



***PHIN Message Quality Framework (MQF)
User Guide:***

*Version 3.0
October, 2014*

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INSTRUCTIONS FOR USING THE SYSTEM

GETTING STARTED

1. In order to access the system, input the following URL: <https://phinmqf.cdc.gov/>.

Result: The following window displays. You have accessed the Home Page of the PHIN Message Quality Framework (MQF) application.

2. To continue, click one of the Message Domains

The screenshot shows the PHIN Message Quality Framework (MQF) Home Page. The page has a blue header with the CDC logo and the text 'PHIN MESSAGE QUALITY FRAMEWORK Release 3.0'. A 'Support' link is in the top right. Below the header is a navigation bar with 'Home'. The main content area is divided into three columns:

- Left Column (References):** Contains links for 'About MQF', 'Release Notes', 'Supported Specifications', 'Related Specifications', 'Case Notification', 'ELR', 'Immunization', 'PHLIP', 'Syndromic Surveillance', and 'Related Websites' (CDC Meaningful Use, ISDS Meaningful Use, PHIN Certification).
- Center Column (Welcome to MQF):** Contains a welcome message and a list of 'Message Domains' including Case Notification, Meaningful Use-Electronic Laboratory Reporting Receiver Profile, Meaningful Use-Electronic Laboratory Reporting Sender Profile, Meaningful Use-Immunization HL7 2.3.1, Meaningful Use-Immunization HL7 2.5.1, Meaningful Use-Syndromic Surveillance HL7 2.3.1, Meaningful Use-Syndromic Surveillance HL7 2.5.1, and PHLIP.
- Right Column (Instructions):** Contains instructions for using the system, explaining the static left column, the dynamic right column, and the center portion where users interact with PHIN MQF.

A red callout box with a white border points to the 'Message Domains' section, containing the text: 'You interact with MQF in this area.'

MQF NAVIGATIONAL AIDS

The *left navigation panel* remains static as you use the system and provides you with References, Related Specifications, Related Websites, User Links, Downloads and Sample Messages.

The *right navigation panel* is dynamic and provides you with instructional information as you navigate through the system.

The *center portion of the page* is a dynamic work area and is the area where you interact with PHIN MQF. To access one of the links in blue type in the left column, click on that link.

These areas on the page are discussed in detail as you progress through the manual.

LEFT NAVIGATION PANEL

The *left navigation panel* remains static as you use the system and provides you with links to References, Related Specifications, Related Websites, User Links, and Downloads of profiles.

References
About MQF
Release Notes
Supported Specifications
Related Specifications
Case Notification
ELR
Immunization
PHLIP
Syndromic Surveillance
Related Websites
CDC Meaningful Use
ISDS Meaningful Use
PHIN Certification
PHIN MS

The **References** section on the *left navigation panel* provides you with information about the current release. The About MQF link opens another window and displays the current MQF release number as well as the date released. The Release Notes link opens a PDF file that outlines all enhancements and defects that have been fixed in the current release. The graphic below displays a sample Table of Contents for a Release Notes document.

Table of Contents	
INTRODUCTION	4
Objective	4
System Overview	4
RELEASE 2.7 OVERVIEW	4
Release Scope	4
Message Validation Development Content.....	4
Enhancement/Defects.....	5
Vocabulary Validation Definitions Not Validated in Current Release	6
Configuration Notes.....	7

The final link is Supported Specifications. This link opens a PDF file, which outlines all published messaging standards that are supported in the current MQF release. The file further defines for each messaging standard what type of validation is performed: structural, constraint, and vocabulary validation. The following is a screen shot of the Supported Specification PDF.

SUPPORTED SPECIFICATIONS

MQF supports HL7 validation for the following published message standards:

Meaningful Use
 The American Recovery and Reinvestment Act authorizes the Centers for Medicare & Medicaid Services (CMS) to provide a reimbursement incentive for physician and hospital providers who are successful in becoming “meaningful users” of an Electronic Health Record (EHR). Starting in 2015, providers are expected to have adopted and be actively utilizing an EHR in compliance with the “meaningful use” definition or they will be subject to financial penalties under Medicare. In order to support Medicare and Medicaid Programs; Electronic Health Record Incentive Program; Final Rule for Meaningful Use, the MQF system has implemented message validation support. To meet this need, the following requirements have been included in PHIN MQF.

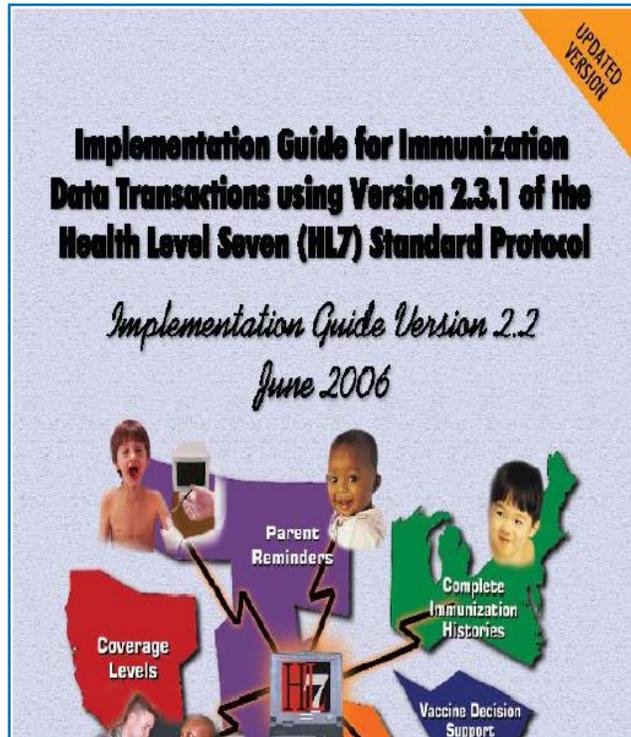
Structural / Constraint / Vocabulary Validation is implemented for the following:

The **Related Specifications section** on the *left navigation panel* provides links to the messaging standards used as a basis for the message validation within the MQF system. The Case Notification link opens the page detailing Case Notification Message Mapping Guide information.

The screenshot shows the PHIN website interface. At the top left is the PHIN logo with the tagline 'PUBLIC HEALTH INFORMATION NETWORK' and 'CONNECTING PUBLIC HEALTH'. Below the logo is a navigation menu with the following items: PHIN Home Page, About, Conference, Resources, Standards, Public Health at Every Table, Applications & Services, Vocabulary, Messaging, **Case Notification** (highlighted), Guides, Training, Certification, Library, Communities, Meaningful Use, News & Events, and Contact. The main content area features a breadcrumb trail: PHIN Home Page > Resources > Messaging. Below this are social media sharing buttons for Recommend, Tweet, and Share. The main heading is 'Case Notification Message Mapping Guides', followed by a list of guides: Arboviral, Tuberculosis, Generic, Generic Summary, and Varicella. A paragraph explains that the page provides case notification message mapping guides and other artifacts used for messaging HL7 v2.5 data to CDC. It instructs users to click on the MMG they want to implement and reference the '2010 Event Codes and Reporting Mechanisms' document. Below the text are two links: 'PHIN NNDSS Case Notification Certification Process' and 'PHIN Batch Specification V1.1'. On the right side, there are utility links: Email page link, Print page, Get email updates, Subscribe to RSS, and Listen to audio/Podcast. There are also two promotional banners: one for CDC 24/7 with the slogan 'Saving Lives. Protecting People.' and another for Vital Signs with the slogan 'Learn about the latest public health data.' At the bottom right, there is a 'Contact Us' section with the address: Public Health Information Network (PHIN), 1600 Clifton Rd, Atlanta, GA 30333, and the phone number 1-800-532-9929.

