



RESOURCE AND PATIENT MANAGEMENT SYSTEM

Data Warehouse Export System

(BDW)

Patch Addendum for DW1 HL7 Specification

Version 1.0 Patch 3
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Table of Contents

1.0	Introduction.....	1
1.1	Statement of Intent	1
1.2	Scope	1
1.3	Reference Document.....	1
1.4	Information and Contacts.....	2
2.0	General Specifications.....	3
2.1	Applicable Standard.....	3
2.2	Communication Protocol.....	3
2.2.1	Serial Port Communications (RS232) – Not Available in GIS.....	3
2.2.2	Batch File Transfer – Available in GIS (future)	3
2.3	Application Processing Rules	3
2.4	Specification Description	3
2.4.1	Segment Attribute Tables	4
2.5	Message Delimiters	6
2.6	Data Type Descriptions	6
3.0	ADT Event Support.....	7
3.1	Trigger Events	7
3.1.1	Supported Inbound Events	7
3.2	Message Definitions	7
3.2.1	ADT - Update Patient Information (Event A08).....	7
3.2.2	ADT - Update Person Information (Event A31).....	8
3.3	Message Segments.....	9
3.3.1	BHS – Batch Header Segment (All Events).....	9
3.3.2	IHS Batch Header Segment (All Events).....	11
3.3.3	MSH - Message Header Segment (All Events).....	11
3.3.4	MSA Message Acknowledgment Segment (All Events)	14
3.3.5	EVN - Event Type Segment (All Events)	15
3.3.6	PID - Patient Identification Segment (All Events).....	15
3.3.7	ZRB – IHS Base Registration	18
3.3.8	ZP2 – IHS Patient Information (All Events).....	19
3.3.9	ZRD – IHS Demographic State.....	21
3.3.10	ZRL – IHS Alias	22
3.3.11	ZRC – IHS Chart	23
3.3.12	IN1 – Insurance	24
3.3.13	ZIN – IHS Third Party Eligibility	28
3.3.14	PV1 - Patient Visit Segment (A08).....	29
3.3.15	ZV1 – IHS Patient Visit Information (A08)	32
3.3.16	ZVP – IHS Patient Provider (A08)	35
3.3.17	ZCH – CHS (A08).....	36
3.3.18	ZFI – CHS FI (A08).....	37
3.3.19	DG1 – Diagnosis (A08).....	38

3.3.20	ZDX – IHS Diagnosis (A08).....	39
3.3.21	PR1 - Procedure (A08).....	40
3.3.22	ZPR – IHS Procedure Extension (Event A08)	41
3.3.23	ZPN – IHS PHN (Event A08).....	42
3.3.24	ZDN – IHS Dental (Event A08).....	43
3.3.25	ZDP – IHS Dental Op(Event A08)	44
3.3.26	ZIM – IHS Immunization (Event A08)	44
3.3.27	ZMD – IHS Medication (Event A08).....	45
3.3.28	ZEN – IHS Encounter (Event A08)	45
3.3.29	OBX – Health Factors (Event A08).....	47
3.3.30	OBX – Measurements (Event A08)	47
3.3.31	OBX – Exam (Event A08).....	48
3.3.32	OBX – CPT (Event A08).....	48
3.3.33	OBX – Lab (Event A08)	49
3.3.34	OBX – Patient Education (Event A08).....	50
3.3.35	OBX – Skin Test (Event A08)	51
Glossary.....		52
Acronym List		53
Contact Information		54

Preface

This document specifies an interface between the Indian Health Service (IHS) Resource and Patient Management System (RPMS) and a non-RPMS data system based on the Health Level Seven (HL7) protocol standard. It is intended that this interface form the basis for the exchange of health care data between the IHS DW1 package(s) and the non-RPMS information system.

1.0 Introduction

1.1 Statement of Intent

The IHS is developing and plans to implement a generic interface, using the HL7 protocol standard, for use by the IHS DW1 package(s) in communicating with non-RPMS systems for the purpose of exchanging health care data. The interface will adhere to the HL7 standard to the greatest extent possible and will only use “Z” extensions where it becomes absolutely necessary (for example, to convey information specific to the IHS). This interface specification is subject to modification and/or revision to incorporate changes, improvements, and enhancements. Later versions may support additional functionality of the current HL7 protocol (currently 2.4) and new functionality released in future versions of the HL7 protocol.

1.2 Scope

This document describes messages that are transmitted between the RPMS and a non-RPMS information system for the purpose of exchanging health care data. These data can include, but are not necessarily limited to, patient demographics, immunizations, pharmacy prescriptions, and other types of medical information.

1.3 Reference Document

This document describes a specific implementation of the mapping between HL7 segments, events, and messages, and RPMS files and fields. For a complete description of this mapping, please refer to the following document:

IHS DW1 HL7 Segments to IHS Files Mapping - For each relevant HL7 segment, and the IHS-designed extensions, this document identifies the sequence numbers and lists what RPMS file and field each sequence number is mapped to. For example, this document states that the Patient Name field in the Patient Identification segment (PID:5) is mapped to the Patient file (File 9000001), Name field (Field .01).

1.4 Information and Contacts

For more information, or to obtain a copy of these documents, please contact the following individual:

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2.0 General Specifications

2.1 Applicable Standard

This interface will be implemented using the HL7 Standard, Version 2.4, in order to take advantage of data types, segments and messages that are not available in earlier versions of the Standard.

2.2 Communication Protocol

The HL7 Standard defines only the seventh level of the Open Systems Interconnect (OSI) model. This is the application level. Levels one through six involve primarily communications protocols. The HL7 Standard provides some guidance in this area.

2.2.1 Serial Port Communications (RS232) – Not Available in GIS

Currently, the most common communication protocol for an IHS interface is interactive RS232, using the Hybrid Lower Layer Protocol (HLLP) described in the HL7 Standard. This protocol is not an official part of the Standard, but is provided as an aid to implementation of the Standard using a serial (RS232) connection. Specific implementation issues that are not covered in the Standard will be negotiated on a case-by-case basis.

2.2.2 Batch File Transfer – Available in GIS (future)

A batch file option is available. If this option is selected, the HL7 messages are written to an operating-system-level file instead of being queued for real-time transmission. TCP/IP Protocol

An inbound socket, as well as an outbound socket, are necessary for each site that information is being transmitted/received.

2.3 Application Processing Rules

The HL7 Standard Version 2.4, describes the basic rules for application processing by the sending and receiving systems. Information contained in the standard will not be repeated here; therefore, anyone wishing to interface with the DW1 should become familiar with the HL7 Standard.

2.4 Specification Description

Subsequent chapters of this specification describe the HL7 messages that are supported by RPMS. Each chapter is organized as follows:

- *Trigger Events* - A table of supported outbound and inbound trigger events is provided. A trigger event is the real world event that initiates an exchange of messages.
- *Message Definitions* - For each supported trigger event, the message that is sent when the trigger event occurs is defined using the HL7 abstract message syntax as follows:
 - Each message is defined in special notation that lists the segment IDs in the order they would appear in the message. Braces, { . . . }, indicate one or more repetitions of the enclosed group of segments. (The group may contain only a single segment.) Brackets, [. . .], show that the enclosed group of segments is optional. If a group of segments is optional and may repeat it should be enclosed in brackets and braces, {[. . .]}.
- *Message Segments* - The segments are listed with a description of the fields which they contain. A segment is a logical grouping of data fields.

