

Integrating the Healthcare Enterprise



5

IHE Patient Care Coordination (PCC) Technical Framework Supplement

10

Labor and Delivery Profiles

Trial Implementation

15

Date: August 30, 2010
Author: Jean Millar
Email: pcc@ihe.net

Foreword

- 20 This is a supplement to the IHE Patient Care Coordination Technical Framework V6.0. Each supplement undergoes a process of public comment and trial implementation before being incorporated into the volumes of the Technical Frameworks.
- This supplement is submitted for Trial Implementation as of August 30, 2010 and will be available for testing at subsequent IHE Connectathons. The supplement may be amended based
- 25 on the results of testing. Following successful testing it will be incorporated into the Patient Care Coordination Technical Framework. Comments are invited and may be submitted on the IHE forums at <http://forums.rsna.org/forumdisplay.php?f=309> or by email to pcc@ihe.net.
- This supplement describes changes to the existing technical framework documents and where indicated amends text by addition (**bold underline**) or removal (~~**bold strikethrough**~~), as well as
- 30 addition of large new sections introduced by editor's instructions to "add new text" or similar, which for readability are not bolded or underlined.
- "Boxed" instructions like the sample below indicate to the Volume Editor how to integrate the relevant section(s) into the relevant Technical Framework volume:

- 35 **Replace Section X.X by the following:**

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

Information about IHE Patient Care Coordination can be found at:
<http://www.ihe.net/Domains/index.cfm>

- 40 Information about the structure of IHE Technical Frameworks and Supplements can be found at:
<http://www.ihe.net/About/process.cfm> and <http://www.ihe.net/profiles/index.cfm>

The current version of the IHE Technical Framework can be found at:
http://www.ihe.net/Technical_Framework/index.cfm

45

CONTENTS

	INTRODUCTION.....	4
50	HOW TO READ THE LABOR AND DELIVERY PROFILES SUPPLEMENT	4
	HOW TO ACCESS THE REFERENCE MATERIAL.....	5
	OPEN ISSUES AND QUESTIONS.....	5
	CLOSED ISSUES.....	6
	VOLUME 1 – PROFILES	7
55	1.5 COPYRIGHT PERMISSIONS	7
	2.4 DEPENDENCIES OF THE PCC INTEGRATION PROFILES.....	7
	2.5 HISTORY OF ANNUAL CHANGES	7
	X LABOR AND DELIVERY HISTORY AND PHYSICAL CONTENT PROFILE (LDHP).....	8
60	X.1 PURPOSE AND SCOPE.....	8
	X.2 PROCESS FLOW	8
	X.2.1 Use Cases	8
	X.2.2 Diagrams.....	8
	X.3 ACTORS/TRANSACTIONS	8
	X.3.1 Requirements of Actors.....	9
	X.4 OPTIONS	9
65	X.5 GROUPINGS	9
	X.6 SECURITY CONSIDERATIONS	9
	X.7 CONTENT MODULES.....	9
	X.8 REFERENCES.....	11
	Y LABOR AND DELIVERY SUMMARY CONTENT PROFILE (LDS)	12
70	Y.1 PURPOSE AND SCOPE.....	12
	Y.2 PROCESS FLOW.....	12
	Y.2.1 Use Cases	12
	Y.2.2 Diagrams.....	12
	Y.3 ACTORS/TRANSACTIONS.....	12
75	Y.3.1 Requirements of Actors	13
	Y.4 OPTIONS	13
	Y.5 GROUPINGS	13
	Y.6 SECURITY CONSIDERATIONS	13
	Y.7 CONTENT MODULES.....	13
80	Y.8 REFERENCES.....	15
	Z MATERNAL DISCHARGE SUMMARY CONTENT PROFILE (MDS)	17
85	Z.1 PURPOSE AND SCOPE	17
	Z.2 PROCESS FLOW.....	17
	Z.2.1 Use Cases.....	17
	Z.2.2 Diagrams	17
	Z.3 ACTORS/TRANSACTIONS.....	17
	Z.3.1 Requirements of Actors	18

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP),
Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

	Z.4 OPTIONS	18
	Z.5 GROUPINGS	18
90	Z.6 SECURITY CONSIDERATIONS	18
	Z.7 CONTENT MODULES	18
	Z.8 REFERENCES.....	21
	VOLUME 2 – TRANSACTIONS AND CONTENT MODULES.....	22
	5.0 NAMESPACES AND VOCABULARIES.....	23
95	5.1 IHE FORMAT CODES.....	23
	6 PCC CONTENT MODULES.....	24
	6.2 FOLDER CONTENT MODULES.....	24
	6.3 HL7 VERSION 3.0 CONTENT MODULES.....	24
	6.3.1 <i>CDA Document Content Modules</i>	24
100	6.3.1.A Labor and Delivery History and Physical 1.3.6.1.4.1.19376.1.5.3.1.1.21.1.1	24
	6.3.1.A.1 Format Code	24
	6.3.1.A.2 LOINC Code.....	24
	6.3.1.A.3 Standards.....	24
	6.3.1.A.4 Specification	24
	6.3.1.A.5 Conformance	26
	6.3.1.B Labor and Delivery Summary 1.3.6.1.4.1.19376.1.5.3.1.1.21.1.2	29
	6.3.1.B.1 Format Code	29
	6.3.1.B.2 LOINC Code.....	29
	6.3.1.B.3 Standards.....	29
105	6.3.1.B.4 Specification	29
	6.3.1.B.5 Conformance	35
	6.3.1.C Maternal Discharge Summary 1.3.6.1.4.1.19376.1.5.3.1.1.21.1.3	38
	6.3.1.C.1 Format Code	38
	6.3.1.C.2 LOINC Code.....	38
110	6.3.1.C.3 Standards.....	39
	6.3.1.C.4 Specification	39
	6.3.1.C.5 Conformance	42
115		
120		

Introduction

This supplement is written for Trial Implementation. It is written as changes to the documents listed below. The reader should have already read and understood these documents:

- 125 1. [PCC Technical Framework Volume 1, Revision 6.0](#)
 2. [PCC Technical Framework Volume 2, Revision 6.0](#)

This supplement also references other documents¹. The reader should have already read and understood these documents:

- 130 1. [IT Infrastructure Technical Framework Volume 1, Revision 7.0](#)
 2. [IT Infrastructure Technical Framework Volume 2, Revision 7.0](#)
 3. [IT Infrastructure Technical Framework Volume 3, Revision 7.0](#)
 4. [The Patient Identifier Cross-Reference \(PIX\) and Patient Demographic Query \(PDQ\) HL7 v3 Supplement to the IT Infrastructure Technical Framework.](#)
 5. HL7 and other standards documents referenced in Volume 1 and Volume 2
135 6. Dilbert 2.0: 20 Years of Dilbert by Scott Adams, ISBN-10: 0740777351, ISBN-13: 978-0740777356

How to read the Labor and Delivery Profiles supplement

This supplement contains 3 content profiles – Labor and Delivery History and Physical (LDHP), Labor and Delivery Summary (LDS), and Maternal Discharge Summary (MDS). Labor and Delivery Record (LDR) is no longer a profile as it has been subsumed by Perinatal Workflow (PW) profile.

Please see the below documents that will need to be referenced to fully understand the profiles in this supplement. Each document has a short description describing what is contained.

- 140 1. **Perinatal Workflow (PW):** makes use of the antepartum, labor and delivery, postpartum, and newborn delivery profiles (some are in this supplement and many are in other supplements).
 2. **Content Modules Supplement:** This document contains all PCC Section Templates, Entry Templates, and Value Sets that are NOT in Final Text (that is, they are not in the Technical Framework Volume 2).

