



5 **IHE Quality, Research and Public Health  
Technical Framework Supplement**

10 **Birth and Fetal Death Reporting-v2.6 Messaging  
(BFDR-v2)**

**For review and comment only.**

**DO NOT implement this public comment version.**

15 **Revision 1.0 – Draft for Public Comment**

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25 **Please verify you have the most recent version of this document. See [here](#) for Trial Implementation and Final Text versions and [here](#) for Public Comment versions.**

## Foreword

30 This is a supplement to the IHE Quality, Research and Public Health (QRPH) Technical Framework. 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 July 23, 2021 for Public Comment. Comments are invited and can be submitted at [https://www.ihe.net/QRPH\\_Public\\_Comments](https://www.ihe.net/QRPH_Public_Comments). In order to be considered in development of the Trial Implementation version of the supplement, comments must be received 35 by August 22, 2021.

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

<i>Amend Section X.X by the following:</i>
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40 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](http://www.ihe.net).

45 Information about the IHE QRPH domain can be found at [http://www.ihe.net/IHE\\_Domains](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](http://www.ihe.net/IHE_Process) and <http://www.ihe.net/Profiles>.

50 The current version of the IHE QRPH Technical Framework can be found at [http://www.ihe.net/Technical\\_Frameworks](http://www.ihe.net/Technical_Frameworks).

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## 135 Introduction to this Supplement

This supplement is written for public comment. It is written as an addition to the Quality, Research and Public Health Technical Framework.

This supplement also references the following documents<sup>1</sup>. The reader should review these documents as needed:

- 140 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](#)
- 145 6. [IT Infrastructure Technical Framework Volume 3](#)
7. HL7 and other standards documents referenced in Volume 1 and Volume 2
8. Birth Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Live Birth (4/2004; 3/2005; Updated 7/2012)
9. Natality 2003 Revision – File In-Processing Documentation (14 Dec 2010)
- 150 10. Fetal Death Edit Specifications for the 2003 Revision of the U.S. Standard Report of Fetal Death.
11. International Classification of Diseases, Tenth Revision (ICD-10)
12. Reference: Making Every Baby Count Audit and review of stillbirths and neonatal deaths  
<http://apps.who.int/iris/bitstream/10665/249523/1/9789241511223-eng.pdf?ua=1>
- 155 1. This document contains WHO statistics for prenatal data, labor and delivery data, and some newborn data, the latter being focused on stillborn and newborn deaths.

## Open Issues and Questions

Open Issue List:

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<sup>1</sup> The first six documents can be located on the IHE Website at [http://www.ihe.net/Technical\\_Frameworks](http://www.ihe.net/Technical_Frameworks). The remaining documents can be obtained from their respective publishers.

IHE Quality, Research and Public Health Technical Framework Supplement – Birth and Fetal Death Reporting-v2.6 Messaging (BFDR-v2)

Item Count	Issue Description	Status
1	<p>HL7 Issue – OBX is optional in HL7 – we want it required.</p> <ul style="list-style-type: none"> <li>a. This will be brought through the formalization process in HL7</li> <li>b. Once HL7 formalizes the OBX R then statements leading in to the section requirements in Volume 2 should be updated to indicate NO FURTHER constraints</li> </ul>	<p>Review during Volume 2 development</p> <p>A STU Comment needs to be added against the VRBFDR STU 2013OCT</p> <ol style="list-style-type: none"> <li>1. Fix type-o in ADT^A04 and ADT^A08 OBX to [{OBX}]</li> <li>2. Fix cardinality to [1..*]</li> <li>3. All observation types in Table 53 SHALL be recorded</li> </ol> <p>Check with Mead on how to make this further constraint.</p> <p>These constraints will be added to the Volume 2 message for QRPH BFDR Message.</p>
2	A01, A03 – appear to be missing - not in HL7	Further discussion pending with HL7.

IHE Quality, Research and Public Health Technical Framework Supplement – Birth and Fetal Death Reporting-v2.6 Messaging (BFDR-v2)

Item Count	Issue Description	Status
3	<p>Several new attributes are contemplated and modelling for these still have assigned temporary code assignments. These are expected to be conveyed as observations (OBX):</p> <ul style="list-style-type: none"> <li>• 64794-1 LOINC Number of Cigarettes Smoked in 3 months prior to Pregnancy</li> <li>• 64795-8 LOINC Number of Cigarettes Smoked in third or last trimester</li> <li>• LOINC 01 LOINC Acknowledgment of paternity signed</li> <li>• LOINC 02 LOINC Mother's body height</li> <li>• LOINC 03 LOINC Date of birth registration</li> <li>• LOINC 04 LOINC Father's education</li> <li>• LOINC 05 LOINC Father's reported age in years</li> <li>• LOINC 06 LOINC Mother Married at conception, birth, or between</li> <li>• LOINC 07 LOINC Mother Receive WIC food</li> <li>• LOINC 08 LOINC Mother's education</li> <li>• LOINC 09 LOINC Mother's reported age in years</li> <li>• LOINC 10 LOINC Number of Cigarettes Smoked in 1st 3 months</li> <li>• LOINC 11 LOINC Number of Cigarettes Smoked in 2nd 3 months</li> <li>• LOINC 12 LOINC Baby name not yet chosen</li> <li>• LOINC 13 LOINC Birth attendant details</li> <li>• LOINC 14 LOINC Birth certifier details</li> <li>• LOINC 15 LOINC Date birth certified</li> <li>• LOINC 16 LOINC Date of fetal death registration</li> <li>• LOINC 17 LOINC Date of fetal delivery</li> <li>• LOINC 18 LOINC Father date of birth</li> <li>• LOINC 19 LOINC Father's legal name</li> <li>• LOINC 20 LOINC Father's ethnicity</li> <li>• LOINC 21 LOINC Father's race</li> <li>• LOINC 22 LOINC Name of fetus</li> <li>• LOINC 23 LOINC Person providing information for mother's live birth information</li> <li>• LOINC 24 LOINC Relationship of person providing information for mother's live birth information</li> <li>• LOINC 25 LOINC Request Social Security Number for Newborn</li> <li>• LOINC 26 LOINC SSN request date</li> <li>• LOINC 27 LOINC SSN request signature</li> </ul>	<p>Inclusion of specification and definitions for new concepts will be completed once the final codes are assigned and NCHS provides the definitions.</p>

IHE Quality, Research and Public Health Technical Framework Supplement – Birth and Fetal Death Reporting-v2.6 Messaging (BFDR-v2)

Item Count	Issue Description	Status
4	HL7 is reviewing how best to reflect optionality included for backward compatibility.	The PID segment may need additional clarification for these attributes once HL7 finalizes its position.
5	The HL7 specification observations and attributes breakdown regarding what is supported for each message type needs further review.	This profile specifies inclusion requirements consistent with the attribute list in the Appendix A – BFDR-E Profile - Data Element Definitions listed in Volume 1
6	There are still some temporary LOINC codes assigned which were not resolved by the published HL7v2.6 specification.	Review with HL7 the status of these codes and/or modelling.
7	HL7 v2.6 BFDR messages removed A11, but it is under review for consideration to re-instantiate this message.	Monitor HL7 v2.6 messages supporting Birth and Fetal Death Reporting for possible updates with respect to A11.