The ELR Specification link will open a window that provides information about the HL7 website where the ELR specification can be purchased and downloaded. MQF is **not allowed** to distribute the ELR implementation guide since [the guide](#) is copyrighted by Health Level Seven International and [therefore](#) requires an HL7 licensing agreement to purchase.

The Immunization Implementation Guide can be accessed by clicking the Immunization link. The following guide opens in PDF format.



When you click the PHLIP link, you are directed to the APHL-CDC Public Health Laboratory Interoperability Project (PHLIP) Messaging Guide PDF. The purpose of this document is to specify the Health Level Seven (HL7) messaging guide, as supported by laboratory information systems, for the reporting of influenza test results.



APHL-CDC Public Health Laboratory
Interoperability Project (PHLIP)

MESSAGING GUIDE FOR INFLUENZA
TEST RESULT REPORTING
BY PUBLIC HEALTH LABORATORIES

ORU^R01

If you click the Syndromic Surveillance link, you are directed to the following page.

PHIN MESSAGING GUIDE FOR SYNDROMIC
SURVEILLANCE: EMERGENCY
DEPARTMENT AND URGENT CARE DATA

ADT MESSAGES A01, A03, A04, and A08
HL7 Version 2.5.1
(Version 2.3.1 Compatible)

Release 1.0

Related Websites

- [CDC Meaningful Use](#)
- [ISDS Meaningful Use](#)
- [PHIN Certification](#)
- [PHIN MS](#)
- [PHIN VADS](#)

The **Related Websites** area of the *left navigation panel* provides links to additional websites that are resources for MQF: CDC Meaningful Use, ISDS Meaningful Use, PHIN Certification, PHIN MS, and PHIN VADS.

When you click the “CDC Meaningful Use” link, the CDC Meaningful Use website displays (see below) providing information on Meaningful Use topics.

In addition, this website provides external links, and provides answers to Frequently Asked Questions.

The screenshot shows the CDC website's 'Meaningful Use' page. At the top, there is a search bar and a navigation menu with letters A-Z. The main banner features a word cloud with terms like 'EHR', 'incentive', 'payments', and 'Medicaid'. Below the banner, the 'About Meaningful Use' section explains the ARRA act. The 'In-Focus' section highlights new guidance for Public Health Agencies. The 'In the Spotlight' section mentions a training course and a PHIN Messaging Guide. On the right, there are links for email updates, RSS, and audio/podcast, as well as promotional banners for CDC 24/7 and Vital Signs.

When you click the ISDS Meaningful Use link, the International Society for Disease Surveillance website displays providing Background, Development Process, and Support information regarding ISDS Meaningful Use.

ISDS
INTERNATIONAL SOCIETY
FOR DISEASE SURVEILLANCE *ing population health by advancing the science and practice of disease surveillance*

Search Site

Home About ISDS Annual Conference Communities **Programs** Resources

ISDS Meaningful Use Projects

2013 PHIN Messaging Guide for Syndromic Surveillance: Release 1.9

ISDS, in collaboration and with the support of CDC, developed an update to the PHIN Messaging Guide for Syndromic Surveillance. This revision includes specifications for messaging EHR information from Emergency Department, Urgent Care and Inpatient settings to public health authorities (PHAs). The inpatient specifications are a new addition and result from the [2012 ISDS Recommendations](#) for Inpatient settings.

[Project Homepage](#)

Programs

- Webinars
- Meaningful Use**
 - ISDS Meaningful Use Projects
 - Meaningful Use Resources
 - Meaningful Use Community Call
- Syndromic Surveillance 101

When you click the PHIN Certification link from the *left navigation panel*, the Public Health Information Network (PHIN) website opens presenting PHIN Certification information. In addition, you can access the PHIN Certification Criteria and Process v.10 PDF, and the latest PHIN news that is available.

The screenshot shows the PHIN website's 'Certification' page. The header features the PHIN logo and the tagline 'CONNECTING PUBLIC HEALTH'. The left navigation panel is expanded to 'Certification', listing options like 'Available Certifications', 'Requirements', and 'Timeline'. The main content area includes a 'PHIN Home Page' breadcrumb, social media sharing options, and a 'Certification' section explaining the process. A link for 'PHIN Certification Criteria and Process v1.0' is provided. Below, there is a 'Latest News' section dated 1/1/2013, mentioning the discontinuation of the PHIN Cascade Alerting certification. The right sidebar contains utility links (Email page link, Print page, etc.), a 'CDC 24/7' advertisement, a 'VitalSigns' advertisement, and contact information for the Public Health Information Network.

When you click the PHIN MS link from the *left navigation panel*, the Public Health Information Network (PHIN) website displays detailing information about the PHIN Messaging System. This website provides links to installation and support information.

The screenshot shows the PHIN website's 'PHIN Messaging System' page. The header is consistent with the previous page. The left navigation panel is expanded to 'Applications & Services', listing various systems like CTS, CIT, CP, CRA, IMATS, ELR Translation, EPI-X, HAN, LRN, LUNA, and NEDSS. The main content area features a breadcrumb trail 'PHIN Home Page > Resources > Applications & Services', social media sharing options, and a 'PHIN Messaging System' section with a list of links: Overview, Important Documentation, Quick Tips For Getting Started, Frequently Asked Questions, Getting Support for PHINMS, and Digital Certificate Policy. An 'Overview' section follows, describing the need for interoperable messaging systems and the role of PHINMS. The right sidebar includes utility links, the same 'CDC 24/7' and 'VitalSigns' advertisements, and contact information for the PHIN, including the address '1600 Clifton Rd Atlanta, GA 30333' and the phone number '1-800-532-9929'.

If you select PHIN VADS, the PHIN Vocabulary Access and Distribution System (VADS) website displays. This site allows you to Search Vocabulary, Download Vocabulary, and provides a compilation PHIN VADS Hot Topics.

