Integrating the Healthcare Enterprise

IHE Quality, Research and Public Health Technical Framework Supplement

Vital Records Death Reporting (VRDR)

Trial Implementation

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Foreword

This is a supplement to the IHE Quality, Research and Public Health (QRPH) Technical Framework 0.1. Each supplement undergoes a process of public comment and trial implementation before being incorporated into the volumes of the Technical Frameworks.

This supplement is published on October 27, 2015 for trial implementation and may be available for testing at subsequent IHE Connectathons. The supplement may be amended based on the results of testing. Following successful testing it will be incorporated into the Quality, Research and Public Health Technical Framework. Comments are invited and may be submitted at http://www.ihe.net/QRPH_Public_Comments. This supplement describes changes to the existing technical framework documents.

"Boxed" instructions like the sample below indicate to the Volume Editor how to integrate the relevant section(s) into the relevant Technical Framework volume.

Amend Section X.X by the following:

Where the amendment adds text, make the added text **bold underline**. Where the amendment removes text, make the removed text **~~bold strikethrough~~**. When entire new sections are added, introduce with editor's instructions to "add new text" or similar, which for readability are not bolded or underlined.

General information about IHE can be found at: www.ihe.net.

Information about the IHE QRPH domain can be found at: http://www.ihe.net/IHE_Domains.

Information about the organization of IHE Technical Frameworks and Supplements and the process used to create them can be found at: http://www.ihe.net/IHE_Process and http://www.ihe.net/Profiles.

The current version of the IHE QRPH Technical Framework can be found at: http://www.ihe.net/Technical_Frameworks.

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Introduction to this Supplement

Vital statistics data are the basis for national and state information relevant for promoting public health and for aiding decision makers in setting policies, directing resources, managing problems, and identifying emerging health trends. Vital Records Death Reporting is part of the process of creating the legal record of a person's death. The provider caring for the patient at the time of death is responsible for reporting medical details on death. Some of the information that is to be reported in the death record exists within the EHR. This profile will define an RFD-based content profile that will specify derivation of source content from a medical summary document. The profile will define requirements for form filler content and form manager handling of content.

This supplement is written for Trial Implementation. It is written as an addition to the Trial Implementation version of the Quality, Research and Public Health Technical Framework.

This supplement also references the following documents[1]. The reader should review these documents as needed:

1. PCC Technical Framework, Volume 1
2. PCC Technical Framework, Volume 2
3. PCC Technical Framework Supplement: CDA® Content Modules
4. IT Infrastructure Technical Framework Volume 1
5. IT Infrastructure Technical Framework Volume 2
6. IT Infrastructure Technical Framework Volume 3
7. IHE QRPH Birth and Fetal Death Reporting (BFDR) Content Profile
8. Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death
9. Health Level Seven International (HL7®) Version 2.5.1 Implementation Guide (IG): Vital Records Death Reporting Draft Standard for Trial Use (DSTU) US Realm
10. HL7® IG for Clinical Document Architecture (CDA®) Release 2: Reporting Death Info from the EHR to Vital Records, Release 1 (DSTU) US Realm
11. HL7® Electronic Health Record System (EHR-S) Vital Records Functional Profile, Release 1 (US Realm)
12. HL7® EHR-System Public Health Functional Profile (PHFP) Release 1
13. HL7® Version 3 Domain Analysis Model: Vital Records (VR DAM)

[1] The first seven documents can be located on the IHE Website at http://ihe.net/Technical_Frameworks. The remaining documents can be obtained from their respective publishers.

Open Issues and Questions

Closed Issues

1. Where should the list of data elements be specified in this new template? In the past, they were included in X.6 Content Module in some profiles. Resolved - We have included a new Section X.7 Data Requirements.
2. We will need to review whether both XPHR and MS are both appropriate for this profile or whether we need to limit to MS to capture the required attributes for the U.S. death certificate. Also the HL7® Continuity of Care Document (CCD®). Resolved - Profile includes support for all summary document types to prepop and constrains only MS for the VRDR Pre-pop Option.
3. How to reference the HL7® Message IG for VRDR in full that can be tested. Resolved - Profile directly references with no constraints and successfully tested at Connectathon 2015.
4. How to reference the HL7® Document IG for VRDR in full that can be tested. Resolved - Profile directly references with no constraints and successfully tested at Connectathon 2015.
5. Should we establish a common actor pair for HL7® information source and recipient (currently specific to Information source and Information Recipient), Resolved - Information source and Information recipient have been added. Payload will never be common.
6. HL7® Issue – OBX is optional in HL7® – we want it required. Resolved - OBX has been changed to Required in the HL7® V2.5.1 IG
    a. This was brought through the formalization process in HL7®
    b. HL7® formalized the OBX R, so statements leading in to the section requirements in Volume 2 should be updated to indicate NO FURTHER constraints
7. The ‘Save Form For Continued Editing’ Option on the Form Manager has no specific strategies identified. Resolved through QRPH and vendor discussions. VRDR was modified to state, "In order to support the need to save a form for editing at a later time, the Form Filler SHALL be able to submit a form for the same patient multiple times." Vendors encouraged allowing vendor specific solutions to address this issue, when needed rather than a defined profile approach.
8. TEMPLATE OPEN ISSUE: Template does not include optionality column. Resolved – referred to template committee. No change to document.
9. Pre-population using currently CDA® will remain out of scope pending IHE harmonization efforts. CDA® Refactoring impact on XPHR, MS, CCD® references. Resolved as stated.

10. Cause of Death (Immediate) - This is mapped to one LOINC in V2.5.1 for COD in the existing specification; however, we plan to submit a comment to DSTU to separate Immediate COD from the Intermediate Causes. LOINC code has already been requested. It was decided by HL7® and NCHS/DVS to model the death causes ordered sequentially with the immediate cause of death given the sequence number "1", and the underlying cause of death being given the highest sequence number among the set of cited causes.
11. Volume 2 Messaging mapping table - Were autopsy findings available to complete the COD - This is a DR whereas the question is BL – Were autopsy results available to complete the COD? Only correlation available in the V2.5.1 IG. Resolved - Autopsy results have been identified at BL in V2.5.1 IG.
12. Volume 3 6.3.1.D.4 Data Element Requirement Mappings to CDA® Cause of Death code/@code="69453-9" Cause Of Death (CodeSystem: 2.16.840.1.113883.6.1 LOINC): Pending LOINC updates for cause of death and interval. Resolved - LOINC codes for COD and interval have been added to the profile.
13. Volume One Actors and Options – Archive Form: Need to sort out how this handles VRDR pre-pop or Pre-pop - Pending CP details. Resolved. Archive Form Option included with direct reference to ITI approaches. No impact to VRDR.
14. Volume One Actors and Options – Doesn't have an archive option - Beware of Archive Form updates to RFD. Resolved. No ITI updates to Archive Form. Archive Form Option included with direct reference to ITI approaches. No impact to VRDR.
15. Volume 1 Actors and Transactions – Form Receiver CDA Exporter - How do we reference the additional XD* transactions required of the Form Receive CDA Exporter? (ITI-41, ITI-1, ITI-19, ITI-20?). Resolved – reference only by XD*.
16. TEMPLATE OPEN ISSUE: We should add HL7® Templates for clinical statements referenced in the profile – where would these go? Resolved – as already implemented, reference only clinical statements that have constraints. Updated the Metadata constraints and remove multiple inheritance and directly constrain the metadata as was done with BFDR.
17. TEMPLATE OPEN ISSUE: The template does not really support the need to specify the mappings for the form receiver message exporter, form receiver CDA Exporter, and the Pre-population requirements for the Form Manager. These have been reflected together as sub-sections to 6.3.1.D.4 Data Element Requirement Mappings. Resolved. Implemented as subsections to Data Element Requirement Mappings in Volume 3. Referred recommendation to template committee.
18. Death Location Type needs to stay aligned with requested HL7® corrections. Updates from HL7® will be applied to this profile once corrections made. Resolved – updated to reflect revisions from HL7®, including modelling, OIDs, LOINC, and clarification statements.

19. Autopsy Value set is pending clinical review. Resolved. Updated to reference modified value sets.
20. The Pronouncement Entry may require a new LOINC code. Resolved, Updated to reflect modified modelling and vocabularies used by HL7® IG.
21. May need to replace LOINC for VRDR Death Report Section currently listed as 64297-'Death certificate'. Resolved. Updated to "69409-1" U.S. standard certificate of death - 2003 revision.
22. Vital Records Death Reporting VRDR Conformance and Example is pending sample generation through MDHT. Resolved. Updated reference location for implementation example.
23. Sample documents to be loaded on the FTP site are pending. Resolved. Updated reference location for implementation example.
24. The requirement that a form manager be able to supply the partially filled and saved form if the same request is submitted for the same patient is listed for the Form Manager, but there is no specification for how this is done. May need future ITI transactions. Resolved through QRPH and vendor discussions. VRDR was modified to state, "In order to support the need to save a form for editing at a later time, the Form Filler SHALL be able to submit a form for the same patient multiple times." Vendors encouraged allowing vendor specific solutions to address this issue, when needed rather than a defined profile approach.
25. There is no representation for date of death qualifier (e.g., approximate); needs to be aligned with HL7®. Resolved. Updated to specify location for specifying date of death qualifier with clarification language corresponding to modelling and guidance from the HL7® IG.
26. ID (e.g., SSN) may need to be on patient in the future – under discussion in HL7®. Resolved. Updated to internationalize the Jurisdiction Patient ID reference beyond U.S. specific SSN.
27. Specify the update message and any form manager form filler associated with update needs. Resolved. No change needed.
28. CDA® IG does not have this concept (45) only 47. Resolved. HL7® IG has been updated to include this in the modelling. VRDR is updated to reflect modified modelling and value sets.
29. CDA® does not include representation for the role of the certifier, but the message does. Only the Certifier Role is represented in the CDA®, but not the CDA® IG does not have this concept (45) only (47). Alignment with HL7® is pending, Resolved. HL7® IG has been updated to include this in the modelling. VRDR is updated to reflect modified modelling and value sets.

30. Title of Certifier modeling for CDA® mapping will need harmonization with HL7® – concept not modeled in the HL7® CDA® IG. Updated VRDR to align with revised HL7® IG modelling for this concept.
31. Do we continue to offer grouping guidance? No required grouping
32. If MU requires Race/Ethnicity then we may require this. Resolved: The CMS Meaningful Use Objectives support recording race and ethnicity information in the EHR as stated in: §170.304 (c) Record demographics updated 8/13/2010 http://healthcare.nist.gov/docs/170.304.c_RecordDemographicsAmb_v1.0.pdf Also Requires use of OMB Race & Ethnicity Codes available at: http://www.whitehouse.gov/omb/inforeg_statpolicy/#dr. We will modify the description to indicate that race and ethnicity information will be reported by the funeral director or next of kin as the primary source of information. However, the EHR may also serve as a resource for documenting race and ethnicity information. - modifying from pre-populated to direct data entry. Added note: Pre-populateData Entry Required.
33. Included NOTE: data elements would be reported by the funeral director or next of kin, and the EHR would not be the primary source. However, the EHR may also serve as a resource for documenting race and ethnicity information to inform the content of this attribute.

General Introduction

Update the following Appendices to the General Introduction as indicated below. Note that these are not appendices to Volume 1.

Appendix A - Actor Summary Definitions

Add the following actors to the IHE Technical Frameworks General Introduction list of Actors:

Actor	Definition
Information Source	The Information Source Actor is responsible for creating and transmitting an HL7 V2.5.1 message to an Information Recipient.
Information Recipient	The Information Recipient Actor is responsible for receiving the HL7 V2.5.1 message from an Information Source or from a Form Receiver Message Exporter.
Form Receiver CDA Exporter	This Form Receiver CDA Exporter receives data submitted through the Submit Form Transaction (ITI-35), transforms that data to create a CDA document, and shares that newly created CDA document with a Content Consumer.
Form Receiver Message Exporter	This Form Receiver Message Exporter receives data submitted through the Submit Form Transaction (ITI-35), transforms that data to an HL7 message and sends that message to an Information Recipient.

Appendix B - Transaction Summary Definitions

Add the following transactions to the IHE Technical Frameworks General Introduction list of Transactions:

Transaction	Definition
VRDRFeed [QRPH-38]	This transaction transmits the HL7 V2.5.1 formatted message containing the Vital Records Death Reporting information

Glossary

Add the following glossary terms to the IHE Technical Frameworks General Introduction Glossary:

Glossary Term	Definition
Causes of death	All those diseases, morbid conditions or injuries which either resulted in or contributed to death and the circumstances of the accident or violence which produced such injuries. (ref ICD-10 vol 2, section 4.1.1)

Glossary Term	Definition
Certifier	Person authorized by law (e.g., the physician who attended the deceased in his/her last illness; or the medical examiner/coroner for deaths of persons who were not attended during the last illness by a physician or for unnatural deaths due to violence or accident) who reports, on the prescribed form, stating to the best of his/her knowledge and belief, the cause of death and other facts related to the event for submission to the registrar (ref UN, Handbook of Vital Statistics Systems and Methods, Volume 1, Glossary)
Certifies	Process of reporting in the jurisdiction's prescribed format on the prescribed form, to the best of his/her knowledge and belief, the cause of death and other facts related to the event for submission to a registrar
EDRS	Electronic death registration system is a jurisdiction-based system used to create and register the legal death certificate.
Immediate cause of death	Final disease or condition resulting in death, that is, one that is most proximate to time of death.
Interval from onset to death	Minutes, hours, days, weeks, months, or years between the onset of each condition and the date of death (ref ICD-10 vol 2, section 4.1.3)
Manner of death	Way the conditions reported as causes of death resulted in death, or for injuries, intent.
Other contributing causes of death	Conditions that unfavorably influence the course of the morbid process and thus contributes to the fatal outcome, but which is not related to the disease or condition directly causing death (ref ICD-10, vol 2, section 4.1.3 and UN, Handbook of Vital Statistics Systems and Methods, Volume 1, Glossary)
Pronouncer	When physician responsible for completing the medical certification of cause of death is not available at the time of death and the jurisdiction has a law providing for a pronouncer, person who determines that the decedent is legally dead but who was not in charge of the patient's care for the illness or condition that resulted in death.(ref Medical Examiners' and Coroners' Handbook on Death Registration and Fetal Death Reporting)
Pronouncing	Process of determining and reporting, in the prescribed format, that the decedent is legally dead
Sequence	Term refers to two or more conditions entered on successive lines of Part I of the cause-of-death statement, each condition being an acceptable cause of the one entered on the line above it (ref ICD-10, vol 2, section 4.1.5)
Underlying cause of death	The disease or injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury (ref ICD-10, vol 2, section 4.1.2)

Volume 1 – Profiles

Copyright Licenses

Add the following to the IHE Technical Frameworks General Introduction Copyright section:

None

Add to Section X

X Vital Records Death Reporting (VRDR) Profile

The Vital Records Death Reporting (VRDR) Profile provides a means to capture and communicate information needed for to report a death.

The Vital Records Death Reporting (VRDR) is a content profile that defines the content of Vital Records Death Reporting information that is transmitted by clinical systems to public health systems for vital registration purposes. This profile uses several different mechanisms for capturing and communicating that information:

- Defined content in CDA® documents,
- Defined content in HL7® V2.5.1 messaging,

Electronic data capture and form submission using the ITI Retrieve Form for Data Capture Profile with transformation capabilities provided by two new actors:

1. Form Receiver/CDA Exporter which transforms the form data to a VRDR CDA® Document defined in this profile in Volume 3
2. Form Receiver/Message Exporter which transforms the form data to a VRDRFeed (QRPH-38) HL7® message defined in this profile in Volume 2

X.1 VRDR Actors, Transactions, and Content Modules

This section defines the actors, transactions, and/or content modules in this profile. General definitions of actors are given in the Technical Frameworks General Introduction Appendix A at http://www.ihe.net/Technical_Frameworks.

The VRDR for Public Health Profile defines two new actors (Form Receiver CDA Exporter, Form Receiver Message Exporter), and one new transaction (VRDRFeed (QRPH-38)). It uses actors and transactions from the ITI RFD Profile (See ITI TF-2b: 3.34.4.1).

Figure X.1-1 shows the actors directly involved in the VRDR Profile and the relevant transactions between them. If needed for context, other actors that may be indirectly involved due to their participation in other related profiles are shown in dotted lines. Vital Records Death Reporting may either leverage RFD transactions to collect the information through pre-population of forms supplemented by data entry, through messaging, or using a CDA® R2 document. There is also the possibility of using the RFD transactions to support the data collection such that the submitted form is exported into specified HL7® Message or VRDR CDA®

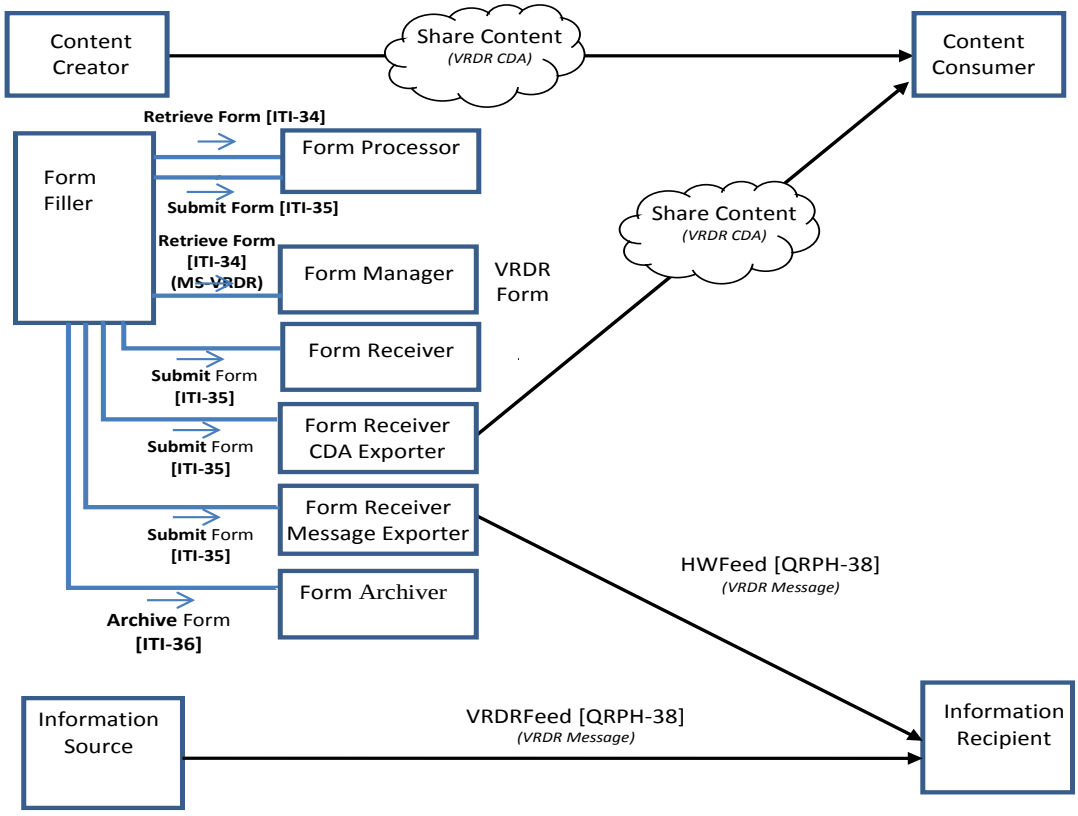


Figure X.1-1: VRDR Actor Diagram

Table X.1-1 lists the transactions for each actor directly involved in the VRDR Profile. To claim compliance with this Profile, an actor shall support all required transactions (labeled "R") and may support the optional transactions (labeled "O").