¹ The first four documents can be located on the IHE Website at http://www.ihe.net/Technical_Framework/index.cfm#IT. The remaining documents can be obtained from their respective publishers.

- 145 3. **PCC Technical Framework Volume 2, Revision 6.0 (published August 2010):** This contains all PCC Section Templates, Entry Templates and Value Sets (among other things) that ARE in Final Text.

How to Access the Reference Material

To access Perinatal Workflow, CDA Content Modules or the PCC Technical Framework refer to the same web page from which you accessed this supplement or follow the instructions below.

Navigate to <http://www.ihe.net>

- 150
 - Click “Developer Resources” on the top menu
 - Select “Technical Frameworks”
 - Click the “Patient Care Coordination” link

To access the PCC Technical Framework Volume 2 Revision 6.0 follow this link:

http://www.ihe.net/Technical_Framework/index.cfm#pcc

155 Open Issues and Questions

1. How should grouping be handled for sections that are reused from other profiles? For example several APHP sections are reused in LDHP and this should be called out somewhere, probably in the grouping section, but existing profiles use of the groupings section is not clear or consistent so a new table format should be explored. This could also be put in an appendix since it applies to several related profiles.
2. In sections X.7, Y.7, Z.7 (mappings to PCC Templates) the origin of the groups of data elements needs to be called out to show that these data did in fact originate from some sort of standard or at the very least clinical consensus within PCC committee.
3. In the Newborn Discharge Summary (NDS) and Post-Partum Visit Summary (PPVS) profiles, the Labor and Delivery Events section is described much more inclusively than the description in this profile. Specific data elements are now distributed between various sections rather than all grouped in the Labor and Delivery Events section. For example, medications administered is now a separate section, as is maternal complications which are now included in the problems section. Episiotomies, c-sections etc are now in the procedures and interventions subsection of Labor and Delivery Events. The content of these sections will need to be reconciled between the two profiles.
4. MCH is dependent on LDS to provide a disposition of the newborn upon transfer from the birthing suite. Possible value sets may include: transfer to Newborn ICU; transfer to well newborn nursery; transfer to tertiary facility. This has been captured in MDS as newborn disposition at maternal discharge, however MCH needs this data at the time of transfer from the birthing suite. This still needs to be addressed.

- 180
5. In the labor and delivery summary there needs to be a way to capture coded results and intake and output for both the mother and the newborn (same sections but for two separate patients). Based on structural limitations at this time, only the newborn results are referenced in Volume 2. This needs to be addressed before profile implementation.

Closed Issues

185

Volume 1 – Profiles

Add the following to section 1.5

1.5 Copyright Permissions

190

Add the following to section 2.4

2.4 Dependencies of the PCC Integration Profiles

<Profile Name>	<?>	<?>	<->
----------------	-----	-----	-----

Add the following to section 2.5

195 **2.5 History of Annual Changes**

Add Section X

X Labor and Delivery History and Physical Content Profile (LDHP)

200 Labor and Delivery History and Physical is a content profile that defines the structure of the data that is often collected during the initial admission to the birthing facility. It includes, but is not limited to demographics, histories, allergies, physical examinations, vital signs, and care plans.

X.1 Purpose and Scope

205 The information collected during labor, delivery and the immediate postpartum period is very important to follow-up care for both mother and infant, whether the follow-up care is provided in an inpatient or outpatient facility. A physician's recommendation for a follow-up hematocrit test or evaluation of the incision in the office may be noted in the Labor and Delivery Summary or in the Maternal Discharge Summary. These documents must be available in both inpatient and outpatient settings.

210 Pertinent maternal information includes, but is not limited to, delivery type; labor type; anesthesia type; labor, delivery and postpartum complications; and specific maternal information such as medications, laboratory test results, allergies and plans for contraception. Pertinent neonatal information includes, but is not limited to, delivery method, gender, birth time, birth weight, gestational age at delivery, APGAR scores, and medications received in the delivery room including immunizations.

X.2 Process Flow

X.2.1 Use Cases

Change referenced section numbering when merged into technical framework

For applicable use cases see Perinatal Workflow section X.2.1.

X.2.2 Diagrams

220 *Change referenced section numbering when merged into technical framework*

For applicable diagrams see Perinatal Workflow section X.2.2.

X.3 Actors/Transactions

225 There are two actors in this profile, the Content Creator and the Content Consumer. Content is created by a Content Creator and is to be consumed by a Content Consumer. The sharing or transmission of content from one actor to the other is addressed by the appropriate use of IHE profiles described below, and is out of scope of this profile. A Document Source or a Portable Media Creator may embody the Content Creator Actor. A Document Consumer, a Document Recipient, or a Portable Media Importer may embody the Content Consumer Actor. The sharing or transmission of content or updates from one actor to the other is addressed by the use of appropriate IHE profiles described in the section on Content Bindings with XDS, XDM and XDR in PCC TF-2:4.1.



Figure X.3-1 Actor Diagram

235

X.3.1 Requirements of Actors

X.4 Options

Table X.4-1 Labor and Delivery History and Physical Options

Actor	Option	Section
Content Consumer	View Option (See Note 1) Document Import Option (See Note 1) Section Import Option (See Note 1) Discrete Data Import Option (See Note 1)	PCC TF-2:3.1.1 PCC TF-2:3.1.2 PCC TF-2:3.1.3 PCC TF-2:3.1.4
Content Creator	No options defined	

Note 1: The Actor shall support at least one of these options.

240

X.5 Groupings

Groupings are needed to represent which templates are required from other content profiles and will be added in future work.

X.6 Security Considerations

X.7 Content Modules

245

Table X.7-1 Labor and Delivery History and Physical Content Modules

Datum	PCC Template Name
Demographics	Header Modules (See Note 1)
Chief Complaint	Chief Complaint (See Note 1)

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP),
Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

Datum	PCC Template Name
Problem List	Problems
Admission Medication History	Admission Medication History
Pregnancy History	Pregnancy History (See Note 1)
HPI or Intermin Medical History	History of Present Illness
Medical History	History of Past Illness (See Note 1)
Social History	Coded Social History (See Note 1)
Medical History – Relevant Family History	Coded Family Medical History (See Note 1)
Allergies	Allergies and Other Adverse Reactions (See Note 1)
Menstrual History/Symptoms Since LMP	Review of Systems (See Note 1)
Genetic Screening/Teratology Counseling	Coded Family History Medical History (See Note 1)
Infection History	Coded History of Infection (See Note 1)
Initial Physical Examination	Coded Physical Exam (See Note 1)
Vital Signs	Coded Vital Signs (See Note 1)
Pain Assessment	Pain Assessment Panel
Diagnostic Findings	Prenatal Events: Coded Results (See Note 1)
Antenatal Test Results	Coded Antenatal Testing and Surveillance
Surgical History	History of Surgical Procedures (See Note 1)
Prenatal Events	Prenatal Events
Estimated Delivery Date	Estimated Delivery Date

Datum	PCC Template Name
Care Plan	Care Plan

Note 1: This template is part of Antepartum History and Physical

X.8 References

- 250 This profile contains different summaries, based on data elements collected from different forms, originating from various organizations in the United States and Europe. The generic forms used to build this profile are:
- Demographic information about the mother, the father and the child
 - General information about the family
- 255
- Admission Assessment for Labor and Delivery
 - Transport Summary during pregnancy (if any)
 - Antepartum Summary
 - Labor & Delivery Summary (combined with the Newborn Birth Summary while in the birth room)
- 260
- Maternal Discharge Summary
 - Patient Plan of Care Profile

These forms and data elements were collected with the assistance of the following organizations:

ACOGAR	American College of Obstetricians and Gynecologists (ACOG), Antepartum Record
AUDIPOG	Association des Utilisateurs de Dossiers Informatisés en Périnatalogie, Obstétrique et Gynécologie
Dossier obstétrical	Fédération suisse des sages-femmes 2008
UHIN	Utah Health Information Network
IH	Intermountain Healthcare

265 **Y Labor and Delivery Summary Content Profile (LDS)**

Labor and Delivery Summary is a content profile that defines the structure of the data that is often collected during the labor and delivery period at the birthing facility. It includes, but is not limited to demographics, histories, allergies, physical examinations, vital signs, and newborn delivery information.