The screenshot shows the PHIN Vocabulary Access and Distribution System (VADS) website. The header includes the title "PHIN Vocabulary Access and Distribution System (VADS)", a "Help | Contact Us" link, and the CDC logo. Below the header is a navigation bar with "Search Home", "RCMT", and "Quick Search" options, along with a "Subscribe" button. The main content area features a search bar with a magnifying glass icon and a "Search All Vocabulary" button. A sidebar on the left contains navigation links under "Application Version: 3.3.9", "Content Version: 2011.06.17", "Release Notes", "Related Link(s)", and "Developer Link(s)". The main content area displays "PHIN VADS Hot Topics" with three entries: "RCMT - Reportable Condition Mapping Table provides mapping between conditions and its associated lab test and results.", "Meaningful Use Healthcare Provider Reporting to Central Cancer Registries - Value sets associated with Implementation Guide for Healthcare Provider Reporting to Central Cancer Registries (Release 1.0)", and "ELR HL7 2.5.1 - Value sets associated with Electronic Laboratory Reporting HL7 2.5.1 Implementation Guide." Each entry includes links to navigation, PDF files, discussion threads, recordings, and vocabulary content.

The **User Links** area of the *left navigation panel* provides further support documentation for MQF including MQF Frequently Asked Questions, a link to this MQF User Guide and a link to PHIN MQF Glossary. The Glossary defines terminology and acronyms that are used in the discussions of MQF.

User Links
FAQ
User Guide
MQF Glossary
Downloads
Profiles

An example of the Frequently Asked Questions PDF is displayed below.

PHIN MQF Frequently Asked Questions

1. What is PHIN MQF?

The Message Quality Framework (MQF) is a flexible framework of services and utilities designed to assist public health partners with preparing and communicating quality, standard electronic messages as defined by the applicable messaging, vocabulary, and programmatic standards.

The PHIN Message Quality Framework (MQF) application is designed to accompany and to assist other CDC Public Health systems and partners in promoting the use of data and information system standards to advance the development of efficient, integrated, and interoperable surveillance systems at federal, state, and local levels.

2. What are the objectives including functionality of MQF?

The PHIN Message Quality Framework (MQF) is a Web application, which enables users to load HL7 messages for structural, and message mapping Guide-constrained validation through the following methods:

- Sample (a pre-defined example message that is built into MQF)
- Cut and Paste Message (a message you Cut and Paste into the Message Validation area)
- File (a message that you browse for and load from your local system or network)

Once an HL7 message is loaded, a user may then edit the message in the MQF Validation Message Text

The **Download** area on the *left navigation panel* provides the capability to download the conformance profiles used within MQF for validation. A download provides Rhapsody s3d and XML formatted files that contain the structural and constraint validation for a selected domain (i.e., Case Notification, PHLIP, Immunization, etc).

The package that is downloaded also contains a Supplemental Specification document that provides the mapping, rules, and vocabulary that is validated for a selected message domain.

When you click *Profiles* under the Downloads section, the following window displays listing the available downloaded profiles.

The screenshot shows the PHIN MESSAGE QUALITY FRAMEWORK website interface. The header includes the CDC logo, the title "PHIN MESSAGE QUALITY FRAMEWORK", "Release 3.0", and a "Support" link. The breadcrumb trail is "Home > Downloads". The left navigation panel has four sections: "References" (About MQF, Release Notes, Supported Specifications), "Related Specifications" (Case Notification, ELR, Immunization, PHLIP, Syndromic Surveillance), and "Related Websites" (CDC Meaningful Use, ISDS Meaningful Use, PHIN Certification, PHIN MS, PHIN VADS). The main content area is titled "Downloads" and lists five profiles: Electronic Laboratory Reporting Profile, Immunization Profile, NND, PHLIP Profile, and Syndromic Surveillance Profile. A red callout box with a white border points to the list and contains the text "You can find profiles here." To the right of the list is an "Instructions" box with the text "The center portion of the page lists the downloaded profile."

RIGHT NAVIGATION PANEL

The *right navigation panel* is dynamic and provides you with instructional information as you navigate through the system. As you progress through the system, the system presents immediate instructions and dynamically changes with each window.

Instructions

You have accessed the Home page of MQF.

The left column remains static as you use the system and provides you with References, Related Links, and User Links, and Profile Downloads.

The right column is dynamic and provides you with instructional information as you navigate through the system.

The center portion of the page is the area where you interact with PHIN MQF.

To continue, click the desired domain listed under Message Domains.

DYNAMIC WORK AREA

The *center portion of the page* is the dynamic work area and is the area where you interact with PHIN MQF. In order to begin message validation, a message domain must be selected. To access one of the Message Domains in blue type, click on that link.

The screenshot shows the PHIN Message Quality Framework (MQF) user interface. The top navigation bar includes the CDC logo, the title "PHIN MESSAGE QUALITY FRAMEWORK Release 3.0", and a "Support" link. The left sidebar contains navigation menus for "References", "Related Specifications", and "Related Websites". The main content area is titled "Welcome to MQF" and includes a "Message Domains" section with a list of links. A red callout box points to the "Message Domains" list, stating: "This is the Dynamic Work Area or the area where you interact with PHIN MQF." An "Instructions" panel is visible on the right side of the page.

Breadcrumbs or a *breadcrumb trail* is a navigation tool that used for the user interface. Breadcrumbs provide a trail for the user to follow back to the starting or entry point.

Note the word, *Home*, in top-left corner of the window. *Home* is an example of a breadcrumb. As you progress through the program, the breadcrumbs provide a way to trace your location within the program.

CDC PHIN MESSAGE QUALITY FRAMEWORK
Release 3.0

Support

Home

References

- About MQF
- Release Notes
- Supported Specifications

Related Specifications

- Case Notification
- ELR
- Immunization
- PHLIP
- Syndromic Surveillance

Related Websites

- CDC Meaningful Use
- ISDS Meaningful Use

Welcome to MQF

The Message Quality Framework (MQF) is a flexible framework of services and utilities designed to assist public health partners with preparing and communicating quality, standard electronic messages as defined by the applicable messaging, vocabulary, and programmatic standards.

Message Domains

- Case Notification
- Meaningful Use-Electronic Laboratory Reporting Receiver Profile
- Meaningful Use-Electronic Laboratory Reporting Sender Profile
- Meaningful Use-Immunization HL7 2.3.1
- Meaningful Use-Immunization HL7 2.5.1
- Meaningful Use-Syndromic Surveillance HL7 2.3.1
- Meaningful Use-Syndromic Surveillance HL7 2.5.1
- PHLIP

Instructions

You have accessed the Home page of MQF.

The left column remains static as you use the system and provides you with References, Related Links, and User Links, and Profile Downloads.

The right column is dynamic and provides you with instructional information as you navigate through the system.

The center portion of the page is the area where you interact with PHIN MQF.

To continue, click the desired domain listed under Message Domains.

In top-right corner of the Landing Page, note the word *Support*.

CDC PHIN MESSAGE QUALITY FRAMEWORK
Release 3.0

Support

Home

References

- About MQF
- Release Notes
- Supported Specifications

Related Specifications

- Case Notification
- ELR
- Immunization
- PHLIP
- Syndromic Surveillance

Related Websites

- CDC Meaningful Use
- ISDS Meaningful Use
- PHIN Certification

Welcome to MQF

The Message Quality Framework (MQF) is a flexible framework of services and utilities designed to assist public health partners with preparing and communicating quality, standard electronic messages as defined by the applicable messaging, vocabulary, and programmatic standards.

