STC | iQ

Known Issues

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Design Workflow Limitations for Reports

The following explains the known design workflow limitations for reports in the STC | iQ 1.16.8.2 patch:

- PHC-Hub sends the data needed for the numerator and denominator for the necessary calculations (success, error, and warning rates).

- There are inconsistencies in the process of how PHC-Hub is sending the data and how iQ is receiving that data. Think of it as a miscommunication between the two systems. PHC-Hub sends data and iQ is interpreting that data differently than the intention of the data being sent.

- iQ is not considering all of the data that is being sent by PHC-Hub (mainly numerator counts), which affects what will be in the numerator and denominator for the calculations.

- iQ does not calculate rates with the consideration that there are different "versions" of an HL7 data element. Let's take OBX-5 for example. For the denominator, iQ is not recognizing that OBX-5 may contain different types of values depending on what is populated in OBX-3. It also does not recognize that the denominator for an error rate for one "type" of OBX-5 should only contain that "type" of OBX-5. Instead, it is counting all types of OBX-5s to be in the denominator.

  - So instead of: Error in an OBX-5 that contains VFC Status / total OBX-5s that contain VFC Status.
  - We're getting: Error in an OBX-5 that contains VFC Status / total OBX-5s that contain VFC Status, vaccination funding source, VIS type and publication date, vaccine reaction, contraindication, etc.

- In addition to the above point, PHC-Hub may be sending a list of more than one data element per error generated because a set of data elements contributed to the error. Taking OBX-5 again as an example, the value of this data element is dependent on OBX-3. The issue resolution looks at OBX-5, but PHC-Hub sends both OBX-3 and OBX-5 to iQ as the data elements that contributed to the error. iQ will take the first data element listed that PHC-Hub sends with the error and count the error against that first data element. In this example, iQ is counting errors for OBX-5 as errors for OBX-3; therefore, there may be instances where OBX-5 shows 0% error rate. This is due to the error counting for OBX-3 instead.

- For the numerator, PHC-Hub is sending any errors triggered for a component, field, or segment. Due to how some issue resolutions function, more than one error can be generated for one HL7 data element. When this happens, the numerator becomes 2, but the denominator remains as 1: Expected Error Rate: Over 100%.

Based on the above design limitations, the following can be expected in the data output for STC | iQ:

- **Over-reporting of Error Rates:** If there is more than one issue resolution for a component, field, or segment, and those issue resolutions are triggered based on one component, field, or segment, then there may be two or more errors reported for one component, field, or segment. This would result in a possible over 100% error rate (i.e., three issues resolutions triggered for one HL7 location = 300% error rate). In this case, it is a Many:1 ratio for numerator to denominator.

- **Under-reporting of Error Rates:** This would mainly apply to the last two design workflow limitations above. If more than one instance of a component, field, or segment is present in a message, only errors generated for the first instance will contribute to the numerator. The denominator will still contain the total number of instances of a component, field, or segment. (For example, three OBX-5s are submitted in one message. One of them triggered an issue resolution. Error rate will be 1/3 = 33%). In this case, it is a Many:1 ratio for denominator to numerator.

- **Correct Error Rates:** This would apply if there was an exact 1:1 ratio between number of errors generated from an issue resolution and HL7 location. Some HL7 data elements will comply with this.

- **No Error Rates:** For any HL7 data elements with no issue resolutions, we can expect a 100% success rate and a 0% error and warning rate.

Issues Affecting the Entire Application

The following known issues affect the entire application:

- As of this release, the application does not support the "No Access" role from ImMTrax. As a result, an Organization user who has a site assigned the "No Access" role will still see it listed under his or her organization.

- Production/Pre-Production toggle functionality does not work.

- States that use a single PHC-Hub environment for sending in Production/Pre-Production data will be able to use this toggle, but states that use dual PHC-Hub environments will only be able to send in Production data.

- ImMTrax Only: Due to the fact that ImMTrax processes messages in a different way as compared to IWeb, message level reports may show incorrect data for messages that pass Issue Resolution validation.

- ImMTrax Only: For this release, iQ considers "Problem Records" as being successfully saved into the registry. Due to this, there might be over-reporting of success rates for HL7 message transactions across multiple reports.

- ImMTrax Only: For this release, Site users will not be able to access the iQ portal in order to see data specific to only their sites. However, State users and Organization users will be able to filter data by sites.

- Data elements dependent on other data elements do not provide accurate calculations for error, warning and success rates.

- Data elements that are dependent on another data element (for example, the value of OBX-5 depends on the value of OBX-3) will not provide accurate calculations for error, warning, and success rates due to design flaws. Please refer to the general area of the release notes for a description of these design flaws.

- The reports in iQ are being generated by a tool called Jaspersoft. This tool has a defined active period of 20 minutes. After 20 minutes, if the user has not remained active in iQ, Jaspersoft will log the user out from viewing the reports, but the user will still remain in iQ. This is a syncing issue between iQ and Jaspersoft. As long as the user remains active within iQ until they choose to log out of the application, this error will not display.