270 **Y.1 Purpose and Scope**

The information collected during labor, delivery, and the immediate postpartum period is very important to follow-up care for both mother and infant whether the follow-up care is provided in an inpatient or outpatient facility. A physician's recommendation for a follow-up hematocrit test or evaluation of the incision in the office may be noted in the Labor and Delivery Summary or in the Maternal Discharge Summary. These documents must be available in both inpatient and outpatient settings.

Pertinent maternal information includes, but is not limited to, delivery type; labor type; anesthesia type; labor, delivery and postpartum complications; and specific maternal information such as medications, laboratory test results, allergies, and plans for contraception. Pertinent neonatal information includes, but is not limited to, delivery method, gender, birth time, birth weight, gestational age at delivery, APGAR scores, and medications received in the delivery room including immunizations.

Y.2 Process Flow

Y.2.1 Use Cases

285 *Change referenced section numbering when merged into technical framework*

For applicable use cases see Perinatal Workflow section X.2.1.

Y.2.2 Diagrams

Change referenced section numbering when merged into technical framework

For applicable diagrams see Perinatal Workflow section X.2.2.

290 **Y.3 Actors/Transactions**

There are two actors in this profile, the Content Creator and the Content Consumer. Content is created by a Content Creator and is to be consumed by a Content Consumer. The sharing or transmission of content from one actor to the other is addressed by the appropriate use of IHE profiles described below, and is out of scope of this profile. A Document Source or a Portable Media Creator may embody the Content Creator Actor. A Document Consumer, a Document Recipient, or a Portable Media Importer may embody the Content Consumer Actor. The sharing or transmission of content or updates from one actor to the other is addressed by the use of

appropriate IHE profiles described in the section on Content Bindings with XDS, XDM and XDR in PCC TF-2:4.1.

300



Figure Y.3-1 Actor Diagram

Y.3.1 Requirements of Actors

305 **Y.4 Options**

Table Y.4-1 Labor and Delivery Summary Options

Actor	Option	Section
Content Consumer	View Option (See Note 1) Document Import Option (See Note 1) Section Import Option (See Note 1) Discrete Data Import Option (See Note 1)	PCC TF-2:3.1.1 PCC TF-2:3.1.2 PCC TF-2:3.1.3 PCC TF-2:3.1.4
Content Creator	No options defined	

Note 1: The Actor shall support at least one of these options.

Y.5 Groupings

310 Groupings are needed to represent which templates are required from other content profiles and will be added in future work.

Y.6 Security Considerations

Y.7 Content Modules

Table Y.7-1 Labor and Delivery Summary Content Modules

Data Element	PCC Template Name
Demographics	Header Modules (See Note 1)

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP),
Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

Data Element	PCC Template Name
Admitting Diagnosis	Hospital Admission Diagnosis
History of Medications	Admission Medication History
Chief Complaint	Chief Complaint
Arrival Mode	Transport Mode
Admission Assessment and Plan	Assessment and Plan
Problem List	Problems
Maternal and Fetal Labs	Coded Results
Interim Medical History	History of Present Illness
Past Medical History	History of Past Illness
Advance Directives	Coded Advance Directives
Patient's Birth Plan	Birth Plan
Allergies	Allergies and Other Adverse Reactions
Maternal Physical Exam	Coded Physical Exam
Estimated Date of Delivery determined at admission	Estimated Delivery Date (See Note 1)
Medications Administered	Medications Administered
Intravenous Fluids	Intravenous Fluids Administered
Intake and Output (excludes estimated blood loss)	Intake and Output
Blood Transfusions Received in Labor and Delivery	History of Blood Transfusions
Surgical History	History of Surgical Procedures
Detailed Information of Labor and Delivery	Labor and Delivery Events
Procedures and Interventions during Labor and Delivery	Labor and Delivery Events: Procedures and Interventions
Labor, Delivery and Operative Complications	Problems

Data Element	PCC Template Name
Outcomes Related to the Labor and Delivery Process	Labor and Delivery Events: Event Outcomes
Maternal Blood Loss	Estimated Blood Loss
Antenatal Tests Performed while in Labor and Delivery	Coded Antenatal Testing and Surveillance
Pain Assessment	Pain Assessment Panel
Physical Exam Findings	Newborn Delivery Information: Coded Physical Exam
Birth Date/Time	Newborn Delivery Information
Newborn Complications	Newborn Delivery Information: Problems
Newborn Output in Delivery	Intake and Output
Cord Blood Tests	Coded Results
Newborn Medications Given in Birthing Suite	Newborn Delivery Information: Medications
Newborn Procedures or Interventions in Birthing Suite	Newborn Delivery Information: Procedures and Interventions

Note 1: This template is part of Labor and Delivery History and Physical

Y.8 References

- This profile contains different summaries based on data elements collected from different forms originating from various organizations in the United States and Europe. The generic forms used to build this profile are:
- 320
- Demographic information about the mother, the father and the child
 - General information about the family
 - Admission Assessment for Labor and Delivery
- 325
- Transport Summary during pregnancy (if any)
 - Antepartum Summary
 - Labor & Delivery Summary (combined with the Newborn Birth Summary while in the birth room)
 - Maternal Discharge Summary
- 330
- Patient Plan of Care Profile

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP),
Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

These forms and data elements were collected with the assistance of the following organizations:

ACOGAR	American College of Obstetricians and Gynecologists (ACOG), Antepartum Record
AUDIPOG	Association des Utilisateurs de Dossiers Informatisés en Périnatalogie, Obstétrique et Gynécologie
Dossier obstétrical	Fédération suisse des sages-femmes 2008
UHIN	Utah Health Information Network
IH	Intermountain Healthcare

335 **Z Maternal Discharge Summary Content Profile (MDS)**

Maternal Discharge Summary is a content profile that defines the structure of the data that is often collected post delivery until discharge from the birthing facility. It includes, but is not limited to demographics, medications, laboratory results, newborn delivery information, patient education, and outcomes.

340 **Z.1 Purpose and Scope**

The information collected during labor, delivery, and the immediate postpartum period is very important to follow-up care for both mother and infant whether the follow-up care is provided in an inpatient or outpatient facility. A physician's recommendation for a follow-up hematocrit test or evaluation of the incision in the office may be noted in the Labor and Delivery Summary or in 345 the Maternal Discharge Summary. These documents must be available in both inpatient and outpatient settings.

Pertinent maternal information includes, but is not limited to, delivery type; labor type; anesthesia type; labor, delivery and postpartum complications; and specific maternal information such as medications, laboratory test results, allergies, and plans for contraception. Pertinent 350 neonatal information includes, but is not limited to, delivery method, gender, birth time, birth weight, gestational age at delivery, APGAR scores, and medications received in the delivery room including immunizations.