Table X.1-1: VRDR Profile - Actors and Transactions

Actors	Transactions	Optionality	Section in Vol. 2
Form Filler	Retrieve Form [ITI-34]	R	ITI TF-2b: 3.34
	Submit Form [ITI-35]	R	ITI TF-2b: 3.35
	Archive Form [ITI-36]	O	ITI TF-2b: 3.36
Form Manager	Retrieve Form [ITI-34]	R	ITI TF-2b: 3.34
Form Processor	Retrieve Form [ITI-34]	R	ITI TF-2b: 3.34
	Submit Form [ITI-35]	R	ITI TF-2b: 3.35

Actors	Transactions	Optionality	Section in Vol. 2
Form Receiver	Submit Form [ITI-35]	R	ITI TF-2b: 3.35
Form Receiver CDA Exporter	Submit Form [ITI-35]	R	ITI TF-2b: 3.35
Form Receiver Message Exporter	Submit Form [ITI-35]	R	ITI TF-2b: 3.35
	VRDRFeed [QRPH-38]	R	QRPH TF: 3.38
Form Archiver	Archive Form [ITI-36]	R	ITI TF-2b: 3.36
Information Source	VRDRFeed [QRPH-38]	R	QRPH TF: 3.38
Information Recipient	VRDRFeed [QRPH-38]	R	QRPH TF: 3.38
Content Creator	NA	O See Note 1	QRPH TF-3: 6.3.1.D.5
Content Consumer	NA	O See Note 2	QRPH TF-3: 6.3.1.D.5

Note 1: Systems initiating communications of Vital Records Death Reporting information SHALL implement either Content Creator (VRDR Document) or Information Source, or Form Filler

Note 2: Systems receiving/consuming communications of Vital Records Death Reporting information SHALL implement either Content Consumer (VRDR Document), Information Recipient, or one of the four Form Receiver Actors (Form Receiver, Form Receiver CDA Exporter, Form Receiver Message Exporter, or Form Processor).

X.1.1 Actor Descriptions and Actor Profile Requirements

Most requirements are documented in Transactions (Volume 2) and Content Modules (Volume 3). This section documents any additional requirements on profile's actors.

X.1.1.1 Form Filler

The Form Filler is defined in the ITI RFD Profile. In the VRDR Profile, the Form Filler SHALL support XHTML and SHALL NOT support XFORMS of the Retrieve Form transaction (See ITI TF 2b:3.34.4.1). The form is presented when the certifier is ready to enter death information for the purpose of completing the decedent's death certificate.

The Form Filler supports two options. A Summary Document Pre-Pop Option which utilizes any of the following summary documents:

- IHE PCC MS (Referral Summary 1.3.6.1.4.1.19376.1.5.3.1.1.3,
- Discharge Summary 1.3.6.1.4.1.19376.1.5.3.1.1.4),
- IHE PCC XPHR (1.3.6.1.4.1.19376.1.5.3.1.1.5), or
- HL7® Continuity of Care Document (CCD®) (2.16.840.1.113883.10.20.1.22)

The VRDR Pre-pop Option defines content requirements for optimizing pre-population capabilities using IHE QRPH MS-VRDR (1.3.6.1.4.1.19376.1.7.3.1.1.23.2). The Form Filler also includes an Archive Form Option to allow for recording of the submitted form. The

prepopData parameter SHALL use content defined by the Pre-Pop Option (see Section X.2.1.1) or the VRDR Pre-Pop Option (see Section X.2.1.2).

In order to support the need to save a form for editing at a later time, the Form Filler SHALL be able to submit a form for the same patient multiple times.

X.1.1.2 Form Manager

The Form Manager is defined in the ITI RFD Profile. In the VRDR Profile, the Form Manger SHALL support XHTML and SHALL NOT support XFORMS of the Retrieve Form transaction (See ITI TF-2b:3.34.4.1).

The system fulfilling this role in the VRDR Profile SHALL accept pre-pop data in the form of content defined by the IHE PCC MS (Referral Summary 1.3.6.1.4.1.19376.1.5.3.1.1.3, Discharge Summary 1.3.6.1.4.1.19376.1.5.3.1.1.4), the IHE PCC XPHR (1.3.6.1.4.1.19376.1.5.3.1.1.5) Profile, the HL7® Continuity of Care Document (CCD®) (2.16.840.1.113883.10.20.1.22) or the IHE QRPH (MS-VRDR) (1.3.6.1.4.1.19376.1.7.3.1.1.23.2) and return a form that has been appropriately pre-populated based on the mapping rules specified in 6.3.1.D.4.3 Data Element Requirement Mappings for Form Pre-Population..

If the Form Filler retrieves a previously populated form, the Form Manager shall supply the previously populated content. How the Form Manager maintains the previously populated form between submissions is not specified by IHE.

X.1.1.3 Form Receiver

The Form Receiver is defined in the ITI RFD Profile. In the VRDR Profile, the Form Receiver SHALL receive the populated form from the Form Filler when the form is submitted. No further requirements are placed on the Form Receiver within the scope of this profile.

X.1.1.4 Form Receiver CDA Exporter

This Form Receiver CDA Exporter receives data submitted through the Submit Form Transaction (ITI-35), transforms that data to create a CDA® document, and shares that newly created CDA® document with a Content Consumer. For VRDR, this transforms that data to create the VRDR CDA® Document Content (1.3.6.1.4.1.19376.1.7.3.1.1.23.1) defined in QRPH 3:6.3.1.D1, and shares that newly created VRDR content document with a Content Consumer. Detailed rules for the VRDR CDA® Document Content are fully defined in QRPH 3:6.3.1.D1. Specification of the transformation rules from the Form to the CDA® content is fully specified in Table 6.3.1.D1.4.1 Data Element Requirement Mappings to CDA®.

X.1.1.5 Form Receiver Message Exporter

This Form Receiver Message Exporter receives data submitted through the Submit Form Transaction (ITI-35), transforms that data to an HL7® message and sends that message to an Information Recipient. For VRDR, this transforms that data to be in compliance with the requirements of the HL7® V.2.5.1 VRDRFeed transaction (QRPH-38) and sends that data to an

Information Recipient using QRPH-38. Detailed rules for the VRDR message are fully defined in QRPH 2:3.38.4.1 VRDRFeed [QRPH-38]. Specification of the transformation rules from the Form to the message content is fully specified in Table 6.3.1.D1.4.2 Data Element Requirement Mappings to Message.

X.1.1.6 Form Processor

The Form Processor is defined in the ITI RFD Profile.

The Form Processor SHALL support XHTML and SHALL NOT support XFORMS of the Retrieve Form transaction.

The system fulfilling this role in the VRDR Profile SHALL accept pre-pop data in the form of content defined by the IHE PCC MS (Referral Summary 1.3.6.1.4.1.19376.1.5.3.1.1.3, Discharge Summary 1.3.6.1.4.1.19376.1.5.3.1.1.4), the IHE PCC XPHR (1.3.6.1.4.1.19376.1.5.3.1.1.5) Profile, the HL7® Continuity of Care Document (CCD®) (2.16.840.1.113883.10.20.1.22) or the IHE QRPH (MS-VRDR) (1.3.6.1.4.1.19376.1.7.3.1.1.23.2) and return a form that has been appropriately pre-populated based on the mapping rules specified in 6.3.1.D.4.3 Data Element Requirement Mappings for Form Pre-Population. The Form Processor shall support ALL of these pre-pop documents. The Form Processor must also support data capture in the absence of a pre-pop document.

If the Form Filler retrieves a previously populated form, the Form Processor shall supply the previously populated content. How the Form Processor maintains the previously populated form between submissions is not specified by IHE.

The Form Processor SHALL receive the populated form from the Form Filler when the form is submitted. No further requirements are placed on the Form Processor within the scope of this profile.

X.1.1.7 Form Archiver

The actions of the Form Archiver are defined in the ITI RFD Profile. In the VRDR Profile, the Form Archiver MAY be leveraged to support traceability of the submitted documents. No further refinements of that document are stated by this profile.

X.1.1.8 Information Source

The Information Source Actor is responsible for the creation of a VRDR Message (QRPH-38) containing the Vital Records Death Reporting attributes and transmitting this message to an Information Recipient. The Information Source SHALL create content as specified by in Volume QRPH 2:6.3.1.D.

X.1.1.9 Information Recipient

The Information Recipient Actor is responsible for receiving the HL7® Version 2.5.1 Implementation Guide (IG): Vital Records Death Reporting Draft Standard for Trial Use

(DSTU) US Realm containing the Vital Records Death Reporting attributes from the Information Source.

X.1.1.10 Content Creator

The Content Creator Actor SHALL be responsible for the creation of content and transmission of a VRDR Document to a Content Consumer. Detailed rules for the VRDR content document are fully defined in section QRPH 3:6.3.1.D.5.

X.1.1.11 Content Consumer

A Content Consumer Actor is responsible for View, Document Import, and Discrete Data Import options for VRDR content created by a VRDR Content Creator Actor.

X.2 VRDR Actor Options

Options that may be selected for each actor in this profile, if any, are listed in the Table X.2-1. Dependencies between options when applicable are specified in notes.

Table X.2-1: VRDR - Actors and Options

Actor	Option Name	Reference
Content Creator	None	--
Content Consumer	View	PCC TF V1:3.4.1.1
	Document Import	PCC TF V1:3.4.1.2
	Discrete Data Import	PCC TF V1:3.4.1.4
Form Filler	Summary Document Pre-Pop	QRPH: X.2.1.1
	VRDR Pre-Pop	QRPH: X.2.1.2
	Archive Form	QRPH: X.2.1.3
Form Manager	None	--
Form Processor	None	--
Form Receiver	None	--
Form Receiver CDA Exporter	None	--
Form Receiver Message Exporter	None	--
Form Archiver	No options defined	--
Information Source	No options defined	--
Information Recipient	No options defined	--

X.2.1 Form Filler Options

X.2.1.1 Summary Document Pre-Pop Option

This option defines the document submission requirements placed on form fillers for providing pre-pop data to the form Manager. The prepopData parameter SHALL use the following content:

- If the Form Filler supports the Summary Document Pre-Pop Option, the value of the pre-popData parameter in the Retrieve Form Request (See ITI TF 2b:3.34.4.1) shall be a well-formed xml document as defined in the IHE PCC MS (Referral Summary 1.3.6.1.4.1.19376.1.5.3.1.1.3, Discharge Summary 1.3.6.1.4.1.19376.1.5.3.1.1.4), the IHE PCC XPHR (1.3.6.1.4.1.19376.1.5.3.1.1.5) Profile, the HL7® Continuity of Care Document (CCD®) (2.16.840.1.113883.10.20.1.22), or the IHE QRPH MS-HW (1.3.6.1.4.1.19376.1.7.3.1.1.24.2)

X.2.1.2 VRDR Pre-Pop Option

This option defines the document submission requirements placed on form fillers for providing pre-pop data to the form Manager. Form Fillers doing this option SHALL use a document that will optimize the ability to process the clinical content to fill in the VRDR Form. The prepopData parameter SHALL use the following content:

- If the Form Filler supports the VRDR Pre-Pop Option, the value of the pre-popData parameter in the Retrieve Form Request (See ITI TF-2b: 3.34.4.1) shall be a well-formed xml document as defined in 6.3.1.D2 Medical Summary for VRDR Pre-pop (MS-VRDR) Document Content Module (1.3.6.1.4.1.19376.1.7.3.1.1.23.2) for the specification of the Summary content required.

X.2.1.3 Archive Form Option

If the Form Filler supports the Archive Form Option, it shall support the Archive Form transaction ITI-36.

X.3 VRDR Required Actor Groupings

There are no required groupings with actors.

X.4 VRDR Overview

Death reporting is a process for creating the legal record of a person's death and the process is subject to state or jurisdictional and international laws and regulations. Other uses of the information (e.g., statistical and public health) are byproducts of this process. Because a legal document is being created, concerns about capture in the native EHR are about verifying information, obtaining legally recognized signatures, making corrections, and how to handle transfers of responsibility when necessary. The data that may be pre-populated for vital records purposes has been limited to a very small subset based on an agreement between key vital

records stakeholders. However, individual states may decide to support more broad-based sharing of death related information.

The major intersection between the Electronic Health Record (EHR) and the Electronic Death Registration System (EDRS) is the physician who serves as a common source of information. The electronic death registration system is interested in a medical practitioner's narrative opinion only about medical events that had a role in death and how these different conditions were related to each other. The EHR captures related items that inform the opinion about cause of death. As a WHO member country, the US is obligated by the WHO Nomenclature Regulations to collect and process cause-of-death information as specified in the relevant International Classification of Diseases (ICD). The rules, regulations, and guidelines in the ICD specify the format to capture the medical practitioner's clinical judgment of cause of death and specify that the information should be reported as text to ensure full flexibility in the range of diagnoses. Free-text data entry allows capture of new or yet to be discovered diseases, studies on terminology shifts, and centralizes responsibility for transitioning to and eases implementation of new ICD revisions. Additional items that the medical practitioner is responsible for providing give additional details on the causes of death that require direct data entry and information identifying the source of the information. There are more shared items in the larger death reporting process but those are items that funeral directors are required to report.

X.4.1 Concepts

In the current use case, a physician, normally the attending physician is responsible for completing the medical certification portion of the death record in the Electronic Death Reporting System (EDRS). The physician will get an email from the funeral director notifying him that he has a death record to complete. After logging into the EDRS, the physician selects and views the appropriate record from his queue of pending death records. He opens the electronic record and begins the process of completing it. The physician consults medical records and those in recent contact with the decedent to formulate an opinion of the sequence of causes and any other significant contributing causes that resulted in death. He completes all other medical items on the record and electronically signs the record in the EDRS. The record is saved and filed electronically with the state vital statistics office.

In the following use cases, Vital Registration Systems or third party services facilitate the death reporting process by supplying interoperable forms that use data captured natively by EHR systems. This approach further minimizes the workload on the provider by pre-populating that form from information already available in the EHR as provided to the form through standard CDA® content (IHE PCC XDS-MS/XPHR and HL7® CCD® documents).

X.4.2 Use Cases

The attending physician logs into the EHR and accesses the record of a recently deceased patient to begin the process of completing information required for death certification. The EHR presents a form to the physician that contains some data that has been pre-populated. She reviews the form, completes the remaining items, and indicates that the record is complete and accurate

before data may be transmitted electronically into the EDRS. More information may be readily accessible in the EHR to formulate an opinion about causes of death. Jurisdictional legal restrictions may still require the physician to log into the EDRS and sign the record in the EDRS rather than being able to transfer the fact of the signature across the systems. The EDRS record is saved and filed electronically with the state vital statistics office.

X.4.2.1 Use Case #1: Forms Data Capture with Messaging

The Forms Data Capture with Messaging use case uses Retrieve Form for Data Capture (RFD) to present EDRS form for pre-population, and the Form Receiver system transforms the information into an HL7® VRDR message to transmit the information to Public Health.

X.4.2.1.1 Forms Data Capture with Messaging Use Case Description

When the decedent's death has been documented in the system a Summary document (e.g., IHE PCC Medical Summary, IHE PCC XPHR, CCD®) is created with Vital Record Death Reporting Content requirements. This Summary document is provided as pre-population data to a public health IHE ITI Retrieve Form for Data Capture (RFD) Forms Manager. The RFD Form Receiver provides the content to the EDRS by way of a transform to the corresponding HL7® VRDR message.

X.4.2.1.2 Forms Data Capture with Messaging Process Flow

The provider EHR presents the EDRS form providing a PCC MS/XPHR or CCD® document for Pre-population by the Form Manager. The provider completes the form, verifies the accuracy of all information, and submits the form. The Form Receiver transforms the information from the form into an HL7® VRDR message and transmits that message to the EDRS system using the Send VRDR Message (QRPH-38).

