube:

<table>
<thead>
<tr>
<th>Incident Location Type</th>
<th>Count of Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm</td>
<td>34,852</td>
</tr>
<tr>
<td>Health Care Facility (clinic, hospital, nursing home)</td>
<td>9,478,885</td>
</tr>
<tr>
<td>Home/Residence</td>
<td>17,912,166</td>
</tr>
<tr>
<td>Industrial Place and Premises</td>
<td>184,266</td>
</tr>
<tr>
<td>Lake, River, Ocean</td>
<td>31,550</td>
</tr>
<tr>
<td>Mine or Quarry</td>
<td>8,095</td>
</tr>
<tr>
<td>Other Location</td>
<td>1,360,226</td>
</tr>
<tr>
<td>Place of Recreation or Sport</td>
<td>326,053</td>
</tr>
<tr>
<td>Public Building (schools, gov. offices)</td>
<td>1,312,866</td>
</tr>
<tr>
<td>Residential Institution (Nursing Home, jail/prison)</td>
<td>1,718,346</td>
</tr>
<tr>
<td>Street or Highway</td>
<td>4,176,629</td>
</tr>
<tr>
<td>Trade or service (business, bars, restaurants, etc)</td>
<td>1,505,687</td>
</tr>
</tbody>
</table>

**Note:** The count values for each bar line can be added to the chart if you desire. The values can be added by clicking on the *Show Values* check box in the *Options* tab. At times these numbers can be hard to read and you are not able to change the colors of these labels.

10. To make the colors on the graph a bit more distinct, change the default colors to standard by selecting *Standard* from the dropdown box located in the upper right hand corner of the dialog box. Since this is the last change that is going to be made to the graph, click on the *OK* button to close the dialog box.
You will see the final result in the cube:

<table>
<thead>
<tr>
<th>Incident Location Type</th>
<th>Count of Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm</td>
<td>34,852</td>
</tr>
<tr>
<td>Health Care Facility (clinic, hospital, nursing home)</td>
<td>9,478,885</td>
</tr>
<tr>
<td>Home/Residence</td>
<td>17,962,186</td>
</tr>
<tr>
<td>Industrial Place and Premises</td>
<td>184,206</td>
</tr>
<tr>
<td>Lake, River, Ocean</td>
<td>31,550</td>
</tr>
<tr>
<td>Mine or Quarry</td>
<td>8,096</td>
</tr>
<tr>
<td>Other Location</td>
<td>1,380,226</td>
</tr>
<tr>
<td>Place of Recreation or Sport</td>
<td>326,093</td>
</tr>
<tr>
<td>Public Building (schools, gov. offices)</td>
<td>1,312,686</td>
</tr>
<tr>
<td>Residential Institution (Nursing Home, jail/prison)</td>
<td>1,798,346</td>
</tr>
<tr>
<td>Street or Highway</td>
<td>4,176,629</td>
</tr>
<tr>
<td>Trade or service (business, bars, restaurants, etc.)</td>
<td>1,505,637</td>
</tr>
</tbody>
</table>

**Note:** To remove a chart that was previously created in the cube, simply click on the Chart icon and within the Chart Webpage Dialog Box select No Chart.
Removing a Chart from the Data Cube

**Purpose:** To remove a chart from the cube area when it is no longer needed.

**Example Steps:**

1. Click on the **Chart icon** in the toolbar (**Note:** The icon switches the way it looks depending on the chart you have in your data cube).

2. When the Chart Dialog Box opens up, click on the **No Chart** button. The dialog box will close and the graph will be removed from the cube area.
Exporting Results as Microsoft Excel, CSV, PDF, or HTML

The Export tool located on the NEMSIS Data Cube toolbar can be used to export the query results as Microsoft Excel, CSV, PDF, or HTML. Exporting helps in sharing and presenting the results in different ways. Exporting to Microsoft Excel can be particularly helpful to change the appearance of the table and to create graphs and charts.

Steps in Exporting Results (Example):

1. Expand **Measures** > Expand **Event Measures** > Expand **Events** > Check **Count of Events**
2. Expand **EMS Call Date** > Select **Year-Quarter-Month-Day**
3. In the results area, expand **Year-Quarter-Month-Day** to view each calendar year.

<table>
<thead>
<tr>
<th>Year - Quarter - Month - Day</th>
<th>Count of Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>42,320,040</td>
</tr>
<tr>
<td>Calendar 2011</td>
<td>14,687,331</td>
</tr>
<tr>
<td>Calendar 2012</td>
<td>19,852,555</td>
</tr>
<tr>
<td>Calendar 2013</td>
<td>7,780,154</td>
</tr>
</tbody>
</table>

The above picture illustrates a count of events in the Cube from the calendar years 2011, 2012, and 2013. To export the data continue on to Step 4.

4. Click the **Export icon** on the toolbar.

5. A warning message for Internet Explorer may appear after clicking the Export icon. To avoid losing your work, simply disregard this message and click on the **Export icon** again. Below is a sample of a possible security message that may display on your computer.
6. Select **Excel, CSV, PDF, or HTML** from the drop down menu. (Note: If you select PDF, a dialog box will display with basic options for the PDF document. Make any desired modifications to the size, font size, or margin measurements and click OK.)

7. Click **Open** or **Save**. (Note: If you select HTML for your export, clicking Open may cause your connection to the NEMSIS Data Cube to be lost. Click Save for HTML exports to prevent this.)
Questions or Additional Assistance with NEMSIS Data

For any additional questions you might have while working in the NEMSIS Data Cube, contact the NEMSIS TAC team. The following individuals are responsible for maintaining and assisting individuals with NEMSIS data.

**Kevin D. White, BS**  
*NEMSIS Data Manager*  
NEMSIS Technical Assistance Center  
Phone: 801-587-7550  
Fax: 801-581-8686  
Kevin.White@hsc.utah.edu

**Karen Jacobson, BA, NREMT-P**  
*NEMSIS Director*  
NEMSIS Technical Assistance Center  
Phone: 801-585-1631  
Fax: 801-581-8686  
karen.jacobson@hsc.utah.edu