Z.2 Process Flow

Z.2.1 Use Cases

355 *Change referenced section numbering when merged into technical framework*
For applicable use cases see Perinatal Workflow section X.2.1.

Z.2.2 Diagrams

Change referenced section numbering when merged into technical framework
For applicable diagrams see Perinatal Workflow section X.2.2.

360 **Z.3 Actors/Transactions**

There are two actors in this profile, the Content Creator and the Content Consumer. Content is created by a Content Creator and is to be consumed by a Content Consumer. The sharing or transmission of content from one actor to the other is addressed by the appropriate use of IHE profiles described below, and is out of scope of this profile. A Document Source or a Portable 365 Media Creator may embody the Content Creator Actor. A Document Consumer, a Document Recipient, or a Portable Media Importer may embody the Content Consumer Actor. The sharing or transmission of content or updates from one actor to the other is addressed by the use of

appropriate IHE profiles described in the section on Content Bindings with XDS, XDM and XDR in PCC TF-2:4.1.

370



Figure Z.3-1 Actor Diagram

Z.3.1 Requirements of Actors

375 **Z.4 Options**

Table Z.4-1 Maternal Discharge Summary Options

Actor	Option	Section
Content Consumer	View Option (See Note 1) Document Import Option (See Note 1) Section Import Option (See Note 1) Discrete Data Import Option (See Note 1)	PCC TF-2:3.1.1 PCC TF-2:3.1.2 PCC TF-2:3.1.3 PCC TF-2:3.1.4
Content Creator	No options defined	

Note 1: The Actor shall support at least one of these options.

Z.5 Groupings

380 Groupings are needed to represent which templates are required from other content profiles and will be added in future work.

Z.6 Security Considerations

Z.7 Content Modules

Table Z.7-1 Maternal Discharge Summary Content Modules

Data Element	PCC Template Name
Demographics	Header Modules (See Note 1)

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP),
Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

Data Element	PCC Template Name
Discharge Date/Time	Header Module
Admission Diagnosis	Hospital Admission Diagnosis
Problem List	Problems
Discharge Diagnosis	Discharge Diagnosis
Discharge Disposition	Discharge Disposition
Discharge Method	Transport Mode
Condition on Discharge	Discharge Status
Allergies	Allergies and Other Adverse Reactions
Events during the hospitalization	Hospital Course
Advance Directive	Coded Advance Directives (See Note 1)
Medications prescribed at discharge	Hospital Discharge Medications
Imaging Reports	Coded Hospital Studies Summary
Pain Assessment	Pain Assessment Panel
Skin Assessment	Braden Score
Post-Partum Complications	Active Problems
Discharge Diet	Post-Partum Treatment: Discharge Diet
Medications Administered	Post-Partum Treatment: Medications Administered
Hgb/Hct	Post-Partum Treatment: Coded Results
Postpartum Procedures	Post-Partum Treatment: Procedures and Interventions
Post-Partum Plan of Care	Post-Partum Treatment: Care Plan
Immunizations Recommendations	Immunization Recommendations

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP),
Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

Data Element	PCC Template Name
Immunizations Given	Post-Partum Treatment: Immunizations
Type of IV Fluids Received	Intravenous Fluids Administered
Blood loss after the immediate delivery time-frame	Estimated Blood Loss
Number of blood transfusions (units) patient received	Transfusion History
Teaching/Instructions Given and Patient Verbalizes Understanding	Patient Education
Delivery Type (e.g. vaginal, cesarean section,vaginal birth after cesarean section and type of incision if c-section	Labor and Delivery Events: Procedures and Interventions
Risk Screening	Coded Social History
Discharge Activity	Provider Orders
Lactation Consultation	Consultations
First and Last Name of Baby at Birth	NDS: Header Module
First and Last Name of Baby at Discharge	NDS: Header Module
Baby's Unique IDENTIFIER	NDS: Header Module
Baby's Sex/Gender	LDS: Newborn Delivery Information
Circumcision (if Male)	NDS: Procedures and Interventions
Birth Weight	LDS: Newborn Delivery Information
Pediatrician's Name	NDS: Care Plan
Discharge Disposition(baby)	Newborn Status at Maternal Discharge

Z.8 References

This profile contains different summaries based on data elements collected from different forms originating from various organizations in the United States and Europe. The generic forms used to build this profile are:

- 390
 - Demographic information about the mother, the father and the child
 - General information about the family
 - Admission Assessment for Labor and Delivery
 - Transport Summary during pregnancy (if any)
 - Antepartum Summary
- 395
 - Labor & Delivery Summary (combined with the Newborn Birth Summary while in the birth room)
 - Maternal Discharge Summary
 - Patient Plan of Care Profile
- 400 These forms and data elements were collected with the assistance of the following organizations:

ACOGAR	American College of Obstetricians and Gynecologists (ACOG), Antepartum Record
AUDIPOG	Association des Utilisateurs de Dossiers Informatisés en Périnatalogie, Obstétrique et Gynécologie
Dossier obstétrical	Fédération suisse des sages-femmes 2008
UHIN	Utah Health Information Network
IH	Intermountain Healthcare

Volume 2 – Transactions and Content Modules

405

5.0 Namespaces and Vocabularies

codeSystem	codeSystemName	Description

5.1 IHE Format Codes

Profile	Format Code	Media Type	Template ID
Labor and Delivery History and Physical (LDHP)	urn:ihe:pcc:ldhp:2009	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.21.1.1
Labor and Delivery Summary (LDS)	urn:ihe:pcc:lds:2009	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.21.1.2
Maternal Discharge Summary (MDS)	urn:ihe:pcc:mds:2009	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.21.1.3

6 PCC Content Modules

6.2 Folder Content Modules

See Perinatal Workflow section 6.2.L.

6.3 HL7 Version 3.0 Content Modules

- 415 **6.3.1 CDA Document Content Modules**

Add section 6.3.1.A

6.3.1.A Labor and Delivery History and Physical 1.3.6.1.4.1.19376.1.5.3.1.1.21.1.1

- 420 The Labor and Delivery History and Physical (LDHP) content profile represents the patient's history and physical performed during admission to the birthing facility. The LDHP is a Medical Summary and inherits all header constraints from Medical Summary. It also uses parts of the Antepartum History and Physical where needed.

6.3.1.A.1 Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:pcc:ldhp:2009**

6.3.1.A.2 LOINC Code

- 425 The LOINC code for this document is **57056-4** Labor and Delivery admission history and physical

6.3.1.A.3 Standards

CCD	ASTM/HL7 Continuity of Care Document
CDAR2	HL7 CDA Release 2.0
ACOG AR	American College of Obstetricians and Gynecologists (ACOG), Antepartum Record
LOINC	Logical Observation Identifiers, Names and Codes
SNOMED	Systemized Nomenclature for Medicine
CDTHP	CDA for Common Document Types History and Physical Notes (DSTU)

6.3.1.A.4 Specification

- 430 This section references content modules using Template ID as the key identifier. Definitions of the modules are found in either:

