



# Vendor Version 3 Data Submission Dashboard

## User Manual

Draft Date: February 23, 2016

## Table of Contents

1. Glossary & Terms .....	3
2. Vendor Data Submission Dashboard Description .....	5
2.1 Data Sets & Inclusion Criteria .....	5
3. Visualizations.....	6
3.1 Accepted PCR Detail View .....	6
3.3.1 Filters .....	7
3.3.2 Software Package Filter .....	7
3.3.3 Software Version Filter.....	7
3.3.4 EMS Agency Number.....	7
3.3.5 Date Range Filter .....	7
3.3.6 PCRs Accepted Summary.....	7
3.3.7 PCRs Accepted with and without Schematron Violations .....	8
3.3.8 Average Violations per PCR by Unit Notified Date & Time .....	8
3.3.9 Average Violations per PCR by Incident Zip Code.....	9
3.3.10 Average Violations per PCR by Element .....	9
3.3.11 Average Violations per PCR by EMS Agency .....	9
3.3.12 Average Violations per PCR by Schematron Pattern .....	9
3.3.13 Average Violations per PCR by Software Package & Version .....	10
3.3.14 Average Violations per PCR by Schematron Violation Warning Message .....	10
4. Tableau Toolbar .....	<b>Error! Bookmark not defined.</b>
4.1 Share .....	<b>Error! Bookmark not defined.</b>
4.2 Export, Revert, Pause Updates and Refresh .....	<b>Error! Bookmark not defined.</b>

## 1. Glossary & Terms

- **PCRs Accepted with Violations**  
A count of patient care reports accepted with at least one non-fatal violation of National Schematron patterns, [http://nemsis.org/media/nemsis\\_v3/release-3.4.0/Schematron/rules/DEMDDataSet.sch.xml](http://nemsis.org/media/nemsis_v3/release-3.4.0/Schematron/rules/DEMDDataSet.sch.xml).
- **PCRs Accepted**  
A count of patient care reports submitted and accepted by the web service
- **PCRs Resubmitted**  
A count of patient care reports that have been resubmitted and the resubmission has been accepted since initial submission and acceptance.
- **Schema Version**  
The XML Schema Definition (XSD) version under which the submission failed validation
- **Schematron Violations per PCR Accepted**  
A count of non-fatal Schematron pattern violations for all patient care reports accepted
- **Submission Errors**  
A count of all errors generated by the web service that resulted in a submission rejection
- **Submission Lag**  
Submission lag is the difference in time between the recorded EMS Unit Back in Service time (NEMSIS national element eTimes.13) and the submission time to the NEMSIS web service expressed in fractions of an hour, after controlling for differences in time zones.
  - **Submission Lag 25% (hours)**  
The number of hours of submission lag below which 25%, the 25th percentile, of the accepted patient care reports exist.
  - **Submission Lag 50% (hours)**  
The number of hours of submission lag below which 50%, the 50th percentile, of the accepted patient care reports exist. The 50th percentile is equal to the median value of the distribution of submission lag times.
  - **Submission Lag 75% (hours)**  
The number of hours of submission lag below which 75%, the 75th percentile, of the accepted patient care reports exist.
- **Submission Rejection Message**  
The fatal error message generated by the NEMSIS TAC web service

- **Submission Type**  
The type of NEMESIS XSD schema, [EMS](#) or [Demographic](#), under which the submission was validated and rejected.
- **Submissions Accepted**  
A count of all submissions accepted by the web service
- **Submissions Rejected**  
A count of all submissions rejected by the web service with an error. For details on submission errors see the [Submission Detail view](#)
- **Submissions**  
A count of all submissions received

## 2. Vendor Data Submission Dashboard Description

The goal of the Vendor Data Submission Dashboard is to provide EMS field-level software vendors with timely actionable information on the status and quality of the national subset of data collected and submitted to NEMSIS.

### 2.1 Data Sets & Inclusion Criteria

The Vendor Data Submission Dashboard is supported by four linked data sets: submission status, agency demographics, accepted patient care reports, Schematron rule violations, and submission rejections.

The global inclusion criteria define the minimum characteristics a record must meet in order for it to be included in the data set that supports the dashboard. The inclusion criteria for all data sets in the Data Submission Dashboard are that any record in any data set must be associated with an identified state account for submission of NHTSA NEMSIS version 3.x data. For details on Schematron patterns, violation messages, and affected elements see the [NEMSIS Schematron Business Rules](#).