Message Domains

- Case Notification
- Meaningful Use-Electronic Laboratory Reporting Receiver Profile
- Meaningful Use-Electronic Laboratory Reporting Sender Profile
- Meaningful Use-Immunization HL7 2.3.1
- Meaningful Use-Immunization HL7 2.5.1
- Meaningful Use-Syndromic Surveillance HL7 2.3.1
- Meaningful Use-Syndromic Surveillance HL7 2.5.1
- PHLIP

Instructions

You have accessed the Home page of MQF.

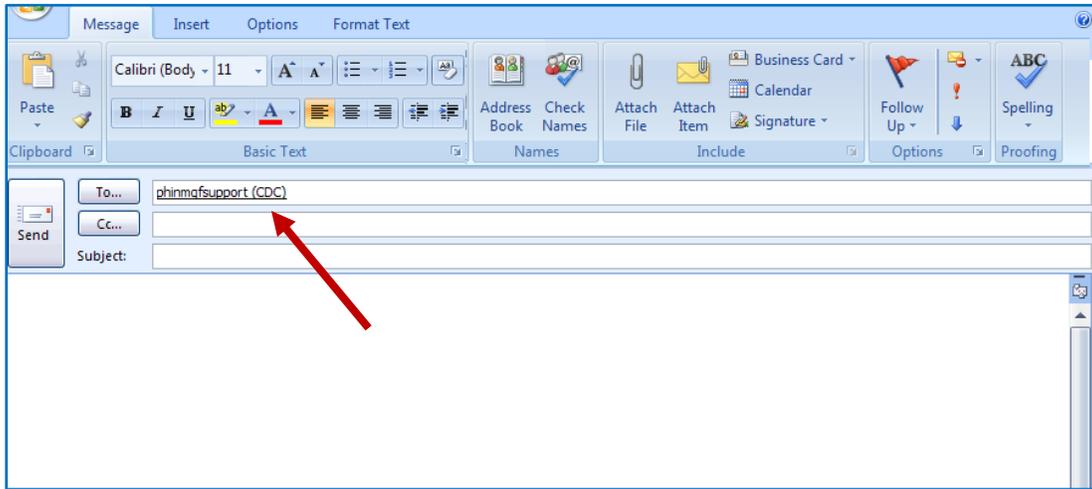
The left column remains static as you use the system and provides you with References, Related Links, and User Links, and Profile Downloads.

The right column is dynamic and provides you with instructional information as you navigate through the system.

The center portion of the page is the area where you interact with PHIN MQF.

To continue, click the desired domain listed under Message Domains.

When you click “Support,” an email opens in another window. See email sample below. As a user, if you have a problem using the system, a question about the system, or a suggested enhancement for the system, select this link.



Note the *Contact Us* link in the grey border at the bottom of the page. The *Contact Us* link has the same behavior as the “Support” link.”



The *Privacy Policy* is located in the grey border at the bottom of each page next to the *Contact Us* link. When you click “Privacy Policy,” the link directs you to the MQF Privacy Policy which explains what type of information the MQF system collects and stores.

STEPS TO CONTINUE THE VALIDATION PROCESS

In order to validate a sample message, you must complete the following five steps.

1. Load your message
2. If you selected a sample message, you must select the appropriate message specification.
3. Validate your output
4. Complete Structural Validation
5. Complete Vocabulary Validation, after you completed a successful structural validation.

LOADING A MESSAGE

You have arrived at this window because you selected a Message Domain from the Message Domain window. This screen will allow you to load a message into the system in order to validate the structure, business rules, and vocabulary for the message

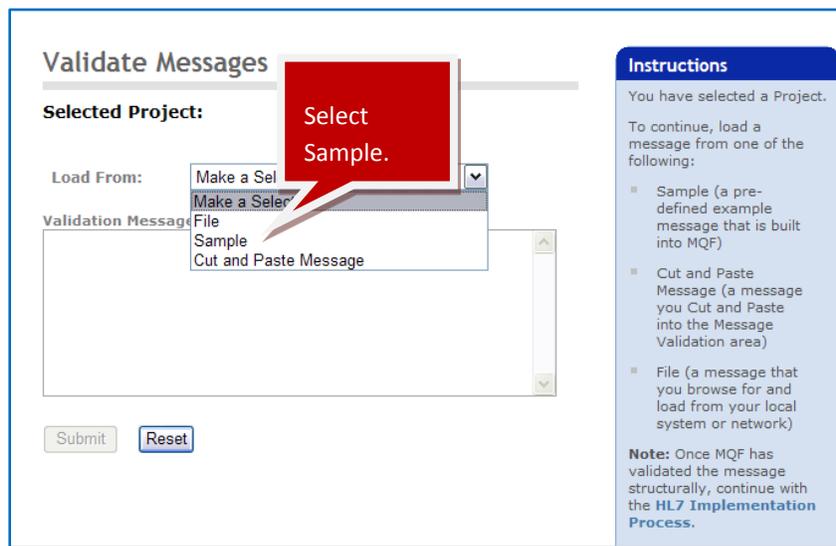
Note: In the following instructions, the windows displays without a Selected Project name. The instructions depict a generic path through the system. The Selected Project will change depending on the Message Domain you select and will display accordingly.

A message can be loaded into the MQF system in one of the following ways:

- Sample (a pre-defined example message that is built into MQF)
- Cut and Paste Message (a message you Cut and Paste into the Validation Message area)
- File (a message that you browse for and load from your local system or network)

LOADING A SAMPLE MESSAGE

1. Select Sample from the drop-down menu.



Loading a Message Specification for a Sample Message

Note: This screen is displayed only if you have selected sample message.

Validate Messages

Selected Project:

Load From:

Message Specification:

Message:

Validation Message:

Instructions

You have selected to load a Sample message.

Next, you must select the specification from the Message Specification drop-down menu.

Note: At this time, MQF supports the use of both Carriage Return Line Feed characters (Hex 0D0A) and Carriage Return characters (Hex 0D) as segment delimiters. However, when the CDC receives messages only the use of the Carriage Return character (Hex 0D) specified in the specifications/guides as segment delimiter is supported.

1. To continue, you must select a specification from the Message Specification drop-down menu that lists the currently available Message Specifications for the project.

Note: For the purposes of detailing instructions in this manual, we will only select one Message Specification path and follow those instructions for loading a sample message. . Instructions for the remaining specification paths would follow the same process.

You have arrived at this window because you selected a Message Specification.

2. Next, you must determine which of the following sample message you want to validate. There are three types of sample messages. Select a message from the drop-down menu.
 - Valid – a message that passed both structural and vocabulary validation without errors e.g., (Valid -TBV2.0Case Notification)
 - Invalid Structural – a message that did not pass structural validation and presents a structural validation error report e.g., (Invalid-TBV2.0 Case Notification)
 - Invalid Vocabulary – a message that passed structural validation, but did not pass vocabulary validation and presents a vocabulary validation error report e.g., (Invalid-Vocabulary- TBV2.0 Case Notification)
3. To continue, click “Load.”