2.4.1 Segment Attribute Tables

The various chapters of this specification contain segment attribute tables. These tables list and describe the data fields in the segment and characteristics of their usage. In defining a segment, the following information is specified about each field:

2.4.1.1 Sequence

Ordinal position of the data field within the segment. In the segment attribute tables this information is in a column labeled *Seq*.

2.4.1.2 Maximum Length

Maximum number of characters that DW1 will support for one occurrence of the data field. The maximum length of each field component is listed behind the component name in the text comments that follow the segment definition table. In the segment attribute tables this information is in a column labeled *Len*.

2.4.1.3 Data Type

Restrictions on the contents of the data field. There are a number of data types defined by HL7. These are explained in the text comments that follow the segment definition table where applicable. In the segment attribute tables this information is in a column labeled *DT*.

2.4.1.4 Optionality

Whether the field is required, optional, or conditional in a segment. The designations are:

- R Required Outbound
- O Optional (a blank is used to make the table easier to view)
- C Conditional on the trigger event or on some other field(s). The field definitions following the segment attribute table specify the conditions for this field.
- X Not used with this trigger event
- B Left in for backward compatibility with previous versions of HL7

In the segment attribute tables this information is in a column labeled *Opt*.

2.4.1.5 Repetition

The maximum number of repetitions supported by the DW1 database. The designations are:

- Blank No repetition
- Y The field may repeat an indefinite or site-determined number of times
- (integer) The field may repeat up to the number of times specified in the integer

Each occurrence may contain the number of characters specified by the field's maximum length. In the segment attribute tables this information is in a column labeled *RP/#*.

2.4.1.6 Item Number

Integer that uniquely identifies the data field. In the segment attribute tables this information is in a column labeled *Item #*.

2.4.1.7 Element Name

Descriptive name for the field. In the segment attribute tables this information is in a column labeled *Element Name*.

2.4.1.8 Supported

Whether the field is supported by DW1. In the segment attribute tables, this information is in a column labeled *Sup*.

- I Supported Inbound

- O Supported Outbound
- B Supported Both Inbound and Outbound

2.5 Message Delimiters

The IHS will use the message delimiters that are recommended in the HL7 Standard, as listed below:

Segment Terminator:	<CR> (carriage return; in ASCII, a hex 0D)
Field Separator:	
Component Separator:	^
Sub-Component Separator:	&
Repetition Separator:	~
Escape Character:	\

The Field Separator is the primary delimiter for the message segments and is always the fourth character in the MSH segment. The other delimiters immediately follow the Field Separator as shown here: ^~\& (e.g., the Component Separator is first, followed by the Repetition Separator, the Escape Character, and finally the Sub-Component Separator).

While the IHS has the capability to extract and use any set of delimiting characters that may be present in a message, it is recommended that the non-RPMS information system also use the delimiters defined above, both for consistency and to enhance conformity with the Standard.

2.6 Data Type Descriptions

The data types and their descriptions are fully described in the HL7 Standard, Version 2.4, and will not be repeated here.

3.0 ADT Event Support

3.1 Trigger Events

3.1.1 Supported Inbound Events

Event	Description
A08	ADT/ACK - Update patient information
A31	ADT/ACK - Update person information

3.2 Message Definitions

3.2.1 ADT - Update Patient Information (Event A08)

This trigger event is used when any patient information has changed but when no other trigger event has occurred. Visit information updates are appropriate.

Each Batch will be wrapped with a batch header and batch trailer with the following segments:

Header:

BHS – Batch Header Segment

ZHS – IHS Batch Header Segment

Trailer:

ZTS – IHS Batch Trailer Segment

BTS – Batch Trailer Segment

Inbound Supported Segments:

Segment	Description
MSH	Message Header
EVN	Event Type
PID	Patient Identification
ZP2	IHS Patient Information
PV1	Patient Visit
ZV1	IHS Patient Visit
ZEN	IHS Encounter
{ZVP}	IHS Patient Provider

Segment	Description
ZCH	IHS CHS
ZFI	IHS CHS FI
{PR1}	Procedure
ZPR	IHS Procedure
ZPN	IHS PHN
{ZDN}	IHS Dental
ZDP	IHS Dental Op
{ZIM}	IHS Immunization
{ZMD}	IHS Medication
{OBX}	Health Factors
{OBX}	Measurements
{OBX}	Exams
{OBX}	CPT
{OBX}	Labs
{OBX}	Patient Education
{OBX}	Skin Tests

3.2.2 ADT - Update Person Information (Event A31)

An A31 event is similar to an A08 (update patient information) event, but an A08 (update patient information) event should be used to update patient information for a visit. This event does not replace the use of the A08 events. It is not intended to be used for notification of real-time registration events. This event is primarily for demographic data. A31 segments for a particular patient should precede any A08 for the same patient.

Inbound Supported Segments:

Segment	Description
MSH	Message Header
EVN	Event Type
PID	Patient Identification
ZRB	IHS Base Registration
ZP2	IHS Patient Demographics
ZRD	IHS Demographic State
ZRL	IHS Alias
ZRC	IHS Chart
{IN1}	Insurance
ZIN	IHS Third Party Eligibility

3.3 Message Segments

3.3.1 BHS – Batch Header Segment (All Events)

3.3.1.1 BHS Attributes

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	1	ST	R		00081	Batch Field Separator	
2	3	ST	R		00082	Batch Encoding Characters	
3	15	ST	O		00083	Batch Sending Application	
4	20	ST	O		00084	Batch Sending Facility	
5	15	ST	O		00085	Batch Receiving Application	
6	20	ST	O		00086	Batch Receiving Facility	
7	26	TS	O		00087	Batch Creation Date/Time	
8	40	ST	O		00088	Batch Security	
9	20	ST	O		00089	Batch Name/ID/Type	
10	80	ST	O		00090	Batch Comment	
11	20	ST	O		00091	Batch Control ID	
12	20	ST	O		00092	Reference Batch Control ID	

3.3.1.2 BHS Field Definitions

BHS-1 Batch field separator (ST) 00081

This field contains the separator between the segment ID and the first real field, *BHS-2-batch encoding characters*. As such it serves as the separator and defines the character to be used as a separator for the rest of the message. Recommended value is |,(ASCII 124).

BHS-2 Batch encoding characters (ST) 00082

This field contains the four characters in the following order: the component separator, repetition separator, escape characters, and subcomponent separator. Recommended values are ^~\& (ASCII 94, 126, 92, and 38, respectively).

BHS-3 Batch sending application (ST) 00083

This field uniquely identifies the sending application among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise. Will be RPMS at all RPMS sites and the name of the application at Non RPMS Sites.

BHS-4 Batch sending facility (ST) 00084

This field contains the address of one of several occurrences of the same application within the sending system. Absent other considerations, the Medicare Provider ID might be used with an appropriate sub-identifier in the second component. ASUFAC code of the sending facility.

BHS-5 Batch receiving application (ST) 00085

This field uniquely identifies the receiving applications among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise. Will be DW1.

BHS-6 Batch receiving facility (ST) 00086

This field identifies the receiving application among multiple identical instances of the application running on behalf of different organizations. See comments *BHS-4-batch sending facility*. Will be IHS.

BHS-7 Batch creation date/time (TS) 00087

This field contains the date/time that the sending system created the message. If the time zone is specified, it will be used throughout the message as the default time zone.

BHS-8 Batch security (ST) 00088

In some applications of HL7, this field is used to implement security features. Its use is not yet further specified.