- IHE Patient Care Coordination Volume 2: Final Text

- IHE PCC Content Modules 2010-2011 Supplement

435

Table 6.3.1.A.4-1 Labor and Delivery History and Physical Specification

Template Name	Opt	Section Template Id	Value Set Template Id
Chief Complaint (See Note 1)	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1	N/A
History of Present Illness (See Note 1)	R	1.3.6.1.4.1.19376.1.5.3.1.3.4	N/A
History of Past Illness (See Note 1)	R	1.3.6.1.4.1.19376.1.5.3.1.3.8	1.3.6.1.4.1.19376.1.5.3.1.1.16.5.1
Coded History of Infection (See Note 1)	R	1.3.6.1.4.1.19376.1.5.3.1.1.16.2.1.1.1	1.3.6.1.4.1.19376.1.5.3.1.1.16.5.6
Problems	R	1.3.6.1.4.1.19376.1.5.3.1.3.6	N/A
Pregnancy History (See Note 1)	R	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4	N/A
Coded Social History (See Note 1) This section shall include the patient's social history including tobacco, alcohol and drug use (current or prior) as well as other environmental exposures.	R	1.3.6.1.4.1.19376.1.5.3.1.3.16.1	1.3.6.1.4.1.19376.1.5.3.1.4.13.4
Coded Family Medical History (See Note 1)	R	1.3.6.1.4.1.19376.1.5.3.1.3.15	1.3.6.1.4.1.19376.1.5.3.1.1.16.5.4
Admission Medication History	R	1.3.6.1.4.1.19376.1.5.3.1.3.20	N/A
Allergies and Other Adverse Reactions (See Note 1)	R	1.3.6.1.4.1.19376.1.5.3.1.3.13	N/A
Review of Systems (See Note 1)	R	1.3.6.1.4.1.19376.1.5.3.1.3.18	1.3.6.1.4.1.19376.1.5.3.1.1.16.5.5
Coded Physical Exam (See Note 1)	R	1.3.6.1.4.1.19376.1.5.3.1.1.9.15.1	N/A
Vital Signs (See Note 1)	C	1.3.6.1.4.1.19376.1.5.3.1.3.25	N/A
History of Surgical Procedures (See Note 1)	R2	1.3.6.1.4.1.19376.1.5.3.1.1.16.2.2	N/A
Prenatal Events	R	1.3.6.1.4.1.19376.1.5.3.1.1.21.2.2	N/A
Prenatal Events: Coded Results (See Note 1)	R	1.3.6.1.4.1.19376.1.5.3.1.3.28	N/A
Estimated Delivery Date	R	1.3.6.1.4.1.19376.1.5.3.1.1.11.2.2.1	N/A
Care Plan	R2	1.3.6.1.4.1.19376.1.5.3.1.3.31	N/A

Template Name	Opt	Section Template Id	Value Set Template Id
Coded Antenatal Testing and Surveillance	R2	1.3.6.1.4.1.19376.1.5.3.1.1.21.2.5.1	N/A
Pain Assessment Panel	R2	1.3.6.1.4.1.19376.1.5.3.1.1.20.2.4	N/A

Note 1: This template is part of Antepartum History and Physical and should be pulled from there when available.

6.3.1.A.5 Conformance

CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below. A CDA Document may conform to more than one template. This content module inherits from the [History and Physical](#) content module, and so must conform to the requirements of that template as well, thus all <templateId> elements shown in the example below shall be included.

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP), Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

```
445 <ClinicalDocument xmlns='urn:hl7-org:v3'>
    <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.2' /><!--Medical Summary-->
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.1.4' /><!--History and Physical-->
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.1.1' /><!--Antepartum History and Physical-->
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.1.1' /><!--Labor and Delivery History and
Physical-->
    <id root=' ' extension=' ' />
    <code code='57056-4' displayName='Labor and delivery admission history and physical'
        codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <title>Labor and Delivery Record History and Physical</title>
    <effectiveTime value='20080601012005' />
    <confidentialityCode code='N' displayName='Normal'
        codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
    <languageCode code='en-US' />
    :
    <component><structuredBody>
        <component>
            <section>
                <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1' />
                <!-- Required Chief Complaint Section content -->
            </section>
        </component>
        <component>
            <section>
                <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.4' />
                <!-- Required History of Present Illness Section content -->
            </section>
        </component>
        <component>
            <section>
                <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.8' />
                <!-- Required History of Past Illness Section content -->
            </section>
        </component>
        <component>
            <section>
                <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.2.1.1.1' />
                <!-- Required Coded History of Infection Section content -->
            </section>
        </component>
        <component>
            <section>
                <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.6' />
                <!-- Required Problems Section content -->
            </section>
        </component>
        <component>
            <section>
                <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4' />
                <!-- Required Pregnancy History Section content -->
            </section>
        </component>
        <component>
            <section>
                <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1' />
                <!-- Required Coded Social History Section content -->
            </section>
        </component>
        <component>
            <section>
                <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.15' />
                <!-- Required Coded Family Medical History Section content -->
            </section>
        </component>
    </structuredBody>
</component>
```

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP), Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

```
510    </component>
<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.20' />
    <!-- Required Admission Medication History Section content -->
  </section>
</component>
515  <component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.13' />
    <!-- Required Allergies and Other Adverse Reactions Section content -->
  </section>
</component>
520  <component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.18' />
    <!-- Required Review of Systems Section content -->
  </section>
</component>
525  <component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.15.1' />
    <!-- Required Coded Physical Exam Section content -->
  </section>
</component>
530  <component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.25' />
    <!-- Conditional Vital Signs Section content -->
  </section>
</component>
535  <component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.2.2' />
    <!-- Required if known History of Surgical Procedures Section content -->
  </section>
</component>
540  <component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.2' />
    <!-- Required Prenatal Events Section content -->
  </section>
</component>
545  <component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.2.1' />
    <!-- Required Estimated Delivery Date Section content -->
  </section>
</component>
550  <component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.11.2.2.1' />
    <!-- Required if known Care Plan Section content -->
  </section>
</component>
555  <component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.5.1' />
    <!-- Required if known Coded Antenatal Testing and Surveillance Section content -->
  </section>
</component>
560  <component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.20.2.4' />
    <!-- Required if known Pain Assessment Panel Section content -->
  </section>
</component>
565  <component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.5.1' />
    <!-- Required if known Coded Antenatal Testing and Surveillance Section content -->
  </section>
</component>
570  <component>
  <section>
```

575

```
</section>
</component>
</structuredBody></component>
</ClinicalDocument>
```

Figure 6.3.1.A.5-1 Sample Labor and Delivery History and Physical Document

Add section 6.3.1.B

580

6.3.1.B Labor and Delivery Summary 1.3.6.1.4.1.19376.1.5.3.1.1.21.1.2

The Labor and Delivery Summary (LDS) content profile represents a summary of the most critical information concerning the labor and delivery care in a birthing facility. The LDS is a Medical Summary and inherits all header constraints from Medical Summary. It also uses parts of the Labor and Delivery History and Physical profile where needed.

585

6.3.1.B.1 Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:pcc:lds:2009**

6.3.1.B.2 LOINC Code

The LOINC code for this document is **57057-2** Labor and delivery summary

6.3.1.B.3 Standards

CCD	ASTM/HL7 Continuity of Care Document
CDAR2	HL7 CDA Release 2.0
ACOG AR	American College of Obstetricians and Gynecologists (ACOG), Antepartum Record
LOINC	Logical Observation Identifiers, Names and Codes
SNOMED	Systemized Nomenclature for Medicine
CDTHP	CDA for Common Document Types History and Physical Notes (DSTU)

590

6.3.1.B.4 Specification

This section references content modules using Template ID as the key identifier. Definitions of the modules are found in either:

- IHE Patient Care Coordination Volume 2: Final Text
- IHE PCC Content Modules 2010-2011 Supplement

595

The Record Target of this CDA document shall reference the mother. All sections listed in Table 6.3.1.B.4-1 shall refer to the mother. All sections listed in Table 6.3.1.B.4-2 shall refer to the

newborn and shall include the subject at the section level. Multiple newborns shall be
 600 represented with each newborn having his/her own section.