Result: Your message displays in the text box. You can edit or make any appropriate changes to the message that displays.

Validate Messages

Selected Project:

Load From:

Message Specification:

Message:

Validation Message:

```
MSH|^~\&||OTHER REG MED
CTR^1234567890^NPI|||201102171658||ADT^A01^ADT_A01
|201102171658076|P|2.3.1
EVN|A01|201102171658
PID|1||FL01059711^^^PI||~^^^U|||F||2106-
3^White^CDCREC|^FL^33821|||||2186-
5^NotHispanic^CDCREC
EV1||I|E|||||7|||||V20220217-
```

Instructions

Your message displays in the Validation Message Area. The message that displays can be edited. You can make any appropriate changes

To continue, click Submit.

1. To continue, click “Submit.”

Note: At this time, MQF supports the use of both Carriage Return Line Feed characters (Hex 0D0A) and Carriage Return characters (Hex 0D) as segment delimiters. However, when the CDC receives messages, only the use of the Carriage Return character (Hex 0D) specified in the specifications/guides as a segment delimiter is supported.

2. Note the Reset button. When you click “Reset,” you clear all drop-down menu selections.

Note: At this time, MQF supports the use of both Carriage Return Line Feed characters (Hex 0D0A) and Carriage Return characters (Hex 0D) as segment delimiters. However, when the CDC receives messages, only the use of the Carriage Return character (Hex 0D) specified in the specifications/guides as a segment delimiter is supported.

5. Note the Reset button. When you click “Reset,” you clear all drop-down menu selections.

LOADING A MESSAGE FROM FILE

You have arrived at this window because you selected a Message Domain from the Message Domain window.

1. To load a message from File, select File from the drop-down menu.

Validate Messages

Selected Project:

Load From: File
Make a Selection
File
Sample
Cut and Paste Message

Choose File: Load

Validation Message:

Submit Reset

Instructions

You have selected to Load a message from a File.

Click Browse to locate this message in your files.

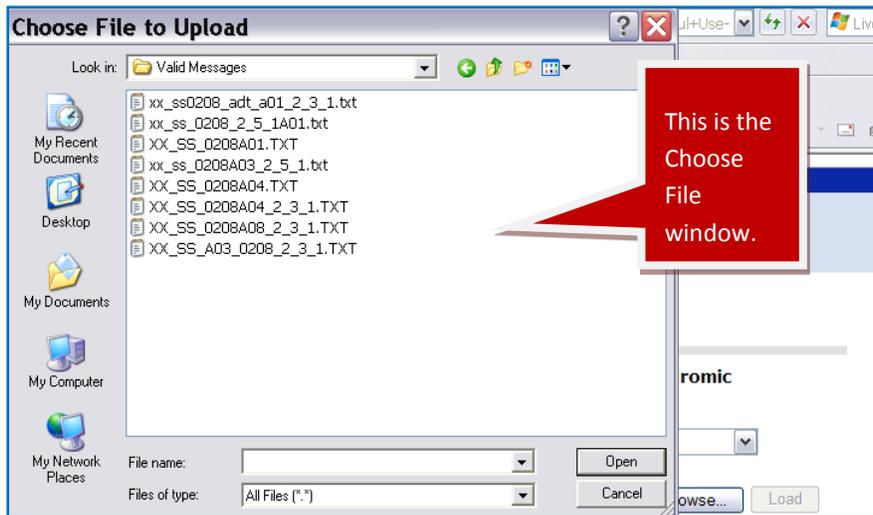
Once you have selected the message from the Choose File window, click Open. The Choose File field is populated with a path to the message file you selected.

To continue, click Load

Note: At this time, MQF supports the use of both Carriage Return Line Feed characters (Hex 0D0A) and Carriage Return characters (Hex 0D) as segment delimiters. However, when the CDC receives messages only the use of the Carriage Return character (Hex 0D) specified in the specifications/guides as segment delimiter is supported.

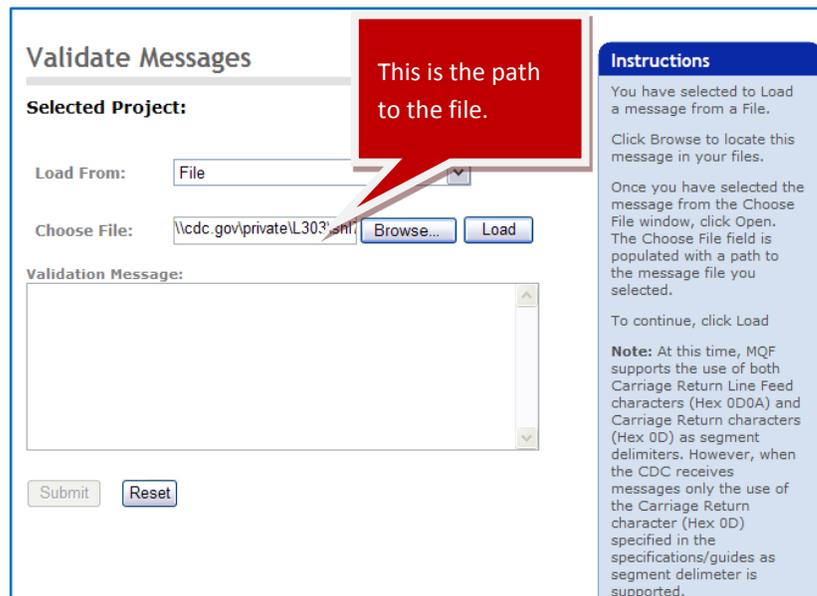
2. Browse to select a message from the Choose File window and then click "Open."

Result: The following window displays.



3. Select the file to upload.

Result: The *Choose File* field populates with a path to the message file you selected.



4. To continue, click "Load."

Result: The message you selected to load from file displays in the Validation Message text box. You can edit or make any appropriate changes to the message that displays.

Validate Messages

Selected Project:

Load From:

Choose File:

Validation Message:

```
MSH|^~\&||OTHER REG MED
CTR^1234567890^NPI|||201102171658||ADT^A03^ADT_A03
|201102171658076|P|2.3.1
EVN|A03|201102171658
PID|1||FL01059711^^^PI||~^^^U|||F||2106-
3^White^CDCREC|^FL^33821|||2186-
5^NotHispanic^CDCREC
PV1||I||E|||||7|||||V20220217-
```

Instructions

Your message displays in the Validation Message Area. The message that displays can be edited. You make any appropriate changes. To continue, click Submit.