160 **Closed Issues**

Closed Issue List:

Item	Issue Description	Status
1	If MU requires Race/Ethnicity then we may require this. Resolved: The CMS Meaningful Use Objectives support recording race and ethnicity information in the EMR as stated in: §170.304 (c) Record demographics updated 8/13/2010 <a href="http://healthcare.nist.gov/docs/170.304_c_RecordDemographicsAmb_v1.0.pdf">http://healthcare.nist.gov/docs/170.304_c_RecordDemographicsAmb_v1.0.pdf</a> Also Requires use of OMB Race & Ethnicity Codes available at: <a href="http://www.whitehouse.gov/omb/inforeg_statpolicy/#dr">http://www.whitehouse.gov/omb/inforeg_statpolicy/#dr</a> .	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 EMR may also serve as a resource for documenting race and ethnicity information. - modifying from pre-populated to direct data entry. Added note: Pre-populate Data Entry Required. Included NOTE: data elements would be reported by the funeral director or next of kin, and the EMR would not be the primary source. However, the EMR may also serve as a resource for documenting race and ethnicity information to inform the content of this attribute.
2	Do we need a new transaction for each new type of outbound message? Is there are more generalized way to do this (like PCD-01)?	Resolved. Will continue to reference separate transactions using common actors.
3	PNC – needs to be added from Spec to data dictionary and mapping tables 73776-7 No-prenatal care	Added 73776-7 No-prenatal care



IHE Quality, Research and Public Health Technical Framework Supplement – Birth and Fetal Death Reporting-v2.6 Messaging (BFDR-v2)

Item	Issue Description	Status
4	Handling of these 'Pending' flag indicators from the Edit Specifications needs to be reviewed in the context of the workflow. These status flags may not be pertinent in the proposed profile use cases.	Not an issue for the profile. This is managed by the birth information specialist submission and VR system responses for incomplete data.
5	Model update under consideration for Autopsy and Hysterectomy/Hysterotomy in answer modelling: use current value set that indicates planned and unplanned or use Boolean with a second question to add a planned indicator which needs a new LOINC code	No change needed. Already have value sets that includes concepts for autopsy and hysterectomy/hysterotomy unplanned.
6	ROL segment is defined for the facility.	The updated HL7 document will use the PID segment for the facility address, and the OBX for the National ID and for the Birth facility Name
7	This profile is aligned with the latest information available from the HL7 specification which uses the Mother as the patient when reporting a fetal death and NK1 to indicate demographics of the fetus.	HL7 has agreed to modify the structure of the message to represent the fetus in PID and the mother in NK1.
8	There is no birth order for NK1. If the fetus is in the PID then there is no need for a separate observation. If the OBX is used to determine the fetus birth order, it may be better to use this for the live birth set order as well.	HL7 has agreed to modify the structure of the message to represent the fetus in PID and the mother in NK1. Birth order is in PID-25
9	NK1-16 may be used for fetal date of delivery but it may be considered better to use an observation for this with LOINC17.	HL7 has agreed to modify the structure of the message to represent the fetus in PID and the mother in NK1. Birth or Fetal date of delivery is in PID-7.
10	Facility Address and Facility Name and Attendant NPI were in ROL in v2.5 messaging guide, but in v2.6 ROL is not indicated.	The updated HL7 document will use the PID segment for the facility address, and the OBX for the National ID and for the Birth facility Name

## IHE Technical Frameworks General Introduction

165 The [IHE Technical Framework General Introduction](#) is shared by all of the IHE domain technical frameworks. Each technical framework volume contains links to this document where appropriate.

### 9 Copyright Licenses

170 IHE technical documents refer to, and make use of, a number of standards developed and published by several standards development organizations. Please refer to the IHE Technical Frameworks General Introduction, [Chapter 9 - Copyright Licenses](#) for copyright license information for frequently referenced base standards. Information pertaining to the use of IHE International copyrighted materials is also available there.

### 10 Trademark

175 IHE<sup>®</sup> and the IHE logo are trademarks of the Healthcare Information Management Systems Society in the United States and trademarks of IHE Europe in the European Community. Please refer to the IHE Technical Frameworks General Introduction, [Chapter 10 - Trademark](#) for information on their use.

## IHE Technical Frameworks General Introduction Appendices

180 The [IHE Technical Framework General Introduction Appendices](#) are components shared by all of the IHE domain technical frameworks. Each technical framework volume contains links to these documents where appropriate.

185 *Update the following appendices to the General Introduction as indicated below. Note that these are **not** appendices to this domain’s Technical Framework (TF-1, TF-2, TF-3 or TF-4) but rather, they are appendices to the IHE Technical Frameworks General Introduction located [here](#).*

### [Appendix A](#) – Actors

190 *Add the following **new or modified** actors to the [IHE Technical Frameworks General Introduction Appendix A](#):*

Actor	Definition
None	

### [Appendix B](#) – Transactions

195 *Add the following **new or modified** transactions to the [IHE Technical Frameworks General Introduction Appendix B](#):*

Transaction	Definition
BFDRFeed [QRPH-37]	<p>In Gazelle replace:</p> <p>This transaction is used to communicate clinician-sourced birth and fetal 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): Reporting Birth and Fetal Death information From the EHR to Vital Records Draft Standard for Trial Use (DSTU).</p> <p>With:</p> <p>This transaction transmits the HL7 V2.6 formatted message containing the Birth and Fetal Death Reporting information</p>

## Appendix D – Glossary

205

Add the following **new or modified** glossary terms to the [IHE Technical Frameworks General Introduction Appendix D](#):

Glossary Term	Definition
No new	

# Volume 1 – Profiles

## Domain-specific additions

210 Not applicable

*Add Section X*

## X Birth and Fetal Death Reporting-v2.6 Messaging (BFDR-v2) Profile

215 The Birth and Fetal Death Reporting-Enhanced (BFDR-v2) Profile provides a means to communicate information needed to report births and fetal deaths for vital registration purposes. BFDR-v2 focuses only on the v2.6 message. Mapping specifications from RFD and mRFD form data capture to this message are contained in BFDR-E.

220 The BFDRFeed [QRPH-37] transaction adapts the HL7 V2.6 BFDR Message for international use. Volume 4 specifies us-specific constraints. for this purpose.

### X.1 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](http://www.ihe.net/Technical_Frameworks).

225 The BFDR-v2 Profile defines communication of Birth and Fetal Death Reporting content in an HL7 message.

Figure X.1-1 shows the actors directly involved in the BFDR-v2 Profile and the relevant transactions between them.



230

**Figure X.1-1: BFDR-v2 Actor Diagram**

**Table X.1-1: BFDR-v2 Profile - Actors and Transactions**

Actors (see Note 1 and Note 2)	Transactions	Optionality	TF Reference
Information Source	BFDRFeed [QRPH-37]	R	QRPH TF 2: 3.37
Information Recipient	BFDRFeed [QRPH-37]	R	QRPH TF 2: 3.37

## X.1.1 Actor Descriptions and Actor Profile Requirements

### X.1.1.1 Information Source

235 The Information Source is responsible for creating the BFDRFeed [QRPH-37] message containing the Birth and Fetal Death Reporting attributes and transmitting this message to an Information Recipient. The Information Source SHALL transmit content as specified by in QRPH TF-2: 3.37.