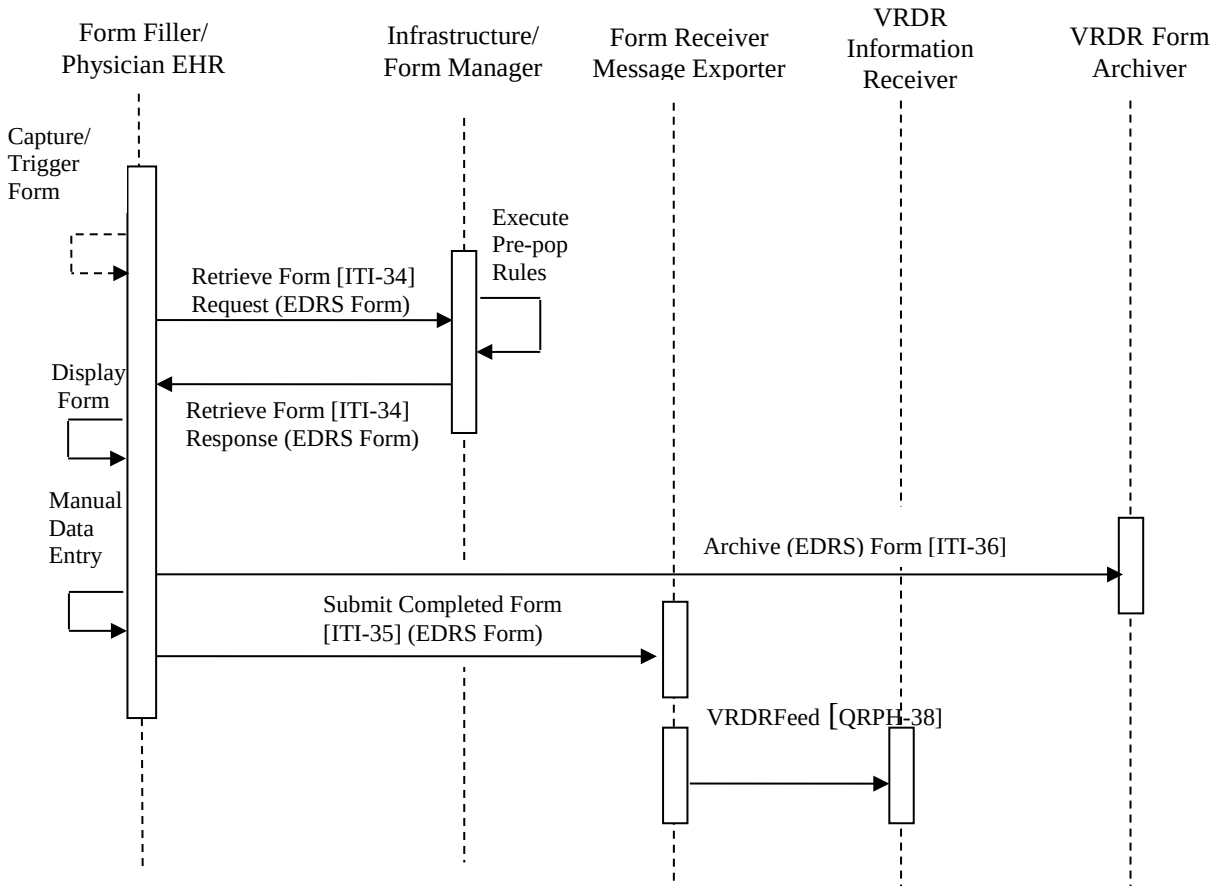


Figure X.4.2.1.2-1: Use Case 1-Forms Data Capture with Messaging

X.4.2.2 Use Case #2: Forms Data Capture with Document Submission

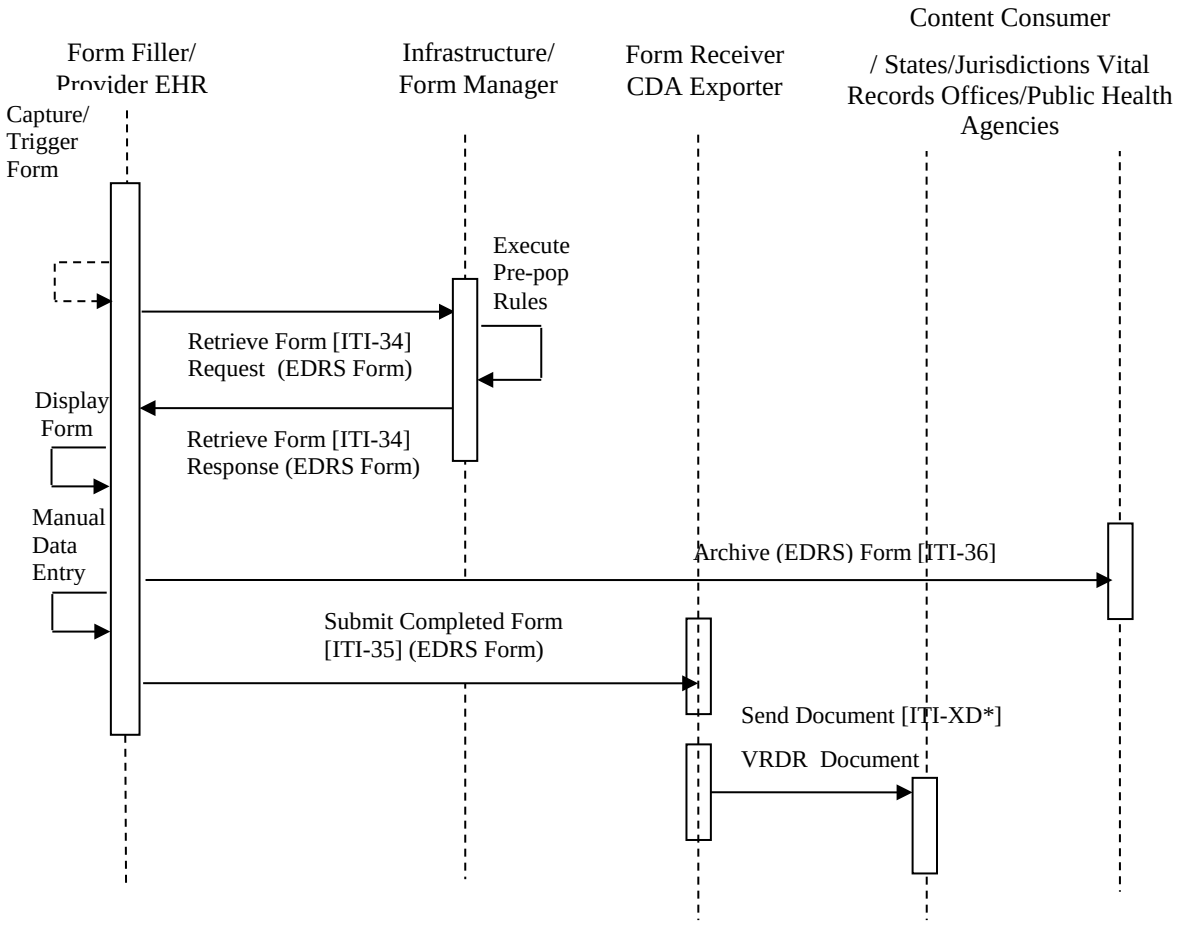
650 The Forms Data Capture with Document Submission use case uses Retrieve Form for Data Capture (RFD) to present EDRS form for pre-population, and the Form Receiver system transforms the information into an HL7® VRDR CDA® R2 document to transmit the information to Public Health.

X.4.2.2.1 Forms Data Capture with Document Submission Use Case Description

When the decedent's death has been documented in the system, a Summary document (e.g., IHE PCC Medical Summary, IHE PCC XPHR, CCD®) is created with Vital Record Death Reporting Content requirements. This Summary document is provided as pre-population data to a public health IHE ITI Retrieve Form for Data Capture (RFD) Forms Manager. The RFD Form Receiver provides the content to the EDRS by way of a transform to the corresponding HL7® VRDR CDA® R2 document.

X.4.2.2.2 Forms Data Capture with Document Submission Process Flow

The provider EHR presents the EDRS form providing a PCC XDS-MS/XPHR or CCD® document for Pre-population by the Form Manager. The provider completes the form, verifies the accuracy of all information, and submits the form. The Form Receiver transforms the information from the form into an HL7® VRDR CDA® R2 document and transmits that message to the EDRS system.



670

Figure X.4.2.2.2-1: Use Case 2-Forms Data Capture with Document Submission

X.4.2.3 Use Case #3: Native Forms Data Capture

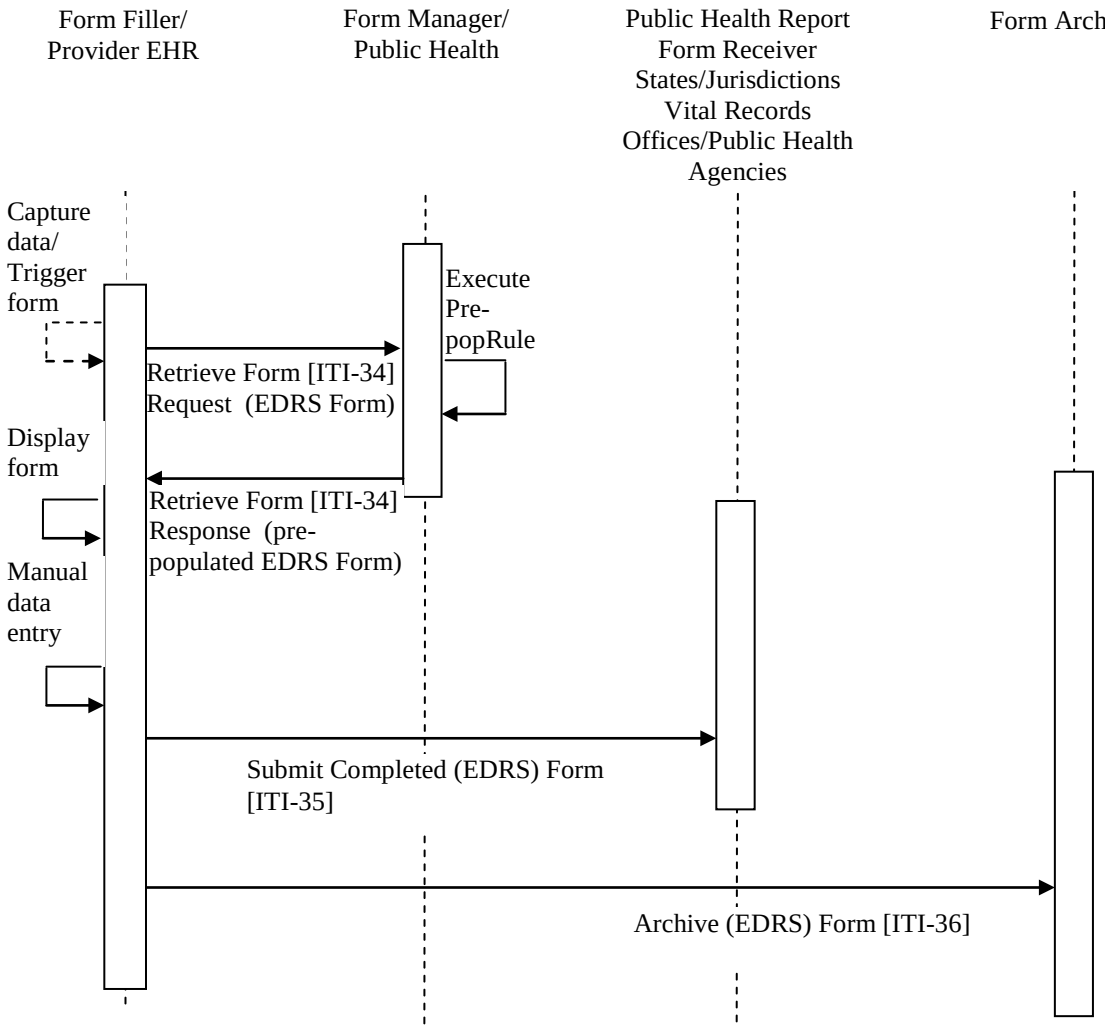
675 The Forms Data Capture with Document Submission use case uses Retrieve Form for Data Capture (RFD) to present EDRS form for pre-population. The Form Receiver system is natively integrated into the EDRS.

X.4.2.3.1 Native Forms Data Capture Use Case Description

When the decedent's death has been documented in the system, a Summary document (e.g., IHE PCC Medical Summary, IHE PCC XPHR, CCD®) is created with Vital Record Death Reporting Content requirements. This Summary document is provided as pre-population data to a public health IHE ITI Retrieve Form for Data Capture (RFD) Forms Manager. The RFD Form Receiver information is consumed directly by the EDRS.

X.4.2.3.2 Native Forms Data Capture Process Flow

The provider EHR presents the EDRS form providing a PCC XDS-MS/XPHR or CCD® document for Pre-population by the Form Manager. The provider completes the form, verifies the accuracy of all information, and submits the form. The RFD Form Receiver information is consumed directly by the EDRS.



695

Figure X.4.2.3.2-1: Use Case 3-Native Forms Data Capture

X.4.2.4 Use Case #4: EHR VRDR Messaging

The EHR VRDR Messaging use case creates the HL7® VRDR message directly and transmits
700 the information to the EDRS.

X.4.2.4.1 EHR VRDR Messaging Use Case Description

When the decedent's death has been documented in the system, the EHR system creates an HL7® VRDR message and sends the message to the EDRS directly.

X.4.2.4.2 EHR VRDR Messaging Process Flow

The provider EHR sends the HL7® VRDR message to the EDRS.

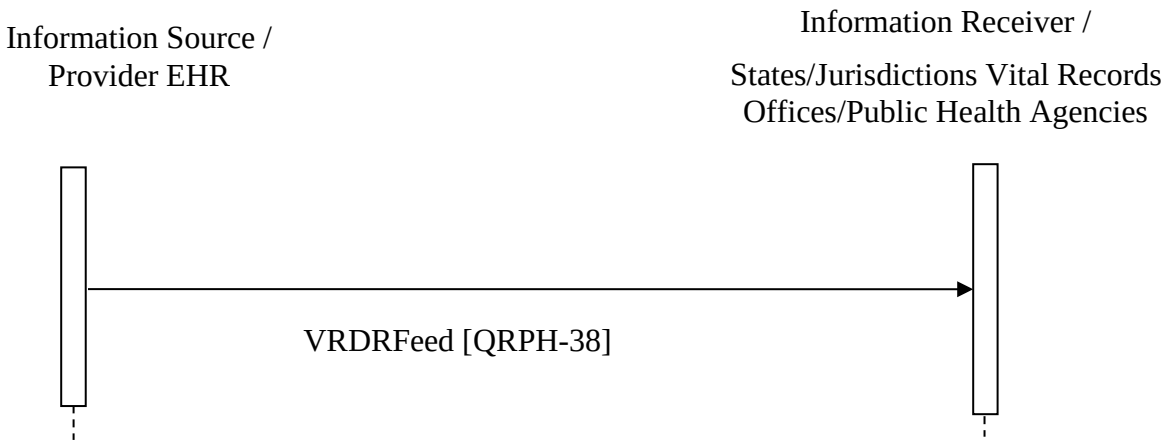


Figure X.4.2.4.2-1: Use Case 4-EHR VRDR Messaging

X.4.2.5 Use Case #5: EHR VRDR Document Submission

The EHR VRDR Document Submission use case creates the VRDR Document directly and transmits the information to Public Health.

X.4.2.5.1 EHR VRDR Document Submission Use Case Description

When the decedent's death has been documented in the system, the EHR system creates a VRDR Document and sends the document to the EDRS directly.

X.4.2.5.2 EHR VRDR Document Submission Process Flow

The provider EHR sends the VRDR Document to the EDRS.

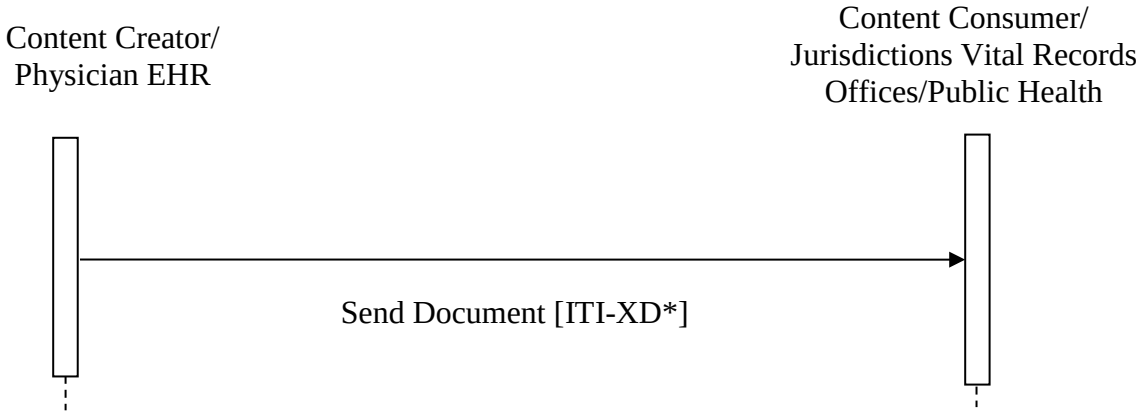


Figure X.4.2.5.2-1: Use Case 5-EHR VRDR Document Submission

X.5 VRDR Security Considerations

VRDR includes clinical content related to the information subject. As such, it is anticipated that the transfers of Personal Health Information (PHI) will be protected. The IHE ITI ATNA Integration Profile SHOULD be implemented by all of the actors involved in the IHE transactions specified in this profile to protect node-to-node communication and to produce an audit trail of the PHI related actions when they exchange messages, though other private security mechanisms MAY be used to secure content within enterprise managed systems. Details regarding ATNA logging will be further described in Volume 2.

The content of the form also results in a legal document, and the Form Manager MAY include a digital signature using the ITI Digital Signature (DSG) Profile to assure that the form content submitted cannot be changed.

For security purposes, when sending information specifically to vital records Electronic Death Registration Systems, systems will also need to know the identity of the user and the location to identify the data source. In this case, the ITI Cross-Enterprise User Assertion (XUA) Profile MAY be utilized to support this implementation.

X.6 VRDR Cross Profile Considerations

The following informative narrative is offered as implementation guidance.

X.6.1 XDS.b, XDM, or XDR XDS.b, XDM, or XDR – Cross Enterprise Document Sharing.b, Cross Enterprise Document Media Interchange, or Cross Enterprise Document Reliable Interchange

The use of the IHE XD* family of transactions is encouraged to support standards-based interoperability between systems acting as the VRDR: Content Creator and VRDR: Content Consumer. However, this profile does not require any groupings with ITI XD* actors to facilitate transport of the content document it defines. Below is a summary of recommended IHE transport transactions that MAY be utilized by systems playing the roles of VRDR: Content Creator or VRDR: Content Consumer to support the standard use case defined in this profile:

- A Document Source in XDS.b, a Portable Media Creator in XDM, or a Document Source in XDR might be grouped with the VRDR Content Creator. A Document Consumer in XDS.b, a Portable Media Importer in XDM, or a Document Recipient in XDR might be grouped with the VRDR Content Consumer, A registry/repository-based infrastructure is defined by the IHE Cross Enterprise Document Sharing (XDS.b) that includes profile support that can be leveraged to facilitate retrieval of public health related information from a document sharing infrastructure: Multi-Patient Query (MPQ), Document Metadata Subscription (DSUB) and notification of availability of documents (NAV),
- A media-based infrastructure is defined by the IHE Cross Enterprise Document Media Interchange (XDM) Profile. A Portable Media Creator in XDM might be grouped with the VRDR Content Creator. A Portable Media Importer in XDM might be grouped with the VRDR Content Consumer,
- A reliable messaging-based infrastructure is defined by the IHE Cross Enterprise Document Reliable Interchange (XDR) Profile. Document Source in XDR might be grouped with the VRDR Content Creator. A Document Recipient in XDR might be grouped with the VRDR Content Consumer,
- All of these infrastructures support Security and privacy through the use of the Consistent Time (CT) and Audit Trail and Node Authentication (ATNA) profiles. A Time Client in CT might be grouped with the VRDR Content Creator and the VRDR Content Consumer. A Secure Node and/or a Secure Application in ATNA might be grouped with the VRDR Content Creator and the VRDR Content Consumer.

Detailed description of these transactions can be found in the IHE IT Infrastructure Technical Framework.

X.6.2 Sharing Value Set (SVS)

A VRDR Form Manager Actor may support the Sharing Value Set (SVS) Integration Profile in order to use a common uniform managed vocabulary for dynamic management of form mapping rules.

X.7 VRDR Data Requirements

This profile has need for a specific form data element content. That set of data that must be in the form in the course of prepop and in the form of data export. Those data elements are described in Appendix B.

Appendices

Appendix A – Sample US Death Certificate form

The sample death reporting form included in this content profile reflects much of the data captured for the U.S. Standard Certificate of Death. However, the VRDR Content Profile may be modified to include and accommodate international death reporting requirements.

DEATH REPORTING FOR VITAL RECORDS

1. DECEDENT'S NAME (Include AKA's if any) (First, Middle, Last)	2. SEX	3. SOCIAL SECURITY NUMBER
5. DATE OF BIRTH (Mo/Day/Yr)	15. FACILITY NAME	

52. DECEDENT OF HISPANIC ORIGIN? Check the box that best describes whether the decedent is Spanish/Hispanic/Latino. Check the "No" box if decedent is not Spanish/Hispanic/Latino.	53. DECEDENT'S RACE (Check one or more races to indicate what the decedent considered himself or herself to be)
☐ No, not Spanish/Hispanic/Latino ☐ Yes, Mexican, Mexican American, Chicano ☐ Yes, Puerto Rican ☐ Yes, Cuban ☐ Yes, other Spanish/Hispanic/Latino (Specify) _____	☐ White ☐ Black or African American ☐ American Indian or Alaska Native (Name of the enrolled or principal tribe) _____ ☐ Asian Indian ☐ Chinese ☐ Filipino ☐ Japanese ☐ Korean ☐ Vietnamese ☐ Other Asian (Specify)_____ ☐ Native Hawaiian ☐ Guamanian or Chamorro ☐ Samoan ☐ Other Pacific Islander (Specify)_____ ☐ Other (Specify)_____

ITEMS 24-28 MUST BE COMPLETED BY PERSON WHO PRONOUNCES OR CERTIFIES DEATH	24. DATE PRONOUNCED DEAD (Mo/Day/Yr)	25. TIME PRONOUNCED DEAD

26. SIGNATURE OF PERSON PRONOUNCING DEATH (Only when applicable)	27. LICENSE NUMBER	28. DATE SIGNED (Mo/Day/Yr)

29. ACTUAL OR PRESUMED DATE OF DEATH (Mo/Day/Yr) (Spell Month)	30. ACTUAL OR PRESUMED TIME OF DEATH	31. WAS MEDICAL EXAMINER OR CORONER CONTACTED? □Yes □No

CAUSE OF DEATH (See instructions and examples)

Approximate interval: Onset to death

32. **PART I.** Enter the chain of events--diseases, injuries, or complications--that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Enter only one cause on a line. Add additional lines if necessary.

