

Syndromic Surveillance Event Detection of Nebraska (SSEDON)

Flat File Implementation Guide for Inpatient Syndromic Surveillance

Document Version 1.2

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This implementation guide contains flat file formats describing inpatient events sent from hospitals and urgent care facilities. These messages are sent to the Syndromic Surveillance Event Detection of Nebraska system as a part of the Nebraska Department of Health and Human services for syndromic surveillance purposes.

Introduction

Health care facility inpatient surveillance is being established to enhance the Nebraska Department of Health and Human Services (NDHHS) Office of Epidemiology’s ability to analyze both infectious and non-infectious disease indicators from across the state. NDHHS will use chief complaint data and clinical information contained in either HL7 formatted messages or flat file records from inpatient encounters to provide infectious and non-infectious indicators for surveillance and analysis. NDHHS will use the Syndromic Surveillance Event Detection of Nebraska (SSEDON) system for the data collection portion of the system.

Scope of This Document

The General Transfer Specification (GTS) documented here supports automated exchange of data between the SSEDON repository and outside systems. This allows both the patient and clinical information to be available in both systems, so as to avoid the need to enter data twice. The remainder of this document specifies how flat file records are constructed for the purposes of SSEDON.

CVD Flat File format

In the text delimited flat file format, inpatient surveillance data has been split into two files. One file contains demographic records containing data such as date of visit, discharge date, diagnostic codes, procedure codes patient age, gender, and zip code, etc. The other file contains clinical data such as initial vital signs, height, weight, BMI, Smoking status, etc. The exact structure of the demographic and clinical data records is provided on the following pages.

Data Transmission Frequency

1. The demographic elements of the CVD flat file data set are to be transmitted within 24 hours of diagnostic and procedural coding.
2. The clinical elements of the InpatientFlat file data set are to be transmitted 5 days after the patient is admitted.
3. Both data sets are to be transmitted daily.

Basic CVD flat file record encoding rules

- Encode each field in the order specified in the record structure
- End each record with the carriage return terminator (hex 0D). Note that in the examples in this guide, this character is illustrated as “<cr>”. This character is a single ASCII character; the segment terminator is NOT the four-character sequence
- The “|” (pipe) is required as a field separator for all fields. If a field is left empty the field separator must be provided.
- Encode each data field according to the data type format listed in this guide.
- Components, subcomponents or repetitions that are not valued at the end of a field need not be represented by component separators. For example the data fields below are equivalent

^XXX&YYY&&^	is equal to	^XXX&YYY
ABC^DEF^^	is equal to	ABC^DEF

- If a data field is not documented in this guide, the data field should not be sent.

SSEDON Flat File Message Structure

The structure of the supported messages in this guide is described in tabular format. The columns of those tables are used as described in the table below.

Table 1.5	
Record Structure Attributes	
Attribute	Definition
Field #	Sequence of the fields they are numbered in the flat file record
Field Name	Descriptive name of the data field
Description	Explanation of the use of the field
Value Set	Link to value set or literal value of data expected to be populated in the field. A table in appendix A lists all of the value sets and their literal values included in this messaging guide. Numbers in this field denote the related vocabulary in that vocabulary table. Contains the name and/or the PHIN Value Set (accessible through PHIN VADS) when relevant as well as notes, condition rules and recommendations.
Data Type	Type of data expected in the given field. The data types are Alpha – alphabetic characters only Numeric – numeric characters only Alphanumeric – either alphabetic or numeric characters allowed Date – date formatted as YYYYMMDD DT – date and time formatted as YYYYMMDDhhss
Max Length	Maximum length of a field. A field may be shorter than the maximum length, but may never be longer than the max length.
Usage	Describes the use requirements of the field by SSEDON. Values used in this implementation are: R – Required, Segment must be sent with fields populated according to the segment definition. RE – Required, but may be empty. If the sender captures the data, the data must be sent. C – Conditional – When conditionality predicate evaluates to “True”, the segment usage behaves the same as ‘RE’, otherwise the segment should not be populated.
Comments	Additional notes to describe the format or contents of the field