BHS-9 Batch name/ID/type (ST) 00089

This field can be used by the application processing the batch. It can have extra components if needed. Unique ID for the batch, will be batch log IEN from RPMS.

BHS-10 Batch comment (ST) 00090

This field is a comment field that is not further defined in the HL7 protocol. Will be the external name of the facility.

BHS-11 Batch control ID (ST) 00091

This field is used to uniquely identify a particular batch. It can be echoed back in *BHS-12-reference batch control ID* if an answering batch is needed. This will be the site ASUFAC code concatenated with what is in BHS-9, will be ASUFAC and IEN of batch log for RPMS Sites.

BHS-12 Reference batch control ID (ST) 00092

This field contains the value of *BHS-11-batch control ID* when this batch was originally transmitted. Not present if this batch is being sent for the first time. See definition for *BHS-11-batch control ID*.

3.3.2 IHS Batch Header Segment (All Events)**3.3.2.1 ZHS Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	8	DT	R			Export Begin Date	Y
2	8	DT	R			Export End Date	Y
3	7	ST	R			PCC Export Log Number	Y

3.3.2.2 ZHS Field Definitions**BHS-1 Export Begin Date (DT)**

This field contains the begin date of the export.

BHS-2 Export t End Date (DT)

This field contains the end date of the export.

BHS-3 PCC Export Log Number (ST)

This field contains the PCC Export Log Number from RPMS sites.

3.3.3 MSH - Message Header Segment (All Events)**3.3.3.1 MSH Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	1	ST	R		00001	Field Separator	Y
2	4	ST	R		00002	Encoding Characters	Y

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
3	180	HD	O		00003	Sending Application	Y
4	180	HD	O		00004	Sending Facility	Y
5	180	HD	O		00005	Receiving Application	Y
6	180	HD	O		00006	Receiving Facility	Y
7	26	TS	R		00007	Date/Time Of Message	Y
8	40	ST	O		00008	Security	Y
9	13	CM	R		00009	Message Type	Y
10	20	ST	R		00010	Message Control ID	Y
11	3	PT	R		00011	Processing ID	Y
12	60	VID	R		00012	Version ID	Y
13	15	NM	O		00013	Sequence Number	Y
14	180	ST	O		00014	Continuation Pointer	Y
15	2	ID	O		00015	Accept Acknowledgment Type	Y
16	2	ID	O		00016	Application Acknowledgment Type	Y
17	3	ID	O		00017	Country Code	
18	16	ID	O	Y	00692	Character Set	
19	250	CE	O		00693	Principal Language Of Message	
20	20	ID	O		01317	Alternate Character Set Handling Scheme	
21	10	ID	O	Y	01598	Conformance Statement ID	

3.3.3.2 MSH Field Definitions

Field Separator (ST) 00001

This field contains the separator between the segment ID and the first real field, *MSH-2-encoding characters*. As such it serves as the separator and defines the character to be used as a separator for the rest of the message. RPMS will use |, (ASCII 124), but this value may be overridden, if necessary.

Encoding Characters (ST) 00002

This field contains the four characters in the following order: the component separator, repetition separator, escape character, and subcomponent separator. RPMS will use ^~\&, (ASCII 94, 126, 92, and 38, respectively), but these values may be overridden, if necessary.

Sending Application (HD) 00003

On outbound transactions, this field defines which RPMS application that originated this message. On inbound messages it will identify the sending application.

Sending Facility (HD) 00004

On outbound transactions, this field contains the ASUFAC code. For inbound messages it will be the sending system.

Receiving Application (HD) 00005

This field uniquely identifies the receiving application.

Receiving Facility (HD) 00006

This field identifies the receiving facility. For outbound transactions it will be blank.

Date/time of Message (TS) 00007

This field contains the date/time that the message was created. It may be sent with or without including the seconds.

Message Type (CM) 00009

Components: <message type> ^ <trigger event>

The second component is not required on response or acknowledgment messages.

Message Control ID (ST) 00010

Processing ID (PT) 00011

D Debug

P Production

T Training

Version ID (ID) 00012

The DW1 package supports version 2.4

Accept Acknowledgement Type (ID) 00012

Application Acknowledgement Type(ID) 00012

3.3.4 MSA Message Acknowledgment Segment (All Events)

The MSA segment contains information sent while acknowledging another message.

3.3.4.1 MSA Attributes

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	2	ID	R		00018	Acknowledgment Code	B
2	20	ST	R		00010	Message Control ID	B
3	80	ST	O		00020	Text Message	
4	15	NM	O		00021	Expected Sequence Number	
5	1	ID	B		00022	Delayed Acknowledgment Type	
6	250	CE	O		00023	Error Condition	

3.3.4.2 MSA Field Definitions

Acknowledgment Code (ID) 00018

CA Application Accept

CE Application Error

CR Application Reject

Message Control ID(ST) 00010

This field contains the message control ID of the original message sent by the sending system. It allows the sending system to associate this response with the message for which it is intended.

3.3.5 EVN - Event Type Segment (All Events)

3.3.5.1 EVN Attributes

Seq	Len	DT	OPT	RP/#	Item #	Element Name	Sup
1	3	ID	B		00099	Event Type Code	B
2	26	TS	R		00100	Recorded Date/Time	B
3	26	TS	O		00101	Date/Time Planned Event	
4	3	IS	O		00102	Event Reason Code	
5	250	XCN	O	Y	00103	Operator ID	
6	26	TS	O		01278	Event Occurred	
7	180	HD	O		01534	Event Facility	

3.3.5.2 EVN Field Definitions

Event Type Code (ID) 00099

This field has been retained for backward compatibility only. We recommend using the second component (trigger event) of MSH-9-message type to transmit event type code information. This field contains the events corresponding to the trigger events described in the previous section.

Recorded Date/time (TS) 00100

Duplicates MSH:7

3.3.6 PID - Patient Identification Segment (All Events)

3.3.6.1 PID Attributes

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	4	SI			00104	Set ID - PID	
2	20	CX			00105	Patient ID	
3	250	CX	R	Y	00106	Patient Identifier List	B

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
4	20	CX	R	Y	00107	Alternate Patient ID - PID	
5	250	XPN	R	Y	00108	Patient Name	B
6	250	XPN		Y	00109	Mother's Maiden Name	B
7	26	TS	R		00110	Date/Time of Birth	B
8	1	IS	R		00111	Administrative Sex	B
9	250	XPN	R	Y	00112	Patient Alias	B
10	250	CE		Y	00113	Race	
11	250	XAD	R	Y	00114	Patient Address	B
12	4	IS			00115	County Code	
13	250	XTN		Y	00116	Phone Number - Home	B
14	250	XTN		Y	00117	Phone Number - Business	B
15	250	CE			00118	Primary Language	
16	250	CE			00119	Marital Status	
17	250	CE			00120	Religion	B
18	250	CX			00121	Patient Account Number	
19	16	ST	R		00122	SSN Number - Patient	B
20	25	DLN			00123	Driver's License Number - Patient	
21	250	CX		Y	00124	Mother's Identifier	
22	250	CE		Y	00125	Ethnic Group	
23	250	ST			00126	Birth Place	
24	1	ID			00127	Multiple Birth Indicator	
25	2	NM			00128	Birth Order	
26	250	CE		Y	00129	Citizenship	
27	250	CE	R		00130	Veterans Military Status	B
28	250	CE			00739	Nationality	

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
29	26	TS	R		00740	Patient Death Date and Time	B
30	1	ID			00741	Patient Death Indicator	B
31	1	ID			01535	Identity Unknown Indicator	
32	20	IS		Y	01536	Identity Reliability Code	
33	26	TS			01537	Last Update Date/Time	
34	40	HD			01538	Last Update Facility	
35	250	CE			01539	Species Code	
36	250	CE			01540	Breed Code	
37	80	ST			01541	Strain	
38	250	CE		2	01542	Production Class Code	

3.3.6.2 PID field definitions

Patient ID List (CX) 00106

Components: <Unique Registration ID (ST)> ^IEN of the entry>^Integration Control Number (ICN)

The IHS will use a combination of the ASUFAC facility code and the IEN with leading zeros, the total length of the first component will be 16.