Table 6.3.1.B.4-1 Labor and Delivery Summary Specification (Mother)

Template Name	Opt	Section Template Id	Value Set Template Id
Hospital Admission Diagnosis This section shall indicate the reasons for admitting the mother to the birthing facility (e.g. premature labor, ruptured membrane).	R	1.3.6.1.4.1.19376.1.5.3.1.3.3	N/A
Admission Medication History	R2	1.3.6.1.4.1.19376.1.5.3.1.3.20	N/A
Chief Complaint	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1	N/A
Transport Mode	R	1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2	N/A
Assessment and Plan This section should contain assessment of the mother's pregnancy status and expectations for care including proposals, goals, and order requests for her condition and the birthing process.	R2	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.5	N/A
Pain Assessment Panel	R	1.3.6.1.4.1.19376.1.5.3.1.1.20.2.4	N/A
Coded Results This section shall contain any lab draws during the delivery time interval including: Cord Blood Gas(es); Cord Blood for Type/Cross, Rh and Coomb's Test. The Antepartum Laboratory Value Set may be used to represent the results.	R	1.3.6.1.4.1.19376.1.5.3.1.3.28	1.3.6.1.4.1.19376.1.5.3.1.1.16.5.7
Coded Antenatal Testing and Surveillance	R2	1.3.6.1.4.1.19376.1.5.3.1.1.21.2.5.1	1.3.6.1.4.1.19376.1.5.3.1.1.21.3.10
History of Present Illness	R	1.3.6.1.4.1.19376.1.5.3.1.3.4	N/A
History of Past Illness This section shall include clinically relevant information to the labor and delivery. This section should use the codes as specified in the Antepartum History and Physical History of Past Illness Value Set .	R	1.3.6.1.4.1.19376.1.5.3.1.3.8	1.3.6.1.4.1.19376.1.5.3.1.1.16.5.1

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP),
Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

Template Name	Opt	Section Template Id	Value Set Template Id
<u>Problems</u>	R	1.3.6.1.4.1.19376.1.5.3.1.3.6	N/A
This section shall include the patient's current active problem list as well as any labor, delivery and/or operative complications the patient may have including significant fever > 100.4 .			
<u>Coded Advance Directives</u>	R2	1.3.6.1.4.1.19376.1.5.3.1.3.35	N/A
<u>Birth Plan</u>	R2	1.3.6.1.4.1.19376.1.5.3.1.1.21.2.1	N/A
<u>Allergies and Other Adverse Reactions</u>	R	1.3.6.1.4.1.19376.1.5.3.1.3.13	N/A
This section shall include one observation of Latex Allergy which may be negated through the negationInd attribute. Latex Allergy is particularly relevant for Obstetrics because of the frequency of vaginal exams that might involve the use of latex gloves. The observation value code for Latex Allergy is '300916003'. The codeSystem is '2.16.840.1.113883.6.96'. The codeSystemName is 'SNOMED CT'			
<u>Coded Physical Exam</u>	R	1.3.6.1.4.1.19376.1.5.3.1.1.9.15.1	N/A
This section shall also include mother's weight at delivery.			
<u>Estimated Delivery Date</u>	R	1.3.6.1.4.1.19376.1.5.3.1.1.11.2.2.1	N/A
<u>Medications Administered</u>	R	1.3.6.1.4.1.19376.1.5.3.1.3.21	N/A
This section shall include the following data elements including route, timing and indication: Anesthesia, Sedatives,Tocolytics,Oxytocin, Antihypertensives, Anticonvulsants/Antispasmodics, Opiates (IM or IV), Antibiotics, Other Medications			
<u>Intravenous Fluids Administered</u>	R2	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6	N/A
This section shall include the types of IV fluids the mother received.			
<u>Intake and Output</u>	R2	1.3.6.1.4.1.19376.1.5.3.1.1.20.2.3	N/A
This section shall include any intake and output while the newborn is in the delivery suite (excluding estimated blood loss) such as: first urine/void; stool; gastric output; and if breast fed in the delivery room.			
<u>Estimated Blood Loss</u>	R2	1.3.6.1.4.1.19376.1.5.3.1.1.9.2	N/A

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP),
Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

Template Name	Opt	Section Template Id	Value Set Template Id
<u>Transfusion History</u>	R	1.3.6.1.4.1.19376.1.5.3.1.1.9.12	N/A
<u>History of Surgical Procedures</u> This section shall contain any procedure that occurred during the interval between the Labor & Delivery History and Physical and the Labor & Delivery summary time frames.	R2	1.3.6.1.4.1.19376.1.5.3.1.1.16.2.2	N/A
<u>Labor and Delivery Events</u> This section shall contain information pertinent to the labor and delivery process including: date/time of labor onset, type of labor, duration of active phase of labor, spontaneous rupture of membranes (date/time), description of amniotic fluid (color, character, odor, amount/quantity), presence of particulate meconium, delivery obstetric provider, delivery date/time, placenta delivery date/time, weeks gestation at time of delivery, presentation of fetus at delivery and fetal monitoring findings.	R	1.3.6.1.4.1.19376.1.5.3.1.1.21.2.3	N/A
The subsection <u>Procedures and Interventions</u> with template ID 1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11 shall contain procedures and interventions specific to labor and delivery events. These may include induction, the delivery type (e.g. vaginal, vaginal birth after cesarean section or cesarean section along with incision type), electronic fetal monitoring, etc. The subsection <u>Event Outcomes</u> with template ID 1.3.6.1.4.1.19376.1.5.3.1.1.21.2.9 shall include event outcomes such as live birth or stillborn and also including maternal death with date/time.	R	1.3.6.1.4.1.19376.1.5.3.1.1.21.2.3	
<u>Intake and Output</u>	R2	1.3.6.1.4.1.19376.1.5.3.1.1.20.2.3	N/A

605

Table 6.3.1.B.4-2 Labor and Delivery Summary Specification (Newborn)

Template Name	Opt	Section Template Id	Value Set Template Id
<u>Coded Results</u> This section shall contain any lab draws during the delivery time interval including: Cord Blood Gas(es); Cord Blood for Type/Cross, Rh and Coomb's Test. The <u>Antepartum Laboratory Value Set</u> may be used to represent the results.	R	1.3.6.1.4.1.19376.1.5.3.1.3.28	1.3.6.1.4.1.19376.1.5.3.1.1.16.5.7

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP),
Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

Template Name	Opt	Section Template Id	Value Set Template Id
<p><u>Newborn Delivery Information</u> This section shall contain information pertaining to the newborns delivery including the birth date and time. This will be the same as the delivery date/time in the Labor and Delivery events section.</p> <p>The subsection <u>Coded Physical Exam</u> with template ID 1.3.6.1.4.1.19376.1.5.3.1.1.9.15.1 shall include information about the newborn such as: gender/sex of the newborn; birthweight; length; head circumference; cord vessel count; gestational age assessment; size (AGA, SGA or LGA); apgar score assessment ; vital signs, physical exam findings</p> <p>The subsection <u>Problems</u> with template ID 1.3.6.1.4.1.19376.1.5.3.1.3.6 shall describe problems that the newborn might have had during or immediately prior to delivery as well as delivery complications.</p> <p>The subsection <u>Medications Administered</u> with template ID 1.3.6.1.4.1.19376.1.5.3.1.3.21 shall include the medication that was administered to the newborn while in the birthing suite such as: Vitamin K (Aquamephyton) injection; erythromycin eye ointment; and resuscitation medications (if any) including date, time, and route of administration.</p> <p>The subsection <u>Event Outcomes</u> with template ID 1.3.6.1.4.1.19376.1.5.3.1.1.21.2.9 shall include the outcomes of the procedures and interventions such as a resuscitation event.</p>	R	1.3.6.1.4.1.19376.1.5.3.1.1.21.2.4	N/A
<u>Intake and Output</u>	R2	1.3.6.1.4.1.19376.1.5.3.1.1.20.2.3	N/A

6.3.1.B.5 Conformance

610 CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below. A CDA Document may conform to more than one template. This content module inherits from the [Medical Summary](#) content module, and so must conform to the requirements of that template as well, thus all <templateId> elements shown in the example below shall be included.