IMMEDIATE CAUSE (Final disease or condition **--------->**

a. _____ _____

resulting in death) Due to (or as a consequence of):

Sequentially list conditions,

b. _____ _____

if any, leading to the cause Due to (or as a consequence of):

listed on line a. Enter the **UNDERLYING CAUSE**

c. _____ _____

(disease or injury that initiated the events resulting in death) **LAST** Due to (or as a consequence of):

d. _____ _____

	–
PART II. Enter other significant conditions contributing to death but not resulting in the underlying cause given in PART I	33. WAS AN AUTOPSY PERFORMED? □Yes □No
	34. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? □Yes □No

35. DID TOBACCO USE CONTRIBUTE TO DEATH? □ Yes □ Probably □ No □ Unknown	36. IF FEMALE: □ Not pregnant within past year □ Pregnant at time of death □ Not pregnant, but pregnant within 42 days of death □ Not pregnant, but pregnant 43 days to 1 year before death □ Unknown if pregnant within the past year	37. MANNER OF DEATH □ Natural □ Homicide □ Accident □ Pending Investigation □ Suicide □ Could not be determined

38. DATE OF INJURY (Mo/Day/Yr) (Spell Month)	39. TIME OF INJURY	40. PLACE OF INJURY (e.g., Decedent's home; construction site; restaurant; wooded area)	41. INJURY AT WORK? □Yes □No
42. LOCATION OF INJURY: State: City or Town: Street & Number: Apartment No.: Zip Code:			
43. DESCRIBE HOW INJURY OCCURRED:			44. IF TRANSPORTATION

	INJURY, SPECIFY: □ Driver/Operator □ Passenger □ Pedestrian □ Other (Specify)

45. CERTIFIER (Check only one):

□ Certifying physician-To the best of my knowledge, death occurred due to the cause(s) and manner stated.

□ Pronouncing & Certifying physician-To the best of my knowledge, death occurred at the time, date, and place, and due to the cause(s) and manner stated.

□ Medical Examiner/Coroner-On the basis of examination, and/or investigation, in my opinion, death occurred at the time, date, and place, and due to the cause(s) and manner stated.

Signature of certifier:_____

46. NAME, ADDRESS, AND ZIP CODE OF PERSON COMPLETING CAUSE OF DEATH (Item 32)

47. TITLE OF CERTIFIER	48. LICENSE NUMBER	49. DATE CERTIFIED (Mo/Day/Yr)	

Appendix B – Data Elements

The following data elements are used in Vital Records Death Reporting:

Death Report Data Element	Description
Decedent Demographics	
Date of Birth	Calendar date when decedent was born
Decedent of Hispanic Origin	Hispanic origin [OR NOT] of the decedent. The primary source for this data element is the funeral director and/or next of kin. Any information for these data elements that comes from the EHR may be changed by the funeral director or next of kin. However, the EHR may also serve as a resource for documenting race and ethnicity information to inform the content of this attribute.
Decedent's Name Known by Certifier	Current legal name of the decedent including first name, middle name, last name, suffixes, and AKA's would be useful; however, name as known for decedent is sufficient.
Decedent's Race	Race(s) that best describes what the decedent considered himself/herself to be. The primary source for this data element is the funeral director and/or next of kin. Any information for these data elements that comes from the EHR may be changed by the funeral director or next of kin. However, the EHR may also serve as a resource for documenting race and ethnicity information to inform the content of this attribute.
Sex	The sex of the deceased.
Jurisdiction Person Identifier (e.g., Social Security Number (SSN))	The Jurisdiction Person Identifier (e.g., social security number) of the deceased.
Death Event Information	
Actual or Presumed Date and Time of Death	Calendar date and time when decedent died. The Death Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death indicates that the Time of Death (hour and minute) should be stated using a 24-hour clock.
Date and Time pronounced Dead	Month, day, year, and time decedent was pronounced dead.
Cause of Death	Immediate and underlying causes of death including significant conditions or diseases, abnormalities, injuries, or poisonings that contributed directly or indirectly to death.
Manner of Death	An item where the certifying physician, medical examiner or coroner identifies the manner or how the deceased died
Was an autopsy performed?	Information on whether or not an autopsy was performed
Were autopsy findings available to complete the COD	Information on whether or not the findings of the autopsy were available for completing the medical portion of the death certificate
Did tobacco use contribute to death?	A clinical opinion on whether tobacco use contributed to the decedent's death.
Facility Name (Geographic location where the death occurred)	The facility name at the geographic location where the death occurred.
Street address where death occurred if not facility	The facility name is provided when the death occurs in an institution. If not in an institution, the geographic location where the death occurred is provided including the street & number.

Death Report Data Element	Description
Female pregnancy status at time of death	Item for females that requests information on the pregnancy status of the deceased woman within the last year of her life
Injury Information	
Location of injury	The geographic location where the injury occurred
Describe how the injury occurred	Information on how the injury occurred is requested in narrative form
Date of Injury	Actual or presumed date when decedent sustained injury
Injury at Work	Information on whether or not an injury to the deceased indicated on the death certificate occurred at work.
Place of Death	The physical location where the decedent died
Place of Injury	Requests information on the type of place where an injury occurred
Time of Injury	Actual or presumed time of injury. The Death Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death indicates that the Time of Injury (hour and minute) should be stated using a 24-hour clock.
Transportation Injury	Information on the role of the decedent involved in a transportation accident.
COD Information	
Death Certifier	Type of certifier
Certifier signature	Certifier's signature. Depending on jurisdictional law, the signature may be electronic approval, an approval button, or other method for indicating acceptance in place of a physical signature.
Date certified	Calendar date when the death record is certified
Date Signed	Date the death record is signed by the person that pronounces death
License Number of Person Certifying Death	License number of person certifying the cause of death.
License Number of Person Pronouncing Death	License number of person pronouncing death (includes whether licensed and state determined)
Name of person completing COD	Name of the person completing the cause of death
Signature of Person Pronouncing Death	The signature of the person who pronounced death and signed the death record. Depending on jurisdictional law, the signature may be electronic approval, an approval button, or other method for indicating acceptance in place of a physical signature.
Title of Certifier	Medical professional label used to signify a professional role or membership in a professional society
Was Medical Examiner or Coroner contacted?	Item records whether [or not] the medical examiner or coroner was contacted in reference to this case

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Volume 2 – Transactions

Add Section 3.38

3.38 VRDRFeed [QRPH-38]

3.38.1 Scope

This transaction is used to communicate clinician-sourced death information from the Information Source to the Information Recipient. This transaction may alternatively be initiated by a Form Receiver Message Exporter and communicated to the Information Recipient. This transaction uses the *Health Level Seven International (HL7®) Version 2.5.1 Implementation Guide (IG): Vital Records Death Reporting Draft Standard for Trial Use (DSTU) US Realm*.

3.38.2 Actor Roles

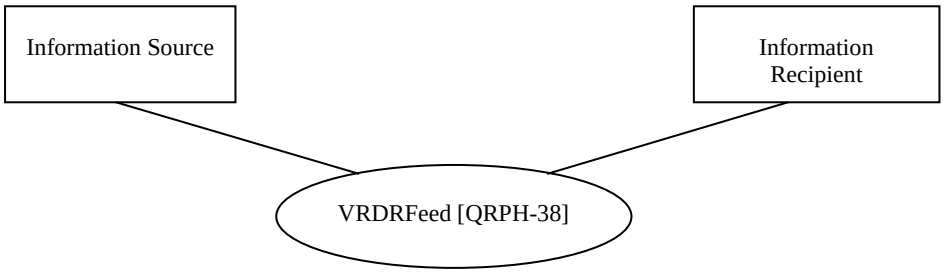

Figure 3.38.2-1: Use Case Diagram between Information Source and Information Recipient

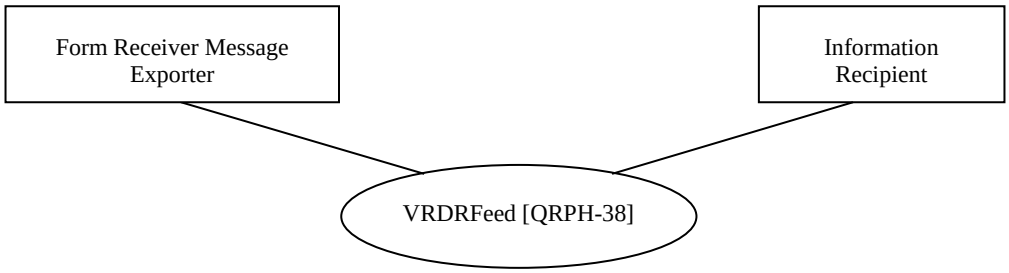

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Figure 3.38.2-2: Use Case Diagram between Form Receiver Message Exporter and Information Recipient

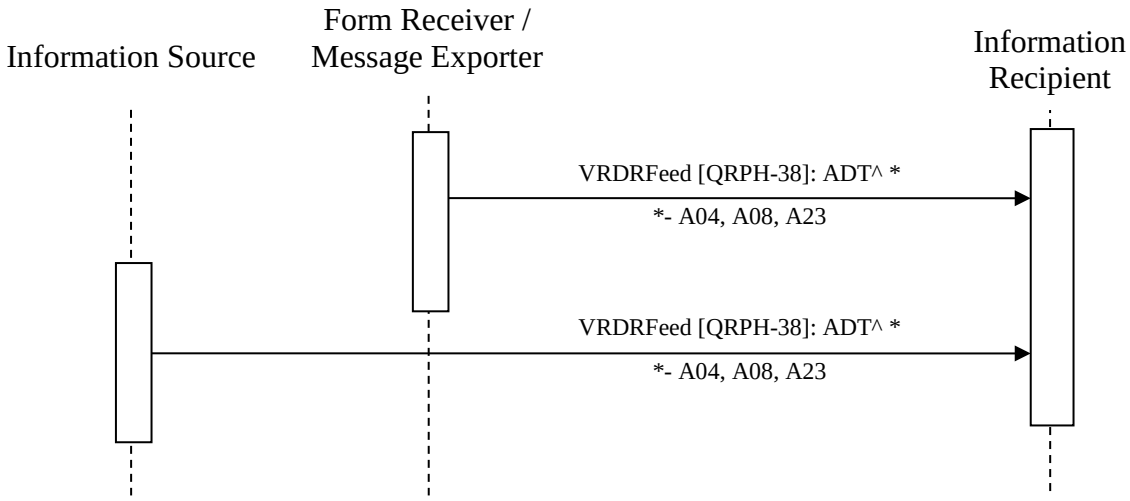
Table 3.38.2-1: Actor Roles

Actor:	Information Source
Role:	The Information Source Actor is responsible for creating and transmitting an HL7® V2.5.1 message to an Information Recipient.
Actor:	Information Recipient
Role:	The Information Recipient Actor is responsible for receiving the HL7® V2.5.1 message from an Information Source or from a Form Receiver Message Exporter.
Actor:	Form Receiver Message Exporter
Role:	This Form Receiver Message Exporter receives data submitted through the Submit Form Transaction (ITI-35), transforms that data to be in compliance with the requirements of the HL7® V.2.5.1 VRDR transaction (QRPH-38) and sends that data to an Information Recipient using QRPH-38.

810 ### 3.38.3 Referenced Standards

3. Health Level Seven International (HL7®) Version 2.5.1 Implementation Guide (IG): Vital Records Death Reporting Draft Standard for Trial Use (DSTU) US Realm (Further referred to in this document as 'HL7® VRDR V2.5.1 IG')
4. Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death

3.38.4 Interaction Diagram



3.38.4.1 VRDRFeed [QRPH-38]

This transaction transmits the HL7® V2.5.1 formatted message containing the clinician-sourced death information from Information Source or the Form Receiver / Message Exporter to the Information Recipient. A given Information Recipient implemented at a public health jurisdiction may receive this transaction from multiple sources.

3.38.4.1.1 Trigger Events

When the decedent's death has been documented in the system, an Information Source Actor will trigger one of the Admit/Register or Update messages:

- A04 – Report Death Information Record

Changes to patient demographics (e.g., change in patient name, patient address, etc.) or changes to death information (e.g., cause of death, autopsy, injury) shall trigger the following Admit/Register or Update message:

- A08 – Revise Death Information Record
- A23 – Delete Death Information Record

3.38.4.1.2 Message Semantics

The segments of the message listed below are required, and their detailed descriptions are provided in the following subsections.

Required segments for the VRDRFeed [QRPH-38] are defined below. Other segments are optional. This transaction requires Information Source Actors to include some attributes and segments not already required by the corresponding HL7® message. This transaction does not require Information Recipient Actors to attributes beyond what is required by the corresponding HL7® message.

Table 3.38.4.1.2-1: VRDRFeed [QRPH-38]

ADT	Patient Administration Message	Optionality	Chapter in HL7® VRDR V2.5.1 IG
MSH	Message Header	R	5.1
SFT	Software Segment	RE	5.2
EVN	Event Type	R	5.5
PID	Patient Identification	R	5.6
PV1	Patient Visit Information	R	5.7
OBX	Observation/Result	R	5.8
PDA	Patient Death and Autopsy	R	5.9
MSA	Acknowledgement	R	5.3
ERR	Error	R	5.4

3.38.4.1.2.1 MSH Segment

The Information Source SHALL populate MSH segment. The Information Recipient SHALL have the ability to accept and process this segment.

MSH segment shall be constructed as defined in ITI TF-2x: C.2.2 “Message Control”.

3.38.4.1.2.2 SFT Segment

The Information Source SHALL populate SFT segment. The Information Recipient SHALL have the ability to accept and process this segment.

No further constraints are required of the SFT segment from the corresponding HL7® message (Health Level Seven International (HL7®) Version 2.5.1 Implementation Guide (IG): Vital Records Death Reporting Draft Standard for Trial Use (DSTU) US Realm).

3.38.4.1.2.3 EVN Segment

The Information Source SHALL populate EVN segment. The Information Recipient SHALL have the ability to accept and process this segment.

See ITI TF-2x: C.2.4 for the list of all required and optional fields within the optional EVN segment.

3.38.4.1.2.4 PID Segment

The Information Source SHALL populate the PID segment. The Information Recipient SHALL have the ability to accept and process this segment.

In order to allow for consistency with environments that support IHE ITI PIX or IHE ITI PDQ, the PID segment shall be constructed to be consistent with ITI TF-2a: 3.8.4.1.2.3 as described below. Bolded text highlights areas that are different from the underlying HL7® message (Health Level Seven International (HL7®) Version 2.5.1 Implementation Guide (IG): Vital Records Death Reporting Draft Standard for Trial Use (DSTU) US Realm).

Table 3.38.4.1.2.4-1: IHE Profile - PID segment

SEQ	LEN	DT	OPT	TBL#	ITEM #	ELEMENT NAME	Description/ Comments
1	4	SI	R		00104	Set ID - Patient ID	Literal Value: '1'.
2	20	CX	X		00105	Patient ID	Deprecated as of HL7 Version 2.3.1. See PID-3 Patient Identifier List.
3	250	CX	R		00106	Patient Identifier List	Field used to convey all types of patient/person identifiers. It is expected that Social Security Number will be provided if it is available. . The value "99999999" should be used for persons who do not have a social security number.
4	20	CX	X		00107	Alternate Patient ID	Deprecated as of HL7 Version 2.3.1. See PID-3.
5	250	XPN	R		00108	Patient Name	Patient name. When the name of the patient is not known, a value must still be placed in this field since the field is required. In that case, HL7 recommends the following: |~^^^^^^U|. The "U" for the name type code in the second name indicates that it is unspecified. Since there may be no name components populated, this means there is no

SEQ	LEN	DT	OPT	TBL#	ITEM #	ELEMENT NAME	Description/ Comments
							legal name, nor is there an alias. This guide will interpret this sequence to mean there is no patient name.
6	**250**	**XPN**	**O**		**00109**	**Mother's Maiden Name**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
7	26	TS	R2		00110	Date/Time of Birth	Patient's date of birth. The time zone component is optional. Note that the granularity of the birth date may be important. For a newborn, birth date may be known down to the minute, while for adults it may be known only to the date. Format: YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]
8	1	IS	R2	0001	00111	Administrative Sex	Patient's gender. NOTE: while the modeled location references the term 'gender', the attribute in this VRDR CDA location SHALL contain the Administrative Sex of the deceased'
9	250	XPN	X		00112	Patient Alias	Deprecated as of HL7 Version 2.4. See PID-5 Patient Name.
10	**250**	**CE**	**O**	**0005**	**00113**	**Race**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**

SEQ	LEN	DT	OPT	TBL#	ITEM #	ELEMENT NAME	Description/ Comments
11	250	XAD	R2		00114	Patient Address	Street address, city, state and zip code are expected.
12	4	IS	X	0289	00115	County Code	Deprecated as of HL7 Version 2.3. See PID-11 - Patient Address, component 9 County/Parish Code.
13	**250**	**XTN**	**O**		**00116**	**Phone Number – Home**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
14	**250**	**XTN**	**O**		**00117**	**Phone Number - Business**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
15	**250**	**CE**	**O**	**0296**	**00118**	**Primary Language**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
16	**250**	**CE**	**O**	**0002**	**00119**	**Marital Status**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
17	**250**	**CE**	**O**	**0006**	**00120**	**Religion**	**Not supported in IG, but Optional in PIX** **When the attribute is**

SEQ	LEN	DT	OPT	TBL#	ITEM #	ELEMENT NAME	Description/ Comments
							populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error
18	**250**	**CX**	**O**		**00121**	**Patient Account Number**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
19	16	ST	X		00122	SSN Number – Patient	Deprecated as of HL7 Version 2.3.1. See PID-3 Patient Identifier List.
20	25	DLN	X		00123	Driver's License Number - Patient	Deprecated as of HL7 Version 2.5. See PID-3 Patient Identifier List.
21	**250**	**CX**	**O**		**00124**	**Mother's Identifier**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
22	**250**	**CE**	**O**	**0189**	**00125**	**Ethnic Group**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
23	**250**	**ST**	**O**		**00126**	**Birth Place**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but**

SEQ	LEN	DT	OPT	TBL#	ITEM #	ELEMENT NAME	Description/ Comments
							SHALL NOT raise an application error
24	**1**	**ID**	**O**	**0136**	**00127**	**Multiple Birth Indicator**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
25	**2**	**NM**	**O**		**00128**	**Birth Order**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
26	**250**	**CE**	**O**	**0171**	**00129**	**Citizenship**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
27	**250**	**CE**	**O**	**0172**	**00130**	**Veterans Military Status**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
28	250	CE	X	0212	00739	Nationality	Deprecated as of HL7 Version 2.4. See PID-10 Race, PID-22 Ethnic Group, and PID-26 Citizenship.
29	26	TS	R2		00740	Patient Death Date and Time	Format: YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]

SEQ	LEN	DT	OPT	TBL#	ITEM #	ELEMENT NAME	Description/ Comments
30	1	ID	O	0136	00741	Patient Death Indicator	If PID-29 is valued, then this field should be populated with "Y" since the patient is known to be dead.
31			**O**			**Identity Unknown Indicator**	**Not supported in IG, but Conditional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
32			**O**			**Identity Reliability Code**	**Not supported in IG, but Conditional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
33			**O**			**Last Update Date/Time**	**Not supported in IG, but Conditional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
34			**O**			**Last Update Facility**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
35			**O**			**Species Code**	**Not supported in IG, but Conditional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this**

SEQ	LEN	DT	OPT	TBL#	ITEM #	ELEMENT NAME	Description/ Comments
							information or ignore the attribute, but SHALL NOT raise an application error
36			**O**			**Breed Code**	**Not supported in IG, but Conditional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
37			**O**			**Strain**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
38			**O**			**Production Class Code**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**
39			**O**			**Tribal Citizenship**	**Not supported in IG, but Optional in PIX** **When the attribute is populated, the VRDR Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error**

Adapted from the HL7® standard, Version 2.5.1

This message shall use the field PID-3 Patient Identifier List to convey the Patient ID uniquely identifying the patient within a given Patient Identification Domain.

The Information Source Actor shall provide the patient identifier in the ID component (first component) of the PID-3 field (PID-3.1). The Information Source Actor shall use component PID-3.4 to convey the assigning authority (Patient Identification Domain) of the patient identifier. Either the first subcomponent (namespace ID) or the second and third subcomponents (universal ID and universal ID type) shall be populated. If all three subcomponents are populated, the first subcomponent shall reference the same entity as is referenced by the second and third components.

3.38.4.1.2.5 PV1 Segment

The Information Source SHALL populate PV1 segment. The Information Recipient SHALL have the ability to accept and process this segment.