### X.1.1.2 Information Recipient

240 The Information Recipient is responsible for receiving the BFDRFeed [QRPH-37] message containing the Birth and Fetal Death Reporting attributes from the Information Source.

## X.2 Actor Options

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

245

**Table X.2-1: BFDR-E - Actors and Options**

Actor	Option Name	TF Reference
Information Source	Provider Supplied Live Birth Information Option	QRPH TF-1: X.2.1
	Provider Supplied Mother's Live Birth Information Option	QRPH TF-1: X.2.2
	Provider Supplied Facility Live Birth Information Option	QRPH TF-1: X.2.3
	Provider Supplied Fetal Death Information Option	QRPH TF-1: X.2.4
	Fetal Death Facility's Information Option	QRPH TF-1: X.2.5
	Fetal Death Mother's Information Option	QRPH TF-1: X.2.6
	Jurisdiction Supplied Live Birth Reporting Option	QRPH TF-1: X.2.7
	Jurisdiction Fetal Death Reporting Option	QRPH TF-1: X.2.8
	Void Certificate Reporting Option	QRPH TF-1: X.2.9
	Coded Cause of Death Reporting Option	QRPH TF-1: X.2.10
	Coded Race/Ethnicity Reporting Option	QRPH TF-1: X.2.11
Information Recipient	Provider Supplied Live Birth Reporting Option	QRPH TF-1: X.2.1

Actor	Option Name	TF Reference
	Provider Supplied Mother’s Live Birth Information Option	QRPH TF-1: X.2.2
	Provider Supplied Facility’s Live Birth Information Option	QRPH TF-1: X.2.3
	Provider Supplied Fetal Death Reporting Option	QRPH TF-1: X.2.4
	Fetal Death Facility's Information Option	QRPH TF-1: X.2.5
	Fetal Death Mother's Information Option	QRPH TF-1: X.2.6
	Jurisdiction Live Birth Reporting Option	QRPH TF-1: X.2.7
	Jurisdiction Fetal Death Reporting Option	QRPH TF-1: X.2.8
	Void Certificate Reporting Option	QRPH TF-1: X.2.9
	Coded Cause of Death Reporting Option	QRPH TF-1: X.2.10
	Coded Race/Ethnicity Reporting Option	QRPH TF-1: X.2.11

### X.2.1 Provider Supplied Live Birth Reporting Option

250 This option is intended to support communications from the system collecting the worksheet information from the facility (e.g., Electronic Health Record) to a jurisdictional vital records office for a live birth. The Form Receiver Message Exporter, the Information Source, and the Information Recipients implementing this option shall support the content defined for the Provider Supplied Live Birth Reporting Option (PSLBI) in the BFDRFeed [QRPH-37] transaction, see QRPH TF-2: 3.37.4.1

### X.2.2 Provider Supplied Mother's Live Birth Information Option

255 This option is intended to support communications from the system collecting the worksheet information from the mother (e.g., Personal Health Record, Patient Portal) to a jurisdictional vital records office for a live birth. The Form Receiver Message Exporter, the Information Source, and the Information Recipients implementing this option shall support the content defined for the Provider Supplied Mother’s Live Birth Information Option (PSMLBI) in the  
260 BFDRFeed [QRPH-37] transaction, see QRPH TF-2: 3.37.4.1

### X.2.3 Provider Supplied Facility’s Live Birth Information Option

This option is intended to support communications from the provider to the jurisdictional vital records office for both the facility’s work sheet and the mother’s live birth information. The



265 Form Receiver Message Exporter, the Information Source, and the Information Recipients implementing this option shall support the content defined for the Provider Supplied Facility's Live Birth Information Option (PSFLBI) in the BFDRFeed [QRPH-37] transaction, see QRPH TF-2: 3.37.4.1

#### **X.2.4 Provider Supplied Fetal Death Reporting Option**

270 This option is intended to support communications from the provider to the jurisdictional vital records office for both the facility's work sheet and the mother's information for a fetal death. The Form Receiver Message Exporter, the Information Source, and the Information Recipients implementing this option shall support the content defined for the Provider Supplied Fetal Death Reporting Option (PSFDI) in the BFDRFeed [QRPH-37] transaction, see QRPH TF-2: 3.37.4.1

#### **X.2.5 Fetal Death Facility's Information Option**

275 This option is intended to support communications from the system collecting the worksheet information from the facility (e.g., Electronic Health Record) to a jurisdictional vital records office for a fetal death. The Form Receiver Message Exporter, the Information Source, and the Information Recipients implementing this option shall support the content defined for the Fetal Death Facility's Information Option (PSFFDI) in the BFDRFeed [QRPH-37] transaction, see  
280 QRPH TF-2: 3.37.4.1

#### **X.2.6 Fetal Death Mother's Information Option**

This option is intended to support communications from the system collecting the worksheet information from the mother (e.g., Personal Health Record, Patient Portal) to a jurisdictional vital records office for a fetal death. The Form Receiver Message Exporter, the Information  
285 Source, and the Information Recipients implementing this option shall support the content defined for the Fetal Death Mother's Information Option (PSMFDI) in the BFDRFeed [QRPH-37] transaction, see QRPH TF-2: 3.37.4.1

#### **X.2.7 Jurisdiction Live Birth Reporting Option**

290 This option is intended to support communications from the jurisdictional vital records office to a national statistics agency for a live birth. The Form Receiver Message Exporter, the Information Source, and the Information Recipients implementing this option shall support the content defined for the Jurisdiction Live Birth Reporting Option (JLBI) in the BFDRFeed [QRPH-37] transaction, see QRPH TF-2: 3.37.4.1.

#### **X.2.8 Jurisdiction Fetal Death Reporting Option**

295 This option is intended to support communications from the jurisdictional vital records office to a national statistics agency for a fetal death. The Form Receiver Message Exporter, the Information Source, and the Information Recipients implementing this option shall support the content defined for the Jurisdiction Fetal Death Reporting Option (JFDI) in the BFDRFeed [QRPH-37] transaction, see QRPH TF-2: 3.37.4.1.

300 **X.2.9 Void Certificate Reporting Option**

This option is intended to support instructions from the jurisdictional vital records office to a national statistics agency to void a previously recorded live birth certificate or fetal death report. The Information Source, and the Information Recipients implementing this option shall support the content defined for the Void Certificate Reporting Option (JVFDI) in the BFDRFeed [QRPH-37] transaction, see QRPH TF-2: 3.37.4.1.

305 **X.2.10 Coded Cause of Death Reporting Option**

This option is intended to support communications from a national statistics agency to the jurisdictional vital records office. The Information Source and the Information Recipients shall support the content defined for the Coded Cause of Death Reporting Option (CCOFD) in the BFDRFeed [QRPH-37] transaction, see QRPH TF-2: 3.37.4.1.

Actors that support this option are able to send or receive coded cause of death information.

**X.2.11 Coded Race/Ethnicity Reporting Option**

This option is intended to support communications from the national statistics agency to a jurisdictional vital records office. The Information Source and the Information Recipients shall support the content defined for the Coded Race/Ethnicity Reporting Option (CREI) in the BFDRFeed [QRPH-37] transaction, see QRPH TF-2: 3.37.4.1.