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP), Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

```
615 <ClinicalDocument xmlns='urn:hl7-org:v3'>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.2' /><!--Medical Summary-->
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.1.2' /><!--Labor and Delivery Summary-->
  <id root=' ' extension=' ' />
  <code code='57057-2' displayName='Labor and delivery summary'
    codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
  <title>Labor and Delivery Summary</title>
  <effectiveTime value='20080601012005' />
  <confidentialityCode code='N' displayName='Normal'
    codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
  <languageCode code='en-US' />
  :
  <component><structuredBody>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.3' />
        <!-- Required Hospital Admission Diagnosis Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.20' />
        <!-- Required if known Admission Medication History Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1' />
        <!-- Required Chief Complaint Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2' />
        <!-- Required Transport Mode Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.5' />
        <!-- Required if known Assessment and Plan Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.20.2.4' />
        <!-- Required Pain Assessment Panel Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.28' />
        <!-- Required Coded Results Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.5.1' />
        <!-- Required if known Coded Antenatal Testing and Surveillance Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.4' />
      </section>
    </component>
  </structuredBody>
</ClinicalDocument>
```

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP), Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

```
680      <!-- Required History of Present Illness Section content -->
681      </section>
682      </component>
683      <component>
684          <section>
685              <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.8' />
686              <!-- Required History of Past Illness Section content -->
687              </section>
688          </component>
689          <component>
690              <section>
691                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.6' />
692                  <!-- Required Problems Section content -->
693                  </section>
694          </component>
695          <component>
696              <section>
697                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.35' />
698                  <!-- Required if known Coded Advance Directives Section content -->
699                  </section>
700          </component>
701          <component>
702              <section>
703                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.1' />
704                  <!-- Required if known Birth Plan Section content -->
705                  </section>
706          </component>
707          <component>
708              <section>
709                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.13' />
710                  <!-- Required Allergies and Other Adverse Reactions Section content -->
711                  </section>
712          </component>
713          <component>
714              <section>
715                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.15.1' />
716                  <!-- Required Coded Physical Exam Section content -->
717                  </section>
718          </component>
719          <component>
720              <section>
721                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.11.2.2.1' />
722                  <!-- Required Estimated Delivery Date Section content -->
723                  </section>
724          </component>
725          <component>
726              <section>
727                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.21' />
728                  <!-- Required Medications Administered Section content -->
729                  </section>
730          </component>
731          <component>
732              <section>
733                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6' />
734                  <!-- Required if known Intravenous Fluids Administered Section content -->
735                  </section>
736          </component>
737          <component>
738              <section>
739                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.2.2' />
740                  <!-- Required if known History of Surgical Procedures Section content -->
741                  </section>
742          </component>
743          <component>
744              <section>
```

```
745      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.20.2.3' />
746      <!-- Required if known Intake and Output Section content -->
747      </section>
748      </component>
749      <component>
750          <section>
751              <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.2' />
752              <!-- Required if known Estimated Blood Loss Section content -->
753              </section>
754          </component>
755          <component>
756              <section>
757                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.12' />
758                  <!-- Required Transfusion History Section content -->
759                  </section>
760          </component>
761          <component>
762              <section>
763                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.2.2' />
764                  <!-- Required if known History of Surgical Procedures Section content -->
765                  </section>
766          </component>
767          <component>
768              <section>
769                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.3' />
770                  <!-- Required Labor and Delivery Events Section content -->
771                  </section>
772          </component>
773          <component>
774              <section>
775                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.4' />
776                  <!-- Required Newborn Delivery Information Section content -->
777                  </section>
778          </component>
779      </structuredBody></component>
780  </ClinicalDocument>
```

Figure 6.3.1.B.5-1 Sample Labor and Delivery Summary Document

Add section 6.3.1.C

6.3.1.C Maternal Discharge Summary 1.3.6.1.4.1.19376.1.5.3.1.1.21.1.3

785 The Maternal Discharge Summary (MDS) content profile represents a snapshot of the patient's postpartum stay until her discharge from the birthing facility. The MDS is a Medical Summary and inherits all header constraints from Medical Summary.

6.3.1.C.1 Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:pcc:mds:2009**

790 **6.3.1.C.2 LOINC Code**

The LOINC code for this document is **57058-0** Labor and delivery summary

6.3.1.C.3 Standards

CCD	ASTM/HL7 Continuity of Care Document
CDAR2	HL7 CDA Release 2.0
ACOG AR	American College of Obstetricians and Gynecologists (ACOG), Antepartum Record
LOINC	Logical Observation Identifiers, Names and Codes
SNOMED	Systemized Nomenclature for Medicine
CDTHP	CDA for Common Document Types History and Physical Notes (DSTU)

6.3.1.C.4 Specification

This section references content modules using Template ID as the key identifier. Definitions of the modules are found in either:

- IHE PCC TF-2 Final Text
- IHE PCC Content Modules 2010-2011 Supplement

Table 6.3.1.C.4-1 Maternal Discharge Summary Specification

Template Name	Opt	Section Template Id	Value Set Template Id
Hospital Admission Diagnosis	R	1.3.6.1.4.1.19376.1.5.3.1.3.3	N/A
Discharge Diagnosis	R	1.3.6.1.4.1.19376.1.5.3.1.3.7	N/A
Discharge Disposition This section shall include the discharge disposition such as discharge to home, transfer to another facility, expired (maternal death including date/time), etc.	R	1.3.6.1.4.1.19376.1.5.3.1.3.32	N/A
Transport Mode	R2	1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2	N/A
Discharge Status This section shall include the patient's status or condition at discharge such as stable, critical, etc.	R2	1.3.6.1.4.1.19376.1.5.3.1.1.21.2.12	N/A
Allergies and Other Adverse Reactions	R	1.3.6.1.4.1.19376.1.5.3.1.3.13	N/A
Hospital Course	R	1.3.6.1.4.1.19376.1.5.3.1.3.5	N/A
Coded Advance Directives	R2	1.3.6.1.4.1.19376.1.5.3.1.3.35	N/A
Hospital Discharge Medications	R	1.3.6.1.4.1.19376.1.5.3.1.3.22	N/A
Coded Hospital Studies Summary	R	1.3.6.1.4.1.19376.1.5.3.1.3.30	N/A
Coded Social History This section shall also include: Intimate Partner Violence Screening and Post-partum Depression Screening	R	1.3.6.1.4.1.19376.1.5.3.1.3.16.1	1.3.6.1.4.1.19376.1.5.3.1.4.13.4

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP),
Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