Message Display

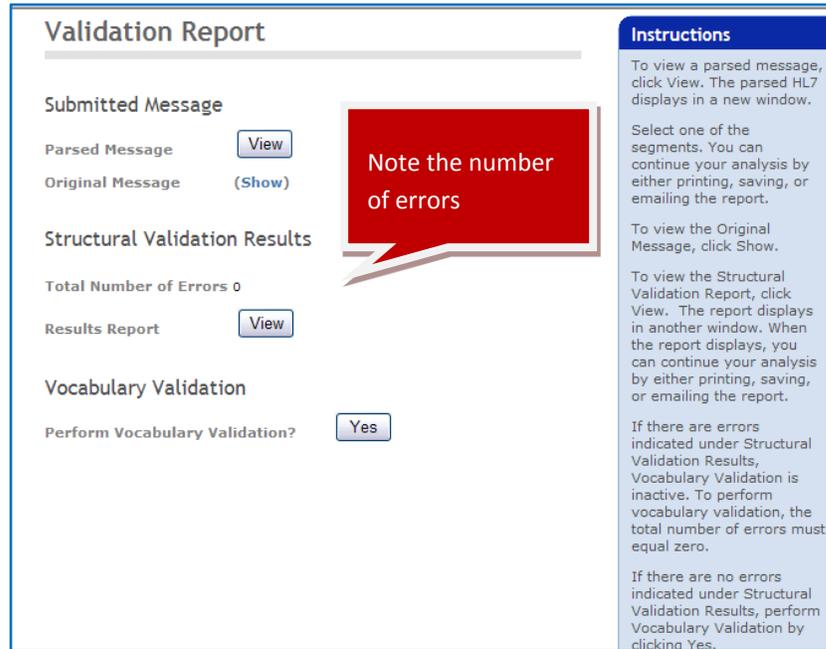
5. To continue, click “Submit.”

Note: At this time, MQF supports the use of both Carriage Return Line Feed characters (Hex 0D0A) and Carriage Return characters (Hex 0D) as segment delimiters. However, when the CDC receives messages, only the use of the Carriage Return character (Hex 0D) specified in the specifications/guides as a segment delimiter is supported.

6. Note the Reset button. When you click “Reset,” you clear all drop-down menu selections.

VALIDATING OUTPUT

This window displays after Structural and Message Constraint Validation for the message is complete. From this window, you can access the Submitted Message, view Structural Validation Results, and execute Vocabulary Validation.



Validation Report

Submitted Message

Parsed Message

Original Message [\(Show\)](#)

Structural Validation Results

Total Number of Errors 0

Results Report

Vocabulary Validation

Perform Vocabulary Validation?

Instructions

To view a parsed message, click View. The parsed HL7 displays in a new window.

Select one of the segments. You can continue your analysis by either printing, saving, or emailing the report.

To view the Original Message, click Show.

To view the Structural Validation Report, click View. The report displays in another window. When the report displays, you can continue your analysis by either printing, saving, or emailing the report.

If there are errors indicated under Structural Validation Results, Vocabulary Validation is inactive. To perform vocabulary validation, the total number of errors must equal zero.

If there are no errors indicated under Structural Validation Results, perform Vocabulary Validation by clicking Yes.

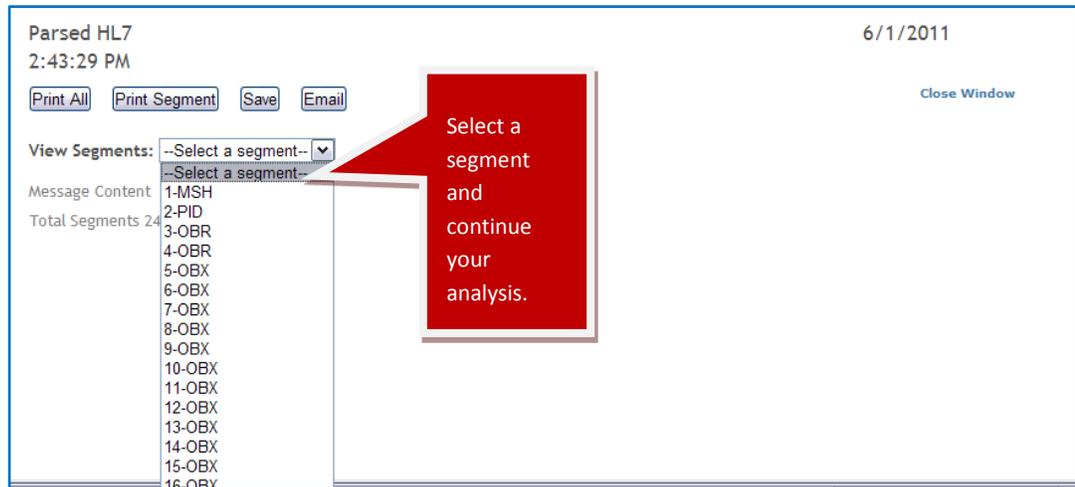
Note the number of errors

SUBMITTED MESSAGE

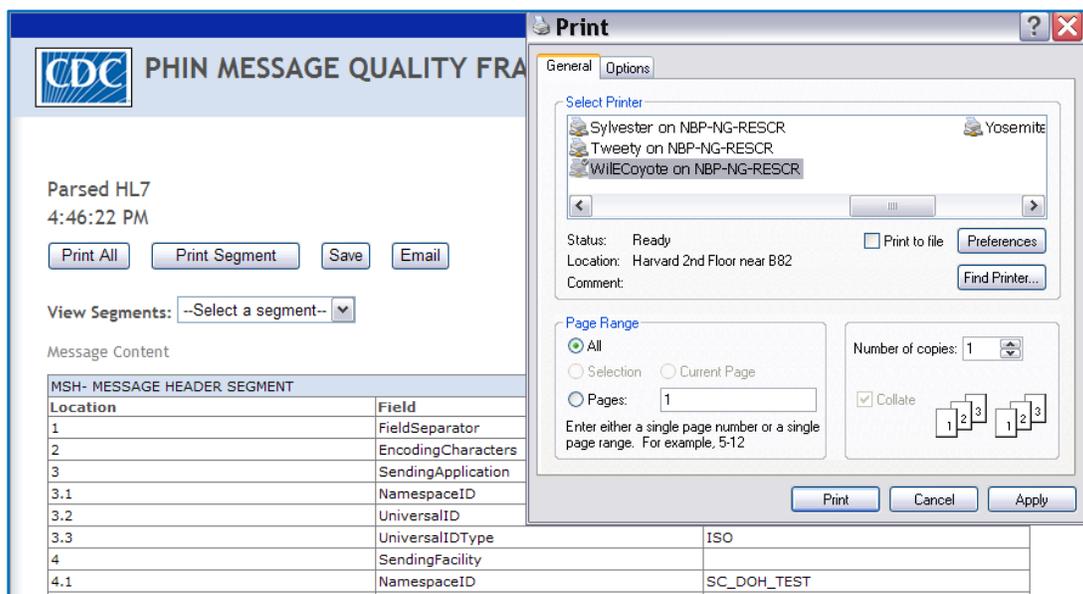
This window provides the capability to view, print, or email the submitted message.

- To view the parsed message or segments of the message, click “View.”

Result: You arrived at this window because you clicked View below the submitted message section. The parsed HL7 message selected for validation displays in a new window.

