

## R40 - Account/Contract Inquiry

### 1 General

Standards for messaging to and from Ministry of Health applications using HL7 are described in a series of business and technical volumes. Volumes 1, 2, 5, 6 and 7 are common for all application interfaces. Volumes 3 and 4 are customized to the requirements of particular business areas. This message specification is a component of Volume 4 – HL7 Message Specifications.

A catalogue of all supported messages and message interactions can be found in Volume 1.

All documentation is available on the *healthnetBC* web site <http://healthnet.hnet.bc.ca/catalogu/tech/compdocs.html>

#### 1.1 Corrections and updates

Corrections and update notes can be found at the end of this document. A vertical line in the outside boarder denotes corrections within the document. <sup>1</sup>

#### 1.2 R40 - Transaction Overview

This message is related to establishment and maintenance of insurance premium payment contracts.

This transaction will retrieve the contract information related to a particular person. Any person on the contract can be input, and the transaction will return the demographic and effective date information for all people on the contract.

## 2 Sending System

### 2.1 R40 - Processing Rules – Sending System

No Processing Rules have been defined at this time.

### 2.2 R40 - Minimum Display/Print Standards – Sending System

For each submission of this transaction, an indication of success or failure must be either:

- Displayed to the user, if transaction submitted on-line, or
- Printed on a paper report or logged in a file, if transaction submitted in batch.

Success or failure can be determined by using the tests below:

- **Success** = MSA segment present and Acknowledgement Code on MSA = “AA” (application accept),
- **Failure** = no MSA segment or Acknowledgement Code on MSA not = “AA” (application accept).  
 Acknowledgement Code may be “AE” (application error) or “AR” (application reject). Refer to 'MSA Segment' in Volume 5 for more information on acknowledgement code use.

For a transaction failure

- The following data elements must be displayed to the user, reported or logged (see above):

Information Returned by <i>healthnetBC</i>	Mandatory Display	Display on First Screen?	Segment	Field
Text Message	Y	Y	MSA	Text Message (see segment for field decomposition rules)
All information, warning, error messages on ERR segment	Y	Y	ERR	Error Code and Location: Identifier of Code Identifying Error, Text of Code Identifying Error

For a transaction success

- The following data elements must be displayed to the user, reported or logged (see above):

Information Returned by <i>healthnetBC</i>	Mandatory Display	Display on First Screen?	Segment	Field
For Subscriber				
Address	Y	N	ZIA	Extended Address (required Fields only)
Telephone	Y	N	ZIA	Extended Telephone Number (required Fields only)
Employee info	Y	N	IN1	Insured's Group Emp ID (Employee Number) Insured's Group Emp Name (Employee Department Number)
For each Dependent/Spouse/Subscriber (up to age 19)				
Relationship	Y	Y	NKI	Relationship
Name	Y	Y	ZIA	Extended Person Name (required Fields only)
Gender	Y	Y	NKI	Sex
Birth Date	Y	Y	NKI	Date/Time of Birth
PHN	Y	Y	NKI	Next of Kin/ Associated Party's identifiers: ID
Student Indicator	Y	Y	NKI	Student Indicator
Effective Date	Y	Y	IN1	Plan effective Date Plan Expiration Date
Cancel Reason	y	y	ZIH	Display Cancel Reason

### 2.3 R40 - Transaction Summary - Sending System

The following specification illustrates the structure of the HL7 transaction.

{ } denotes one or more repetitions of the enclosed segment(s)

[ ] denotes that the enclosed segments are optional

Refer to 'Appendix A, *healthnetBC* Fixed Length Segment Definitions' for more details on each of the segment definitions.

**Input Transaction (R40)**

MSH	Message Header	Required
ZHD	<i>healthmetBC</i> Message Header	Required
PID	Person Identification	Required
IN1	Insurance	Required