### 3. Visualizations

#### 3.1 Accepted PCR Detail View

The goal of the Accepted PCR Detail view is to provide the vendor representative with additional detail on the sources of non-fatal Schematron pattern violations for patient care records that have been both submitted to and accepted by the NEMSIS TAC.

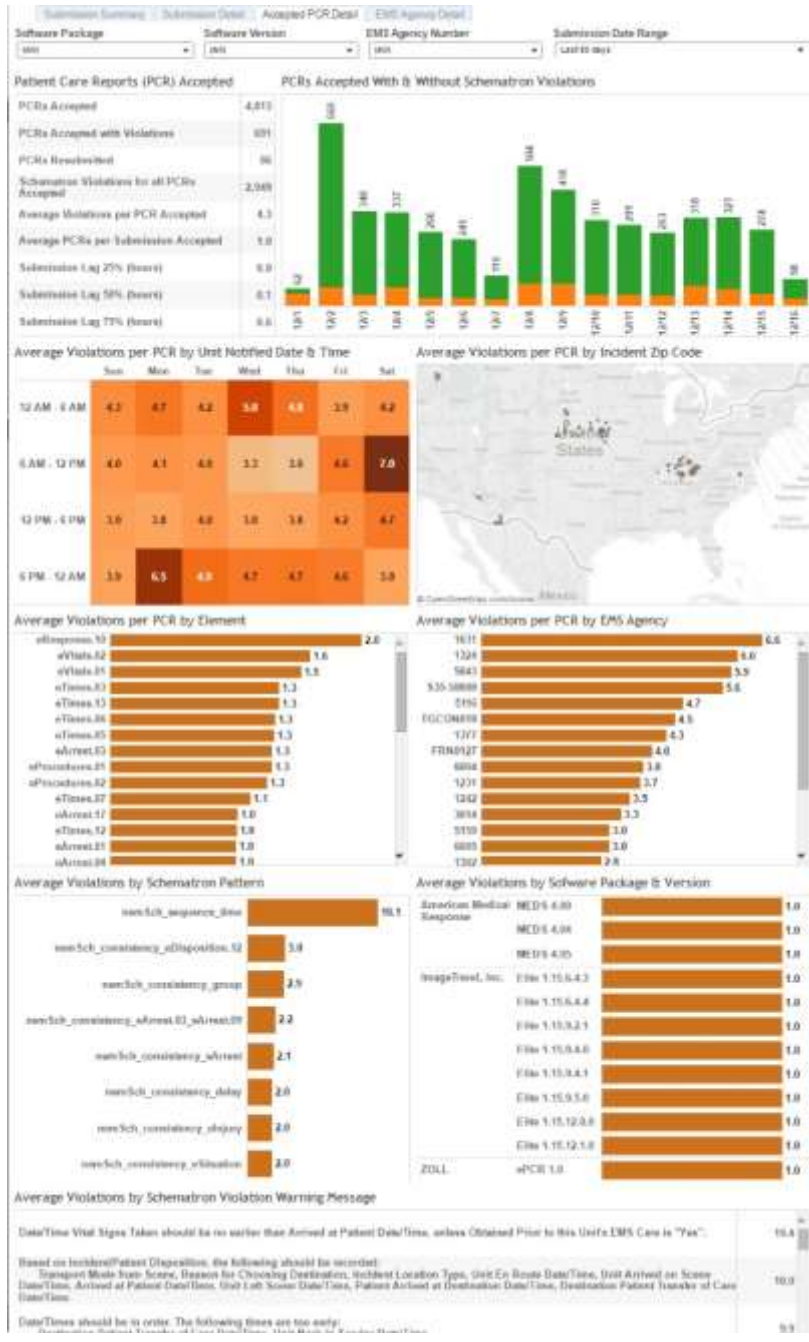
##### 3.3.1-3.3.5 Filters

2.3.6 PCRs Accepted Summary

3.3.8 Average Violations per PCR by Unit Notified Date & Time

3.3.10 Average Violations per PCR by Element

3.3.12 Average Violations per PCR by Schematron Pattern



3.3.7 PCRs Accepted With & Without Schematron Violations

3.3.9 Average Violations per PCR by Incident Zip Code

3.3.11 Average Violations per PCR by EMS Agency

3.3.13 Average Violations per PCR by Software Package & Version

3.3.14 Average Violations by Schematron Violation Warning Message

### 3.3.1 Filters

The PCR Accepted dashboard view offers four filtering options: Software Package, Software Version, EMS Agency Number, and Submission Date Range. All of the filters act upon the data simultaneously and can be selected in any order, e.g. selecting a single software package and a single software version will restrict the available patient care reports to those created with the specific software package and version selected.