No further constraints are required of the PV1 segment from the corresponding HL7® message (Health Level Seven International (HL7®) Version 2.5.1 Implementation Guide (IG): Vital Records Death Reporting Draft Standard for Trial Use (DSTU) US Realm).

3.38.4.1.2.6 OBX Segment

No further constraints are required of the OBX segment from the corresponding HL7® message (Health Level Seven International (HL7®) Version 2.5.1 Implementation Guide (IG): Vital Records Death Reporting Draft Standard for Trial Use (DSTU) US Realm).

3.38.4.1.2.7 PDA Segment

The Information Source SHALL populate the PDA segment. The Information Recipient SHALL have the ability to accept and process this segment.

No further constraints are required of the PDA segment from the corresponding HL7® message (Health Level Seven International (HL7®) Version 2.5.1 Implementation Guide (IG): Vital Records Death Reporting Draft Standard for Trial Use (DSTU) US Realm).

3.38.4.1.3 Expected Actions

3.38.4.1.3.1 ACK

Having received the ADT message from the Information Source, the Information Recipient SHALL parse this message and integrate its content, and then an applicative acknowledgement message is sent back to the Information Source. This General Acknowledgement Message ACK SHALL be built according to the HL7® V2.5.1 standard, following the acknowledgement rules described in IHE ITI TF-2x:C.2.3 (IHE ITI TF-2x: Appendix C.2.3).

3.38.5 Security Considerations

3.38.5.1 Security Audit Considerations – VRDRFeed [QRPH-38] (ADT)

The QRPH-38 (ADT) transactions are to be audited as “PHI Export” events, as defined in ITI TF-2a: Table 3.20.6-1. The actors involved in the transaction shall create audit data in

conformance with DICOM® (Supp 95) “Export”. The following tables show items that are required to be part of the audit record for these specific VRDRFeed transactions.

3.38.5.1.1 Information Source Actor audit message:

	Field Name	Opt	Value Constraints
Event AuditMessage/ EventIdentification	EventID	M	EV(110106, DCM, “Export”)
	EventActionCode	M	“C” (create)
	EventDateTime	*M*	*not specialized*
	EventOutcomeIndicator	*M*	*not specialized*
	EventTypeCode	M	EV(“QRPH-38”, “IHE Transactions”, “VRDRFeed”)
Source (Information Source Actor) (1)			
Human Requestor (0..n)			
Destination (Information Recipient Actor) (1)			
Audit Source (Information Source Actor) (1)			
Patient (1)			

Where:

Source AuditMessage/ ActiveParticipant	UserID	M	The identity of the Information Source Actor facility and sending application from the HL7 message; concatenated together, separated by the | character.
	AlternativeUserID	M	The process ID as used within the local operating system in the local system logs.
	UserName	*U*	*not specialized*
	UserIsRequestor	*M*	*not specialized*
	RoleIDCode	M	EV(110153, DCM, “Source”)
	NetworkAccessPointTypeCode	M	“1” for machine (DNS) name, “2” for IP address
	NetworkAccessPointID	M	The machine name or IP address, as specified in RFC 3881.

Human Requestor (if known) AuditMessage/ ActiveParticipant	UserID	M	Identity of the human that initiated the transaction.
	AlternativeUserID	*U*	*not specialized*
	UserName	*U*	*not specialized*
	UserIsRequestor	*M*	*not specialized*

	RoleIDCode	U	Access Control role(s) the user holds that allows this transaction.
	NetworkAccessPointTypeCode	*NA*	
	NetworkAccessPointID	*NA*	

Destination **AuditMessage/ ActiveParticipant**	UserID	M	The identity of the Information Recipient Public Health Organization and receiving application from the HL7 message; concatenated together, separated by the | character.
	AlternativeUserID	*M*	*not specialized*
	UserName	*U*	*not specialized*
	UserIsRequestor	*M*	*not specialized*
	RoleIDCode	M	EV(110152, DCM, "Destination")
	NetworkAccessPointTypeCode	M	"1" for machine (DNS) name, "2" for IP address
	NetworkAccessPointID	M	The machine name or IP address, as specified in RFC 3881.

Audit Source **AuditMessage/ AuditSourceIdentification**	*AuditSourceID*	*U*	*not specialized*
	AuditEnterpriseSiteID	*U*	*not specialized*
	AuditSourceTypeCode	*U*	*not specialized*

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Patient	ParticipantObjectTypeCode	M	"1" (person)

	ParticipantObjectTypeCodeRole	M	"1" (patient)
	ParticipantObjectDataLifeCycle	*U*	*not specialized*
	ParticipantObjectIDTypeCode	M	EV(2, RFC-3881, "Patient Number")
	ParticipantObjectSensitivity	*U*	*not specialized*
	ParticipantObjectID	M	The patient ID in HL7 CX format.
	ParticipantObjectName	*U*	*not specialized*
	ParticipantObjectQuery	*U*	*not specialized*
	ParticipantObjectDetail	M	Type=MSH-10 (the literal string), Value=the value of MSH-10 (from the message content, base64 encoded)

3.38.5.1.2 Information Recipient Actor audit message:

	Field Name	Opt	Value Constraints
Event AuditMessage/ EventIdentification	EventID	M	EV(110107, DCM, "Import")
	EventActionCode	M	"C" (create)
	EventDateTime	*M*	*not specialized*
	EventOutcomeIndicator	*M*	*not specialized*
	EventTypeCode	M	EV("QRPH-38", "IHE Transactions", "VRDRFeed")
Source (Information Source Actor) (1)			
Destination (Information Recipient Actor) (1)			
Audit Source (Information Recipient Actor) (1)			
Patient(1)			

Where:

Source AuditMessage/ ActiveParticipant	UserID	M	The identity of the Information Source Actor facility and sending application from the HL7 message; concatenated together, separated by the | character.
	AlternativeUserID	*U*	*not specialized*
	UserName	*U*	*not specialized*
	UserIsRequestor	*M*	*not specialized*
	RoleIDCode	M	EV(110153, DCM, "Source")
	NetworkAccessPointTypeCode	M	"1" for machine (DNS) name, "2" for IP address
	NetworkAccessPointID	M	The machine name or IP address, as specified in RFC 3881.

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Destination AuditMessage/ ActiveParticipant	UserID	M	The identity of the Information Recipient Public Health Organization and receiving application from the HL7 message; concatenated together, separated by the | character.

	AlternativeUserID	M	The process ID as used within the local operating system in the local system logs.
	UserName	*U*	*not specialized*
	UserIsRequestor	*M*	*not specialized*
	RoleIDCode	M	EV(110152, DCM, “Destination”)
	NetworkAccessPointTypeCode	M	“1” for machine (DNS) name, “2” for IP address
	NetworkAccessPointID	M	The machine name or IP address, as specified in RFC 3881.

Audit Source **AuditMessage/ AuditSourceIdentification**	*AuditSourceID*	*U*	*not specialized*
	AuditEnterpriseSiteID	*U*	*not specialized*
	AuditSourceTypeCode	*U*	*not specialized*

Patient **(AuditMessage/ ParticipantObjectIdentification)**	ParticipantObjectTypeCode	M	“1” (person)
	ParticipantObjectTypeCodeRole	M	“1” (patient)
	ParticipantObjectDataLifeCycle	*U*	*not specialized*
	ParticipantObjectIDTypeCode	M	EV(2, RFC-3881, “Patient Number”)
	ParticipantObjectSensitivity	*U*	*not specialized*
	ParticipantObjectID	M	The patient ID in HL7 CX format.
	ParticipantObjectName	*U*	*not specialized*
	ParticipantObjectQuery	*U*	*not specialized*
	ParticipantObjectDetail	M	Type=MSH-10 (the literal string), Value=the value of MSH-10 (from the message content, base64 encoded)

3.38.5.1.3 Form Receiver CDA Exporter Actor audit message:

	Field Name	Opt	Value Constraints
Event **AuditMessage/ EventIdentification**	EventID	M	EV(110106, DCM, “Export”)
	EventActionCode	M	“C” (create)
	EventDateTime	*M*	*not specialized*
	EventOutcomeIndicator	*M*	*not specialized*
	EventTypeCode	M	EV(“QRPH-38”, “IHE Transactions”, “VRDRFeed”)
Source (Form Receiver CDA Exporter) (1)			
Human Requestor (0..n)			
Destination (Information Recipient Actor) (1)			

Audit Source (Form Receiver CDA Exporter) (1)
Patient (1)

Where:

Source AuditMessage/ ActiveParticipant	UserID	M	The identity of the Form Receiver CDA Exporter Actor facility and sending application from the HL7 message; concatenated together, separated by the | character.
	AlternativeUserID	M	The process ID as used within the local operating system in the local system logs.
	UserName	*U*	*not specialized*
	UserIsRequestor	M	*not specialized*
	RoleIDCode	M	EV(110153, DCM, "Source")
	NetworkAccessPointTypeCode	M	"1" for machine (DNS) name, "2" for IP address
	NetworkAccessPointID	M	The machine name or IP address, as specified in RFC 3881.

Human Requestor (if known) AuditMessage/ ActiveParticipant	UserID	M	Identity of the human that initiated the transaction.
	AlternativeUserID	*U*	*not specialized*
	UserName	*U*	*not specialized*
	UserIsRequestor	*M*	*not specialized*
	RoleIDCode	U	Access Control role(s) the user holds that allows this transaction.
	NetworkAccessPointTypeCode	*NA*	
	NetworkAccessPointID	*NA*	

Destination AuditMessage/ ActiveParticipant	UserID	M	The identity of the Information Recipient Public Health Organization and receiving application from the HL7 message; concatenated together, separated by the | character.
	AlternativeUserID	*M*	*not specialized*
	UserName	*U*	*not specialized*
	UserIsRequestor	*M*	*not specialized*
	RoleIDCode	M	EV(110152, DCM, "Destination")
	NetworkAccessPointTypeCode	M	"1" for machine (DNS) name, "2" for IP address
	NetworkAccessPointID	M	The machine name or IP address, as specified in RFC 3881.

Audit Source AuditMessage/ AuditSourceIdentification	*AuditSourceID*	*U*	*not specialized*
	AuditEnterpriseSiteID	*U*	*not specialized*
	AuditSourceTypeCode	*U*	*not specialized*

3.38.5.2 Security Audit Considerations – Retrieve Form [ITI-34] (ADT)

The Retrieve Form Transaction supporting the VRDR transactions is a PHI-Export event, as defined in ITI TF-2a: Table 3.20.6-1. The Actors involved in the transaction SHALL create audit data in conformance with Retrieve Form ([ITI-34]) audit messages as defined in Section 5.Z.3.1Retrieve Form ([ITI-34]) audit messages where such PHI Audit required by Jurisdictional Law.

3.38.5.3 Security Audit Considerations – Submit Form ([ITI-35]) audit messages

The Submit Form Transaction MAY be a PHI-Export event, as defined in ITI TF-2a: Table 3.20.6-1. The Actors involved in the transaction SHALL create audit data in conformance with Retrieve Form ([ITI-34]) audit messages as defined in Section 5.Z.3.2 Submit Form ([ITI-35]) audit messages where such PHI Audit is required by Jurisdictional Law.

3.38.5.4 Security Audit Considerations –Archive Form ([ITI-36]) audit messages audit messages

The Archive Form Transaction MAY be a PHI-Export event, as defined in ITI TF-2a: Table 3.20.6-1. The Actors involved in the transaction SHALL create audit data in conformance with Retrieve Form ([ITI-34]) audit messages as defined in Section 5.Z.3.3 Archive Form ([ITI-35]) audit messages where such PHI Audit is required by Jurisdictional Law.

3.38.5.5 Security Signature Considerations

The VRDR form includes signatures of the certifier and the pronouncer of death. ITI Document Digital Signature (DSG) may be used to support these signatures. When using the DSG Profile, the following specifications apply:

The eventCodeList SHOULD reflect that these certifier and pronouncer are co-authors as the signature purpose as reflected by Co-Author ID (1.2.840.10065.1.12.1.2, Coding scheme 1.2.840.10065.1.12). Where these two roles are the same person, the one author SHOULD be reflected by Author ID ((1.2.840.10065.1.12.1.1, Coding scheme 1.2.840.10065.1.12).

Appendices

None

Volume 2 Namespace Additions

No new Volume 2 Namespace additions.

Volume 3 – Content Modules

5 Namespaces and Vocabularies

Add to Section 5 Namespaces and Vocabularies

codeSystem	codeSystemName	Description
2.16.840.1.113883.6.1	LOINC	Logical Observation Identifier Names and Codes
2.16.840.1.113883.6.96	SNOMED-CT	Systematized Nomenclature Of Medicine Clinical Terms

Add to Section 5.1.1 IHE Format Codes

Profile	Format Code	Media Type	Template ID
Vital Records Death Reporting	urn:ihe:qrph:vrdr:2013	text/xml	Vital Records Death Reporting Document (1.3.6.1.4.1.19376.1.7.3.1.1.23.1) Medical Summary for VRDR Pre-pop (1.3.6.1.4.1.19376.1.7.3.1.1.23.2)

Add to Section 5.1.2 IHE ActCode Vocabulary

No new ActCode Vocabulary

Add to Section 5.1.3 IHE RoleCode Vocabulary

No new RoleCode Vocabulary

6 Content Modules

6.3.1 CDA® Document Content Modules

6.3.1.D1 Vital Records Death Reporting (VRDR) Document Content Module (1.3.6.1.4.1.19376.1.7.3.1.1.23.1)

6.3.1.D1.1 Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:qrph:vrdr:2013**

6.3.1.D1.2 Parent Template

This document is a specialization of the HL7® Reporting Death Information from a clinical setting to Vital Records (ClinicalDocument: templateId `2.16.840.1.113883.10.20.26.1`).

6.3.1.D1.3 Referenced Standards

All standards which are referenced in this document are listed below with their common abbreviation, full title, and link to the standard.

Table 6.3.1.D1.3-1: Vital Records Death Reporting (VRDR) Document - Referenced Standards

Abbreviation	Title	URL
CDAR2	HL7 CDA Release 2.0	http://www.hl7.org/Library/General/HL7_CDA_R2_final.zip
HL7 VRDR CDA	HL7 IG for Clinical Document Architecture (CDA) Release 2: Reporting Death Info from the EHR to Vital Records, Release 1 (DSTU) US Realm	http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=84
LOINC	Logical Observation Identifiers, Names and Codes	
SNOMED	Systemized Nomenclature for Medicine	

6.3.1.D1.4 Data Element Requirement Mappings

6.3.1.D1.4.1 Data Element Requirement Mappings to CDA®

This section specifies the mapping of data from the specified form data elements for this profile into the VRDR Document. This mapping SHALL be used by the Form Receiver CDA Exporter to generate the CDA® document content from the specified form data elements for this profile. This form element (name, item #), shall be represented in the section of the VRDR CDA® document (1.3.6.1.4.1.19376.1.7.3.1.1.23.1) specified location as indicated by the Section 6.3.1.D.5 and represented in the associated machine readable entry. Based upon the jurisdiction data requirements, some of the data mappings below may be optional.

Form VRDR Data Element	Description	VRDR CDA®
Actual or Presumed Date of Death	Calendar date when decedent died.	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Date and Time of death (Observation: templateId: 2.16.840.1.113883.10.20.26.1.13) observation/effectiveTime (Date only) • Provide the date and time of death if it is known. If the local system has added data entry for qualifying the approximation of date of death, it may be populated in VRDR Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.11] Date and Time of death (Observation: templateId: 2.16.840.1.113883.10.20.26.1.13) observation/text.
Actual or Presumed Time of Death	Clock time when decedent died. The Death Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death indicates that the Time of Death (hour and minute) should be stated using a 24-hour clock.	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Date and Time of death (Observation: templateId: 2.16.840.1.113883.10.20.26.1.13) observation/effectiveTime • Provide the date and time of death if it is known. If the local system has added data entry for qualifying the approximation of date of death, it may be populated in VRDR Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.11] Date and Time of death (Observation: templateId: 2.16.840.1.113883.10.20.26.1.13) observation/text.

Form VRDR Data Element	Description	VRDR CDA®
Cause of Death	Causes of death are diseases, abnormalities, injuries, or poisonings that contributed directly or indirectly to death. In this section of the cause of death statement, the certifier reports the immediate cause (final disease or condition resulting in death. The immediate cause of death is listed as 1. Causes leading to the immediate cause are listed sequentially in order to show the chain of events that led directly and inevitably to death. The underlying cause of death – the disease or injury that initiated the chain of events – is given the highest valued sub-id. I	Death Report Document BodyDeath Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Death Causal Information [Organizer: templateId 2.16.840.1.113883.10.20.26.1.6] Component/observation where: Component/observation/sequence SHALL indicate the order of the chain of events such that: *A clinician may enter up to four events - diseases, injuries, or complications - in order to record the cause of death. The immediate cause of death and the underlying cause of death must be reported. Additional causes of death up to two may be recorded. These are entered in a defined sequence, and the order of each is recorded using sequence number. In addition, the approximate time interval from onset until death is captured as well. This information is captured in the related Component Death Cause Interval observation. The act relationship sequence number value is used to associate the time between onset and death with the relevant event.* AND code/@code ="21984-0" Cause Of Death (CodeSystem: 2.16.840.1.113883.6.1 LOINC) AND Component/observation/value ([1..1] with @xsi:type="CD" *Clinician entry is descriptive text with a maximum length of 120 characters. . Death causes are ordered sequentially with the immediate cause of death given the sequence number "1", and the underlying cause of death being given the highest sequence number among the set of cited causes. Each cause of death is associated with a numeric observation Death Cause Interval which captures the approximate interval between the onset of the death cause (condition) and death. This linkage is implemented through the use of actRelationship.sequenceNumber.*

Form VRDR Data Element	Description	VRDR CDA®
Onset to death interval for cause of death	An interval between onset and death is reported for each of the conditions. The other section of the cause of death statement is for reporting other conditions that contributed to death but were not part of the chain of events reported.	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Death Causal Information [Organizer: templateId 2.16.840.1.113883.10.20.26.1.6] Component/observation where: Component/observation/sequence SHALL indicate the order of the chain of events such that: • *Up to four events - diseases, injuries, or complications may be entered to record the cause of death. These are entered in a defined sequence, and the order of each is recorded using sequence number. The act relationship sequence number value that is captured is used to associate the time between onset and death with the relevant death causal event.* AND code/@code="69440-6" Disease onset to deathinterval (CodeSystem: 2.16.840.1.113883.6.1 LOINC) AND Component/observation/ componentDeathCauseInterval/code/@code= “69440-6" Disease onset to death interval (CodeSystem: 2.16.840.1.113883.6.1 LOINC) AND Component/observation/ componentDeathCauseInterval/value ([0..*] *@xsi:type="ED"* • *A measure of the time interval between the onset of the disease, injury or complication, and the person's death. The data to be included will vary from statements of time intervals to text statements such as "many months", "days", "unknown". Each death cause interval value is associated with a cause of death observation Cause of Death - that identifies the condition associated with the time interval. This linkage is implemented through the use of actRelationship.sequenceNumber.*

Form VRDR Data Element	Description	VRDR CDA®
Cause of Death - Other Significant Conditions		Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Death Causal Information [Organizer: templateId 2.16.840.1.113883.10.20.26.1.6] Component/observation where Where code/@code="69441-4" Other Significant Condition (CodeSystem: 2.16.840.1.113883.6.1 LOINC) AND Component/observation/value ([1..1] *with @xsi:type="ED"* • *Descriptive text that provides information on a significant condition or conditions that contributed to death, but did not result in the underlying cause that is elsewhere described. The maximum length is 240 characters.*
Certifier Type	Type of certifier such as coroner, county attorney, medical examiner, nurse practitioner, physician, and physician assistant.	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Certifying Death (Observation: templateId 2.16.840.1.113883.10.20.26.1.7) value1 [1..1] Where code is data type CD and uses values from value set: (CodeSystem: 2.16.840.1.114222.4.11.6001 Certifier Types (NCHS)) *A coded value that indicates the role, within the context of death registration, played by the person certifying the death.*
Certifier Name	Name of the person completing the cause of death (item 32 on the U.S. Standard Certificate of Death)	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Certifying Death [Observation: templateId 2.16.840.1.113883.10.20.26.1.7] performer/assignedEntity/assignedPerson/name [1..1] • *This field is valued with the person who signed the death certificate. The full name of the certifier is required. A value is required if the case has not been assigned to a coroner/medical examiner.*
Certifier Address	Address of the person completing the cause of death (item 32 on the U.S. Standard Certificate of Death)	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Certifying Death [Observation: templateId 2.16.840.1.113883.10.20.26.1.7] performer/assignedEntity/addr [1..1] • *The postal address used to locate the clinician or coroner at the time of death certification. The element is required if the death has been certified.*