## 2.4 R40 - Transaction Segments and Fields - Sending System

MSH	Required						
Seq	Field	Req/ Opt	# of Reps	Proc Rule	Data Type	Table	Field Notes
-	Segment Id	R					"MSH"
1	Field Separator	R					" "
2	Encoding Characters	R					"^~\&"
3	Sending Application	R					<ul style="list-style-type: none"> <li>Namespace ID (15) - Business application that originated the transaction; user defined/assigned</li> </ul>
4	Sending Facility	R					<ul style="list-style-type: none"> <li>Namespace ID (20) - Sending Network Facility ID; <i>healthnetBC</i> assigned</li> </ul>
5	Receiving Application	R					<ul style="list-style-type: none"> <li>Namespace ID (15) - Business application that will accept the transaction; valid value is "RAIACCT-INQRY"</li> </ul>
6	Receiving Facility	R					<ul style="list-style-type: none"> <li>Namespace ID (20) - Receiving Network Facility ID; <i>healthnetBC</i> assigned</li> </ul>
7	Date/Time of Message	R					Date/Time transaction was sent from sending system (24) - YYYYMMDDHHMMSS.SSSS+/-ZZZZ
8	Security	R					User ID that uniquely identifies sending system user (20)
9	Message Type	R					Message Type (3) - Transaction Identification; valid value is "R40" <ul style="list-style-type: none"> <li><i>Trigger Event (3) – Not Supported</i> <sup>2</sup></li> </ul>
10	Message Control ID	R					Unique transaction number (20) - see MSH definition for more information
11	Processing ID	R					<ul style="list-style-type: none"> <li>Processing ID (1) - valid values are "D", "E", "T", "P"</li> </ul>
12	Version ID	R					HL7 version supported by <i>healthnetBC</i> (8) - valid value is "2.3"

ZHD		Required					
Seq	Field	Req/ Opt	# of Reqs	Proc Rule	Data Type	Table	Field Notes
-	Segment Id	R					"ZHD"
1	Business Event Date/Time	R					Date/Time business event occurred that "created" this transaction (19) - YYYYMMDDHHMMSS+/-ZZZZ
2	Business Organization	R			HNET :XON		Business organization that originated the transaction; <i>healthnetBC</i> assigned <ul style="list-style-type: none"> <li>Organization Name – Not Supported <sup>5</sup></li> <li>Organization Name Type code – Not Supported <sup>5</sup></li> <li>ID Number (20) - Organization ID; required</li> </ul>
3	Business User Group	R					Service Permission Group that user belongs to (30)
7	Software Version Number	R					Latest version number of sending application software that has been compliance tested by <i>healthnetBC</i> (15)

PID		Required					
Seq	Field	Req/ Opt	# of Reqs	Proc Rule	Data Type	Table	Field Notes
-	Segment ID	R					"PID"
2	External Patient ID	R					Personal Health Number (PHN) <ul style="list-style-type: none"> <li>ID (10) - Personal Health Number (PHN); required</li> <li>Namespace ID of Assigning Authority (5) - Identifier Issuing Jurisdiction; required; valid value is "BC"</li> <li>Identifier Type Code (2) - required; valid value is "PH"</li> </ul>
3	<i>Patient ID – (Internal ID)</i>	-					<i>Not Supported</i> <sup>2</sup>
5	<i>Patient Name</i>	-					<i>Not Supported</i> <sup>2</sup>

IN1		Required					
Seq	Field	Req/ Opt	# of Reps	Proc Rule	Data Type	Table	Field Notes
-	Segment ID	R					"IN1"
1	Set ID – IN1	-					Not Supported <sup>2</sup> -
2	Insurance Plan ID	-					Not Supported <sup>2</sup> -
3	Insurance Company ID	-					Not Supported <sup>2</sup> -
8	Group Number	R					Group Number (7)

### 3 Receiving System

#### 3.1 R40 - Processing Rules – Receiving System

- At least one and up to two addresses may be returned with this transaction, a residential/home address (Address Type of Extended Address on ZIA = "H") and a mailing address (Address Type of Extended Address on ZIA = "M").  
 If only one address is specified, it will be the residential/home address (Address Type = "H").  
 If two addresses are specified, then two repetitions of Extended Address on one ZIA will be used. The types (Address Type of Extended Address) cannot be the same between the two repetitions. The addresses may be specified in any order by using Address Type to distinguish the type of address. The mailing (Address Type = "M") is specified only if different than the residential/home address (Address Type = "H").
- Current Implementation: Only 1 telephone number will be returned (assuming the person is found on the database), with Telecommunications Equipment Type of "PH" (phone). <sup>3</sup> -
- Contract information for the subscriber and each dependent on output is contained on NK1, ZIA, IN1 and ZIH segments. For each returned subscriber or dependent, the Set ID - NK1 on NK1, Set ID - ZIA on ZIA, Set ID - IN1 on IN1 and Set ID - ZIH on ZIH will be set to the same number, starting from 1 and incrementing by 1 for each record that is returned, up to the maximum that can be returned by the transaction. The subscriber will always be

returned, but may not be the first set (NK1, ZIA, IN1, ZIH) returned. If there is only 1 set returned, it will be for the subscriber.

