V3 Vendor Data Submission Dashboard

Glossary

- **Average EMS Agencies per Submission Accepted**: The average number of unique EMS agencies contained within the submissions accepted that contained at least one PCR. Agency uniqueness is determined by submitting state and EMS agency number.
- **Average PCRs per Submission Accepted**: The average number of PCRs contained within the submissions accepted that contained at least one PCR.
- **Average Violations per PCR Accepted**: The average number of non-fatal Schematron pattern violations per PCR that was accepted with at least one non-fatal violation Schematron pattern violation.
- **EMS Agencies with > 0 PCRs Accepted**: A count of EMS agencies that have had at least one patient care report accepted by the NEMSIS TAC web service.
- **EMS Agency Demographic Files Accepted**: A count of EMS agency demographic information files that have been submitted to and accepted by the NEMSIS TAC web service.
- **EMS Agency Demographic Files Rejected**: A count of EMS agency demographic information files that have been submitted to and rejected by the NEMSIS TAC web service. For information on the causes of rejection see the Agency view of this Data Submission dashboard.
- **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/DEMDataSet.sch.xml](http://nemsis.org/media/nemsis_v3/release-3.4.0/Schematron/rules/DEMDataSet.sch.xml).
- **PCRsAccepted**: 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.
- Submission Type: The type of NEMSIS XSD schema, EMS or Demographic, under which the submission was validated and rejected.
- 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.

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.

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.

Visualizations

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.

Filters

The PCRs Accepted dashboard view offers four filtering options: Software Package, Software Version, EMS Agency Number, and Submission Date Range. Only changes to the data range filter affect the data available in all four views of the dashboard. The software package, software version, and EMS agency filters only affect the data available on the PCRs Accepted dashboard view. 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.

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.

Software Version Filter

The software package 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.

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.

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. Changes made to the relative date range filter affect all views in the dashboard.
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 section 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
- Submission Lag 25% (hours)
- Submission Lag 50% (hours)
- Submission Lag 75% (hours)

PCRs Accepted with and without Schematron Violations

The PCRs Accepted with and 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/DEMDataSet.sch.xml, and those that had a minimum of one violation.

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 NEMSIS national element eTimes.02 – Dispatch Notified Date/Time.

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.
Average Violations per PCR by Incident Zip Code

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.

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.

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 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.

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.

Comparison & Trend
The goal of the Comparison & Trend view is to provide software vendors with a broader view of the rate at which Schematron warning messages are being generated by their software. The view contains two visualizations, Average Schematron Warning Rate Ranking and Schematron Warning Rate per Day. The latter shows the trend of warnings per PCR per day over time. The former shows where the software vendor ranks in comparison to their competition on the average warning rate per day. Both visualizations use the same rate calculation.

**Count of Unique Schematron Warning Messages per PCR**

**Unit Notified by Dispatch Day**

**Filters**

The Comparison & Trend view provides four filtering options:

<table>
<thead>
<tr>
<th>Filters</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submitting State Filter</td>
<td>(All)</td>
</tr>
<tr>
<td>EMS Agency Filter</td>
<td>(All)</td>
</tr>
<tr>
<td>Software Version Filter</td>
<td>(All)</td>
</tr>
<tr>
<td>Dispatch Date Range Filter</td>
<td>1/31/2018 - 7/30/2018</td>
</tr>
</tbody>
</table>

**Submitting State Filter**

The Submitting State Filter allows the user to filter the data associated with the visualizations to the data submitted by a single state.

**EMS Agency Filter**

The EMS Agency Filter allows the user to filter the data associated with the visualizations to the data submitted by a single EMS Agency.

**Software Version Filter**

The Software Version Filter allows the user to filter the data associated with the visualizations to only the PCRs generated by a single version of the user's software.

**Dispatch Date Range Filter**

The Dispatch Date Filter allows the user to filter the data associated with the visualizations to the PCRs that occurred within the defined date range.

**Average Schematron Warning Rate Ranking**

The Average Schematron Warning Rate Ranking shows how a single software vendor ranks against their competition.
The ranking is based on the average Schematron warning rate per day. The higher the score the lower the ranking. The red dotted line indicates the population average. Each square represents the average rate for a single day as determined by the Unit Notified by Dispatch Date. Only the name of the vendor associated with the current user is displayed. The names of all other vendors are obscured to protect their anonymity.

**Schematron Warning Rate per Day**

The Schematron Warning Rate per Day shows the daily schematron warning rate along-side the 7-day moving average and the best-fit linear trend.

**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.

 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.

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. 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. 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 NEMSIS 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 NEMSIS dashboards will require a username and password. 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.

**Contact Info**

Any questions, comments, concerns, or suggestions regarding this or other reports made available by the NEMSIS TAC, please contact us or leave a comment below!

Contact information is also available on our website.

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<thead>
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