Form VRDR Data Element	Description	VRDR CDA®
Certifier signature	Certifier's signature. Depending on jurisdictional law, the signature may be electronic approval, an approval button, or other method for indicating acceptance in place of a physical signature.	Document Digital Signature may be used to reflect the signature. See Security Considerations Section 3.38.5.2
Date certified	Calendar date when the death record is certified	Death Report Document Body Section [2.16.840.1.113883.10.20.26.1.1] Certifying Death [Observation: templateId 2.16.840.1.113883.10.20.26.1.7] effectiveTime [1..1]
Date of Birth (Mo/Day/Yr)	Calendar date when decedent was born	recordTarget birthTime *role played by*
Date of Injury	Actual or presumed date when decedent sustained injury	Death Report Document Body [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Injury (Organizer: templateId: 2.16.840.1.113883.10.20.26.1.9) Component/observation/effectiveTime
Date pronounced Dead	Month, day and year decedent was pronounced dead.	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Pronouncing Death (Observation: templateId 2.16.840.1.113883.10.20.26.1.15) effectiveTime
Date Signed	Date the death record is signed by the person that pronounces death	Signature date reflected in DSG
Decedent of Hispanic Origin	Hispanic origin of the decedent. The primary source for this data element is the funeral director and/or next of kin. Any information for these data elements that comes from the EHR may be changed by the funeral director or next of kin. However, the EHR may also serve as a resource for documenting race and ethnicity information to inform the content of this attribute.	recordTarget ethnicity *role played by*
Decedent's Name Known by Certifier	Current legal name of the decedent including first name, middle name, last name, suffixes, and AKA's would be useful; however, name as known for decedent is sufficient.	recordTarget name *role played by*

Form VRDR Data Element	Description	VRDR CDA®
Decedent's Residence	The geographic location of the decedent's residence.	recordTarget address *role played by*
Decedent's Race	Race(s) that best describes what the decedent considered himself/herself to be. The primary source for this data element is the funeral director and/or next of kin. Any information for these data elements that comes from the EHR may be changed by the funeral director or next of kin. However, the EHR may also serve as a resource for documenting race and ethnicity information to inform the content of this attribute.	recordTarget race *role played by*
Describe how the injury occurred	Information on how the injury occurred is requested in narrative form	Death Report Document Body [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Injury (Organizer templateId: 2.16.840.1.113883.10.20.26.1.9) Component/observation/text *[0..1] text statements* • A text description of how the injury occurred
Did tobacco use contribute to death?	A clinical opinion on whether tobacco use contributed to the decedent's death.	Death Report Document Body [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Tobacco Use [Observation: templateId 2.16.840.1.113883.10.20.26.1.14] value *[1..1]* Where value data type is CD and uses values from value set: (CodeSystem: 2.16.840.1.114222.4.11.6004 Contributory Tobacco Use (NCHS)),
Facility Name (Geographic location where the death occurred)	The facility name at the geographic location where the death occurred.	Death Report Document Body [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Location of Death (Observation: templateId 2.16.840.1.113883.10.20.26.1.10) text *[0..1] text statements* • Information about the place where death occurred. It is provided if no address can be.

Form VRDR Data Element	Description	VRDR CDA®
Street address where death occurred if not facility	The facility name is provided when the death occurs in an institution. If not in an institution, the geographic location where the death occurred is provided including the street & number.	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Location of Death (Observation: templateId 2.16.840.1.113883.10.20.26.1.10) text *[0..1] text statements* • *Information about the place where death occurred. It is provided if no address can be.* /value where value data type is AD if the mailing address is known • *The mailing address for the place where the person died. This attribute is collected if the person died at a home, a health facility, or other location with a postal address.*
Female pregnancy status at time of death	Item for females that requests information on the pregnancy status of the deceased woman within the last year of her life	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Pregnancy Status (Observation: templateId 2.16.840.1.113883.10.20.26.1.12) value *[1..1]* Where value data type is CD and uses values from value set: (CodeSystem: 2.16.840.1.114222.4.11.6003 Pregnancy Status (NCHS)) • *A code that provides information regarding whether or not the person was pregnant at the time of her death, or whether she was pregnant around the time of death. Required if the person is female and in the age range 5 to 75 years.*
Injury at Work	Information on whether or not an injury to the deceased indicated on the death certificate occurred at work.	Death Report Document Body [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Injury (Organizer: templateId 2.16.840.1.113883.10.20.26.1.9) Component/observation/value *[0..*]* Where value data type is BL • *A Boolean indicator (Yes/No) that tells whether or not the injury occurred while the person was at work.* And Where Component/observation/code/@code="69444-8" Did death result from injury at work (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
License Number of Person Certifying Death	License number of person certifying the cause of death.	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Certifying Death [Observation: templateId 2.16.840.1.113883.10.20.26.1.7] performer/assignedEntity/ id *[1..*]*
License Number of Person Pronouncing Death	License number of person pronouncing death (includes whether licensed and state determined)	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Pronouncing Death (Observation: templateId 2.16.840.1.113883.10.20.26.1.15) performer/assignedEntity/assignedPerson/id *[1..1]*

Form VRDR Data Element	Description	VRDR CDA®
Location of injury	The geographic location where the injury occurred	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Injury (Organizer: templateId 2.16.840.1.113883.10.20.26.1.9) Component/observation/participant/participantRole/addr *[0..1] if available* • *The street address for the place where the injury occurred. Required if the decedent suffered an injury leading to death.* where code/@code="11374-6" description (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
Manner of Death	An item where the certifying physician, medical examiner or coroner identifies the manner or how the deceased died	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Manner of Death (Observation: templateId 2.16.840.1.113883.10.20.26.1.11) value *[1..1]* Where value data type is CD and uses values from value set: (CodeSystem: 2.16.840.1.114222.4.11.6002 Manner Of Death (NCHS))
Name of person completing COD	Name of the person completing the cause of death	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Death Causal Information [Organizer: templateId 2.16.840.1.113883.10.20.26.1.6] author/assignedAuthor/name
Place of Death	The physical location where the decedent died.	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Death Location Type (Observation templateId 2.16.840.1.113883.10.20.26.1.8) value *[1..1]* where its data type is CD and uses values from value set: • (CodeSystem: 2.16.840.1.114222.4.11.7216 Place of Death (NCHS))
Place of Injury	Requests information on the type of place where an injury occurred	Death Report Document Body Section [Section: templateId Death Report Document Body] Injury (Organizer templateId 2.16.840.1.113883.10.20.26.1.9) Component/observation/participant/participantRole/desc [0..1] • *A description of the type of place where the injury occurred. Possible entries are "at home", "farm", "factory", "office building", "restaurant". Required if the decedent suffered an injury leading to death.* where code/@code="11374-6" Injury incident
Sex	The sex of the deceased.	recordTarget/*gender role played by* NOTE: while the modeled location references the term ‘gender’, the attribute in this VRDR CDA location SHALL contain the Administrative Sex of the deceased

<table>
<tr><th>Form VRDR Data Element</th><th>Description</th><th>VRDR CDA®</th></tr>
<tr><td>Signature of Person Pronouncing Death</td><td>The signature of the person who pronounced death and signed the death record. Depending on jurisdictional law, the signature may be electronic approval, an approval button, or other method for indicating acceptance in place of a physical signature.</td><td></td></tr>
<tr><td>Jurisdiction Person Identifier (e.g., Social Security Number (SSN))</td><td>The identifier assigned by the jurisdiction (e.g., social security number) of the deceased.</td><td>recordTarget/id
Where Root is the 2.16.840.1.113883.4.1 (for Social Security Administration) or the Root of the Jurisdiction Person Identifier assigning authority

The Extension is the person’s Jurisdiction Person Identifier
If there is no Jurisdiction Person Identifier, use one of the following flavors of NULL in place of the extension attribute:

<table><tr><th>HL7 Concept Code Head Code-defined Value Set</th><th>NCHS SSN Companion Missing Values Variable</th></tr><tr><td>NI
v:NoInformation</td><td>None (decedent has no Jurisdiction Person Identifier)</td></tr><tr><td>. UNK
. v:Unknown</td><td>Unknown (informant does not know the Jurisdiction Person Identifier)</td></tr><tr><td>. . . NAV</td><td>Pending (informant does not know at this time)</td></tr><tr><td>. . NASK</td><td>Not Obtainable (no informant, unknown body)</td></tr></table></td></tr>
<tr><td>Time of Injury</td><td>Actual or presumed time of injury. The Death Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death indicates that the Time of Injury (hour and minute) should be stated using a 24-hour clock.</td><td>Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1]
Injury (Organizer templateId 2.16.840.1.113883.10.20.26.1.9)
Component/observation/effectiveTime
Where code/@code="11374-6" Injury incident
description (CodeSystem: 2.16.840.1.113883.6.1 LOINC)</td></tr>
<tr><td>Time pronounced Dead</td><td>Hour and minute decedent was pronounced dead.</td><td>Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1]
Pronouncing Death (Observation: templateId 2.16.840.1.113883.10.20.26.1.15)
effectiveTime
where code/@code="11374-6" Injury incident</td></tr>
</table>

Form VRDR Data Element	Description	VRDR CDA®
Title of Certifier	Medical professional label used to signify a professional role or membership in a professional society	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Certifying Death [Observation: templateId 2.16.840.1.113883.10.20.26.1.7] performer/assignedEntity/assignedPerson/code [1..1] Where code is data type CE and uses values from SNOMED for professions valid in to the jurisdiction • *A coded value that indicates the role played by the person certifying the death. E.g., coroner, physician.*
Transportation Injury	Information on the role of the decedent involved in a transportation accident.	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Injury (Organizer: templateId 2.16.840.1.113883.10.20.26.1.9) WHERE (Component/observation/value *[0..*]* Where value is data type BL • *A Boolean indicator (Yes/No) that tells whether the injury leading to death was associated with a transportation event. Required if the decedent suffered an injury leading to death.* AND where code/@code="69448-9" Injury leading to death associated with transportation event (CodeSystem: 2.16.840.1.113883.6.1 LOINC)) AND WHERE (Component/observation/value [1..1] where its data type is CE and uses values from value set: (CodeSystem: 2.16.840.1.114222.4.11.6005 Transportation Relationships (NCHS)Value Set) • A coded value that states, if the injury was related to transportation, the specific role played by the decedent, e.g., driver, passenger. Required if the decedent suffered an injury leading to death. where code/@code="69451-3" Transportation Role of Decedent)
Was an autopsy performed?	Information on whether or not an autopsy was performed	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Autopsy Performance (Observation: templateId 2.16.840.1.113883.10.20.26.1.2) value *[1..1]* • *This field indicates whether an autopsy was performed.* Where value data type is BL

Form VRDR Data Element	Description	VRDR CDA®
Was Medical Examiner or Coroner contacted?	Item records whether the medical examiner or coroner was contacted in reference to this case	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Coroner Case Transfer [Observation: templateID 2.16.840.1.113883.10.20.26.1.4] value *[1..1]* • *This field indicates whether the case was transferred to a coroner or medical examiner.* Where value data type is BL Where code/@code="69438-0" Referral note (CodeSystem: 2.16.840.1.113883.6.1 LOINC)
Were autopsy findings available to complete the COD	Information on whether or not the findings of the autopsy were available for completing the medical portion of the death certificate	Death Report Document Body Section [Section: templateId 2.16.840.1.113883.10.20.26.1.1] Autopsy Results [Observation: templateId 2.16.840.1.113883.10.20.26.1.3] value *[1..1]* • *A Boolean indicator (Yes/No) that tells whether an autopsy report is available for the deceased.* Where value data type is BL

6.3.1.D1.4.2 Data Element Requirement Mappings to Message

1010 This section specifies the mapping of data from the specified form data elements for this profile into the VRDRFeed (QRPH-38). The Form Receiver Message eExporter SHALL use this table to populate the VRDR message from the form data. This form element (name, item #), shall be represented in the message location as indicated by the Section 3.38.4.1 Send VRDR InformationVRDRFeed [QRPH-38].

1015

VRDR Data Element	Description	Message Location
Actual or Presumed Date of Death	Calendar date when decedent died.	PID-29 Patient Death Date and Time with PID-30 Patient Death Indicator It is relevant to note that the exact date will not always be available. Therefore, in implementations it is necessary to support partial dates that only identify year and month, or year.

VRDR Data Element	Description	Message Location
Actual or Presumed Time of Death	Clock time when decedent died. The Death Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death indicates that the Time of Death (hour and minute) should be stated using a 24-hour clock.	PID-29 Patient Death Date and Time with PID-30 Patient Death Indicator
Cause of Death	Causes of death are diseases, abnormalities, injuries, or poisonings that contributed directly or indirectly to death. In this section of the cause of death statement, the certifier reports the immediate cause (final disease or condition resulting in death. The maximum length is 120 characters. For initial submission of this information, the immediate cause of death and the underlying cause of death must be reported. Additional causes of death – up to two – may be recorded. Death causes are ordered sequentially with the immediate cause of death given the sequence number "1", and the underlying cause of death being given the highest sequence number among the set of cited causes. Coded death cause information may be provided as a result of processing the submitted text. Cause of death codes use the ICD classification system. The submitted text on which the code assignment is based will be included along with codes and descriptive text.	OBX-3 Cause of death LOINC 69453-9
Onset to death interval for cause of death reported	Each cause of death is associated with a numeric observation – Death Cause Interval – which captures the approximate interval between the onset of the death cause (condition) and death. This linkage is implemented through the use of observation sub-id. Coded death cause information may be provided if permitted by the jurisdiction.	OBX-3 Disease Onset to Death Interval
Cause of Death - Other Significant Conditions		OBX-3 Death Cause Other Significant Conditions
Death Certifier	Type of certifier	PDA-5
Certifier signature	Certifier's signature. Depending on jurisdictional law, the signature may be electronic approval, an approval button, or other method for indicating acceptance in place of a physical signature.	NA
Date certified	Calendar date when the death record is certified	PDA-4
Date of Birth (Mo/Day/Yr)	Calendar dates when decedent was born	PID-7 Date/Time of Birth
Date of Injury	Actual or presumed date when decedent sustained injury	OBX-3 Injury Date
Date pronounced Dead	Month, day and year decedent was pronounced dead.	See open issues

VRDR Data Element	Description	Message Location
Date Signed	Date the death record is signed by the person that pronounces death	PDA-4 Death Certificate Signed Date/Time
Decedent of Hispanic Origin	Hispanic origin of the decedent. The primary source for this data element is the funeral director and/or next of kin. Any information for these data elements that comes from the EHR may be changed by the funeral director or next of kin. However, the EHR may also serve as a resource for documenting race and ethnicity information to inform the content of this attribute.	PID-22 Ethnic Group
Decedent's Name Known by Certifier	Current legal name of the decedent including first name, middle name, last name, suffixes, and AKA's would be useful; however, name as known for decedent is sufficient.	PID-5 Patient Name
Decedent's Race	Race(s) that best describes what the decedent considered himself/herself to be. The primary source for this data element is the funeral director and/or next of kin. Any information for these data elements that comes from the EHR may be changed by the funeral director or next of kin. However, the EHR may also serve as a resource for documenting race and ethnicity information to inform the content of this attribute.	PID-10 Race
Decedent's Residence	The geographic location of the decedent's residence.	PID-11 Patient Address
Describe how the injury occurred	Information on how the injury occurred is requested in narrative form	OBX-3 Injury Incident Description
Did tobacco use contribute to death?	A clinical opinion on whether tobacco use contributed to the decedent's death.	OBX-3 Did Tobacco Use Contribute to Death
Facility Name (Geographic location where the death occurred)	The facility name at the geographic location where the death occurred.	PDA-2
Street address where death occurred if not facility	The facility name is provided when the death occurs in an institution. If not in an institution, the geographic location where the death occurred is provided including the street & number.	OBX-3 Street address where death occurred if not facility
Female pregnancy status at time of death	Item for females that requests information on the pregnancy status of the deceased woman within the last year of her life	OBX-3 Timing of Recent Pregnancy Related to Death
Injury at Work	Information on whether or not an injury to the deceased indicated on the death certificate occurred at work.	OBX-3 Did Death Result from Injury at Work
License Number of Person Certifying Death	License number of person certifying the cause of death.	PDA-5

VRDR Data Element	Description	Message Location
License Number of Person Pronouncing Death	License number of person pronouncing death (includes whether licensed and state determined)	See open issues
Location of injury	The geographic location where the injury occurred	OBX-3 Injury Location (Address)
Manner of Death	An item where the certifying physician, medical examiner or coroner identifies the manner or how the deceased died	OBX-3 Manner of Death
Name of person completing COD	Name of the person completing the cause of death	PDA-5 Death Certified By
Place of Death	The physical location where the decedent died.	PDA-2 Death Location
Place of Injury	Requests information on the type of place where an injury occurred	OBX-3 Injury Location
Sex	The sex of the deceased.	PID-8 Administrative Sex
Signature of Person Pronouncing Death	The signature of the person who pronounced death and signed the death record. Depending on jurisdictional law, the signature may be electronic approval, an approval button, or other method for indicating acceptance in place of a physical signature.	NA
Jurisdiction Person Identifier (e.g., Social Security Number (SSN))	The Jurisdiction Person Identifier (e.g., social security number) of the deceased.	PID-3 Patient Identifier List
Time of Injury	Actual or presumed time of injury. The Death Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death indicates that the Time of Injury (hour and minute) should be stated using a 24-hour clock.	OBX-3 Injury Date
Time pronounced Dead	Hour and minute decedent was pronounced dead.	
Title of Certifier	Medical professional label used to signify a professional role or membership in a professional society	OBX-3 Death Certifier (Type)
Transportation Injury	Information on the role of the decedent involved in a transportation accident.	OBX-3 Transportation Role of Decedent
Was an autopsy performed?	Information on whether or not an autopsy was performed	PDA-6 Autopsy Performed
Was Medical Examiner or Coroner contacted?	Item records whether the medical examiner or coroner was contacted in reference to this case	PDA-9 Coroner Indicator
Were autopsy findings available to complete the COD	Information on whether or not the findings of the autopsy were available for completing the medical portion of the death certificate	PDA-7 Autopsy Start/End Date

6.3.1.D1.4.3 Data Element Requirement Mappings to Form Pre-population

Sets of detailed specifications have been developed for collecting and reporting the items on the U.S. Standard Certificate of Death. It is critical that all U.S. vital registration areas follow these standards to promote uniformity in data collection across registration areas. The best sources for specific data items are identified in the Death Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death.

The 'Summary Document Source' column specifies the mapping from multiple summary documents (IHE PCC MS, IHE PCC XPHR, CCD®). As such, the following root source options should be applied in interpreting the mapping XPATH statement for this column where those documents support the referenced content (e.g., content from Coded Hospital Course will be available when using MS-VRDR for Pre-pop, but will not be available when using the other document types).