### **3.2 R40 - Transaction Summary – Receiving System**

The following specification illustrates the structure of the HL7 transaction.

{ } denotes one or more repetitions of the enclosed segment(s)

[ ] denotes that the enclosed segments are optional

Refer to 'Appendix A, *healthnetBC* Fixed Length Segment Definitions' for more details on each of the segment definitions.



**Output Transaction (R40)**

MSH	Message Header	Required
MSA	Message Acknowledgement	Required
[ { ERR } ]	Error	Optional, Repeats, minimum 0, maximum 10 <sup>4</sup>
[		Optional, if person record found, then Required
ZIA	<i>healthnetBC</i> Person Identification Extension	Required
[ IN1 ]	Insurance	Optional
{		Required. Repeats minimum 1 (subscriber), maximum 20 for 1 subscriber and up to 19 dependents
NK1	Next of Kin/Associated Parties Segment	Required
ZIA	<i>healthnetBC</i> Person Identification Extension	Required
IN1	Insurance	Required
[ ZIH ]	<i>healthnetBC</i> Insurance Extension	Optional
}		
]		

### 3.3 R40 - Transaction Segments and Fields - Receiving System

MSH	Required						
Seq	Field	Req/ Opt	# of Reps	Proc Rule	Data Type	Table	Field Notes
-	Segment Id	R					"MSH"
1	Field Separator	R					" "
2	Encoding Characters	R					"^~\&"
3	Sending Application	R					= Receiving Application on MSH input, "HNCLIENT", "HNGATE"  <ul style="list-style-type: none"> <li>For more information on "HNCLIENT/HNGATE values, see 'No Response from the network' in Volume 5.</li> </ul>
4	Sending Facility	R					= Receiving Facility on MSH input or Network Facility ID of HNCLIENT/HNGATE if Sending Application on MSH = "HNCLIENT" or "HNGATE".  <ul style="list-style-type: none"> <li>For more information on "HNCLIENT/HNGATE values, see 'No Response from the network' in Volume 5.</li> </ul>
5	Receiving Application	R					= Sending Application on MSH input
6	Receiving Facility	R					= Sending Facility on MSH input
7	Date/Time of Message	R					Date/Time transaction was sent from receiving system (24) - YYYYMMDDHHMMSS.SSSS+/-ZZZZ
8	Security	O					= Security on MSH input
9	Message Type	R					<ul style="list-style-type: none"> <li>Message Type (3) - Transaction Identification; valid values is "R40"</li> <li>Trigger Event (3) – Not Supported <sup>2</sup></li> </ul> <p>See also, 'No response from the Network' in Volume 5.</p>
10	Message Control ID	R					Unique message number (20) - see MSH definition for more information

<b>MSH</b>		<b>Required</b>					
Seq	Field	Req/ Opt	# of Reps	Proc Rule	Data Type	Table	Field Notes
11	Processing ID	R					= Processing ID on MSH input
12	Version ID	R					= Version ID on MSH input

<b>MSA</b>		<b>Required</b>					
Seq	Field	Req/ Opt	# of Reps	Proc Rule	Data Type	Table	Field Notes
-	Segment ID	R					"MSA"
1	Acknowledgement Code	R					Indication of success/failure of transaction (2) - valid values are "AA", "AE", "AR"; receiving applications will set "AA" for successful completion and "AE" for application errors; "AR" is set by the infrastructure for invalid transactions or transactions that cannot make it through to the receiving application.
2	Message Control ID	R					= Message Control ID on MSH input (20)
3	Text Message	R					Error code (8) + English message text (72) - Format of error code is AMMMnnnZ where A is an application identifier, MMM is a module or sub-system identifier, nnn is a sequential number and Z is either "E" = error, "W" = warning, "I" = Information

ERR	Optional, Repeats - minimum 0, maximum 10 <sup>4</sup>						
Seq	Field	Req/ Opt	# of Repeats	Proc Rule	Data Type	Table	Field Notes
-	Segment ID	R					"ERR"
1	Error Code and Location	R	1-1				Refer to 'Error Handling' in Volume 5 for more information on error message formats <ul style="list-style-type: none"> <li>• Segment ID (3) – optional; segment where error occurred</li> <li>• Sequence (4) – optional; occurrence of segment in transaction where error occurred</li> <li>• Field Position (4) – optional; field in segment where error occurred</li> <li>• Identifier of Code Identifying Error (8) – Message Number; required; reference table HNET:9000 for valid values; ERR segments are returned in "E", "W", "I" order</li> <li>• Text of Code Identifying Error (72) – Message Text; required</li> <li>• Alternate Identifier of Code Identifying Error (15) – Alternate Message Number; optional; must be logged if present in transaction</li> <li>• Alternate Text of Code Identifying Error (255) – Alternate Message Text; optional; must be logged if present in transaction</li> <li>• Name of Alternate Coding System of Code Identifying Error (8) – optional; name of system that generated Alternate Identifier of Code Identifying Error</li> </ul>