Alternate Patient ID (CX) 00106

This will be the ASUFAC code concatenated with the Chart number with leading zeroes on the chart number up to 6 digits

Patient Name (XPN) 00108

Components: <last name> ^ <first name> ^ <middle initial or name> ^ <suffix (e.g., JR or III)> ^ <prefix (e.g., DR)>

Date/Time of Birth (TS) 00110

This field will contain only the patient's date of birth in the format CCYYMMDD. Date of birth is crucial for performing person matching on inbound ADT events.

Patient Sex (IS) 00111

Patient sex is crucial for performing person matching on inbound ADT events.

Patient Address (XAD) 00114

Components: <street address> ^ <additional street address> ^ <city> ^
<state> ^ <zip or postal code> ^ <country> ^ ^ <county>

SSN Number Patient (ST) 00122

Format options include:

Social Security number without dashes- Default

Social Security Number is crucial for performing person matching on inbound ADT events.

Veterans Military Status (CE) 00130

The IHS only stores a yes/no value to indicate whether the patient was a veteran. This accounts for the nonstandard data type and field length for this field.

Patient Death Date and Time (TS) 00740

This field will contain only the patient's date of death in the format CCYYMMDD.

3.3.7 ZRB – IHS Base Registration**3.3.7.1 ZRB Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	8	DT	R			Date of Last Mod of Any Base Reg	
2	4	NM	R			Time of Last Mod of Any Base Reg	
3	1	ST	R			Any Base Reg Field Mod Since Last Export	
4	1	ST	R			Load Code	
5	6	ST	R			Cause of Death	

3.3.7.2 ZRB Field Definitions**Date of Last Mod of Any Base Reg (DT)**

This field will contain the date in CCCCMMDD format, of any base record field that was last modified.

Time of Last Mod of Any Base Reg (NM)

This field will contain the time in HHMM format, of any base record field that was last modified.

Any Base Reg Field Mod Since Last Export (ST)

This field will be a Y or N answer.

Load Code (ST)

Not Used.

Cause of Death (ST)

This field will be a valid ICD9 code, in the format XXX.XX

3.3.8 ZP2 – IHS Patient Information (All Events)**3.3.8.1 ZP2 Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	8	DT	R			Date Established	B
2	8	DT				Date of last Reg Update	B
3	8	DT				Med/RR Release Date	B
4	8	DT				Med/RR Release Revoked Date	B
5	12	ST				Tribal Enrollment Number	B
6	60	CE				CHS Tribal Affiliation	B
7	3	ID				Blood Type	B
8	8	DT				Date of Last Update	B
9	8	DT				Assign Benefits Obtained Date	B
10	8	DT				Assign Benefits Expired Date	B
11	60	CE	R			SSN Verification Status	B
12	60	CE				Reason for no SSN	B
13	40	AD				Birth Place	B
14	6	ST				Birth Certificate Number	B

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
15	60	CE	R			Tribe of Membership	B
16	12	ST	R			Tribe Quantum	B
17	12	ST				Indian Blood Quantum	B
18	60	CE	R			Classification/Beneficiary	B
19	8	DT	R			Current Residence Date	B
20	2	ID				State of Death	B
21	6	ST				Death Certificate Number	B
22	60	ST	R			Current Community	B
23	60	CE				Tribe Membership Verified Flag	B
24	1	ID				Residence Verified Flag	B
25	8	DT				Date Eligibility Determined	B
26	60	CE				Eligible Minor Child	B
31	48	PN	R			Father's Name	B
32	40	AD				Father's Birth Place	B
33	40	AD				Mother's Birth Place	B
34	30	ST	R			Eligibility	
35	30	PN	R			Mothers Name	

3.3.8.2 ZP2 Field Definitions

Date Established (DT)

This is the date the record was established.

SSN Verification Status (CE)

Components: <IHS internal value>

Reason For No SSN (CE)

Components: <IHS internal value>

Tribe Of Membership (CE)

Components: <tribe code>

Tribe Quantum (ST)

Classification and Beneficiary (CE)

Components: <IHS internal value>

Current Residence Date (DT)

In the format CCCCMMDD

Current Community (ST)**Father's Name (PNM)**

In the format: Last Name ^ First Name ^ Middle

Eligibility (ST)

Components: <IHS Internal Value>

Mother's Name (PNM)

In the format: Last Name ^ First Name ^ Middle

3.3.9 ZRD – IHS Demographic State**3.3.9.1 ZRD Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	8	DT	R			Date of Last Mod of Any Demo Reg	
2	4	NM	R			Time of Last Mod of Any Demo Reg	
3	1	ST	R			Any Demo Reg Field Mod Since Last Export	
4	1	ST	R			Load Code	
5	30	ST	R			Patients Full Name	
6	5	ST	R			Patients Title	
7	5	ST	R			Patients Name Suffix	
8	6	ST	R			Reg Record Status Code	

3.3.9.2 ZRD Field Definitions**Date of Last Mod of Any Demo Reg (DT)**

This field will contain the date in CCCCMMDD format, of any base record field that was last modified.

Time of Last Mod of Any Demo Reg (NM)

This field will contain the time in HHMM format, of any base record field that was last modified.

Any Demo Reg Field Mod Since Last Export (ST)

This field will be a Y or N answer.

Load Code (ST)

Not Used.

Patients Full Name (ST)

Exactly as is in the database.

Patients Title (ST)

Will be the patient's title.

Patients Name Suffix (ST)

Will be the patient's suffix.

Reg Record Status Code (ST)**3.3.10 ZRL – IHS Alias****3.3.10.1 ZRL Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	8	DT	R			Date of Last Mod of Any Alias Field	
2	4	NM	R			Time of Last Mod of Any Alias Field	
3	1	ST	R			Any Alias Reg Field Mod Since Last Export	
4	1	ST	R			Load Code	
5	7	NM	R			Local Database ID for this Alias	
6	48	PN	R			Alias Name	

3.3.10.2 ZRL Field Definitions**Date of Last Mod of Any Alias Field (DT)**

This field will contain the date in CCCCMMDD format, of any base record field that was last modified.

Time of Last Mod of Any Alias Field (NM)

This field will contain the time in HHMM format, of any base record field that was last modified.

Any Alias Reg Field Mod Since Last Export (ST)

This field will be a Y or N answer.

Load Code (ST)

Not Used.