Document Type	XPATH Root
Summary Documents for Medical Summary for VRDR Pre-pop(MS-VRDR)	ClinicalDocument/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.7.3.1.1.23.2]
PCC MS Referral Summary	ClinicalDocument/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.3]]
PCC MS Discharge Summary	ClinicalDocument/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.4]]
PCC XPHR PHR Extract	ClinicalDocument/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5]]
PCC XPHR PHR Update	ClinicalDocument/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5]]
HL7/ASTM CCD	ClinicalDocument/component/structuredBody/component/section[templateId[@root=2.16.840.1.113883.10.20.1.22]]

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
Actual or Presumed Date of Death	Calendar date when decedent died.	Pre-populate	DOD_YR SHALL = The Year part of effectiveTime	Coded Hospital Course section 1.3.6.1.4.1.19376.1.7.3.1.3.23.1 Time of Death Entry 2.16.840.1.113883.10.20.26.1.13 …ClinicalDocument/ /component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.7.3.1.3.23.1]]/entry[templateId[@root=2.16.840.1.113883.10.20.26.1.13]/ observation/effectiveTime	Timestamp [of time of death]
			DOD_MO SHALL = The Month part of effectiveTime	Coded Hospital Course section 1.3.6.1.4.1.19376.1.7.3.1.3.23.1 Time of Death Entry 2.16.840.1.113883.10.20.26.1.13 …ClinicalDocument/ component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.7.3.1.3.23.1]]/entry[templateId[@root=2.16.840.1.113883.10.20.26.1.13] /observation/effectiveTime	Timestamp [of time of death]
			DOD_DY SHALL = The Day part of effectiveTime	Coded Hospital Course section 1.3.6.1.4.1.19376.1.7.3.1.3.23.1 Time of Death Entry 2.16.840.1.113883.10.20.26.1.13 …ClinicalDocument/ /component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.7.3.1.3.23.1]]/entry[templateId[@root=2.16.840.1.113883.10.20.26.1.13]/observation /effectiveTime	Timestamp [of time of death]

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
Actual or Presumed Time of Death	Clock time when decedent died. The Death Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death indicates that the Time of Death (hour and minute) should be stated using a 24-hour clock.	Pre-populate	TOD SHALL = The Time part of effectiveTime	Hospital Course of events section …ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.3.5]]/entry[templateId[@root=2.16.840.1.113883.10.20.24.1.3]/effectiveTime	Timestamp [of time of death]
Cause of Death	Causes of death are diseases, abnormalities, injuries, or poisonings that contributed directly or indirectly to death. NOTE: this is the Immediate Cause of death	Data Entry Required	NA	NA	69453-9

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
Cause of Death	In this section of the cause of death statement, the certifier reports a chain of events that result in death. The number of conditions reported will vary according to the individual death. An interval between onset and death is reported for each of the conditions in Part I. The other section of the cause of death statement is for reporting other conditions that contributed to death but were not part of the chain of events reported in Part I.	Data Entry Required	NA	NA	NA

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
Cause of Death - Chain Of Events Cause of death reported on line a, Part I Cause of death reported on line b, Part I Cause of death reported on line c, Part I Cause of death reported on line d, Part I Onset to death interval for cause of death reported on line a, Part I Onset to death interval for cause of death reported on line b, Part I Onset to death interval for cause of death reported on line c, Part I Onset to death interval for cause of death reported on line d, Part I		Data Entry Required	NA	NA	NA

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
Cause of Death - Other Significant Conditions		Data Entry Required	NA	NA	NA
Death Certifier	Death Certifier (Type)	Data Entry Required	NA	NA	69437-2
Certifier Name	Name of the person completing the cause of death (item 32 on the U.S. Standard Certificate of Death)		NA	NA	
Certifier Address	Address of the person completing the cause of death (item 32 on the U.S. Standard Certificate of Death)		NA	NA	

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
Certifier signature	Certifier's signature. Depending on jurisdictional law, the signature may be electronic approval, an approval button, or other method for indicating acceptance in place of a physical signature.	Data Entry Required	NA	NA	
Date certified	Calendar date when the death record is certified	Pre-populate	IF (Procedure CONTAINS (Certifying Death Procedure Performed)) then Date Certified SHALL = Procedure Date	Procedure …/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11]]/entry/procedure/code	Certifying Death Procedure Performed Value Set 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.6
				Procedure Date …/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11]]/entry/procedure/effectiveTime	
Date of Birth (Mo/Day/Yr)	Calendar date when decedent was born	Pre-populate		recordTarget birthTime	
Date of Injury	Actual or presumed date when decedent sustained injury	Data Entry Required	NA	NA	

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
Date pronounced Dead	Month, day and year decedent was pronounced dead.	Pre-populate	IF (Procedure CONTAINS (Pronouncing Death Procedure Performed (NCHS)) or Pronouncement of Death Finding CONTAINS (Death Pronouncement Finding (NCHS))) then Date Certified SHALL = Procedure Date	Procedure …/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11]]/entry/procedure/code	Pronouncing Death Procedure Performed (NCHS) Value Set 2.16.840.1.114222.4.11.7274
				Procedure Date …/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11]]/entry/procedure/effectiveTime	
				Pronouncement of Death Finding …/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.3.6]]/entry/act/entryRelationship/observation/value	Death Pronouncement Finding (NCHS) 2.16.840.1.114222.4.11.7273
Date Signed	Date the death record is signed by the person that pronounces death	Data Entry Required	NA	NA	
Decedent of Hispanic Origin	Hispanic origin of the decedent.	Data Entry Required.		recordTarget ethnicity NOTE: The primary source for this data element is the funeral director and/or next of kin. Any information for these data elements that comes from the EHR may be changed by the funeral director or next of kin. However, the EHR may also serve as a resource for documenting race and ethnicity information to inform the content of this attribute.	**HL7 0189**

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
Decedent's Name Known by Certifier	Current legal name of the decedent including first name, middle name, last name, suffixes, and AKA's would be useful; however, name as known for decedent is sufficient.	Pre-populate		recordTarget name	
Decedent's Race	Race(s) that best describes what the decedent considered himself/herself to be.	Data Entry Required		recordTarget race (multiple races should all be captured) NOTE: The primary source for this data element is the funeral director and/or next of kin. Any information for these data elements that comes from the EHR may be changed by the funeral director or next of kin. However, the EHR may also serve as a resource for documenting race and ethnicity information to inform the content of this attribute.	
Decedent's Residence	The geographic location of the decedent's residence.	Pre-populate	STNUM PREDIR STNAME STDESIG POSTDIR UNUM CITY ZIP COUNTY COUNTRY	recordTarget addr	

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
Describe how the injury occurred	Information on how the injury occurred is requested in narrative form	Data Entry Required	NA	NA	
Did tobacco use contribute to death?	A clinical opinion on whether tobacco use contributed to the decedent's death.	Data Entry Required	NA	NA	
Facility Name (Geographic location where the death occurred)	The facility name at the geographic location where the death occurred.	Pre-populate	IF Discharge Disposition CONTAINS(Discharge Death (NCHS) Value Set) THEN "DINSTI" SHALL be populated using the Facility Name	Facility Name: encompassingEncounter/ location/healthCareFacility/location/name IF the Death occurred within the hospital	
				Discharge Disposition encompassingEncounter/ sdtc:dischargeDispositionCode	Discharge Death (NCHS)Value Set 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.4
Street address where death occurred if not facility		Data Entry Required	NA	NA	

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
Female pregnancy status at time of death	Item for females that requests information on the pregnancy status of the deceased woman within the last year of her life	Data Entry Required	NA	NA	
Injury at Work	Information on whether or not an injury to the deceased indicated on the death certificate occurred at work.	Data Entry Required	NA	NA	
License Number of Person Certifying Death	License number of person certifying the cause of death.	Data Entry Required	NA	NA	
License Number of Person Pronouncing Death	License number of person pronouncing death (includes whether licensed and state determined)	Data Entry Required	NA	NA	

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
Location of injury	The geographic location where the injury occurred	Data Entry Required	NA	NA	
Manner of Death	An item where the certifying physician, medical examiner or coroner identifies the manner or how the deceased died	Data Entry Required	NA	NA	
Name of person completing COD	Name of the person completing the cause of death	Data Entry Required	NA	NA	
Place of Death	The physical location where the decedent died	Direct Data Entry	NA	NA	
Place of Injury	Requests information on the type of place where an injury occurred	Data Entry Required	NA	NA	
Sex	The sex of the deceased.	Pre-populate	IF Sex CONTAINS ValueSet (Male Gender (NCHS) Value Set) THEN “SEX” SHALL =’M’ ELSE IF Sex	Sex: recordTarget/patientRole/patient/administrativeGenderCode NOTE: while the modeled	Male Gender (NCHS) Value Set 1.3.6.1.4.1.19376.1.7.3.1.1.13.8.42

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
			CONTAINS ValueSet(Female Gender (NCHS) Value Set) THEN “SEX” SHALL =’F’ ELSE THEN “SEX” SHALL =’U’	location references the term ‘gender’, the attribute in this CDA location is expected to contain the HL7 Administrative Sex value set (M, F, U) of the deceased. Also, the Male Gender and Female Gender value sets in fact are reflecting the concept of ‘Sex’	Female Gender (NCHS) Value Set 1.3.6.1.4.1.19376.1.7.3.1.1.13.8.43
Signature of Person Pronouncing Death	The signature of the person who pronounced death and signed the death record. Depending on jurisdictional law, the signature may be electronic approval, an approval button, or other method for indicating acceptance in place of a physical signature.	Data Entry Required	NA	NA	
Jurisdiction Person Identifier (e.g., Social Security Number (SSN))	The Jurisdiction Person Identifier (e.g., social security number) of the deceased.	Pre-populate	NA	recordTarget/patientRole/id/@extension where @root=(2.16.840.1.113883.4.1)	

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
Time of Injury	Actual or presumed time of injury. The Death Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death indicates that the Time of Injury (hour and minute) should be stated using a 24-hour clock.	Data Entry Required	NA	NA	
Time pronounced Dead	Hour and minute decedent was pronounced dead.	Data Entry Required	NA	NA	
Title of Certifier	Medical professional label used to signify a professional role or membership in a professional society	Data Entry Required	NA	NA	
Transportation Injury	Information on the role of the decedent involved in a transportation accident.	Data Entry Required	NA	NA	

VRDR Data Element	Description	Direct Data Entry or Pre-populate	Derivation Rule	Summary Document Source	Value sets
Was an autopsy performed?	Information on whether or not an autopsy was performed	Data Entry Required	IF (Autopsy Procedure CONTAINS (Autopsy Procedure Performed (NCHS))) then AUTOPSHALL = 'Y' ELSE IF (Autopsy Findings CONTAINS (Autopsy Not Performed (NCHS))) then AUTOPSHALL = 'N'	Autopsy Procedure …/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11]]/entry/procedure/code	Autopsy Procedure Performed (NCHS) 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.1
				Autopsy Findings …/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.3.6]]/entry/act/entryRelationship/observation/value	Autopsy Not Performed (NCHS) 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.2
Was Medical Examiner or Coroner contacted?	Item records whether the medical examiner or coroner was contacted in reference to this case	Data Entry Required	NA	NA	
Were autopsy findings available to complete the COD	Information on whether or not the findings of the autopsy were available for completing the medical portion of the death certificate	Data Entry Required	NA	NA	69436-4

6.3.1.D1.5 VRDR Document Content Module Specification

This specifies the header, section, and entry content modules which comprise the VRDR Document Content Module. This template further constrains the HL7® Reporting Death Information from a clinical setting to Vital Records template.

Sections that are used according to the definitions in other specifications are identified with the relevant specification document. Additional constraints on vocabulary value sets, not specifically constrained within the section template, are also identified. Header constraints to the parent HL7® CDA® document for Reporting Birth Information from a Clinical Setting to Vital Records are identified. Only the constrained sections and clinical statements are listed here, but there are additional requirements in the HL7® CDA® Implementation Guide.

6.3.1.D1.5.1 Document Constraints

Table 6.3.1.D1.5-1: Vital Records Death Reporting (VRDR) Document Content Module Specification

Template Name		Vital Records Death Reporting			
Template ID		1.3.6.1.4.1.19376.1.7.3.1.1.23.1			
Parent Template		Reporting Death Information from a clinical setting to Vital Records 2.16.840.1.113883.10.20.26.1 (HL7) NOTE: Constraints to the Header Section Apply			
General Description		Document specification covers the provision of death reporting data to the applicable jurisdictional vital reporting agencies			
Document Code		SHALL be 69409-1 (CodeSystem: 2.16.840.1.113883.6.1 LOINC), "U.S. standard certificate of death – 2003 revision "			
Opt and Card	**Condition**	**Header Element or Section Name**	**Template ID**	**Specification Document**	**Vocabulary Constraint**
Header Elements					
R[1..1]	QRPH 6.3.1.D1.5.2.7	Personal Information: name	1.3.6.1.4.1.19376.1.5.3.1.1.1	PCC TF-2: 6.3.1.5.6	
R2[0..1]	QRPH 3: 6.3.1.D1.5.2.1	Personal Information: birthtime	1.3.6.1.4.1.19376.1.5.3.1.1.1	PCC TF-2: 6.3.1.5.6	
R2[0..1]	QRPH 6.3.1.D1.5.2.8	Personal Information: addr	1.3.6.1.4.1.19376.1.5.3.1.1.1	PCC TF-2: 6.3.1.5.6	
R2[0..1]	QRPH 6.3.1.D1.5.2.2	**Personal Information: ethnicity**	**1.3.6.1.4.1.19376.1.5.3.1.1.1**	PCC TF-2: 6.3.1.5.6	**HL7 0189**
R2[1..*]	QRPH 6.3.1.D1.5.2.3	**Personal Information: race**	**1.3.6.1.4.1.19376.1.5.3.1.1.1**	PCC TF-2: 6.3.1.5.6	**HL7 0005**
R[1..1]	QRPH 6.3.1.D1.5.2.4	Personal Information: gender	1.3.6.1.4.1.19376.1.5.3.1.1.1	PCC TF-2: 6.3.1.5.6	HL7 0001

R2[0..1]	QRPH 6.3.1.D1.5.2.6	Personal Information: id	1.3.6.1.4.1.19376.1.5.3.1.1.1	PCC TF-2: 6.3.1.5.6	
R[1..1]	**QRPH 6.3.1.D1.5.2.5**	**realmCode**		**QRPH 6.3.1.D1.5.2.5**	
Sections					
R[1..1]		Death Report Document Body Section	2.16.840.1.113883.10.20.26.1.1	HL7 VRDR CDA CH3	

6.3.1.D1.5.2 Header Constraints - Further Vocabulary or Conditional Constraints

6.3.1.D1.5.2.1 Personal Information: birthtime

The recordTarget/birthTime SHOULD contain the birth date/time of the decedent in the document header if known.

6.3.1.D1.5.2.2 Personal Information: ethnicity

The ethnicity MAY be included in the document header if known. The value for ethnicity/ code SHALL be drawn from value set 2.16.840.1.114222.4.11.6066 PHVS_EthnicGroup_HL7_2x unless further extended by national extension.

6.3.1.D1.5.2.3 Personal Information: race

The race MAY be included in the document header if known. The value for race/ code SHALL be drawn from value set 2.16.840.1.114222.4.11.6066

PHVS_Race_HL7_2x. 2.16.840.1.113883.1.11.14914 unless further extended by national extension.

6.3.1.D1.5.2.4 Personal Information: gender

As indicated in the underlying HL7® Death Reporting Document, the value for gender/ code SHALL be drawn from value set 2.16.840.1.113883.1.11.1 HVS_AdministrativeGender_HL7_V3.

6.3.1.D1.5.2.5 realmCode

The realmCode SHALL be included and SHALL indicate the country for the jurisdiction of the implementation. The value for realmCode SHALL be drawn from CodeSystem: 1.0.3166.1

Country (ISO 3166-1). NOTE: this is an extension of the underlying HL7® Implementation Guide for CDA® Release 2: Birth and Fetal Death Report, Release 1.

6.3.1.D1.5.2.6 Personal Information: id

The recordTarget/patientRole/id SHOULD contain the Jurisdiction Person Identifier identifier of the decedent. The value "99999999" should be used for persons who do not have a jurisdiction identifier.

6.3.1.D1.5.2.7 Personal Information: name

The recordTarget/name SHALL contain the legal name of the decedent.

6.3.1.D1.5.2.8 Personal Information: addr Constraint

The recordTarget/addr SHOULD contain the address of the decedent.

6.3.1.D1.5.3 Body Constraints – Further Vocabulary or Conditional Constraints

There are no body constraints to the underlying HL7® Reporting Death Information from a clinical setting to Vital Records.

6.3.1.D1.6 Vital Records Death Reporting VRDR Conformance and Example

CDA® Release 2.0 documents that conform to the requirements of this document content module shall indicate their conformance by the inclusion of the 1.3.6.1.4.1.19376.1.7.3.1.1.23.1 XML elements in the header of the document.

A CDA® Document may conform to more than one template. This content module inherits from the PCC TF Medical Document, 1.3.6.1.4.1.19376.1.5.3.1.1.1, content module and so must conform to the requirements of those templates as well this document specification, Vital Records Death Reporting 1.3.6.1.4.1.19376.1.7.3.1.1.23.1

A complete example of the Vital Records Death Reporting (VRDR) Document Content Module is available on the IHE ftp server at: ftp://ftp.ihe.net/TF_Implementation_Material/QRPH/packages/. Note that this is an example and is meant to be informative and not normative. This example shows the 1.3.6.1.4.1.19376.1.7.3.1.1.23.1 elements for all of the specified templates.

6.3.1.D2 Medical Summary for VRDR Pre-pop (MS-VRDR) Document Content Module(1.3.6.1.4.1.19376.1.7.3.1.1.23.2)

The Medical Summary for VRDR Pre-pop (MS-VRDR) constrains and extends the PCC Medical Summary (MS) Document to maximize the pre-population ability for Vital Records Death Reporting feeds to the Vital Records System using this profile

6.3.1.D2.1 Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:qrph:vrdr:2013**

6.3.1.D2.2 Parent Template

This document is a specialization of the IHE PCC Medical Summary (MS) Document (MS: 1.3.6.1.4.1.19376.1.5.3.1.1.2). This document does not require Allergy Entries or Medication Entries, and further constrains problem entries.

6.3.1.D2.3 Referenced Standards

All standards which are referenced in this document are listed below with their common abbreviation, full title, and link to the standard.

Table 6.3.1.D2.3-1: Vital Records Death Reporting (VRDR) Document - Referenced Standards

Abbreviation	Title	URL
CDAR2	HL7 CDA Release 2.0	http://www.hl7.org/Library/General/HL7_CDA_R2_final.zip
CDTHP	CDA for Common Document Types History and Physical Notes (DSTU)	http://www.hl7.org/documentcenter/ballots/2007SEP/support/CDAR2_HPRPT_DSTU_2008AUG.zip
	Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death	http://www.cdc.gov/nchs/data/dvs/death_edit_specifications.pdf

6.3.1.D2.4 Data Element Requirement Mappings to CDA®

This section identifies the mapping of data between referenced standards into the CDA® implementation guide. The following table indicates those attributes that will be pre-populated from the EHR where available. Details regarding how to configure this information in the summary document are provided in Section 6.3.1.D2.5.

Standard Death Report Data Element	CDA®-DIR
Actual or Presumed Date of Death	Coded Hospital Course Section
Actual or Presumed Time of Death	Coded Hospital Course Section
Date of Birth (Mo/Day/Yr)	Header: Personal Information
Decedent of Hispanic Origin	Header: Personal Information
Decedent's Name Known by Certifier	Header: Personal Information
Decedent’s Residence	Header: Personal Information
Decedent's Race	Header: Personal Information
Facility Name (Geographic location where the death occurred)	Encompassing Encounter
Street address where death occurred if not facility	Data Entry Required
Sex	Header: Personal Information

Standard Death Report Data Element	CDA®-DIR
Signature of Person Pronouncing Death	See Document Digital Signature
Jurisdiction Person Identifier (e.g., Social Security Number (SSN))	Header: Personal Information
Was an autopsy performed?	Procedures and Interventions

6.3.1.D2.5 Medical Summary for VRDR Pre-pop (MS-VRDR) Content Module Specification

This section specifies the header, section, and entry content modules which comprise the Medical Summary for VRDR Pre-pop (MS-VRDR) Content Module, using the Template ID as the key identifier.