Reference Transaction Summary - Receiving System for more information on following segments. Optional, if person record found, then Required

ZIA		Required					
Seq	Field	Req/ Opt	# of Reps	Proc Rule	Data Type	Table	Field Notes
-	Segment ID	R					"ZIA"
16	Extended Address	R	1-2	1	HNET :ZAD		<ul style="list-style-type: none"> <li>• Address Line1 (25) - required</li> <li>• Address Line2 (25) - optional</li> <li>• Address Line3 (25) - optional</li> <li>• Address Line4 (25) – optional</li> <li>• Address Line5 (25) - <i>Not Supported</i> <sup>5</sup></li> <li>• Address Line6 (25)</li> <li>• Street Number (10) - <i>Not Supported</i></li> <li>• Street Number Suffix (10) - <i>Not Supported</i></li> <li>• Street Name (30) - <i>Not Supported</i></li> <li>• Street Type (7)- <i>Not Supported</i></li> <li>• Street Direction (2) - <i>Not Supported</i></li> <li>• Unit Identifier (10) - <i>Not Supported</i></li> <li>• Unit Designator (10) - <i>Not Supported</i></li> <li>• Delivery Installation Area (30) - <i>Not Supported</i></li> <li>• Delivery Installation Type (6) - <i>Not Supported</i></li> <li>• Delivery Installation Qualifier (15) - <i>Not Supported</i></li> <li>• Mode of Delivery Designator (6) - <i>Not Supported</i></li> <li>• Mode of Delivery ID (10) - <i>Not Supported</i></li> <li>• Physical Description (80) - <i>Not Supported</i></li> <li>• City (25) - <i>Not Supported</i></li> <li>• State or Province (2) - <i>Not Supported</i></li> <li>• Zip or Postal Code (10) - optional; only first 6 characters of this field will be returned</li> <li>• Country (3) <i>Not Supported</i></li> <li>• Address Type (1) - Address Purpose; required; valid values are "M", "H"; see Processing Rules for use of this field</li> </ul>

ZIA		Required					
Seq	Field	Req/ Opt	# of Reps	Proc Rule	Data Type	Table	Field Notes
17	Extended Telephone Number	O	0-2	2	HNET :ZTN		Phone numbers <sup>3</sup> <ul style="list-style-type: none"> <li>• <i>Phone number – unstructured phone number – Not Supported</i> <sup>5</sup></li> <li>• Telecommunication Use Code (3) - Telephone Purpose; required; valid value is "PRN"</li> <li>• Telecommunication Equipment Type (2) - Telephone Type; required; valid value is "PH".</li> <li>• <i>Email address (120) – Not Supported</i></li> <li>• Area/city Code (3) - optional</li> <li>• Phone Number (7) – required</li> </ul>

IN1		Optional					
Seq	Field	Req/ Opt	# of Reps	Proc Rule	Data Type	Table	Field Notes
-	Segment ID	R					"IN1"
1	<i>Set ID – IN1</i>	-					<i>Not Supported</i> <sup>2</sup>
2	<i>Insurance Plan ID</i>	-					<i>Not Supported</i> <sup>2</sup>
3	<i>Insurance Company ID</i>	-					<i>Not Supported</i> <sup>2</sup>
10	Insured's Group Emp ID	O			HNET :CX		Employee Number <ul style="list-style-type: none"> <li>• ID - Employee Number (9) - required</li> </ul>
11	Insured's Group Emp Name	O			HNET :XON		Employee Department Number <ul style="list-style-type: none"> <li>• ID Number (6) - required</li> </ul>

Reference Transaction Summary - Receiving System for more information on following segments Required & Repeats minimum 1 (subscriber), maximum 20 for 1 subscriber and up to 19 dependents