The image shows a horizontal row of four filter dropdown menus. From left to right, they are labeled: 'Software Package', 'Software Version', 'EMS Agency Number', and 'Submission Date Range'. Each dropdown menu currently displays the text '(All)' or 'Last 30 days'.

### 3.3.2 Software Package Filter

The software package filter allows the representative to restrict the patient care reports available in the current view to those generated by the selected field-level software product in use by EMS agencies within the representative's Vendor.

### 3.3.3 Software Version Filter

The software version filter allows the representative to restrict the patient care reports available in the current view to those generated by a specific version of the currently selected field-level software products in use by EMS agencies within the representative's Vendor.

### 3.3.4 EMS Agency Number

The EMS agency number filter allows the representative to restrict the patient care reports available in the current view to those generated by a single EMS agency operating within the representative's Vendor.

### 3.3.5 Date Range Filter

The date range filter enables the restriction of the data available in all views to a range of dates relative to the present day. The date that is being filtered is the date of submission to the NEMSIS TAC web service. The default value for the relative date range filter is 30 days prior to the current day.

### 3.3.6 PCRs Accepted Summary

The Patient Care Reports (PCR) Accepted summary table provides key statistics on all of the PCRs submitted to and accepted by the NEMSIS TAC version 3.x web service.

Please reference the Glossary & Terms section on pages 4-5 for definitions for the following:

- PCRs Accepted
- PCRs Accepted with Violations
- PCRs Resubmitted
- Schematron Violations per PCR Accepted
- Average Violations per PCR Accepted
- Average PCRs per Submission Accepted
- Submission Lag

**Patient Care Reports (PCR) Accepted**

PCRs Accepted	10,225
PCRs Accepted with Violations	2,876
PCRs Resubmitted	1,491
Schematron Violations for all PCRs Accepted	26,419
Average Violations per PCR Accepted	9.2
Average PCRs per Submission Accepted	1.0
Submission Lag 25% (hours)	0.3
Submission Lag 50% (hours)	45.4
Submission Lag 75% (hours)	48.5

- Submission Lag 25% (hours)
- Submission Lag 50% (hours)
- Submission Lag 75% (hours)

### 3.3.7 PCRs Accepted with and without Schematron Violations

The PCRs Accepted With & Without Schematron Violations bar chart displays the trend over time of the share of accepted patient care reports that had no Schematron pattern violations, [http://nemsis.org/media/nemsis\\_v3/release-3.4.0/Schematron/rules/DEMDDataSet.sch.xml](http://nemsis.org/media/nemsis_v3/release-3.4.0/Schematron/rules/DEMDDataSet.sch.xml), and those that had a minimum of one violation.

- X-axis  
Calendar date the submission was received by the NEMESIS TAC web service
- Y-axis  
Count of submissions
  - PCRs Accepted without any Schematron pattern violations
  - PCRs Accepted with non-fatal Schematron pattern violations



### 3.3.8 Average Violations per PCR by Unit Notified Date & Time

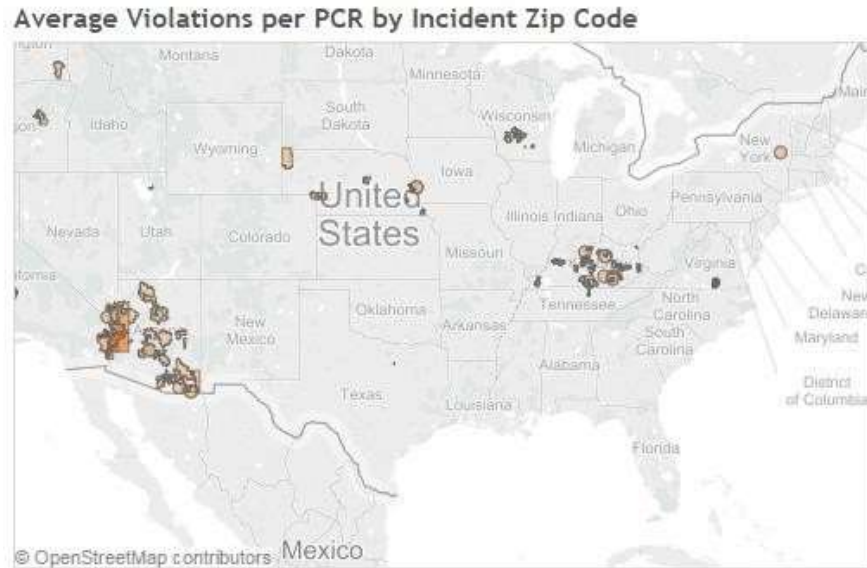
The Average Violations per PCR by Unit Notified Date & Time heat map displays the distribution of the average number of non-fatal Schematron violations across the days of the week and four 6-hour blocks of time from midnight to midnight. The time and date element used to segment the patient care records is the NEMESIS national element *eTimes.02 – Dispatch Notified Date/Time*.