Sections that are used according to the definitions in other specifications are identified with the relevant specification document. Additional constraints on vocabulary value sets, not specifically constrained within the section template, are also identified.

These are the only sections that are to be constrained. Other sections in the summary document have no further constraints. There are additional summary document sections that are not further specified that SHALL be constructed according to the summary specification.

Table 6.3.1.D2.5-1: Medical Summary for VRDR (MS-VRDR) Document Content Module Specification

Template Name	Medical Summary for VRDR (MS-VRDR) Document				
Template ID	1.3.6.1.4.1.19376.1.7.3.1.1.23.2				
Parent Template	IHE PCC Medical Summary (MS) Document (MS: 1.3.6.1.4.1.19376.1.5.3.1.1.2).				
General Description	This document specifies a constrained version of the IHE PCC Medical Summary that will optimize pre-population of a death report				
Document Code	SHALL be 68653-5, LOINC, Discharge summary note				
Opt and Card	**Condition**	**Header Element or Section Name**	**Template ID**	**Specification Document**	**Vocabulary Constraint**
Header Elements					
R[1..1]	QRPH 3: 6.3.2.H.6	Personal Information: name	1.3.6.1.4.1.19376.1.5.3.1.1.1		
R2[0..1]	QRPH 3: 6.3.2.H.5	Personal Information: birthtime	1.3.6.1.4.1.19376.1.5.3.1.1.1		
R2[0..1]	QRPH 3: 6.3.2.H.7	Personal Information: addr	1.3.6.1.4.1.19376.1.5.3.1.1.1		

O[0..1]	QRPH 3:6.3.2.H.1	Personal Information: ethnicity	1.3.6.1.4.1.19376.1.5.3.1.1.1		
O[0..N]	QRPH 3:6.3.2.H.2	Personal Information: race	1.3.6.1.4.1.19376.1.5.3.1.1.1		
R[1..1]	QRPH 3:6.3.2.H.3	Personal Information: gender	1.3.6.1.4.1.19376.1.5.3.1.1.1		
R2[0..1]	QRPH 3:6.3.2.H.4	Personal Information: id	1.3.6.1.4.1.19376.1.5.3.1.1.1		
Sections					
R[1..1]	QRPH3: 6.3.1.D2.5.1	Encompassing Encounter	2.16.840.1.113883.10.20.1.21	PCC TF-2	
R[1..1]	QRPH 3: 6.3.1.D2.5.2	Active Problems	1.3.6.1.4.1.19376.1.5.3.1.3.6	PCC TF-2	
R2[0..1]	QRPH 3: 6.3.1.D2.5.3	Procedures and Interventions	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11	PCC TF-2	
R2[0..1]	QRPH 3: 6.3.1.D2.5.4	Coded Hospital Course Section	1.3.6.1.4.1.19376.1.7.3.1.3.23.1	PCC TF-2	

6.3.1.D2.5.1 Encompassing Encounter Section Condition

The encompassingEncounter/ location/healthCareFacility/location/name SHALL contain the facility name where the patient died.

The encompassingEncounter/ location/healthCareFacility/location/addr SHALL contain the facility address where the patient died.

6.3.1.D2.5.2 Active Problems Section Condition

6.3.1.D2.5.2.1 Problems Concern Entry Condition

The Problem code, ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.3.6]]/entry/act/entryRelationship/observation/value

SHALL include the following problem observations and associated problem date/times:

For Autopsy Findings:

VRDR Autopsy Not Performed 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.2

6.3.1.D2.5.3 Procedures and Interventions Section Condition

6.3.1.D2.5.3.1 Procures and Interventions Entry Condition

The Procedure code, …/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11]]/entry/procedure/code

SHALL include the following procedures and associated procedure date/times:

To indicate that an autopsy was performed:

VRDR Autopsy Procedure Performed 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.1

6.3.1.D2.6 Medical Summary for VRDR (MS-VRDR) Conformance and Example

CDA® Release 2.0 documents that conform to the requirements of this document content module shall indicate their conformance by the inclusion of the 1.3.6.1.4.1.19376.1.7.3.1.1.23.2 XML elements in the header of the document.

A CDA® Document may conform to more than one template. This content module inherits from the Medical Summary (1.3.6.1.4.1.19376.1.5.3.1.1.2) and so must conform to the requirements of those templates as well this document specification, Medical Summary for VRDR (MS-VRDR) 1.3.6.1.4.1.19376.1.7.3.1.1.23.2.

A complete example of the Medical Summary for VRDR (MS-VRDR) Document Content Module is available on the IHE ftp server at: ftp://ftp.ihe.net/TF_Implementation_Material/QRPH/packages/.

Note that this is an example and is meant to be informative and not normative. This example shows the 1.3.6.1.4.1.19376.1.7.3.1.1.23.2 elements for all of the specified templates.

6.3.3 CDA® Section Content Modules

Add to Section 6.3.3.10 Section Content Modules

The definitions of the following section content module can be found in the IHE PCC CDA® Content Modules supplement at http://www.ihe.net/Resources/Technical_Frameworks/#pcc.

6.3.3.10.1 Coded Hospital Course Section 1.3.6.1.4.1.19376.1.7.3.1.3.23.1

6.3.4 CDA® Entry Content Modules

Add to Section 6.3.4.E Entry Content Modules

The definitions of the following entry content modules can be found in the IHE PCC CDA® supplement located at http://www.ihe.net/Resources/Technical_Frameworks/#pcc.

6.3.4.58 Death Pronouncement Entry Content Module (1.3.6.1.4.1.19376.1.7.3.1.4.23.1)

6.3.4.59 Death Location Type Entry Content Module (1.3.6.1.4.1.19376.1.7.3.1.4.23.2)

Add to sections 6.4

6.4 Section not applicable

This heading is not currently used in a CDA® document.

Add to sections 6.5

6.5 QRPH Value Sets

The following table describes each of the value sets used to support the VRDR Profile. These are all published by and available from the PHIN Vocabulary Access and Distribution System (PHIN VADS). Each of the value sets below are established as extensional with the discrete values available at the PHIN-VADS URL provided. Version status may change from time-to-time as these value sets are maintained by NCHS, so version number should not be referenced when using these value sets in support of the VRDR Profile. Similarly, associated date related metadata attributes will changed as a result of value set maintenance activities, and can be obtained at the PHIN-VADS URL provided. VRDR Vocabulary has dynamic binding of value sets. In dynamic binding the most current version of the value set in the terminology server is used.

6.5.1 Value Sets used by this profile

Table 6.5.1-1: Value Sets used in the VRDR Profile

Name	Identifier	Purpose	Source	PHIN VADS URL	Groups
Autopsy Performed (NCHS)	1.3.6.1.4.1.19376.1.7.3.1.1.23.8.1	To reflect information on whether an autopsy was performed	SNOMED-CT	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=1.3.6.1.4.1.19376.1.7.3.1.1.23.8.1	VRDR
Autopsy Not Performed (NCHS)	1.3.6.1.4.1.19376.1.7.3.1.1.23.8.2	To reflect information on whether an autopsy was not performed	SNOMED-CT	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=1.3.6.1.4.1.19376.1.7.3.1.1.23.8.2	VRDR
Discharge Death (NCHS)	1.3.6.1.4.1.19376.1.7.3.1.1.23.8.4	To reflect information on the discharge disposition for the decedent	HL7	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=1.3.6.1.4.1.19376.1.7.3.1.1.23.8.4	VRDR
Death Pronouncement Finding (NCHS)	2.16.840.1.114222.4.11.7273	To reflect whether the pronouncer reports the pronounced date and time in the problem list	SNOMED-CT	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7273	VRDR

Name	Identifier	Purpose	Source	PHIN VADS URL	Groups
Death Pronouncement Procedure (NCHS)	2.16.840.1.114222.4.11.7274	When an authorized person views the body and declares that death has occurred.	SNOMED-CT	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7274	VRDR
Female Gender (NCHS)	1.3.6.1.4.1.19376.1.7.3.1.1.13.8.43	To reflect the sex of the deceased as female	HL7 Administrative Gender	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=1.3.6.1.4.1.19376.1.7.3.1.1.13.8.43	VRDR
Male Gender (NCHS)	1.3.6.1.4.1.19376.1.7.3.1.1.13.8.42	To reflect the sex of the deceased as male	HL7 Administrative Gender	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=1.3.6.1.4.1.19376.1.7.3.1.1.13.8.42	VRDR
Place of Death (NCHS)	2.16.840.1.114222.4.11.7216	To reflect the death location of the decedent	SNOMED-CT	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7216	VRDR

6.5.FF QRPH VRDR Autopsy Procedure Performed Codes

6.5.GG QRPH VRDR Autopsy Not Performed Codes

6.5.HH VRDR Discharge Death Codes

6.5.II VRDR Death Location Type Codes

6.5.JJ VRDR Death Pronouncement Procedure Codes

Appendices

None

Volume 3 Namespace Additions

Add the following terms to the IHE Namespace:

None

Volume 4 – National Extensions

Add appropriate Country section

4 National Extensions

4.1 National Extensions for IHE United States

4.1.1 Comment Submission

This national extension document was authored under the sponsorship and supervision of IHE QRPH with collaboration from the CDC/National Center for Health Statistics who welcome comments on this document and the IHE USA initiative. Comments should be directed to http://ihe.net/QRPH_Public_Comments.

4.1.2 Vital Records Death Reporting (VRDR)

4.1.2.1 VRDR Pre-Population Specification for U.S. Standard Certificate of Death

Death reporting is a process for creating the legal record of a decedent and the process is subject to state or jurisdictional and international laws and regulations. Other uses of the information (e.g., statistical and public health) are byproducts of this process. Because a legal document is being created, concerns about capture in the native EHR are about verifying information, obtaining legally recognized signatures, making corrections, and how to handle transfers of responsibility when necessary. The data that may be pre-populated for vital records purposes has been limited to a very small subset based on an agreement between key vital records stakeholders. However, individual states may decide to support more broad-based sharing of death related information.

4.1.2.1.1 VRDR Data Element Index

A relevant data set for death record content reporting includes those elements identified within the US efforts under the CDC/National Center for Health Statistics (NCHS) that can be computed from data elements in the electronic health record. The VRDR Summary CDA® mapping rules described below overlays these data elements typically presented to the death registrar. This Derived Data Element Index specifies which sections are intended to cover which domains, the value sets to be used to interpret the Summary CDA® Document content, and rules for examining Summary CDA® content to determine whether or not the data element is satisfied. These rules may specify examination of one or more Summary CDA® Document locations to make a determination of the data element result. The list includes derived data elements that compose knowledge concepts not currently represented in standards, most of which are optional. Where such standards do not exist, the Form Manager will enhance with non-standard fields. Any Summary CDA® document may be used to populate the form.

4.1.2.1.2 VRDR Form Manager Pre-population Data Element Mapping Specification

Table 4.I.2.1.2-1 describes the US domain mapping to the VRDR data elements and the form for the U.S. Standard Certificate of Death. It also indicates attributes that are permissible in the US for pre-population and those that require data entry. Further edit specifications are in the Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death (http://www.cdc.gov/nchs/data/dvs/death_edit_specifications.pdf). Mapping to these attributes is also provided below. For the US, all of the data elements are required as indicated on the U.S. Standard Certificate of Death. Form Managers SHALL support direct data entry to offer the opportunity to modify all pre-populated information before it is submitted to VR systems

Table 4.1.2.1.2-1: Form Element Mapping Specification

US Death Certificate Form Question	Description	Mapping to US Death Certificate Form Number	US Requirements for Direct Data Entry or Pre-populate	VRDR Data Element
Actual or Presumed Date of Death	Calendar date when decedent died.	29	Pre-populate	DOD_YR
				DOD_MO
				DOD_DY
Actual or Presumed Time of Death	Clock time when decedent died. The Death Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death indicates that the Time of Death (hour and minute) should be stated using a 24-hour clock.	30	Pre-populate	TOD
Cause of Death (Immediate)	Causes of death are diseases, abnormalities, injuries, or poisonings that contributed directly or indirectly to death. In this section of the cause of death statement, the certifier reports the immediate cause (final disease or condition resulting in death. Cause of death reported on line a, Part I	32	Data Entry Required	

US Death Certificate Form Question	Description	Mapping to US Death Certificate Form Number	US Requirements for Direct Data Entry or Pre-populate	VRDR Data Element
Cause of Death (Intermediate and Underlying)	In this section of the cause of death statement, a chain of events that result in death are reported. The conditions are listed sequentially, if any lead to the immediate cause of death. The number of conditions reported will vary according to the individual death. Cause of Death - Chain Of Events Cause of death reported on line b, Part I Cause of death reported on line c, Part I Cause of death reported on line d, Part I	32 Part I.	Data Entry Required	
Onset to death interval for cause of death reported on line a, Part I Onset to death interval for cause of death reported on line b, Part I Onset to death interval for cause of death reported on line c, Part I Onset to death interval for cause of death reported on line d, Part I	An interval between onset and death is reported for each of the conditions in Part I. The other section of the cause of death statement is for reporting other conditions that contributed to death but were not part of the chain of events reported in Part I.	32 Part I.	Data Entry Required	CODIa CODIb CODIc CODId INTIa INTIb INTIc INTId
Cause of Death - Other Significant Conditions		32 Part II.	Data Entry Required	CODII
Death Certifier	Death Certifier (Type)	45	Data Entry Required	CERT CERTL
Certifier Name	Name of the person completing the cause of death (item 32 on the U.S. Standard Certificate of Death)	46		
Certifier Address	Address of the person completing the cause of death (item 32 on the U.S. Standard Certificate of Death)	46		
Certifier signature	Certifier's signature. Depending on jurisdictional law, the signature may be electronic approval, an approval button, or other method for indicating acceptance in place of a physical signature.	45	Data Entry Required	

US Death Certificate Form Question	Description	Mapping to US Death Certificate Form Number	US Requirements for Direct Data Entry or Pre-populate	VRDR Data Element
Date certified	Calendar date when the death record is certified	49	Data Entry Required	CERT_YR CERT_MO CERT_DY
Date of Birth (Mo/Day/Yr)	Calendar date when decedent was born	5	Pre-populate	DOB_YR DOB_MO DOB_DY
Date of Injury	Actual or presumed date when decedent sustained injury	38 (Date) 39 (Time)	Data Entry Required	DOI_YR DOI_MO DOI_DY
Date pronounced Dead	Month, day and year decedent was pronounced dead.	24 (Date) 25 (Time)	Data Entry Required	PD_YR PD_MO PD_DY
Date Signed	Date the death record is signed by the person that pronounces death	26	Data Entry Required	SIGN_YR SIGN_MO SIGN_DAY
Decedent of Hispanic Origin	Hispanic origin of the decedent. The primary source for this data element is the funeral director and/or next of kin. Any information for these data elements that comes from the EHR may be changed by the funeral director or next of kin. However, the EHR may also serve as a resource for documenting race and ethnicity information to inform the content of this attribute.	52	Data Entry Required.	DETHNIC1 DETHNIC2 DETHNIC3 DETHNIC4 DETHNIC5
Decedent's Name Known by Certifier	Current legal name of the decedent including first name, middle name, last name, suffixes, and AKA's would be useful; however, name as known for decedent is sufficient.	1	Pre-populate	GNAME MNAME LNAME SUFF ALIAS
Decedent's Race	Race(s) that best describes what the decedent considered himself/herself to be. The primary source for this data element is the funeral director and/or next of kin. Any information for these data elements that comes from the EHR may be changed by the funeral director or next of kin. However, the EHR may also serve as a resource for documenting race and ethnicity information to inform the content of this attribute.	53	Data Entry Required.	RACE1- RACE23

US Death Certificate Form Question	Description	Mapping to US Death Certificate Form Number	US Requirements for Direct Data Entry or Pre-populate	VRDR Data Element
Decedent's Residence	The geographic location of the decedent's residence.	7a-7f	Data Entry Required	STNUM PREDIR STNAME STDESIG POSTDIR UNUM CITY ZIP COUNTY COUNTRY
Describe how the injury occurred	Information on how the injury occurred is requested in narrative form	43	Data Entry Required	LINJURY
Did tobacco use contribute to death?	A clinical opinion on whether tobacco use contributed to the decedent's death.	35	Data Entry Required	TOBAC
Facility Name (Geographic location where the death occurred)	The facility name at the geographic location where the death occurred.	15	Pre-populate	DINSTI
Street address where death occurred if not facility	The facility name is provided when the death occurs in an institution. If not in an institution, the geographic location where the death occurred is provided including the street & number.	15	Data Entry Required	DINSTI DSTNUM DSTNAME DSTDESIG DNAME DSTATE DZIP9 COD
Female pregnancy status at time of death	Item for females that requests information on the pregnancy status of the deceased woman within the last year of her life	36	Data Entry Required	PREG
Injury at Work	Information on whether or not an injury to the deceased indicated on the death certificate occurred at work.	41	Data Entry Required	WORKINJ
License Number of Person Certifying Death	License number of person certifying the cause of death.	48	Data Entry Required	CLICNUM
License Number of Person Pronouncing Death	License number of person pronouncing death (includes whether licensed and state determined)	27	Data Entry Required	PLIC PPROF PLICNUM

US Death Certificate Form Question	Description	Mapping to US Death Certificate Form Number	US Requirements for Direct Data Entry or Pre-populate	VRDR Data Element
Location of injury	The geographic location where the injury occurred	42	Data Entry Required	ISTNUM IPREDIR ISTNAME ISTDESIG IPOSTDIR IUNUM IPNAME IZIP9 ISTATE
Manner of Death	An item where the certifying physician, medical examiner or coroner identifies the manner or how the deceased died	37	Data Entry Required	MANNER
Name of person completing COD	Name of the person completing the cause of death	46	Data Entry Required	
Place of Death	The physical location where the decedent died.	14	Data Entry Required	DPLACE
Place of Injury	Requests information on the type of place where an injury occurred	40	Data Entry Required	INJPLL
Sex	The sex of the deceased.	2	Pre-populate	SEX
Signature of Person Pronouncing Death	The signature of the person who pronounced death and signed the death record. Depending on jurisdictional law, the signature may be electronic approval, an approval button, or other method for indicating acceptance in place of a physical signature.	26	Data Entry Required	
Jurisdiction Person Identifier (e.g., Social Security Number (SSN))	The Jurisdiction Person Identifier (e.g., social security number) of the deceased.	3	Pre-populate	
Time of Injury	Actual or presumed time of injury. The Death Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death indicates that the Time of Injury (hour and minute) should be stated using a 24-hour clock.	39 (Time) 38 (Date)	Data Entry Required	TOI_HR
Time pronounced Dead	Hour and minute decedent was pronounced dead.	30 (Time) 29 (Date)	Data Entry Required	TD

US Death Certificate Form Question	Description	Mapping to US Death Certificate Form Number	US Requirements for Direct Data Entry or Pre-populate	VRDR Data Element
Title of Certifier	Medical professional label used to signify a professional role or membership in a professional society	47	Data Entry Required	
Transportation Injury	Information on the role of the decedent involved in a transportation accident.	44	Data Entry Required	TRANSP TRANSPL (literal)
Was an autopsy performed?	Information on whether or not an autopsy was performed	33	Data Entry Required	AUTOP
Was Medical Examiner or Coroner contacted?	Item records whether the medical examiner or coroner was contacted in reference to this case	31	Data Entry Required	REF
Were autopsy findings available to complete the COD	Information on whether or not the findings of the autopsy were available for completing the medical portion of the death certificate	34	Data Entry Required	AUTOPF