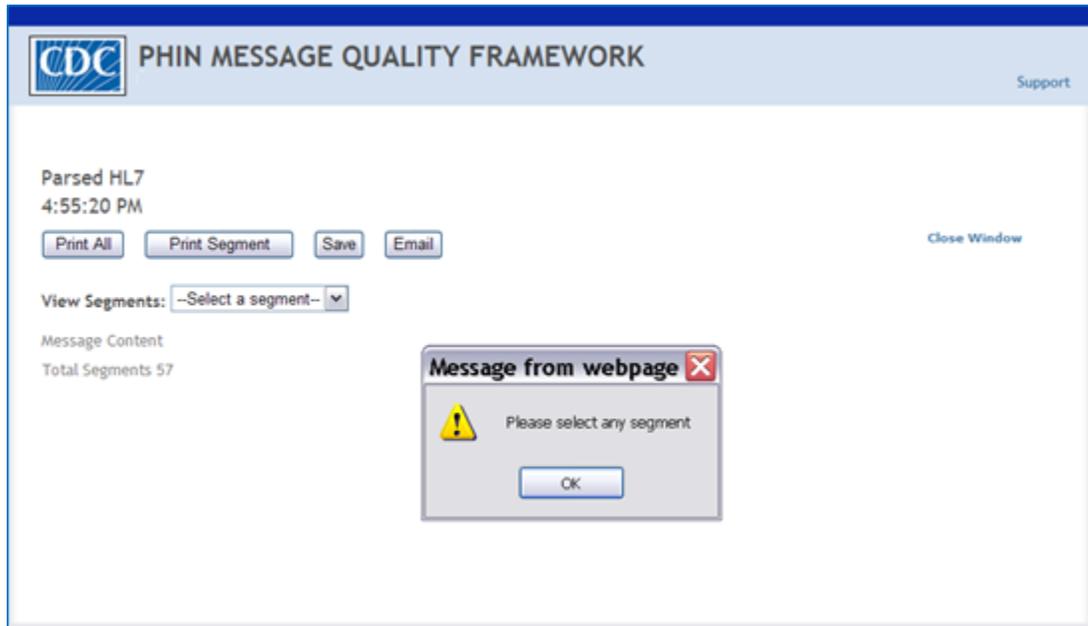


If you click the “Print All,” a new window is opened to allow selection of the printer. Once the printer and print button is selected, the entire message prints, even if a segment was selected.



To print a message segment select a message segment from the view segments drop-down list and click “Print Segment.”

Note: If a message segment has not been selected, the following message will be displayed



2. Select one of the segments.

Result: The parsed segment displays in a report in another window.

Note: The 1MSH segment was selected. You can continue your analysis by either printing, saving, or emailing the entire report.

Parsed HL7 (TB_ORU_R01_V2.0_HL7_2.5) 10/20/2014 1:44:44
 PM

Close Window

View Segments:

MSH- MESSAGE HEADER SEGMENT		
Location	Field	
1	FieldSeparator	
2	EncodingCharacters	^~\&
3	SendingApplication	
3.1	NamespaceID	NBS
3.2	UniversalID	2.16.840.1.114222.4.5.1
3.3	UniversalIDType	ISO
4	SendingFacility	
4.1	NamespaceID	SC_DOH_TEST
4.2	UniversalID	2.16.840.1.114222.4.1.3680
4.3	UniversalIDType	ISO
5	ReceivingApplication	

Description of the segment

By clicking "Save," the entire parsed message, not only the one selected, saves to a file on your local drive.

Parsed HL7(TB_ORU_R01_V2.0_HL7_2.5)

10/20/2014 2:18:55 PM

Message Content

MSH- MESSAGE HEADER SEGMENT		
Location	Field	Value
1	FieldSeparator	
2	EncodingCharacters	^~\&
3	SendingApplication	
3.1	NamespaceID	NBS
3.2	UniversalID	2.16.840.1.114222.4.5.1
3.3	UniversalIDType	ISO
4	SendingFacility	
4.1	NamespaceID	SC_DOH_TEST
4.2	UniversalID	2.16.840.1.114222.4.1.3680
4.3	UniversalIDType	ISO
5	ReceivingApplication	
5.1	NamespaceID	PHINCDS
5.2	UniversalID	2.16.840.1.114222.4.3.2.10
5.3	UniversalIDType	ISO
6	ReceivingFacility	
6.1	NamespaceID	PHIN
6.2	UniversalID	2.16.840.1.114222
6.3	UniversalIDType	ISO
7	DateTimeOfMessage	

When you click “Email button,” the email window opens. This email window provides the capability to enter the receiver email address, type a message, and attach the entire parsed message.

Note: The entire parsed message will be sent in the email, not only the one selected segment.

The screenshot displays the PHIN MESSAGE QUALITY FRAMEWORK interface. At the top left is the CDC logo with the text "PHIN MESSAGE QUALITY FRAMEWORK Release 3.0". At the top right is a "Support" link. The main content area shows "Parsed HL7 (TB_ORU_R01_V2.0_HL7_2.5)" and the time "10/20/2014 1:44:44 PM". Below this are buttons for "Print All", "Print Segment", "Save", and "Email", along with a "Close Window" link. A "Send Email" section is active, featuring a "To:" field, a "From:" field with the value "phinmqfsupport@cdc.gov", a "Subject:" field with the value "MQF Parsed HL7 Message", and an "Attachment:" field with the value "ParsedHL7Output.Html". A "Message:" text area is present with up and down arrow controls. At the bottom of the "Send Email" section are "Send Email" and "Cancel" buttons.

STRUCTURAL VALIDATION RESULTS

1. Note the Structural Validation Results displayed on Validation Report window. The total number of errors is zero (0).

The screenshot shows a 'Validation Report' window. On the left, under 'Submitted Message', there are buttons for 'View' (next to 'Parsed Message') and '(Show)' (next to 'Original Message'). Below this is the 'Structural Validation Results' section, which displays 'Total Number of Errors 0' and a 'View' button. A red callout box with a white arrow points to the 'View' button, containing the text 'Click View.'. At the bottom, there is a 'Vocabulary Validation' section with a 'Perform Vocabulary Validation?' label and a 'Yes' button. On the right side of the window, there is an 'Instructions' panel with a blue header. The instructions text reads: 'To view a parsed message, click View. The parsed HL7 displays in a new window. Select one of the segments. You can continue your analysis by either printing, saving, or emailing the report. To view the Original Message, click Show. To view the Structural Validation Report, click View. The report displays in another window. When the report displays, you can continue your analysis by either printing, saving, or emailing the report. If there are errors indicated under Structural Validation Results, Vocabulary Validation is inactive. To perform vocabulary validation, the total number of errors must equal zero.'

2. To view the Structural Validation Report, click "View."

Result: This report displays in a new window.

The report displayed contains two types of error reporting: Structural Validation and Constraint Validation reporting. Once the report displays, you can continue your analysis by either printing, saving, or emailing the report. The print, save, and email functionality is the same functionality as the parse message screen print, save, and email capability. Refer to the parse message section for further detail.

The window below displays a sample Structural Validation Report when the message has passed structural validation.