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
12 AM - 6 AM	9.6	10.4	9.3	13.1	8.8	7.4	4.7
6 AM - 12 PM	9.2	12.8	8.9	8.5	11.5	6.7	9.0
12 PM - 6 PM	6.8	10.3	10.4	11.2	9.0	4.9	6.3
6 PM - 12 AM	7.7	19.3	10.2	9.2	5.9	7.0	7.8



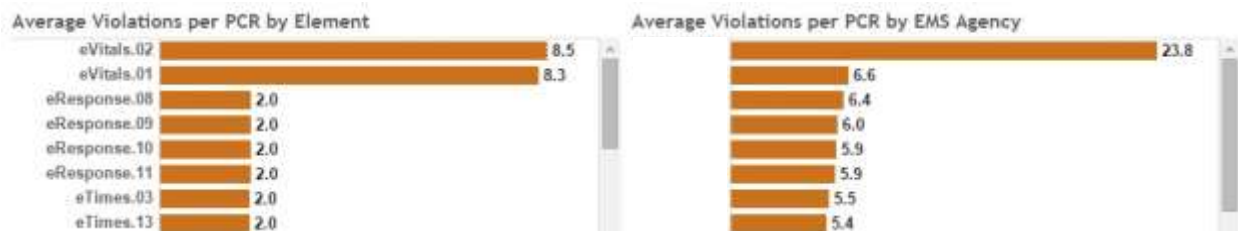
### 3.3.9 Average Violations per PCR by Incident Zip Code

The Average Violations per PCR by Incident Zip Code geographic map displays the geographic distribution of average Schematron violations by incident zip code as reported in NEMSIS element *eScene.19 – Incident Zip Code*.



### 3.3.10 Average Violations per PCR by Element

The Average Violations per PCR by Element bar chart displays the average Schematron pattern violations by NEMSIS national element.



### 3.3.11 Average Violations per PCR by EMS Agency

The Average Violations per PCR by Element bar chart displays the average Schematron pattern violations by EMS Agency number as reported in NEMSIS national element *eResponse.01 – EMS Agency Number*.

### 3.3.12 Average Violations per PCR by Schematron Pattern

The Average Violations per PCR by Schematron Pattern bar chart displays the average Schematron pattern violations by the Schematron Pattern.

Average Violations by Schematron Pattern



Average Violations by Software Package & Version



### 3.3.13 Average Violations per PCR by Software Package & Version

The Average Violations per PCR by Software Package & Version bar chart displays the average Schematron pattern violations by each unique combination of field software package and version number.

### 3.3.14 Average Violations per PCR by Schematron Violation Warning Message

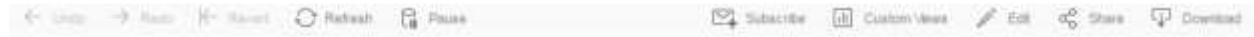
The Average Violations per PCR by Schematron Violation Warning Message bar chart displays the average Schematron pattern violations by specific violation message generated by Schematron in response to the violation of a pattern contained in the [Schematron Business Rules for patient care reports](#).

Average Violations by Schematron Violation Warning Message

Schematron Violation Warning Message	Average Violations
Date/Time Vital Signs Taken should be no earlier than Arrived at Patient Date/Time, unless Obtained Prior to this Unit's EMS Care is "Yes".	25.8
When a set of vital signs is obtained, the following should be recorded: Date/Time Vital Signs Taken	18.5
Based on Incident/Patient Disposition, the following should be recorded: Transport Mode from Scene, Reason for Choosing Destination, Gender, Age, Incident Location Type, Unit En Route Date/Time, Unit Arrived on Scene Date/Time, Arrived at Patient Date/Time, Unit Left Scene Date/Time, Patient Arrived at Destination Date/Time, Destination Patient Transfer of Care Date/Time	12.0

## 4. Tableau Toolbar

All Tableau dashboards share the same toolbar at the bottom of the view. Note that while most dashboards will have the same selections, some items may differ based on user permissions.