Actors that support this option are able to send or receive race and ethnicity information.

In some jurisdictions, it is prohibited to send race and/or ethnicity. Use of this option may be constrained by national extension.

320 **X.3 BFDR-v2 Required Actor Groupings**

None

**X.4 BFDR-v2 Overview**

Vital records birth certificates and fetal death reports include important demographic, medical and key information about the antepartum period, the labor and delivery process and the newborn/fetal death. Much of the medical and health information collected for the birth certificate and fetal death report can be pre-populated with information already available in the Electronic Health Record (EMR). A responsible Health Care Provider (HCP) or designated representative must review and complete the information to ensure data quality for vital registration purposes. These data may then be used by public health agencies to track maternal and infant health to target interventions for at risk populations.

The national statistics agencies have a long and enduring history that serves to provide essential data on births and deaths. Within the United States, for instance, this is the oldest and most successful example of inter-governmental data sharing in Public Health. Currently, these data typically are gathered by hospital personnel from the hospital's medical records using paper

335 worksheets. The process of capturing Vital Records information manually is duplicative, labor-intensive, costly, and can be error prone. As a result, the timeliness and quality of these data are adversely affected.

#### **X.4.1 Concepts**

340 Some jurisdictions have established detailed specifications for collecting and reporting the items on the Certificate of Live Birth and the Report of Fetal Death. It is critical that all vital registration areas follow these standards to promote uniformity in data collection across registration areas.

345 The hospital is responsible for completing the Record of Live Birth in the jurisdiction's Electronic Birth Registration System (EBRS). The birth records specialist plays an essential role in gathering the information and ensuring that all information is complete before transmission to the vital registration system at the states/jurisdictional vital record offices. Select birth data may be transmitted later to public health authorities as allowed by individual state statute and other vital records stakeholders.

350 In the following use case, the birth information specialist (BIS) will review and complete the Facilities Worksheet using information that has already been prepopulated by the EMR system. The mother also completes the Mother's Worksheet for Child's Birth Certificate and/or the Patient's Worksheet for the Report of Fetal Death. The BIS verifies the accuracy of the information and submits the form.

#### **X.4.2 Use Cases**

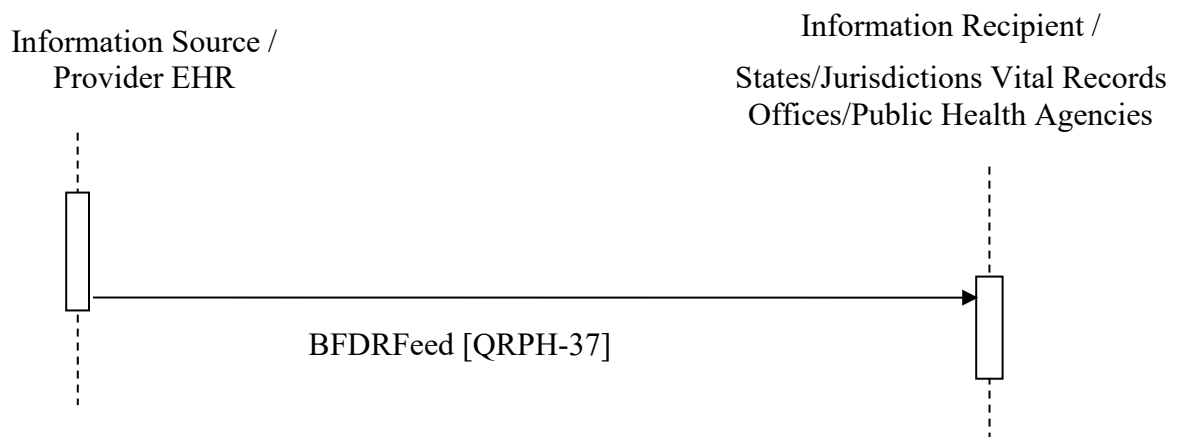
##### **355 X.4.2.1 Use Case #1: EMR BFDR Messaging**

###### **X.4.2.1.1 EMR BFDR Messaging Description**

When the delivery has been documented in the system, the EMR system creates an HL7 BFDRFeed [QRPH-37] message and sends the message to the EBRS directly. The message content is incorporated into the jurisdiction EBRS.

###### **360 X.4.2.1.2 EMR BFDR Messaging Process Flow**

The provider EMR sends the HL7 BFDR message to the EBRS.



**Figure X.4.2.1.2-1: Use Case 1 - EMR BFDR Messaging**

365 **X.4.2.1.2.1 Pre-conditions**

A delivery has been documented in the EMR system.

**X.4.2.1.2.2 Main Flow**

This flow sends the birth registration information to the EBRS using the BFDRFeed [QRPH-37] transaction.

370 **X.4.2.1.2.3 Post-conditions**

The EBRS has received the data.

**X.5 Security Considerations**

375 BFDR 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 Audit Trail and Node Authentication (ATNA) 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.

380 For security purposes, when sending information specifically to vital records Electronic 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 Cross-Enterprise User Assertion (XUA) Profile MAY be utilized to support this implementation.

## **X.6 Cross Profile Considerations**

- 385 The Information Source may be optionally grouped with the Form Receiver Message Exporter or Form Processor Message Exporter of the BFDR-E profile.

## Volume 2 – Transactions

Add Section 3.37

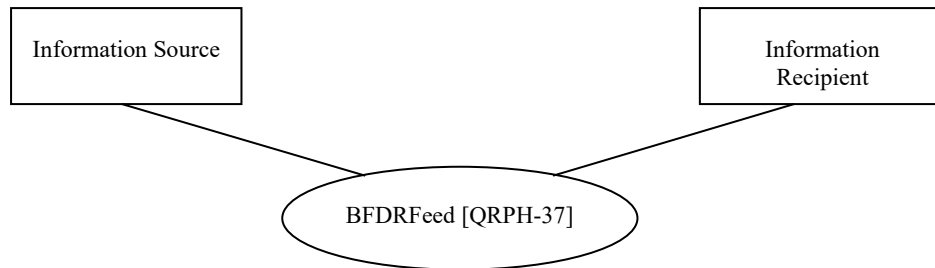
### 3.37 BFDRFeed [QRPH-37]

#### 390 3.37.1 Scope

This transaction is used to communicate clinician-sourced birth and fetal 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 2.6 Implementation Guide (IG): Vital Records Birth & Fetal Death Reporting Release 1 - US Realm Standard for Trial Use (STU).