Demographic Data Record Specification

Field #	Field Name	Description	Value Set	Data Type	Max Length	Usage	Comment
1	Date of admission	Date and time when the patient was admitted as an inpatient. Time precision carried to the minute.		DT	8	R	Format YYYYMMDDhhmm
2	Source of admission	Code Indicating the place from which the patient was admitted or referred. Sometimes known as the Referral Source. If this information is not known or not collected, use 9 (Information not available) as a default.		Alpha	1	R	Valid code defined by Joint Commission in Core Measures specification.
3	Type of admission	Code indicating the circumstances under which the patient was seen or will be admitted.	0007	Alpha	1	R	Valid code defined by Joint Commission in Core Measures specification.
4	Primary final diagnosis	ICD9/ICD10 code indicating the primary final diagnosis.		Alphanumeric	10	R	² Diagnosis code format
5	Secondary diagnosis 1	ICD9/ICD10 code indicating secondary diagnosis 1		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
6	Secondary diagnosis 2	ICD9/ICD10 code indicating secondary diagnosis 2		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
7	Secondary diagnosis 3	ICD9/ICD10 code indicating secondary diagnosis 3		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
8	Secondary diagnosis 4	ICD9/ICD10 code indicating secondary diagnosis 4		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
9	Secondary diagnosis 5	ICD9/ICD10 code indicating secondary diagnosis 5		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
10	Secondary diagnosis 6	ICD9/ICD10 code indicating secondary diagnosis 6		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
11	Secondary diagnosis 7	ICD9/ICD10 code indicating secondary diagnosis 7		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
12	Secondary diagnosis 8	ICD9/ICD10 code indicating secondary diagnosis 8		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
13	Secondary diagnosis 9	ICD9/ICD10 code indicating secondary diagnosis 9		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
14	Secondary diagnosis 10	ICD9/ICD10 code indicating secondary diagnosis 10		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
15	Secondary diagnosis 11	ICD9/ICD10 code indicating secondary diagnosis 11		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
16	Secondary diagnosis 12	ICD9/ICD10 code indicating secondary diagnosis 12		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
17	Secondary diagnosis 13	ICD9/ICD10 code indicating secondary diagnosis 13		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
18	Secondary diagnosis 14	ICD9/ICD10 code indicating secondary diagnosis 14		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
19	Secondary diagnosis 15	ICD9/ICD10 code indicating secondary diagnosis 15		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
20	Secondary diagnosis 16	ICD9/ICD10 code indicating secondary diagnosis 16		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
21	Secondary diagnosis 17	ICD9/ICD10 code indicating secondary diagnosis 17		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
22	Secondary diagnosis 18	ICD9/ICD10 code indicating secondary diagnosis 18		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
23	Secondary diagnosis 19	ICD9/ICD10 code indicating secondary diagnosis 19		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
24	Secondary diagnosis 20	ICD9/ICD10 code indicating secondary diagnosis 20		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
25	Secondary diagnosis 21	ICD9/ICD10 code indicating secondary diagnosis 21		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
26	Secondary diagnosis 22	ICD9/ICD10 code indicating secondary diagnosis 22		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
27	Secondary diagnosis 23	ICD9/ICD10 code indicating secondary diagnosis 23		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
28	Secondary diagnosis 24	ICD9/ICD10 code indicating secondary diagnosis 24		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted

Field #	Field Name	Description	Value Set	Data Type	Max Length	Usage	Comment
29	Secondary diagnosis 25	ICD9/ICD10 code indicating secondary diagnosis 25		Alphanumeric	10	RE	² Diagnosis code format - all dx codes on record should be submitted
30	Date of discharge	Date when the patient was discharged from this care facility		DT	8	R	Format YYYYMMDDhhmm
31	Discharge disposition	Code indicating the place or setting to which the patient was discharged.	0112	Alpha	2	R	Valid code defined by Joint Commission in Core Measures specification
32	Condition POA indicator for primary final diagnosis	Code indicating whether condition for primary final diagnosis was present on admission	0895	Alpha	1	R	Values "Y" Condition for primary final diag. present on admission, else "N". If it is unknown, please leave field empty.
33	Condition POA indicator for secondary diagnosis 1	Code indicating whether condition for secondary diagnosis 1 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 1 present on admission, else "N" If it is unknown, please leave field empty.
34	Condition POA indicator for secondary diagnosis 2	Code indicating whether condition for secondary diagnosis 2 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 2 present on admission, else "N" If it is unknown, please leave field empty.
35	Condition POA indicator for secondary diagnosis 3	Code indicating whether condition for secondary diagnosis 3 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 3 present on admission, else "N" If it is unknown, please leave field empty.
36	Condition POA indicator for secondary diagnosis 4	Code indicating whether condition for secondary diagnosis 4 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 4 present on admission, else "N" If it is unknown, please leave field empty.
37	Condition POA indicator for secondary diagnosis 5	Code indicating whether condition for secondary diagnosis 5 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 5 present on admission, else "N" If it is unknown, please leave field empty.
38	Condition POA indicator for secondary diagnosis 6	Code indicating whether condition for secondary diagnosis 6 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 6 present on admission, else "N" If it is unknown, please leave field empty.
39	Condition POA indicator for secondary diagnosis 7	Code indicating whether condition for secondary diagnosis 7 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 7 present on admission, else "N" If it is unknown, please leave field empty.
40	Condition POA indicator for secondary diagnosis 8	Code indicating whether condition for secondary diagnosis 8 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 8 present on admission, else "N" If it is unknown, please leave field empty.
41	Condition POA indicator for secondary diagnosis 9	Code indicating whether condition for secondary diagnosis 9 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 9 present on admission, else "N" If it is unknown, please leave field empty.
42	Condition POA indicator for secondary diagnosis 10	Code indicating whether condition for secondary diagnosis 10 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 10 present on admission, else "N" If it is unknown, please leave field empty.
43	Condition POA indicator for secondary diagnosis 11	Code indicating whether condition for secondary diagnosis 11 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 11 present on admission, else "N" If it is unknown, please leave field empty.