### 4.1 Undo, Redo, Revert, Refresh and Pause

These selections are found on the left side of the Tableau toolbar and can be used to help navigate the dashboard.



Undo will remove the last selection made, if you have used undo to remove a selection, you can then use redo to return to that selection. Revert returns the dashboard to its original view. Refresh will reload the data on the dashboard subject to any selections made. Pause will stop the dashboard from refreshing as you make selections.

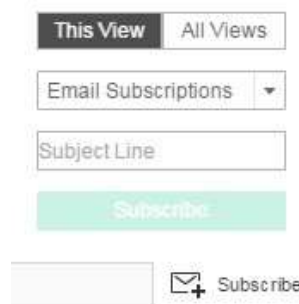
As an example, if you want to make a set of complete selections in a dashboard's filters, you could use these buttons to speed up the process. Normally every time a change is made, the dashboard will refresh. If you select "Pause" however, the dashboard will remain the same no matter how many selections you make. Once you have made all your selections, you can select "Refresh" to reload the dashboard based on those selections.

### 4.2 Subscribe, Custom Views, Edit, Share, and Download

These selections are found on the right side of the Tableau toolbar and can be used to interact with the dashboard in external ways.

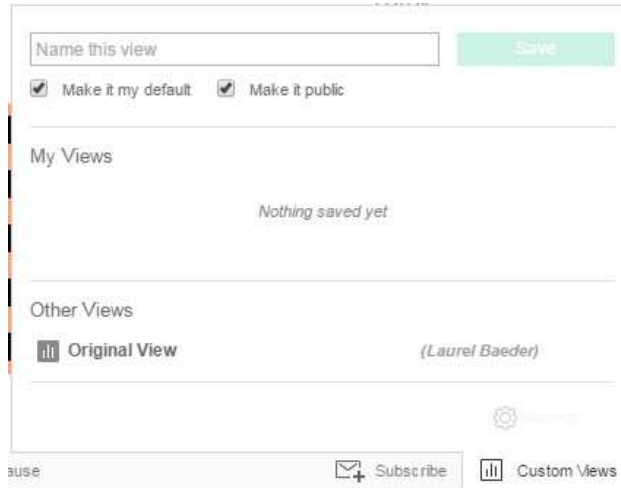


The Subscribe button allows users to subscribe to a daily or weekly email that will show a static image of the dashboard as well as a link to the view.

A subscription form with a "This View" / "All Views" toggle, an "Email Subscriptions" dropdown menu, a "Subject Line" input field, a green "Subscribe" button, and a "Subscribe" button with an envelope icon at the bottom.

You can select either a particular view (tab) or all the views (tabs) available in the dashboard. Under “Email Subscriptions” you can choose the frequency of emails and in “Subject Line” you can assign the subject for the emails. As a default, the subscription will be assigned to the email address associated with your NEMIS account.

Custom Views allows users to save any particular set of filters or selections for quick access later. A user can create their view and then name it and save it either for their own personal use or use by anyone with access to this dashboard. Previously saved views will appear in the custom views tab.



Edit will open the dashboard in the web editor for Tableau. Note that this option is not available on all dashboards and will require some knowledge of how to use Tableau to build and edit dashboards.

Share will provide a couple of options for sharing the dashboard with others; specifically an embed code and a regular HTML link. While you can use the link to share the dashboard with others, please keep in mind that many of the NEMIS dashboards will require a username and password so only those with credentials will be able to access them.

The last option is Download. Clicking on the download button opens up several options to download either the workbook, the data within it, or a static image of the view.



Selecting any one of these file types will produce a download of the requested file. Remember that not all options will be available for all dashboards and views.

## 5. Contact Info

Any questions, comments, concerns or suggestions with regard to this or other reports made available by the NEMSIS TAC, please contact us! Contact information is also available on [our website](#).

**Kevin White, BS**

University of Utah School of Medicine

**NEMSIS Technical Assistance Center**

Phone: (801) 213-3408

Fax: (801) 581-8686

Email: [kevin.white@hsc.utah.edu](mailto:kevin.white@hsc.utah.edu)

**Laurel Baeder, BA, MStat**

University of Utah School of Medicine

**NEMSIS Technical Assistance Center**

Phone: (801) 583-3413

Fax: (801) 581-8686

Email: [laurel.baeder@utah.edu](mailto:laurel.baeder@utah.edu)