Local Database ID for this Alias (NM)

IEN of this Alias

Alias Name (PN)

In the format: Last Name ^ First Name ^ Middle

3.3.11 ZRC – IHS Chart**3.3.11.1 ZRC Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	8	DT	R			Date of Last Mod of Any Chart Field	
2	4	NM	R			Time of Last Mod of Any Chart Field	
3	1	ST	R			Any Chart Reg Field Mod Since Last Export	
4	1	ST	R			Load Code	
5	7	NM	R			Local Database ID for this Chart Record	
6	6	NM	R			Chart Facility Code	
7	6	NM	R			Chart Number	
8	1	ST	R			Chart Status Code	

3.3.11.2 ZRC Field Definitions**Date of Last Mod of Any Chart Field (DT)**

This field will contain the date in CCCCMMDD format, of any base record field that was last modified.

Time of Last Mod of Any Chart Field (NM)

This field will contain the time in HHMM format, of any base record field that was last modified.

Any Chart Reg Field Mod Since Last Export (ST)

This field will be a Y or N answer.

Load Code (ST)

Not Used.

Local Database ID for this Chart Record (NM)

This field will be a valid ICD9 code, in the format XXX.XX

Chart Facility Code (NM)

IEN of the facility in the LOCATION file.

Chart Number (NM)

Patients Chart Number.

Chart Status Code (ST)

This will be D for Deleted, I for Inactivated, M for Merged.

3.3.12 IN1 – Insurance**3.3.12.1 IN1 Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	4	SI	R		00426	Set ID - IN1	B
2	250	CE			00368	Insurance Plan ID	
3	250	CX	R	Y	00428	Insurance Company ID	
4	250	XON	R	Y	00429	Insurance Company Name	B
5	250	XAD		Y	00430	Insurance Company Address	
6	250	XPN		Y	00431	Insurance Co Contact Person	

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
7	250	XTN		Y	00432	Insurance Co Phone Number	
8	12	ST			00433	Group Number	B
9	250	XON		Y	00434	Group Name	B
10	250	CX		Y	00435	Insured's Group Emp ID	
11	250	XON		Y	00436	Insured's Group Emp Name	
12	8	DT	R		00437	Plan Effective Date	B
13	8	DT	R		00438	Plan Expiration Date	B
14	250	CM			00439	Authorization Information	
15	3	IS	R		00440	Plan Type	
16	250	XPN	R	Y	00441	Name Of Insured	B
17	250	CE	R		00442	Insured's Relationship To Patient	B
18	26	TS			00443	Insured's Date Of Birth	B
19	250	XAD		Y	00444	Insured's Address	B
20	2	IS			00445	Assignment Of Benefits	
21	2	IS			00446	Coordination Of Benefits	
22	2	ST			00447	Coord Of Ben. Priority	
23	1	ID			00448	Notice Of Admission Flag	
24	8	DT			00449	Notice Of Admission Date	
25	1	ID			00450	Report Of Eligibility Flag	
26	8	DT			00451	Report Of Eligibility Date	
27	2	IS			00452	Release Information Code	
28	15	ST			00453	Pre-Admit Cert (PAC)	
29	26	TS			00454	Verification Date/Time	

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
30	250	XCN		Y	00455	Verification By	
31	2	IS			00456	Type Of Agreement Code	
32	2	IS			00457	Billing Status	
33	4	NM			00458	Lifetime Reserve Days	
34	4	NM			00459	Delay Before L.R. Day	
35	8	IS			00460	Company Plan Code	
36	15	ST			00461	Policy Number	
37	12	CP			00462	Policy Deductible	
38	12	CP			00463	Policy Limit - Amount	
39	4	NM			00464	Policy Limit - Days	
40	12	CP			00465	Room Rate - Semi-Private	
41	12	CP			00466	Room Rate - Private	
42	250	CE			00467	Insured's Employment Status	
43	1	IS			00468	Insured's Administrative Sex	B
44	250	XAD		Y	00469	Insured's Employer's Address	
45	2	ST			00470	Verification Status	
46	8	IS			00471	Prior Insurance Plan ID	
47	3	IS	R		01227	Coverage Type	B
48	2	IS			00753	Handicap	
49	250	CX	R	Y	01230	Insured's ID Number	B

3.3.12.2 IN1 Field Definitions

Set ID IN1 (SI) 00426

For the first occurrence the sequence number shall be 1, for the second occurrence it shall be 2, etc.

Insurance Company ID

Components: <Insurance Company EIN>

Insurance Company Name (XON) 00429

Components: <Insurance Company Category> ^ <Insurance Company Name>

Category will be MCR, MCD, PVT, or RRE

For Medicare this will be "MEDICARE"

For Medicaid this will be "MEDICAID"

For Railroad this will be "RAILROAD"

Otherwise it will be the name of the insurance company.

Plan Effective Date (DT) 00437

For Medicaid and Medicare this will be the eligibility date.

For private insurance this will be the effective date.

Plan Expiration Date (DT) 00438

For Medicaid and Medicare this will be the eligibility end date.

For private insurance this will be the expiration date.

Plan Type

Components: <Medicaid State of Eligibility> ^ <Medicaid Plan Name>

Name of Insured (XPN) 00441

Components: <last name> ^ <first name> ^ <middle initial or name> ^ <suffix (e.g., JR or III)> ^ <prefix (e.g., DR)>

For Medicare this will be the name of insured.

For Medicaid this will be the Medicaid name.

For private insurance this will be the policy holder.

Insured's Relation to Patient (CE) 00442

Components: <UB-92 Code>

Insured's Date/Time of Birth (TS) 00443

This field will contain only the insured's date of birth in the format
CCCCYYMMDD

Coverage Type (IS) 00470

This will be the coverage type for Medicare, Medicaid, and Railroad.

Insured's ID Number (CX) 001230

Components: <Policy Number> ^ <Prefix/Suffix>

For Medicare this will be the Medicare number.

For Medicaid this will be the Medicaid number.

For private insurance this will be the policy number.

3.3.13 ZIN – IHS Third Party Eligibility**3.3.13.1 ZIN Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	8	DT	R			Date of Last Mod of Any Third Party Field	
2	4	NM	R			Time of Last Mod of Any Third Party Field	
3	1	ST	R			Any Third Party Field Mod Since Last Export	
4	1	ST	R			Load Code	
5	7	NM	R			Local Database ID for this Eligibility Record	
6	8	DT	R			Date of Last Insurance Record Update	

3.3.13.2 ZIN Field Definitions**Date of Last Mod of Any Third Party Field (DT)**

This field will contain the date in CCCCMMDD format, of any base record field that was last modified.

Time of Last Mod of Any Third Party Field (NM)

This field will contain the time in HHMM format, of any base record field that was last modified.

Any Third Party Field Mod Since Last Export (ST)

This field will be a Y or N answer.

Load Code (ST)

Not Used.