Action Item List Issues

The following are known issues regarding the Action Item List:

- The Action Item List has the incorrect number of Warnings for a record that has several Warnings

- Warnings that are expected to be associated with a patient record may be missing

DQA Issues

The following are known issues regarding the Data Quality Assessment (DQA) tool:

- ImMTrax Only: Due to an implementation bug, iQ considers ImMTrax "Problem Records" as being saved successfully in the registry. Due to this bug, the DQA Summary Report may show over-reporting of successfully saved HL7 messages.

- ImMTrax Only: Due to the bug mentioned above, the DQA Summary Report may also over-report the success rate for HL7 messages.

- The RXA count in the Patient Vaccination Information is incorrect in the DQA tool.

- Due to some logic inconsistencies between PHC-Hub and iQ, error rates for the RXA segment in the DQA are under-reported. The numerator of the error rate contains error counts that are only considering vaccination RXA segments (expected functionality), while the denominator counts vaccination and contraindication RXA segments.

- The previously selected criteria for DQA is reset when returning to DQA after navigating to a different report/page.

- Due to an implementation bug, users must re-select the filter criteria for the DQA report once they navigate back to the report from any other page in the application.

- An error for RXA-5.1 is not counted when viewing the DQA after submitting a message with an error for RXA-5.1.

- Due to the design limitation as described in the Design Workflow Limitations for Reports, the Issue Resolution for RXA-5.1 and RXA-5.4 only captures errors for RXA-5.1. Therefore, the DQA report does not show any errors for RXA-5.4 (0% error rate in the report). Also, iQ reports only capture one of the three issue resolutions errors (CVX, CPT and NDC) for RXA-5.1 and RXA-5.4. The denominator for the error rate is an aggregate of RXA-5.1 and 5.4, but the numerator only counts errors for RXA-5.1, causing an underestimate of an RXA-5.1 error rate.

- An RXA-3 Error/Warning is displayed for Contraindication for DQA when an Error/Warning occurs for a Vaccination.

- RXA-3 issue resolution only captures errors for vaccination records, whereas the DQA report has it in the contraindication section. Therefore, errors for vaccination records appear in the contraindication section.

- OBX-5 Successes, Errors and Warnings remain zero for Contraindication when the submitted HL7 message has OBX-5 for Vaccination and Contraindication.

- Due to the design limitations as described in the Design Workflow Limitations for Reports, iQ cannot accommodate the different instances of OBX-5. For example, it cannot distinguish between an OBX-5 with "Funding Source" and an OBX-5 with "Contraindication." Even though a DQA report displays them on the user interface, the error and warning calculations provide results that are lower than expected values.

- The Warning Rate percentage is not rounded up when a percentage is at .5%.

- Due to incorrect calculation logic, iQ reports round down the decimal values instead of rounding up when the decimal value is over .5.

- A Milestone Message generates multiple Errors for a data element when multiple enabled issue resolutions are triggered for the same data element in one message.

- If an issue resolution for a data element generates more than one error for that data element, its error rate can potentially display over 100%, as it results in an error count of two or greater for a single instance of an incoming data element.

- OBX-5 related Errors and Warnings provide the OBX-3.1 and OBX-5.1 values for HL7 Location in Milestone Messages instead of the field-level value of OBX-5.

- There is an erroneous assumption in the backend logic on how to calculate error percentages for OBX-5. This assumption only looks at OBX-3 for errors, rather than at OBX-5. This means that the numerator of the error percentage for OBX-5 will contain error counts for OBX-3, while the denominator will contain the number of occurrences for OBX-5. Basically, the indicator being looked at in the numerator is not the same as the indicator being looked at in the denominator. It's like dividing apples over oranges to get the error rate for oranges.

- PHC-Hub currently does not have an issue resolution for PID-23 (Patient Birth Facility). The impact of this on the iQ reports is that there will be a 100% success rate and 0% error and warning rates displayed in the DQA for this HL7 data element.

- PHC-Hub currently does not have an issue resolution for PID-22 (Patient Ethnicity). The impact of this on the iQ reports is that there will be a 100% success rate and 0% error and warning rates displayed in the DQA for this HL7 data element.

- PHC-Hub currently does not have an issue resolution for RXA-6 (Vaccination Amount). The impact of this on the iQ reports is that there will be a 100% success rate and 0% error and warning rates displayed in the DQA for this HL7 data element.

- Changes to the State Expectation Rate are not reflected in the DQA report.

- On the DQA Admin page, an additional category titled "Unspecified" is present.

- An additional category titled "Unspecified" is displaying in the DQA Admin page. This additional category has bumped the list of data elements into categories that do not make sense. For example, configurations the user can perform to Patient Information can be found under the Next of Kin category and configurations the user can perform to Next of Kin data elements can be found under the Vaccination Information category. The Vaccination Information category is present, but does not have all data elements listed. For this release, the user will not be able to configure all of the Vaccination data elements for the DQA and Action Item list.