NK1		Required					
Seq	Field	Req/ Opt	# of Reps	Proc Rule	Data Type	Table	Field Notes
-	Segment ID	R					"NK1"
1	Set ID - NK1	R		3			(3) - Valid values are 1 through 20; equals Set ID - ZIA on ZIA, Set ID - IN1 on IN1, Set ID - ZIH on ZIH for same subscriber or dependent; refer to Processing Rules for information on how this field is set/used
3	Relationship	R					Relationship to Contract Representative (External Patient ID on PID) • Identifier (2) - relationship; required; valid values are "SB", "SP", "DP"
15	Sex	R					Gender (1) - valid values are "F", "M", "U"
16	Date/Time of Birth	R					• CCYYMMDD (8) - required
24	Student Indicator	O					Student Status (1) - valid values are "F", "N"; field is required if Relationship on NK1 not = "SB" or "SP" (subscriber or spouse). <sup>6</sup>
33	Next of Kin/Associated Party's Identifiers	R	1-1				Dependent's Personal Health Number (PHN) • ID (10) - Personal Health Number (PHN); required • Namespace ID of Assigning Authority (5) - Identifier Issuing Jurisdiction; required; valid value is "BC" • Identifier Type Code (2) - required; valid value is "PH"

<b>ZIA</b>		<b>Required</b>					
Seq	Field	Req/ Opt	# of Reqs	Proc Rule	Data Type	Table	Field Notes
-	Segment ID	R					"ZIA"
15	Extended Person Name	R	1-1				<ul style="list-style-type: none"> <li>• Family Name (35) - required</li> <li>• First Given Name (15) - required</li> <li>• Second Given Name (15) - optional</li> <li>• Third Given Name (15) – optional</li> </ul>
22	Set ID - ZIA	R		3			(3) - Valid values are 1 through 20; equals Set ID - NK1 on NK1, Set ID - IN1 on IN1, Set ID - ZIH on ZIH for same subscriber or dependent; refer to Processing Rules for information on how this field is set/used

<b>IN1</b>		<b>Required</b>					
Seq	Field	Req/ Opt	# of Reqs	Proc Rule	Data Type	Table	Field Notes
-	Segment ID	R					"IN1"
1	Set ID - IN1	R		3			(3) - Valid values are 1 through 20; equals Set ID - NK1 on NK1, Set ID - ZIA on ZIA, Set ID - ZIH on ZIH for same subscriber or dependent; refer to Processing Rules for information on how this field is set/used
2	<i>Insurance Plan ID</i>	-					<i>Not Supported</i> <sup>2</sup> -
3	<i>Insurance Company ID</i>	-					<i>Not Supported</i> <sup>2</sup> -
12	Plan Effective Date	R					Coverage Effective Date (8)
13	Plan Expiration Date	O					Coverage End Date (8)



<b>ZIH</b>		<b>Optional</b>					
Seq	Field	Req/ Opt	# of Reps	Proc Rule	Data Type	Table	Field Notes
-	Segment ID	R					"ZIH"
18	Set ID - ZIH	R		3			(3) - Valid values are 1 through 20; equals Set ID - NK1 on NK1, Set ID - ZIA on ZIA, Set ID - IN1 on IN1 for same subscriber or dependent; refer to Processing Rules for information on how this field is set/used
20	Display Cancel Reason	O					Display Cancel Reason (1) - valid values are "I", "E", "D"

DOCUMENT MODIFICATION HISTORY		
VERSION	RELEASE DATE	DESCRIPTION
2.0	September 1999	Original single document
2.1	January 9, 2004	<ul style="list-style-type: none"> <li>• Message specification published as separate document.</li> <li>• Added 'General Introduction'</li> <li>• Added reference 'Data Type' and 'Table' columns into segment tables</li> <li>• Corrections to published specification, as described below. Unless otherwise noted, these corrections do not reflect changes to the supported message specification. (New and superseded messages are described in Volume 1.)</li> <li>• Message components or vocabulary marked for future release (from version 2.0) have either been removed entirely or marked as Not Supported. Any substantive changes to these specifications in future will be released as new messages in order to provide for backward compatibility.</li> </ul>

### Corrections and Update Notes

<sup>1</sup> 02/Nov/27 – example of correction

<sup>2</sup> This HL7 required component is not supported for this message

<sup>3</sup> Previous publication noted future plans to return up to two phone numbers in this field. Current implementation still supports only one. If this situation should change the message specifications will be re-released.

<sup>4</sup> Minimum cardinality on ERR segment corrected to read 0, instead of 1. This optional segment may not be present in some messages

<sup>5</sup> 'Not Supported' components added for complex datatype to clarify the structure. No functional change

<sup>6</sup> Correction. Value of "SP" added to field condition. Missing from previous publication. Condition has always been in effect so does not represent a functional change.