Local Database ID for this Third Party Record (NM)

This field will be a valid ICD9 code, in the format XXX.XX

Date of Last Insurance Record Update (DT)

This field will contain the date in CCCCMMDD format, of any base record field that was last modified

3.3.14 PV1 - Patient Visit Segment (A08)**3.3.14.1 PV1 Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	4	SI	R		00131	Set ID - PV1	B
2	1	IS			00132	Patient Class	
3	80	PL	R		00133	Assigned Patient Location	B
4	2	IS	R		00134	Admission Type	B
5	250	CX			00135	Preadmit Number	
6	80	PL			00136	Prior Patient Location	
7	250	XCN	R	Y	00137	Attending Doctor	B
8	250	XCN		Y	00138	Referring Doctor	
9	250	XCN		Y	00139	Consulting Doctor	B
10	3	IS	R		00140	Hospital Service	B
11	80	PL			00141	Temporary Location	
12	2	IS			00142	Preadmit Test Indicator	
13	2	IS			00143	Re-admission Indicator	
14	6	IS			00144	Admit Source	
15	2	IS		Y	00145	Ambulatory Status	
16	2	IS			00146	VIP Indicator	
17	250	XCN		Y	00147	Admitting Doctor	
18	2	IS			00148	Patient Type	
19	250	CX	R		00149	Visit Number	

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
20	50	FC		Y	00150	Financial Class	B
21	2	IS			00151	Charge Price Indicator	
22	2	IS			00152	Courtesy Code	
23	2	IS			00153	Credit Rating	
24	2	IS		Y	00154	Contract Code	
25	8	DT		Y	00155	Contract Effective Date	
26	12	NM		Y	00156	Contract Amount	
27	3	NM		Y	00157	Contract Period	
28	2	IS			00158	Interest Code	
29	1	IS			00159	Transfer to Bad Debt Code	
30	8	DT			00160	Transfer to Bad Debt Date	
31	10	IS			00161	Bad Debt Agency Code	
32	12	NM			00162	Bad Debt Transfer Amount	
33	12	NM			00163	Bad Debt Recovery Amount	
34	1	IS			00164	Delete Account Indicator	
35	8	DT			00165	Delete Account Date	
36	3	IS	R		00166	Discharge Disposition	B
37	25	CM	R		00167	Discharged to Location	B
38	250	CE			00168	Diet Type	
39	2	IS			00169	Servicing Facility	
40	1	IS			00170	Bed Status	
41	2	IS			00171	Account Status	
42	80	PL			00172	Pending Location	
43	80	PL			00173	Prior Temporary Location	
44	26	TS	R		00174	Admit Date/Time	B
45	26	TS	R	Y	00175	Discharge Date/Time	B

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
46	12	NM			00176	Current Patient Balance	
47	12	NM			00177	Total Charges	
48	12	NM			00178	Total Adjustments	
49	12	NM			00179	Total Payments	
50	250	CX			00180	Alternate Visit ID	
51	1	IS			01226	Visit Indicator	
52	250	XCN		Y	01274	Other Healthcare Provider	

3.3.14.2 PV1 Field Definitions

Set ID PV1 (SI) 00131

IHS supports only one occurrence of this segment.

Patient Class (IS) 00132

This will be the I for Inpatient or O for Outpatient.

Assigned Patient Location (PL) 00133

This will be the Location of Encounter

Admission Type (IS) 00134

This field indicates how the patient came to be admitted to the hospital.
(examples: direct admission, transfer from another facility, etc.)

It will contain the IHS code for admission type.

Attending Doctor (XCN) 00137

Components: <Attending Doctor Code> ^ <Attending Doctor Name>

Hospital Service (IS) 00140

This field will contain the IHS Admission Service Code

Unique Visit Record ID

This record contains the unique visit record ID

Discharge Disposition (on ER Visit) (IS) 00166

This will contain the IHS code for discharge type.

Discharged to Location (CM) 00168

This will contain the name of the facility transferred to.

Admit Date (TS) 00174

For an outpatient this is the visit date.

For an inpatient this is the admission date.

Discharge Date/Time (TS) 00175

This is the discharge date.

3.3.15 ZV1 – IHS Patient Visit Information (A08)**3.3.15.1 ZV1 Attributes**

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
1	8	DT	R			Date Visit Created	B
2	60	CE				Third Party Billed	B
3	65	PL	R			Clinic	B
4	8	DT	R			Date Last Modified	B
5	60	CE				Walk In / Appointment	B
6	60	CE	R			Level of Service	B
7	60	CE				Eligibility	B
8	12	NM				Amount Billed	B
9	50	ST				Outside Location	B
10	60	CE				Admitting Service	B
11	60	CE				Discharge Service	B
12	2	NM	R			Number of Consults	B
13	1	ID				Medicare Release	B
14	1	ID				Assignment of Benefits	B
15	50	EI				Authorization # and Facility	B
16	60	CE				Pay Status	B
17	12	NM	R			Total Charges	B
18	60	CE				Stillborn	B
19	2	NM				Number of Visits	B
20	15	ST				Hospital Voucher Number	B
21	30	ST	R			Vendor	B
22	4	NM				Activity Time	B

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
23	3	NM				Travel Time	
24	4	NM	R			Visit Last Modified Time	
25	1	ST	R			Delete Record Flag	
26	8	DT	R			Visit Export Date	
27	4	NM	R			Visit Export Time	
28							
29							
30	4	ST	R			Time of Visit/Admission	
31	7	ST	R			Day of Week of Visit/Admission	
32	1	ST	R			Type	
33	1	ST	R			Service Category	
34	5	ST	R			Evaluation and Management CPT	
35	6	ST	R			Cause of Death	
36	3	ST	R			Discharge Service	
37	3	ST	R			Discharge Type	
38	5	NM	R			Length of Stay	

3.3.15.2 ZV1 Field Definitions

Date Visit Created (DT)

Date the visit was created in CCCCMMDD format

Clinic

The IHS Clinic Code of the visit

Date Last Modified (DT)

Date the visit was last modified in CCCCMMDD format

Level of Service

Will be the internal value of the following:

B BRIEF

L LIMITED

I INTERMEDIATE

E EXTENDED

C COMPREHENSIVE

Number of Consults:

Will be the number of consults for this visit.

CHS Cost

CHS Cost for this visit.

Vendor (ST)

Type of Vendor for this visit.

Activity Time (NM)

Time in minutes of activity for this visit.

Travel Minutes (NM)

Time in minutes of travel for this visit.

Visit Last Modified Time

Time visit was last modified

Delete Record Flag

Will be 0 for Active Record, 1 for Deleted

Visit Export Date

Date the visit was exported

Visit Export Time

Time the visit was exported.

Time of Visit/Admission

Time of the visit/admission

Day of Week of Visit/Admission

This is the day of the week of visit/admission

Visit Type

This is the IHS internal code for visit type

Service Category

This is the IHS internal code for service category

Evaluation and Management CPT

This is the E/M CPT code for the visit

Discharge Service

This is the IHS code for discharge service for this visit.

Discharge Type

This is the IHS code for discharge type for this visit.

Length of Stay

This is the length of stay for this visit/admission

3.3.16 ZVP – IHS Patient Provider (A08)**3.3.16.1 ZVP Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	8	SI	R			Set ID Sequence Number	
2	20	ST	R			Provider Affiliation/Discipline	
3	3	ST	R			Provider Code	
4	20	ST	R			Provider Classification	
5	30	ST	R			Provider Specialty	
6	30	ST	R			Provider Type	
7	1	ST	R			Midwifery	

3.3.16.2 ZVP Field Definitions**Provider Affiliation/Discipline**

This field contains the provider discipline

Provider Code

This is the provider's initials.

Provider Classification

This is the provider's classification.

Provider Specialty

This is the provider's specialty

Provider Type

This is the provider's type.

Midwifery

Y or N whether this was a midwife.