395

#### 3.37.2 Actor Roles



400 **Figure 3.37.2-1: Use Case Diagram between Information Source and Information Recipient**

The roles in this transaction are defined in the following table and may be played by the actors shown here:

**Table 3.37.2-1: Actor Roles**

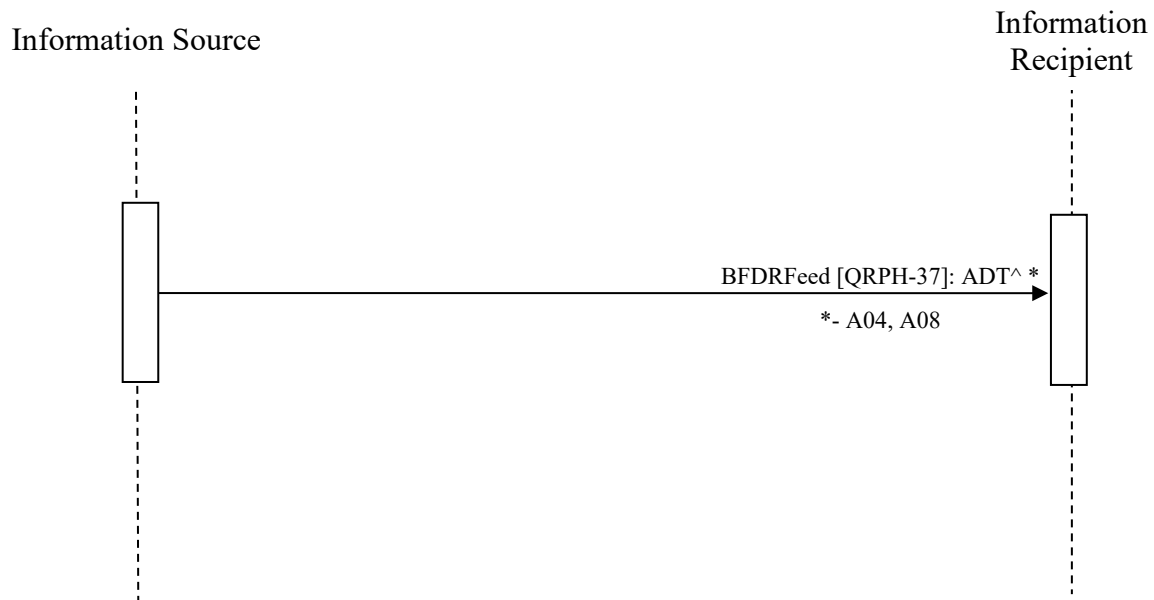
<b>Actor:</b>	Information Source
<b>Role:</b>	The Information Source is responsible for creating and transmitting an HL7 V2.6 message to an Information Recipient.
<b>Actor:</b>	Information Recipient
<b>Role:</b>	The Information Recipient is responsible for receiving the HL7 V2.6 message from an Information Source or from a Form Receiver Message Exporter.
<b>Actor:</b>	Form Receiver Message Exporter

<b>Role:</b>	When the Information Recipient is grouped with a Form Receiver Message Exporter, this actor receives data submitted through the Submit Form [ITI-35] transaction, transforms that data to be in compliance with the requirements of the BFDRFeed [QRPH-37] transaction and sends that data to an Information Recipient using BFDRFeed [QRPH-37].
<b>Actor:</b>	Form Processor Message Exporter
<b>Role:</b>	When the Information Recipient is grouped with a Form Processor Message Exporter, this actor receives data submitted through the Submit Form [ITI-35] transaction, transforms that data to be in compliance with the requirements of the BFDRFeed [QRPH-37] transaction and sends that data to an Information Recipient using BFDRFeed [QRPH-37].

405 **3.37.3 Referenced Standards**

1. HL7 Version 2.6 Implementation Guide: Vital Records Birth and Fetal Death Reporting, Release 1 STU Release 2EMR
2. Birth Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Live Birth
- 410 3. Fetal Death Edit Specifications for the 2003 Revision of the U.S. Standard Report of Fetal Death
4. [International Classification of Diseases, Tenth Revision \(ICD-10\)](#)
5. [International statistical classification of diseases and related health problems 10<sup>th</sup> Revision, Volume 2 Instruction Manual](#)
- 415 a. [Section 4.1.2 The international death certificate](#)
6. [Section 7.1 form 7.1.1 International form of medical certificate of cause of death](#)

### 3.37.4 Messages



**Figure 3.37.4-1: Interaction Diagram**

420 **3.37.4.1 BFDRFeed [QRPH-37]**

This transaction transmits the HL7 V2.6 formatted message containing the clinician-sourced birth and fetal death information from Information Source the Form Processor Message Exporter, 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.

425

#### 3.37.4.1.1 Trigger Events

When a delivery has been documented in the system, an Information Source will trigger one of the Admit/Register or Update messages:

- A04 – Report Birth Information Record
- A04 - Report Fetal Death Information Record (NOTE: there may not be a patient chart for a fetal death, but this is not an issue for surfacing the form)

430

Changes to patient demographics (e.g., change in patient name, patient address, etc.) or updating previously transmitted information about a live birth or fetal death to Vital Records shall trigger the following Admit/Register or Update message:



- 435 • A08 – Revise Birth Information Record
- A08 - Revise Fetal Death Information Record

**3.37.4.1.2 Message Semantics**

440 The BFDRFeed are ADT messages that conform to the HL7 VR\_BAFDRPT v2.6 IG message profile use cases. The semantics of the ADT messages sent by the Information Source, the Form Processor Message Exporter, or Form Receiver Message Exporter vary depending on the option(s) supported by those actors; see Table 3.37.4.1.2-1.

445 Information Source, the Form Processor Message Exporter, and the Form Receiver Message Exporter Actors supporting one or more option shall send ADT messages that conform to the message profile identified in Table 3.37.4.1.2-1 AND as further constrained in Table 3.37.4.1.2-2. In column 2 below, the value in parentheses identifies the abbreviations used in the optionality column in Table 3.37.4.1.2-2.

450 The ADT^A04 (Register a Patient) message is constrained for the first transmission of information about a birth or fetal death within the context of a particular use case. The ADT^A08 (Update Patient Information) message is constrained for updating previously transmitted information. Since the segment pattern of the message does not change even though it responds to a different trigger event, the message semantics in the table are the same for both message types.

**Table 3.37.4.1.2-1: Actor Options Mapped to HL7 message Profile Use Cases**

IHE BFDR-E Profile Actors	IHE BFDR-E Profile Option	HL7 BFDR V2.6 IG Message Profile Use Case
Information Source Information Recipient	Void Certificate Reporting Option (JVFDI)	Report Void Fetal Death Report Information
Information Source Information Recipient	Coded Cause of Death Reporting Option (CCOFD)	Report Coded Cause of Fetal Death Revise Coded Cause of Fetal Death
Information Source Information Recipient	Coded Race/Ethnicity Reporting Option (CREI)	Report Coded Race & Ethnicity Revise Coded Race & Ethnicity

455 Optionality for segments in the ADT message is defined in Table 3.37.4.1.2-2. Note that this table and the sub-sections for each segment contain some IHE constraints on the underlying HL7 BFDR V2.6 IG.

RE+ and O+ indicate that there is an IHE extension to the HL7 BFDR V2.6 IG Message Profile Use Cases.