Template Name	Opt	Section Template Id	Value Set Template Id
Pain Assessment Panel	R2	1.3.6.1.4.1.19376.1.5.3.1.1.20.2.4	N/A
Problems This section shall also include any post-partum complications the patient encountered.	R2	1.3.6.1.4.1.19376.1.5.3.1.3.6	N/A
Braden Score	R2	1.3.6.1.4.1.19376.1.5.3.1.1.12.2.3	N/A
Post-Partum Treatment	R2	1.3.6.1.4.1.19376.1.5.3.1.1.21.2.7	N/A
Post-Partum Treatment: Care Plan This section shall include Contraception Plan, Diagnostic Studies Pending, Feeding Method and type (baby), Follow-up Appointment date/time and follow-up provider.	R2	1.3.6.1.4.1.19376.1.5.3.1.3.31	N/A
Post-Partum Treatment: Procedures and Interventions This section shall include all procedures occurring in the post-partum period including tubal ligation.	R2	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11	N/A
Post-Partum Treatment: Coded Results Relevant laboratory results shall be recorded and the Antepartum Laboratory Value Set should be used to represent the results including post-partum hemoglobin and hematocrit results.	R	1.3.6.1.4.1.19376.1.5.3.1.3.28	1.3.6.1.4.1.19376.1.5.3.1.1.16.5.7
Post-Partum Treatment: Immunizations	R2	1.3.6.1.4.1.19376.1.5.3.1.4.12	N/A
Post-Partum Treatment: Medications Administered	R2	1.3.6.1.4.1.19376.1.5.3.1.3.21	N/A
Post-Partum Treatment: Discharge Diet	R2	1.3.6.1.4.1.19376.1.5.3.1.3.33	N/A
Intravenous Fluid Administered This section shall include the types of IV fluids administered.	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6	N/A
Immunization Recommendations	R2	1.3.6.1.4.1.19376.1.5.3.1.1.18.3.1	N/A
Estimated Blood Loss	R2	1.3.6.1.4.1.19376.1.5.3.1.1.9.2	N/A
Transfusion History	R	1.3.6.1.4.1.19376.1.5.3.1.1.9.12	N/A
Patient Education	R2	1.3.6.1.4.1.19376.1.5.3.1.1.9.38	N/A

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP),
Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

Template Name	Opt	Section Template Id	Value Set Template Id
<u>Labor and Delivery Events: Procedures and Interventions</u> This section shall include information about the delivery type (e.g., vaginal, vaginal birth after cesarean section or cesarean section along with incision type.	R2	1.3.6.1.4.1.19376.1.5.3.1.1.21.2.9	N/A
<u>Provider Orders</u> This section shall include information about the patient's discharge activity.	R	1.3.6.1.4.1.19376.1.5.3.1.1.20.2.1	N/A
<u>Consultations</u> This section shall include consultations such as a lactation consultation.	R2	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.8	N/A
<u>NDS Header Module</u> This section shall include the first and last name of the baby at birth, at discharge and the baby's unique identifier.	R	?	
<u>LDS: Newborn Delivery Information</u> This section shall include information such as the birth date and time; birthweight; head circumference; sex/gender of newborn, etc.	R	1.3.6.1.4.1.19376.1.5.3.1.1.21.2.4	N/A
<u>NDS Procedures and Interventions:</u> This section shall include procedures such as a circumcision (if male).	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11	N/A
<u>NDS: Care Plan</u> This section shall contain information regarding the plans for the newborn including feeding plan; pediatrician's name, etc.	R	1.3.6.1.4.1.19376.1.5.3.1.3.31	N/A
<u>Newborn Status at Maternal Discharge</u>	R	1.3.6.1.4.1.19376.1.5.3.1.1.21.2.8	N/A
<u>Event Outcomes</u> This section shall include a narrative description of the outcomes following a procedure, an intervention or a problem during the post-partum period of the hospitalization.	R	1.3.6.1.4.1.19376.1.5.3.1.1.21.2.9	N/A

6.3.1.C.5 Conformance

CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below. A CDA Document may 805 conform to more than one template. This content module inherits from the [Medical Summary](#) content module, and so must conform to the requirements of that template as well, thus all <templateId> elements shown in the example below shall be included.

810

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP), Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.2' /> <!--Medical Summary-->
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.1.3' /> <!--Maternal Discharge Summary-->
  <id root=' ' extension=' ' />
  <code code='57058-0' displayName='Maternal discharge summary'
    codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
  <title>Maternal Discharge Summary</title>
  <effectiveTime value='20080601012005' />
  <confidentialityCode code='N' displayName='Normal'
    codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
  <languageCode code='en-US' />
  :
  <component><structuredBody>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.3' />
        <!-- Required Hospital Admission Diagnosis Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.7' />
        <!-- Required Discharge Diagnosis Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.32' />
        <!-- Required Discharge Disposition Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2' />
        <!-- Required if known Transport Mode Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.12' />
        <!-- Required if known Discharge Status Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.13' />
        <!-- Required Allergies and Other Adverse Reactions Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.5' />
        <!-- Required Hospital Course Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.35' />
        <!-- Required if known Coded Advance Directives Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.22' />
      </section>
    </component>
  </structuredBody>
</ClinicalDocument>
```

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP), Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

```
    <!-- Required Hospital Discharge Medications Section content -->
    </section>
</component>
<component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.29' />
        <!-- Required Coded Hospital Studies Summary Section content -->
        </section>
    </component>
    <component>
        <section>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1' />
            <!-- Required Coded Social History Section content -->
            </section>
        </component>
        <component>
            <section>
                <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.20.2.4' />
                <!-- Required if known Pain Assessment Panel Section content -->
                </section>
            </component>
            <component>
                <section>
                    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.6' />
                    <!-- Required if known Problems Section content -->
                    </section>
                </component>
                <component>
                    <section>
                        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.2.3' />
                        <!-- Required if known Braden Score Section content -->
                        </section>
                    </component>
                    <component>
                        <section>
                            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.7' />
                            <!-- Required if known Post-partum Treatment Section content -->
                            </section>
                        </component>
                        <component>
                            <section>
                                <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6' />
                                <!-- Required Intravenous Fluid Administered Section content -->
                                </section>
                            </component>
                            <component>
                                <section>
                                    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.18.3.1' />
                                    <!-- Required if known Immunization Recommendations Section content -->
                                    </section>
                                </component>
                                <component>
                                    <section>
                                        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.2' />
                                        <!-- Required if known Estimated Blood Loss Section content -->
                                        </section>
                                    </component>
                                    <component>
                                        <section>
                                            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.12' />
                                            <!-- Required Transfusion History Section content -->
                                            </section>
                                        </component>
                                        <component>
                                            <section>
```

IHE Technical Framework Supplement – Labor and Delivery History and Physical (LDHP), Labor and Delivery Summary (LDS), Maternal Discharge Summary (MDS)

```
945      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.38' />
         <!-- Required if known Patient Education Section content -->
         </section>
         </component>
         <component>
           <section>
             <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.9' />
             <!-- Required Labor and Delivery Events Section content -->
             </section>
           </component>
           <component>
             <section>
               <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.20.2.1' />
               <!-- Required Provider Orders Section content -->
             </section>
           </component>
           <component>
             <section>
               <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.8' />
               <!-- Required if known Consultations Section content -->
             </section>
           </component>
           <component>
             <section>
               <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.4' />
               <!-- Required Newborn Delivery Information Section content -->
             </section>
           </component>
           <component>
             <section>
               <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11' />
               <!-- Required Procedures and Interventions Section content -->
             </section>
           </component>
           <component>
             <section>
               <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.31' />
               <!-- Required Care Plan Section content -->
             </section>
           </component>
           <component>
             <section>
               <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.8' />
               <!-- Required Newborn Status at Maternal Discharge Section content -->
             </section>
           </component>
           <component>
             <section>
               <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.9' />
               <!-- Required Event Outcomes Section content -->
             </section>
           </component>
         </structuredBody></component>
       </ClinicalDocument>
```

995 **Figure 6.3.1.C.5-1 Sample Maternal Discharge Summary Document**