3.3.17 ZCH – CHS (A08)**3.3.17.1 ZCH Attributes**

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
1	2	SI				Set ID	
2	3	NM				Age	
3	3	IS				APC Recode Code	
4	20	ST				CHS IEN	
5	8	NM				Coordination of Benefits Amount	
6	1	IS				Dental Patient Type Code	
7	2	NM				Encounter Quantity	
8	7	NM				HCPCS Cost Amount	
9	8	DT				Paid Date	
10	1	IS				Payment Code	
11	1	IS				Payment Destination	
12	8	DT				PO Issue Date	
13	10	ST				Provider SSN/EIN	
14	2	IS				Record Type Code	
15	3	NM				Revenue Code	
16	7	NM		Y		Revenue Code Cost Amount	
17	4	NM				Revenue Code Units	
18	4	IS				Service Class Code	

3.3.18 ZFI – CHS FI (A08)

3.3.18.1 ZFI Attributes

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
1	2	SI				Set ID	
2	8	NM				Allowed Amount	
3	3	IS				Bill Type Code	
4	1	IS				Blanket PO Indicator	
5	8	NM				CFI Charged Amount	
6	10	ST				CFI Claim Number	
7	3	ST				CFI Override	
8	7	IS				CFI Patient Code	
9	1	IS				CFI Revisit Flag	
10	2	IS				CHS Service Type	
11	1	IS				Nature of Coverage Code	
12	6	IS				Newborn Cause of Death ICD9 Code	
13	1	IS				Newborn Death Flag	
14	4	IS				Object Class Code	
15	2	IS				Object Class Code Type	
16	4	IS				Pend or Reject Code	
17	1	IS				Place of Treatment	
18	2	IS				PO Type Code	

3.3.19 DG1 – Diagnosis (A08)

3.3.19.1 DG1 Attributes

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
1	4	SI			00375	Set ID - DG1	B
2	2	ID			00376	Diagnosis Coding Method	
3	250	CE	R		00377	Diagnosis Code - DG1	B
4	40	ST			00378	Diagnosis Description	
5	26	TS			00379	Diagnosis Date/Time	
6	2	IS			00380	Diagnosis Type	B
7	250	CE			00381	Major Diagnostic Category	
8	250	CE			00382	Diagnostic Related Group	
9	1	ID			00383	DRG Approval Indicator	
10	2	IS			00384	DRG Grouper Review Code	
11	250	CE			00385	Outlier Type	
12	3	NM			00386	Outlier Days	
13	12	CP			00387	Outlier Cost	
14	4	ST			00388	Grouper Version And Type	
15	2	ID			00389	Diagnosis Priority	
16	250	XCN		Y	00390	Diagnosing Clinician	
17	3	IS			00766	Diagnosis Classification	B
18	1	ID			00767	Confidential Indicator	
19	26	TS			00768	Attestation Date/Time	

3.3.19.2 4DG1 Field Definitions

Set ID - DG1 (SI) 00375

For the first occurrence of the segment the sequence number shall be 1, for the second occurrence it shall be 2, etc.

Diagnosis Code (CE) 00377

Components: <ICD9 code>

The diagnosis code sent will be a valid ICD9 diagnosis code.

3.3.20 ZDX – IHS Diagnosis (A08)**3.3.20.1 ZDX Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	80	ST				Provider Narrative	B
2	1	NM				Stage	B
3	60	CE				Modifier	B
4	60	CE	R			Cause of DX	B
5	60	CE				First / Revisit	B
6	80	CE	R			Cause of Injury	B
7	80	ST	R			Place of Injury	
4.3.19.2	ZDX						

3.3.20.2 DG1 Field Definitions**Provider Narrative (ST)****Stage (NM)****Modifier (CE)**

Components: <IHS internal value> ^ <IHS external value> ^ <99IHS>

Cause of DX (CE)

Components: <IHS internal value>

Cause of Injury (CE)

Components: <IHS internal value>

Place of Injury (CE)

This is the place where the injury occurred.

3.3.21 PR1 - Procedure (A08)

3.3.21.1 PR1 Attributes

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
1	4	SI	R		00391	Set ID - PR1	B
2	3	IS			00392	Procedure Coding Method	
3	250	CE	R		00393	Procedure Code	B
4	40	ST			00394	Procedure Description	
5	26	TS	R		00395	Procedure Date/Time	B
6	2	IS			00396	Procedure Functional Type	
7	4	NM			00397	Procedure Minutes	
8	250	XCN		Y	00398	Anesthesiologist	B
9	2	IS			00399	Anesthesia Code	
10	4	NM			00400	Anesthesia Minutes	B
11	250	XCN	R	Y	00401	Surgeon	B
12	250	XCN		Y	00402	Procedure Practitioner	B
13	250	CE			00403	Consent Code	
14	2	ID			00404	Procedure Priority	B
15	250	CE			00772	Associated Diagnosis Code	B
16	250	CE		Y	01316	Procedure Code Modifier	
17	20	IS			01501	Procedure DRG Type	
18	250	CE		Y	01502	Tissue Type Code	

3.3.21.2 PR1 Field Definitions

Set ID PR1 (SI) 00391

This field contains the number that identifies this transaction. For the first occurrence of the segment the sequence number shall be 1, for the second occurrence it shall be 2, etc.

Procedure Code (CE) 00393

This will be a valid ICD Operation and Procedure Code.

Procedure Date/Time (TS) 00395**Surgeon (XCN) 00401**

Components: <Affiliation/Discipline>

3.3.22 ZPR – IHS Procedure Extension (Event A08)**3.3.22.1 ZPR Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1							
2							
3							
4							
5	1	ST	O			Infection	
6							
7							
8	60	CE	R			CPT Code for ICD Procedure	
9	60	ST	R			Dx Done For	
10	20	ST	R			Procedure Provider Class	
11	30	ST	R			Procedure Provider Specialty	
12	30	ST	R			Procedure Provider Type	

3.3.22.2 ZPR Field Definitions**Infection (ID)**

Y for Yes

N for No

CPT Code for ICD Procedure

This is a valid CPT code for the procedure

Dx Done For**Provider Classification**

This is the provider's classification.

Provider Specialty

This is the provider's specialty

Provider Type

This is the provider's type.

3.3.23 ZPN – IHS PHN (Event A08)**3.3.23.1 ZPN Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup	
1	1	NM	R			Set ID Sequence Number	B	
2	3	ST	R			PHN Activity Code	B	
3	30	ST		R			PHN Level of Intervention	B

3.3.23.2 ZPN Field Definitions**PHN Activity Code**

IHS PHN Activity Code

PHN Level of Intervention

This is the level of intervention the PHN provided

3.3.24 ZDN – IHS Dental (Event A08)

3.3.24.1 ZDN Attributes

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	3	NM	R			ADA Sequence Number	
2	10	ST	R			ADA Code	
3	3	NM	R			# of Units	
4	10	ST	R			ADA Code Fee	
5	30	ST	R			Delivery Mode	
6	10	ST	R			Dental Total Cost	
7	9	ST	R			Dentists SSN	

3.3.24.2 ZDN Field Definitions

ADA Sequence Number

This is the sequence number of this ADA Code

ADA Code

This is a valid ADA Code.

of Units

This field contains the number of units for this ADA code

ADA Code Fee

This is the fee associated with this ADA Code.

Delivery Mode

This is the mode of delivery for this ADA encounter.

Dental Total Cost

This is the total cost associated with this ADA code.

Dentists SSN

This is the dentists SSN.

3.3.25 ZDP – IHS Dental Op(Event A08)

3.3.25.1 ZDP Attributes

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	3	SI	R			Set ID	
2	30	ST	R			Op Site	
3	30	ST	R			Tooth Surface	

3.3.25.2 ZDP Field Definitions

Op Site

This is the operative site associated with the corresponding ZDN.

Tooth Surface

This is the tooth surface associated with the corresponding ZDN..