460

**Table 3.37.4.1.2-2: BFDRFeed Constraints on the HL7 BFDR V2.6 IG Message Profile Use Cases between the Provider and the Jurisdiction**

Segment	Name	Repeatable (Y/N)	Optionality						See Section
			PSLBI	PSFLBI	PSMLBI	PSFDI	PSFFDI	PSMFDI	
MSH	Message Header	N	R	R	R	R	R	R	3.37.4.1.2.1
SFT	Software Segment	Y	O	O	O	O	O	O	3.37.4.1.2.2
UAC	User Authentication Credential	Y	O	O	O	O	O	O	3.37.4.1.2.3
EVN	Event Type	N	R	R	R	R	R	R	3.37.4.1.2.3
PID	Patient Identification	N	R	R	R	R	R	R	3.37.4.1.2.4
NK1	Next of Kin/Associated Parties	Y	RE	RE+	RE	O	O	O	3.37.4.1.2.5
PV1	Patient Visit Information	N	R	R	R	R	R	R	3.37.4.1.2.6
OBX	Observation/Result	Y	R	R	R	R	R	R	3.37.4.1.2.8
DG1	Diagnosis Information	Y	RE+	RE+	RE+	RE+	RE+	RE+	3.37.4.1.2.9
[{	<i>Procedure Begin</i>	Y							
PR1	Procedure	N	RE+	RE+	RE+	RE+	RE+	RE+	3.37.4.1.2.10
ROL	Role	Y	O	O	O	O	O	O	3.37.4.1.2.7
}]	<i>Procedure End</i>	N/A							

**Table 3.37.4.1.2-3: BFDRFeed Constraints on the HL7 BFDR V2.6 IG Message Profile Use Cases between the Jurisdiction and National Statistics Agency**

Segment	Name	Repeatable (Y/N)	Optionality						See Section
			JLBI	JFDI	JVLBI	JVFDI	CCOFD	CREII	
MSH	Message Header	N	R	R	R	R	R	R	3.38.4.1.2.1
SFT	Software Segment	Y	O	O	O	O	O	O	3.38.4.1.2.2
EVN	Event Type	N	R	R	R	R	R	R	3.38.4.1.2.3

Segment	Name	Repeatable (Y/N)	Optionality						See Section
			JLBI	JFDI	JVLBI	JVFDI	CCOFD	CREII	
PID	Patient Identification	N	R	R	R	R	R	R	3.38.4.1.2.4
NK1	Next of Kin/Associated Parties	Y	RE	O	O	O	O	RE	3.38.4.1.2.5
PV1	Patient Visit Information	N	R	R	R	R	R	R	3.38.4.1.2.6
OBX	Observation/Result	Y	R	R	O	O	R	R	3.38.4.1.2.8
DG1	Diagnosis Information	Y	RE+	RE+	O	O	O	O	3.38.4.1.2.9
[{	<i>Procedure Begin</i>	Y							
PR1	Procedure	N	RE+	RE+	O	O	O	O	3.38.4.1.2.10
ROL	Role	Y	O	O	O	O	O	O	3.38.4.1.2.7
}]	<i>Procedure End</i>	N/A							

465

### 3.37.4.1.2.1 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”.

### 470 3.37.4.1.2.2 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 2.6 Implementation Guide (IG): Vital Records Birth & Fetal Death Reporting Release 1 - US Realm Standard for Trial Use (STU)).

475

### 3.37.4.1.2.3 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.

480

#### 3.37.4.1.2.4 PID Segment

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

485 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.

490 Bolded text in the table below highlights areas in this profile that are different from the underlying HL7 message (Health Level Seven International (HL7) Version 2.6 Implementation Guide (IG): Vital Records Birth & Fetal Death Reporting Release 1 - US Realm Standard for Trial Use (STU)).

There are 3 flavors of PID used in the profiles:

- Live Birth (LB), where the data subject of the message is the newborn covers the following profiles:
  - PSLBI
  - 495 • PSFLBI
  - PSMLBI
  - JLBI
- Fetal Death (FD), where the data subject of the message is the mother covers the following profiles:
  - 500 • PSFDI
  - PSFFDI
  - PSMFDI
  - JFDI
- 505 • Identification (ID), which is used for the void certificate reporting, for reporting coded fetal cause of death, and for coded race and ethnicity reporting, to identify the relevant certificate
  - JVLBI
  - JVFDI
  - CCOFD
  - CREII

510

**Table 3.37.4.1.2.4-1: IHE Profile - PID segment**

SEQ	LEN	DT	OPT			TBL #	ITEM #	ELEMENT NAME	Description/ Comments
			LB	FD	ID				
1	4	SI	O	O	O		00104	Set ID - Patient ID	Literal Value: '1'.
2	20	CX	O	O	O		00105	Patient ID	Deprecated as of HL7 Version 2.3.1. See PID-3 Patient Identifier List.
3	250	CX	R	R	R		00106	Patient Identifier List	Field used to convey all types of patient/person identifiers. Use of the Medical Record Number is expected if the birth (for the baby) or fetal death (for the mother) takes place in a hospital, or the baby is admitted to one.
4	20	CX	O	O	O		00107	Alternate Patient ID	Deprecated as of HL7 Version 2.3.1. See PID-3.
5	250	XP N	R	R	R		00108	Patient Name	New born name. In the case of fetal death reporting, the name is for the mother.
6	250	XP N	RE +	O	RE +		00109	Mother's Maiden Name	<b>Optional in IG, but Optional in PIX</b> <b>Additional constraint included for international support</b>
7	26	TS	RE	RE	RE		00110	Date/Time of Birth	Newborn's date and time of birth, or (for fetal death reporting) the mother's. Format: YYYY[MM[DD[HH[MM[SS].S[S[S[S]]]]]]][+/-ZZZZ]
8	1	IS	RE	RE	RE	0001	00111	Administrative Sex	Sex of the newborn or of the fetus.
9	250	XP N	O	O	O		00112	Patient Alias	Deprecated as of HL7 Version 2.4. See PID-5 Patient Name.
10	250	CE	O	RE	O	0005	00113	Race	

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SEQ	LEN	DT	OPT			TBL #	ITEM #	ELEMENT NAME	Description/ Comments
			LB	FD	ID				
11	250	XAD	RE	RE	O		00114	Patient Address	Address type code = Birth Address. Only use the field, if the birth or fetal delivery does not take place in a healthcare facility. When used, the field captures the place of birth, or the place of fetal delivery. Street address, city, state and zip code are expected. If descriptive information is provided instead of an address, the Other Geographic Designation component of the XAD data type is used. Note, either PID.11 or ROL.11 may be used to record the place of birth or delivery depending on circumstances.
12	4	IS	O	O	O	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	O	O		00116	Phone Number – Home	
14	250	XTN	O	O	O		00117	Phone Number - Business	
15	250	CE	O	O	O	0296	00118	Primary Language	
16	250	CE	O	O	O	0002	00119	Marital Status	
17	250	CE	O	O	O	0006	00120	Religion	
18	250	CX	O	O	O		00121	Patient Account Number	
19	16	ST	O	O	O		00122	SSN Number – Patient	Deprecated as of HL7 Version 2.3.1. See PID-3 Patient Identifier List.
20	25	DLN	O	O	O		00123	Driver's License Number - Patient	Deprecated as of HL7 Version 2.5. See PID-3 Patient Identifier List.
21	250	CX	O	O	O		00124	Mother's Identifier	
22	250	CE	O	RE	O	0189	00125	Ethnic Group	