The screenshot shows the PHIN MESSAGE QUALITY FRAMEWORK interface. The header includes the CDC logo, the title "PHIN MESSAGE QUALITY FRAMEWORK Release 3.0", and a "Support" link. The main content area displays "Structural Validation Report (TB_ORU_R01_V2.0_HL7_2.5)" and the time "10/20/2014 1:55:29 PM". Below this are buttons for "Print", "Save", and "Email", and a "Close Window" link. A red callout box points to the report title with the text: "Note: The message did not generate errors." Below the buttons, a message states: "The submitted message did not generate any structural validation errors."

The window below displays a sample Structural Validation Report, which contains structural validation errors.

The screenshot shows the PHIN MESSAGE QUALITY FRAMEWORK interface. The header includes the CDC logo, the title "PHIN MESSAGE QUALITY FRAMEWORK Release 3.0", and a "Support" link. The main content area displays "Structural Validation Report (TB_ORU_R01_V2.0_HL7_2.5)" and the time "10/20/2014 2:00:06 PM". Below this are buttons for "Print", "Save", and "Email", and a "Close Window" link. A red callout box points to the "Description" column of the error table with the text: "Note the descriptions." Below the buttons, the text "Total Number of Errors: 6" is displayed. A table lists the errors:

Seg #	Seg Seq #	Seg ID	Field Rep	Field #	Comp #	Error Type	Description
7	3	OBX	1	11	NA	Error	Required field missing
9	5	OBX	1	3	1	Error	The specified value in OBX-3.1 is either invalid or the corresponding Datatype is incorrect. Check 'View Parsed HL7' on Validation Output Page for the value in OBX5 segment

The window below displays a sample Structural Validation Report, which contains no structural validation errors, but contains a Message Constraint Validation Report.

**PHIN MESSAGE QUALITY FRAMEWORK**
Release 3.0 Support

Structural Validation Report (TB_ORU_R01_V2.0_HL7_2.5) 10/20/2014 2:12:19 PM

[Close Window](#)

The submitted message did not generate any structural validation errors.

Message Constraint Validation Report

Error Code	Error Description
TB 100	Required UID NOT116: National Jurisdiction data is missing
TB 100	Required UID INV111: Date Reported data is missing
TB 100	Required UID INV173: State Case Number data is missing
TB 100	Required UID TB154: Case Verification data is missing

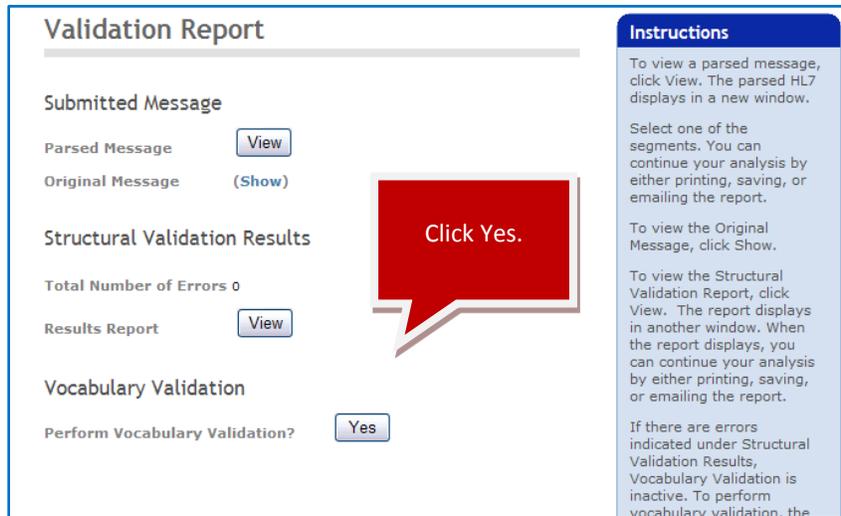
Message
Constraint
Validation Report

VOCABULARY VALIDATION RESULTS

1. If there are **errors** indicated under Structural Validation Results, Vocabulary Validation is inactive. To perform vocabulary validation, the total number of errors must equal zero (0).

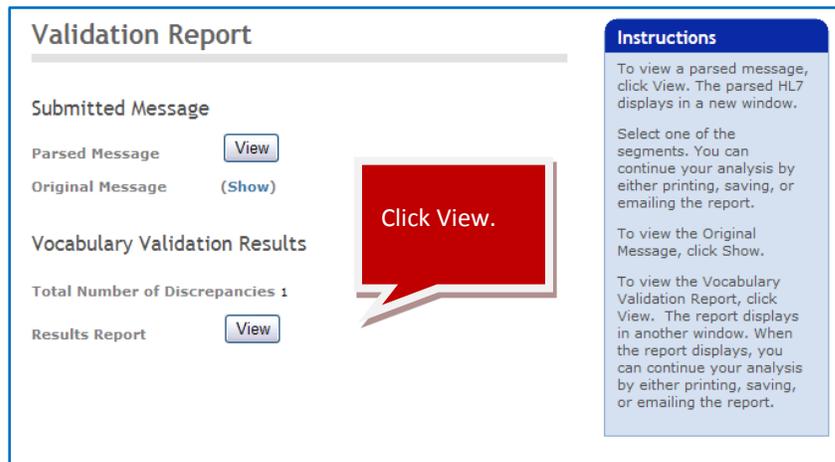
Note: “Perform Vocabulary Validation” is disabled, if the structural validation contains any errors.

2. If there are, **no errors** indicated under Structural Validation Results, click “Yes” to perform Vocabulary Validation.



The screenshot shows the 'Validation Report' window. Under the 'Submitted Message' section, there are 'View' and '(Show)' buttons. Under 'Structural Validation Results', the 'Total Number of Errors' is 0, and there is a 'View' button. Under 'Vocabulary Validation', the 'Perform Vocabulary Validation?' button is highlighted with a red callout that says 'Click Yes.' The 'Instructions' panel on the right provides guidance on how to use the 'View' and 'Show' buttons.

Result: The following window displays.



The screenshot shows the 'Validation Report' window after clicking 'Yes'. Under the 'Submitted Message' section, there are 'View' and '(Show)' buttons. Under 'Vocabulary Validation Results', the 'Total Number of Discrepancies' is 1, and there is a 'View' button. A red callout points to the 'View' button with the text 'Click View.' The 'Instructions' panel on the right provides guidance on how to use the 'View' and 'Show' buttons.

3. To view the Vocabulary Validation Results Report, click “View.”

Result: The report displays in a new window. When the report displays, you can continue your analysis by either printing, saving, or emailing the report.

The window below displays the Vocabulary Validation Report.

CDC PHIN MESSAGE QUALITY FRAMEWORK
Release 3.0 Support

Vocabulary Validation Report (TB_ORU_R01_V2.0_HL7_2.5) 10/20/2014 2:14:29 PM

[Print](#) [Save](#) [Email](#) [Close Window](#)

Total Vocabulary Validation Discrepancies: 1

Data Element	Data Value	Data Description (if available)	Coding System	Value S
DEM162: Subject Address State	t			PHVS_State_FIPS_5-2

Either the concept code value t or the coding system for the data element DEM162: Subject Address State is invalid per given valueset code