3.3.26 ZIM – IHS Immunization (Event A08)

3.3.26.1 ZIM Attributes

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	3	SI	R			Set ID	
2	10	ST	R			HL7 CVX Code	
3	10	ST	R			HL7 MVX Code	
4	10	ST	R			Imm Code – IHS Mod HL7	
5	10	ST	R			Imm Code – Old IHS	
6	10	ST	R			Imm Dose Number	

3.3.26.2 ZIM Field Definitions

HL7 CVX Code

This is the CVX code for this immunization.

HL7 MVX Code

This is the MVX code for this immunization.

IHS Mod HL7

This is the IHS modified HL7 code.

Old IHS

This is the old IHS code.

Dose Number

This is the dose number.

3.3.27 ZMD – IHS Medication (Event A08)**3.3.27.1 ZMD Attributes**

Seq	Len	DT	Opt	RP/#	Item #	Element Name	Sup
1	3	SI	R			Set ID	
2	30	ST	R			Drug Name	
3	15	ST	R			NDC Code	
4	30	ST	R			VA Drug Class	
5	6	NM	R			Medication Quantity	

3.3.27.2 ZMD Field Definitions**Drug Name**

This is the name of the drug.

NDC Code

This is the NDC code for this drug..

VA Drug Class

This is the VA Drug class for this drug.

Medication Quantity

This is the quantity of the medication dispensed.

3.3.28 ZEN – IHS Encounter (Event A08)**3.3.28.1 ZEN Attributes**

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
1	1	ST	R			Medicaid Eligible on Visit Date	
2	1	ST	R			Medicare Eligible on Visit Date	

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
3	1	ST	R			Private Insurance Eligible on Visit Date	
4	1	ST	R			HTN Documented Ever	
5	8	DT	R			Date HTN Last Documented	
6	1	ST	R			LMP	
7	8	DT	R			Date LMP Noted	
8	1	ST	R			Was An Ace Inhibitor Filled	
9	1	ST	R			Urine Protein Test	
10	10	ST	R			Urine Protein Value	
11	1	ST	R			Microalbuminuria Test	
12	10	ST	R			Microalbuminuria Value	
13	1	ST	R			DM Nutrition Education Dome	
14	10	ST	R			HGB A1C Value	
15	1	ST	R			Pap Lab Test	
16	10	ST	R			Glucose Value	
17	1	ST	R			HDL Cholesterol Test	
18	10	ST	R			HDL Cholesterol Value	
19	1	ST	R			LDL Cholesterol Test	
20	10	ST	R			LDL Cholesterol Value	
21	1	ST	R			Triglyceride Test	
22	10	ST	R			Triglyceride Value	
23	1	ST	R			PSA Lab Test	
24	1	ST	R			Fecal Occult Blood Lab	
25	5	NM	R			# of Lab Tests Done	

3.3.28.2 ZEN Field Definitions

Each Value field will contain the value if the test was done. Each field that is not a value is a Y or N response.

of Lab Tests done is a cumulative total of lab tests done for this visit.

3.3.29 OBX – Health Factors (Event A08)

3.3.29.1 OBX Attributes

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
1	1	ID	R			Set ID	
2	3	ST	r			Type of Result	
3	30	ST	R			Health Factor	
4	30	ST	R			Health Factor Category	

3.3.29.2 OBX Field Definitions

Type of Result

The string “HF”

Health Factor

Components: <Health Factor Code> ^ <Health Factor Name>.

Health Factor Category Code

This is the health factor category code.

3.3.30 OBX – Measurements (Event A08)

3.3.30.1 OBX Attributes

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
1	1	SI	R			Set ID	
2	3	ST	R			Type of Result	
3	30	ST	R			Clinical Measurement Code	
4	30	ST	R			Clinical Measurement Type	
5	30	ST	R			Measurement Value	

3.3.30.2 OBX Field Definitions**Type of Result**

The string “MSR”

Clinical Measurement Code

IHS Measurement Code

Clinical Measurement Type

???

Measurement Value

This is the measurement value.

3.3.31 OBX – Exam (Event A08)**3.3.31.1 OBX Attributes**

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
1	1	1	SI	R		Set ID	
2	2	3	ST	R		Type of Result	
3	3	30	ST	R		Exam Code	

3.3.31.2 OBX Field Definitions**Type of Result**

The string “XAM”

Exam Code

IHS Exam Code

3.3.32 OBX – CPT (Event A08)**3.3.32.1 OBX Attributes**

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
1	1	SI	R			Set ID	
2	3	ST	R			Type of Result	
3	30	ST	R			CPT Code	
4							
5	30	ST	R			CPT Quantity	

3.3.32.2 OBX Field Definitions**Type of Result**

The string “CPT”

CPT Code

CPT Code

CPT Quantity

This is the quantity for this CPT.

3.3.33 OBX – Lab (Event A08)**3.3.33.1 OBX Attributes**

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
1	1	SI	R			Set ID	
2	3	ST	R			Type of Result	
3	30	ST	R			Lab Test	
4							
5	30	ST	R			Lab Test Results	
6	30	ST	R			Lab Test Units	
7	30	ST	R			Reference Range	

3.3.33.2 OBX Field Definitions**Type of Result**

The string “LAB”

Lab Test

Components: <LOINC Code> ^ <Lab Test Name>

Lab Test Results

Lab test value

Lab Test Units

The unit of measure for this lab test.

Reference Range

Components: <Reference Low> ^ <Reference High>

3.3.34 OBX – Patient Education (Event A08)

3.3.34.1 OBX Attributes

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
1	1	SI	R			Set ID	
2	3	ST	R			Type of Result	
3	30	ST	R			Patient Education Code	
4							
5	30	ST	R			Patient Level of Understanding Code	
6							
7							
8							
9							
10							
11							
12							
13	5	NM	R			Patient Education Length of Education	

3.3.34.2 OBX Field Definitions

Type of Result

The string “PED”

Patient Education Code

IHS Patient Education Code.

Patient Level of Understanding Code

IHS Level of Understanding Code.

Patient Education Length of Education

Length of this education.

3.3.35 OBX – Skin Test (Event A08)

3.3.35.1 OBX Attributes

Seq	Len	DT	Opt	RP/#	Item#	Element Name	Sup
1	1	SI	R			Set ID	
2	3	ST	R			Type of Result	
3	30	ST	R			Skin Test Code	
4							
5	30	ST	R			Result/Reading	

3.3.35.2 OBX Field Definitions

Type of Result

The string “SKT”

Skin Test Code

IHS Skin Test Code.

Result/Reading

Components: <Skin Test Result> ^ <Skin Test Reading>.

Glossary

Health Level 7

This is an international standard messaging system for passing data from one site to another. The Data Warehouse Export system passes data from RPMS to the Data Warehouse using HL7(Health Level 7) messages.

Generic Interface System

This is the RPMS package which manages and creates HL7 messages. This system manages the passing of the HL7 messages from one place to another.

Acronym List

GIS	Generic Interface System
HL7	Health Level 7
HLLP	Hybrid Lower Layer Protocol
IHS	Indian Health Service
OSI	Open Systems Interconnect
RPMS	Resource and Patient Management System

Contact Information

If you have any questions or comments regarding this distribution, please contact the OIT Help Desk (IHS).

Phone: (505) 248-4371 or (888) 830-7280 (toll free)

Fax: (505) 248-4363

Web: <http://www.ihs.gov/GeneralWeb/HelpCenter/Helpdesk/index.cfm>

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