- The new RXA-18 issue resolution is considering RXA-20

- Due to an implementation flaw in PHC-Hub, the DQA will not show accurate calculations for the RXA-18 field. The "is missing" issue resolution type for RXA-18 is not considering the content of RXA-20, which defines whether or not RXA-18 should be populated. This may cause the error rate for RXA-18 to be over reported as it will be counting false errors where RXA-18 should not error if missing.

- The DQA does not list VIS barcode as a Core IIS data element.

- Since Publication Date and VIS Barcode have a common issue resolution in PHC-Hub, these two instances of OBX-5 are combined in DQA Report as one: the VIS publication date.

- The denominator count is not incremented when an Error is received for a data element whose segment is missing.

- Due to the design limitation and how PHC-Hub issue resolutions work, iQ does not count data elements if their parent segment is missing, but errors may be generated for those data elements if their issue resolution is set to error for "is missing". Due to this, the DQA Report may generate higher than error and warning rates.

- Due to a miscommunication between iQ and PHC-Hub, error counts for issue resolutions PID-11.6 (when Invalid), PID-25 (Birth Order and Birth Indicator are inconsistent), OBX-5 (errors for Effective Date/Expiration Date), OBX-14 (if before the Patient's Date of Birth) will return error and warning count as 0.

Data Summary Issues

The following are known issues regarding the Data Summary report page:

- The graph for Patient Records Received by the IIS is mistitled.

- The graph for "Patient Records Received by IIS" is mistitled to display "Patient Records Received by PHC-Hub".

- Due to the fact that ImMTrax processes HL7 messages in a different way as compared to IWeb, HL7 Message Milestone Tracker may not show a correct count for messages that are "In Processing" or "Saved in IIS".

- Due to the above-mentioned bug, these reports on the Data Summary dashboard will not show any data:
  - Patient Records Accepted by IIS
  - Patient Records in Processing

- Due to the same bug, these reports on the Data Summary dashboard may not show correct data:
  - Vaccination Records Received by IIS
  - Vaccination Records Accepted by IIS

HL7 Location Quality Dashboard Issues

The following are known issues regarding the HL7 Quality Dashboard page:

- The label for the x-axis in the Top 10 and Bottom 10 HL7 Data Elements graphs does not match the Data Element descriptions as listed in the DQA report. This may cause some confusion for the end user, since the labels for data elements are inconsistent between these two reports.

- The tooltip for the Top 10 and Bottom 10 HL7 Data Elements does not contain the HL7 message location for the data element, making it difficult to determine which data element is on the graph.

- In reports, overlapping of multiple data points may result in one of the data points blocking data points that have the same value. Similar scenarios can occur if we have overlapping data points at corresponding locations across the graph, which may result in overlapping trend lines. As a workaround, the user can

deselect each data point by clicking on the legend that represents that data point below the graph. This will make it easier to see the data point the user is interested in and he or she can click on it to view the drill-down.

- Tooltips in EHR Comparison report will not show data element related information such as error count and performance.

- HL7 Data Element Success Rate report displays every selected data element from the drop-down menu, irrespective of the HL7 location selected. (The filter for HL7 location is misplaced and not functional.)

- The table view for the Top 10 and Bottom 10 HL7 Data Elements only displays the first 13 data elements in the HL7 Location Quality dashboard.

- The table view for Top/Bottom 10 HL7 Data Elements Report will only show Top/Bottom 13 data elements with the most/least error rates, respectively, rather than the entire list of data elements.

Transaction Log Viewer Issues

The following are known issues regarding the HL7 Transaction Log viewer:

- ImMTrax Only: Due to a bug in the application, iQ users will not be able to access the Transaction Log Viewer.

- There is no differentiation between contraindication and vaccinations. If a contraindication is submitted in a patient record, that contraindication will generate as a separate patient record just like what is occurring with vaccinations. For example, if a patient record contains four vaccinations and one contraindication, five separate patient records containing each vaccination and the contraindication will be listed in the transaction log viewer.

- HL7 messages without a patient DOB generate a Milestone 1 and Milestone 2 FAIL message that does not contain Core IIS Elements for Milestone 1.

- Transaction Log Viewer will not be able to distinguish Production data from Pre-Production Data and will show an aggregate data of both the environments in this release.

- Transaction Log Viewer will not be able to identify which data element and issue resolution caused the message to fail at Milestone 2.

- Transaction Log Viewer will not be able to record HL7 messages that failed at Milestone 0 in this release.

- As of this release, Transaction Log Viewer will not be able to filter data based on Facilities. We are aware that this has been an issue since the April release of this application.

Onboarding Module

The following are known issues regarding the onboarding module.

Onboarding Administration Page

- In this release, users will not have an option to create distribution lists for contacts. As a workaround, the user can select multiple contacts for e-mail purposes.

Healthcare Provider Onboarding Panel

- Header fields visible on the onboarding panel for each of the providers will not be dynamically configurable. They will be static fields providing general information about the provider getting onboarded. The information will be extracted by what is entered in the provider's interface form. Refer to the user guide for more details.

Interface Form

- In this release, the feature allowing the user to export information entered in a provider's interface form will not be present.