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SEQ	LEN	DT	OPT			TBL #	ITEM #	ELEMENT NAME	Description/ Comments
			LB	FD	ID				
23	250	ST	O	O	O		00126	Birth Place	
24	1	ID	RE	O	O	0136	00127	Multiple Birth Indicator	Indicates whether the baby or fetus was part of a multiple birth.
25	2	N M	RE	O	O		00128	Birth Order	Indicate the order delivered in the pregnancy of the baby or fetus, aka “Set Number”. Leave the field empty for singleton births or deliveries.
26	250	CE	O	O	O	0171	00129	Citizenship	
27	250	CE	O	O	O	0172	00130	Veterans Military Status	
<b>28</b>	<b>250</b>	<b>CE</b>	<b>RE+</b>	<b>RE+</b>	<b>RE+</b>	<b>0212</b>	<b>00739</b>	<b>Nationality</b>	<b>Constrained for international use.</b>
29	26	TS	O	O	O		00740	Patient Death Date and Time	
30	1	ID	O	O	O	0136	00741	Patient Death Indicator	
31			O	O	O			Identity Unknown Indicator	
32			O	O	O			Identity Reliability Code	
33			O	O	O			Last Update Date/Time	
34			O	O	O			Last Update Facility	
35			O	O	O			Species Code	
36			O	O	O			Breed Code	
37			O	O	O			Strain	
38			O	O	O			Production Class Code	
39			O	O	O			Tribal Citizenship	

*Adapted from the HL7 standard, Version 2.6*

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.

515 The Information Source shall provide the patient identifier in the ID component (first  
component) of the PID-3 field (PID-3.1). The Information Source 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  
520 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.

#### **3.37.4.1.2.5 NK1 Segment**

The Information Source SHALL populate NK1 segment. The Information Recipient SHALL  
have the ability to accept and process this segment.

525 No further constraints are required of the NK1 segment from the corresponding HL7 message  
(Health Level Seven International (HL7) Version 2.6 Implementation Guide (IG): Vital Records  
Birth & Fetal Death Reporting Release 1 - US Realm Standard for Trial Use (STU)).

#### **3.37.4.1.2.6 PV1 Segment**

530 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 2.6 Implementation Guide (IG): Vital Records  
Birth & Fetal Death Reporting Release 1 - US Realm Standard for Trial Use (STU)).

#### **3.37.4.1.2.7 ROL Segment**

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

No further constraints are required of the ROL segment from the corresponding HL7 message  
(Health Level Seven International (HL7) Version 2.6 Implementation Guide (IG): Vital Records  
Birth & Fetal Death Reporting Release 1 - US Realm Standard for Trial Use (STU)).

#### **3.37.4.1.2.8 OBX Segment**

540 The Information Source SHALL populate OBX segment. All OBX observations SHALL be  
included. If there are no observations available (e.g., injury information, cause of death), then the  
appropriate flavor of NULL SHALL be communicated. The Information Recipient SHALL have  
the ability to accept and process this segment.

545 The Information Source, the Form Receiver Message Exporter, or the Form Processor Message  
Exporter may populate the following attributes using value sets other than those defined by the  
HL7 message (Health Level Seven International (HL7) Version 2.6 Implementation Guide (IG):  
Vital Records Birth & Fetal Death Reporting Release 1 - US Realm Standard for Trial Use  
(STU):



- 550
- Marital Status
  - Education
  - Race
  - Ethnicity

#### **3.37.4.1.2.9 DG1 Segment**

555 The Information Source, the Form Receiver Message Exporter, and the Form Processor Message Exporter SHOULD populate the DG1 segment with any additional diagnoses and problems needed for jurisdiction reporting. Additional problems of interest and timeframes may be further specified by National Extension.

#### **3.37.4.1.2.10 PR1 Segment**

560 The Information Source, the Form Receiver Message Exporter, and the Form Processor Message Exporter SHOULD populate PR1 segment with additional any additional procedures performed needed for jurisdiction reporting. Additional procedures of interest and timeframes may be further specified by National Extension.

#### **3.37.4.1.3 Expected Actions**

##### **3.37.4.1.3.1 ACK**

565 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 V2.6 standard, following the acknowledgement rules

570 described in IHE ITI TF-2x: C.2.3.

#### **3.37.5 Security Considerations**

##### **3.37.5.1 Security Audit Considerations BFDRFeed [QRPH-37] (ADT)**

575 The BFDRFeed [QRPH-37] ADT messages are audited as “PHI Export” events, as defined in ITI TF-2a: Table 3.20.4.1.1.1-1. The following tables show items that are required to be part of the audit record for these specific BFDRFeed transactions.

580

### 3.37.5.1.1 Information Source Actor audit message

	Field Name	Opt	Value Constraints
<b>Event AuditMessage / EventIdentification</b>	EventID	M	EV(110106, DCM, "Export")
	EventActionCode	M	"C" (create) "U" (update)
	<i>EventDateTime</i>	M	<i>not specialized</i>
	<i>EventOutcomeIndicator</i>	M	<i>not specialized</i>
	EventTypeCode	M	EV("QRPH-37", "IHE Transactions", "BFDRFeed")
Source (Information Source Actor) (1)			
Human Requestor (0..n)			
Destination (Information Recipient Actor) (1)			
Audit Source (Information Source Actor) (1)			
Patient (1)			

Where:

<b>Source AuditMessage/ ActiveParticipant</b>	UserID	M	The identity of the Information Source 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.
	<i>UserName</i>	U	<i>not specialized</i>
	<i>UserIsRequestor</i>	M	<i>not specialized</i>
	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

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

585

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<b>Destination</b> <b>AuditMessage/</b> <b>ActiveParticipant</b>	UserID	M	The identity of the Information Recipient Public Health Organization and receiving application from the HL7 message; concatenated together, separated by the   character.
	<i>AlternativeUserID</i>	<i>M</i>	<i>not specialized</i>
	<i>UserName</i>	<i>U</i>	<i>not specialized</i>
	<i>UserIsRequestor</i>	<i>M</i>	<i>not specialized</i>
	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

<b>Audit Source</b> <b>AuditMessage/</b> <b>AuditSourceIdentification</b>	<i>AuditSourceID</i>	<i>U</i>	<i>not specialized</i>
	<i>AuditEnterpriseSiteID</i>	<i>U</i>	<i>not specialized</i>
	<i>AuditSourceTypeCode</i>	<i>U</i>	<i>not specialized</i>

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

### 3.37.5.1.2 Information Recipient Actor audit message

590

	Field Name	Opt	Value Constraints
<b>Event</b> <b>AuditMessage</b> <b>/</b> <b>EventIdentification</b>	EventID	M	EV(110107, DCM, “Import”)
	EventActionCode	M	“C” (create) “U” (update)
	<i>EventDateTime</i>	<i>M</i>	<i>not specialized</i>
	<i>EventOutcomeIndicator</i>	<i>M</i>	<i>not specialized</i>
	EventTypeCode	M	EV(“QRPH-37”, “IHE Transactions”, “BFDRFeed”)
Source (Information Source Actor) (1)			
Destination (Information Recipient Actor) (1)			
Audit Source (Information Recipient Actor) (1)			

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Patient(1)
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Where:

<b>Source AuditMessage/ ActiveParticipant</b>	UserID	M	The identity of the Information Source facility and sending application from the HL7 message; concatenated together, separated by the   character.
	AlternativeUserID	U	<i>not specialized</i>
	UserName	U	<i>not specialized</i>
	UserIsRequestor	M	<i>not specialized</i>
	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

<b>Destination AuditMessage/ ActiveParticipant</b>	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	<i>not specialized</i>
	UserIsRequestor	M	<i>not specialized</i>
	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

<b>Audit Source AuditMessage/ AuditSourceIdentification</b>	AuditSourceID	U	<i>not specialized</i>
	AuditEnterpriseSiteID	U	<i>not specialized</i>
	AuditSourceTypeCode	U	<i>not specialized</i>

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

### 3.37.5.2 Security Audit Considerations – Retrieve Form [ITI-34] audit message

620 The Retrieve Form Transaction in the BFDR-E Profile is a PHI-Export event, as defined in ITI TF-2a: Table 3.20.4.1.1.1-1. The actors involved in the transaction SHALL create audit data in conformance with Retrieve Form [ITI-34] audit messages where such PHI Audit is required by Jurisdictional Law. See QRPH TF-2: 5.Z3.1 (currently in the CRD Trial Implementation Supplement).

### 3.37.5.3 Security Audit Considerations – Submit Form [ITI-35] audit messages

625 The Submit Form Transaction is a PHI-Export event, as defined in ITI TF-2a: Table 3.20.4.1.1.1-1. The actors involved in the transaction SHALL create audit data in conformance with Submit Form [ITI-35] audit messages where such PHI Audit is required by Jurisdictional Law. See QRPH TF-2: 5.Z3.2 (currently in the CRD Trial Implementation Supplement).

### 3.37.5.4 Security Audit Considerations –Archive Form [ITI-36] audit messages audit messages

630 The Archive Form Transaction is a PHI-Export event, as defined in ITI TF-2a: Table 3.20.4.1.1.1-1. The actors involved in the transaction SHALL create audit data in conformance with Archive Form [ITI-36] audit messages where such PHI Audit is required by Jurisdictional Law. See QRPH TF-2: 5.Z3.3 (currently in the CRD Trial Implementation Supplement).

## Volume 2 Namespace Additions

*Add the following terms to the IHE General Introduction Appendix C:*

635 None

640

## Appendices to Volume 2

None

## Volume 4 – National Extensions

*Add appropriate Country section*



645 **4 National Extensions**

**4.1 National Extensions for IHE USA**

**4.1.1 Comment Submission**

650 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://www.ihe.net/QRPH\\_Public\\_Comments](http://www.ihe.net/QRPH_Public_Comments)

**4.1.2 Birth and Fetal Death Reporting – Extended (BFDR-E)**

**4.1.2.1 BFDR US Volume 1 Constraints**

No additional constraints.

655 **4.1.2.2 BFDR US Volume 2 Constraints**

The following table shows the optionality for the PID segment that differ for the US National Extension.

**Table 3.37.4.1.2.4-1: IHE Profile - PID segment**

SEQ	LEN	DT	OPT			TBL #	ITEM #	ELEMENT NAME	Description/ Comments
			LB	FD	ID				
1	4	SI	O	O	O		00104	Set ID - Patient ID	Literal Value: '1'.
2	20	CX	O	O	O		00105	Patient ID	Deprecated as of HL7 Version 2.3.1. See PID-3 Patient Identifier List.
3	250	CX	R	R	R		00106	Patient Identifier List	Field used to convey all types of patient/person identifiers. Use of the Medical Record Number is expected if the birth (for the baby) or fetal death (for the mother) takes place in a hospital, or the baby is admitted to one.
4	20	CX	O	O	O		00107	Alternate Patient ID	Deprecated as of HL7 Version 2.3.1. See PID-3.
5	250	XP N	R	R	R		00108	Patient Name	New born name. In the case of fetal death reporting, the name is for the mother.
6	250	XP N	O+	O	O+		00109	Mother's Maiden Name	<b>Optional in IG, but Optional in PIX</b> <b>Additional constraint included for international support</b>
7	26	TS	RE	RE	RE		00110	Date/Time of Birth	Newborn's date and time of birth, or (for fetal death reporting) the mother's. Format: YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]
8	1	IS	RE	RE	RE	0001	00111	Administrative Sex	Sex of the newborn or of the fetus.
9	250	XP N	O	O	O		00112	Patient Alias	Deprecated as of HL7 Version 2.4. See PID-5 Patient Name.
10	250	R CE	O	RE	O	0005	00113	Race	

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SEQ	LEN	DT	OPT			TBL #	ITEM #	ELEMENT NAME	Description/ Comments
			LB	FD	ID				
11	250	XAD	RE	RE	O		00114	Patient Address	Address type code = Birth Address. Only use the field, if the birth or fetal delivery does not take place in a healthcare facility. When used, the field captures the place of birth, or the place of fetal delivery. Street address, city, state and zip code are expected. If descriptive information is provided instead of an address, the Other Geographic Designation component of the XAD data type is used. Note, either PID.11 or ROL.11 may be used to record the place of birth or delivery depending on circumstances.
12	4	IS	O	O	O	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	O	O		00116	Phone Number – Home	
14	250	XTN	O	O	O		00117	Phone Number - Business	
15	250	CE	O	O	O	0296	00118	Primary Language	
16	250	CE	O	O	O	0002	00119	Marital Status	
17	250	CE	O	O	O	0006	00120	Religion	
18	250	CX	O	O	O		00121	Patient Account Number	
19	16	ST	O	O	O		00122	SSN Number – Patient	Deprecated as of HL7 Version 2.3.1. See PID-3 Patient Identifier List.
20	25	DLN	O	O	O		00123	Driver's License Number - Patient	Deprecated as of HL7 Version 2.5. See PID-3 Patient Identifier List.
21	250	CX	O	O	O		00124	Mother's Identifier	
22	250	CE	O	RE	O	0189	00125	Ethnic Group	
23	250	ST	O	O	O		00126	Birth Place	

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SEQ	LEN	DT	OPT			TBL #	ITEM #	ELEMENT NAME	Description/ Comments
			LB	FD	ID				
24	1	ID	RE	O	O	0136	00127	Multiple Birth Indicator	Indicates whether the baby or fetus was part of a multiple birth.
25	2	N M	RE	O	O		00128	Birth Order	Indicate the order delivered in the pregnancy of the baby or fetus, aka “Set Number”. Leave the field empty for singleton births or deliveries.
26	250	CE	O	O	O	0171	00129	Citizenship	
27	250	CE	O	O	O	0172	00130	Veterans Military Status	
<b>28</b>	<b>250</b>	<b>CE</b>	<b>O+</b>	<b>O+</b>	<b>O+</b>	<b>0212</b>	<b>00739</b>	<b>Nationality</b>	<b>Constrained for international use.</b>
29	26	TS	O	O	O		00740	Patient Death Date and Time	
30	1	ID	O	O	O	0136	00741	Patient Death Indicator	
31			O	O	O			Identity Unknown Indicator	
32			O	O	O			Identity Reliability Code	
33			O	O	O			Last Update Date/Time	
34			O	O	O			Last Update Facility	
35			O	O	O			Species Code	
36			O	O	O			Breed Code	
37			O	O	O			Strain	
38			O	O	O			Production Class Code	
39			O	O	O			Tribal Citizenship	

*Adapted from the HL7 standard, Version 2.6*