Field #	Field Name	Description	Value Set	Data Type	Max Length	Usage	Comment
44	Condition POA indicator for secondary diagnosis 12	Code indicating whether condition for secondary diagnosis 12 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 12 present on admission, else "N" If it is unknown, please leave field empty.
45	Condition POA indicator for secondary diagnosis 13	Code indicating whether condition for secondary diagnosis 13 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 13 present on admission, else "N" If it is unknown, please leave field empty.
46	Condition POA indicator for secondary diagnosis 14	Code indicating whether condition for secondary diagnosis 14 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 14 present on admission, else "N" If it is unknown, please leave field empty.
47	Condition POA indicator for secondary diagnosis 15	Code indicating whether condition for secondary diagnosis 15 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 15 present on admission, else "N" If it is unknown, please leave field empty.
48	Condition POA indicator for secondary diagnosis 16	Code indicating whether condition for secondary diagnosis 16 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 16 present on admission, else "N" If it is unknown, please leave field empty.
49	Condition POA indicator for secondary diagnosis 17	Code indicating whether condition for secondary diagnosis 17 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 17 present on admission, else "N" If it is unknown, please leave field empty.
50	Condition POA indicator for secondary diagnosis 18	Code indicating whether condition for secondary diagnosis 18 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 18 present on admission, else "N" If it is unknown, please leave field empty.
51	Condition POA indicator for secondary diagnosis 19	Code indicating whether condition for secondary diagnosis 19 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 19 present on admission, else "N" If it is unknown, please leave field empty.
52	Condition POA indicator for secondary diagnosis 20	Code indicating whether condition for secondary diagnosis 20 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 20 present on admission, else "N" If it is unknown, please leave field empty.
53	Condition POA indicator for secondary diagnosis 21	Code indicating whether condition for secondary diagnosis 21 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 21 present on admission, else "N" If it is unknown, please leave field empty.
54	Condition POA indicator for secondary diagnosis 22	Code indicating whether condition for secondary diagnosis 22 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 22 present on admission, else "N" If it is unknown, please leave field empty.
55	Condition POA indicator for secondary diagnosis 23	Code indicating whether condition for secondary diagnosis 23 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 23 present on admission, else "N" If it is unknown, please leave field empty.
56	Condition POA indicator for secondary diagnosis 24	Code indicating whether condition for secondary diagnosis 24 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 24 present on admission, else "N" If it is unknown, please leave field empty.

Field #	Field Name	Description	Value Set	Data Type	Max Length	Usage	Comment
57	Condition POA indicator for secondary diagnosis 25	Code indicating whether condition for secondary diagnosis 25 was present on admission	0895	Alpha	1	RE	Values:"Y" Condition for secondary diag. 25 present on admission, else "N" if it is unknown, please leave field empty.
58	DRG	Diagnosis Related Group		Alpha	4	R	Coded DRG
59	Emergency room visit	Code indicating whether patient was in the Emergency Department during any part of the visit.	0136	Alpha	1	RE	Values: Y = patient was in ER during any part of visit, else N
60	Visit reason	Description of the reason for patient visit, most generally patient's chief complaint.		Alpha	50	R	Format: Free Text
61	Visit identifier	Unique identifier for this patient's visit at this care facility.		Alpha	20	R	
62	Medical record number	Uniquely identifies an individual and his or her medical record/information for the given facility.		Alpha	20	R	Medical Record Number
63	Type of patient visit	Code identifying type of patient visit.	0004	Alpha	1	R	
64	Education Level	Highest level of education attained by patient		Alpha	2	RE	Education Level - If providing code for education level with own code set please provide code set, otherwise please use code set defined in Table 006
65	Race of patient	Code indicating race of patient	CDCREC	Alpha	2	RE	Patient Race Table: CDCREC
66	Hispanic ethnicity	Code indicating whether patient is of Hispanic ethnicity.		Alpha	1	RE	Values: Y (Yes) Patient is of Hispanic ethnicity or Latino. N (No) Patient is not of Hispanic ethnicity or Latino. If it is unknown, please leave field empty.
67	Zip code of patient	Zip Code portion of the patient's home address.		Alpha	10	R	Any valid US zip code, Extended zip code values are not required but may be submitted. "Non-US" or Homeless"
68	County of patient	Text indicating county of home residence		Alpha	20	R	Format: Free text
69	State where patient resides	Code indicating state of home residence.		Alpha	2	R	Valid state abbreviation if resident of the United states
70	Gender of patient	Code indicating gender of patient	0001	Alpha	1	R	Patient Gender Table 0001
71	Patient Date of Birth	Patient date of birth		DT	10	R	Format YYYYMMDDhhmm; Preferred precision is to the nearest day; time components may be sent if they are known
72	Type of primary payer	Code indicating primary source of payment		Alpha	1	R	⁶ Expected primary source of payment.
73	Primary procedure	ICD9/ICD10 code indicating the primary procedure.		Alpha	10	R	⁷ Principal procedure code
74	Secondary procedure 1	ICD9/ICD10 code indicating the secondary procedure 1		Alpha	10	RE	⁷ Secondary procedure code
75	Secondary procedure 2	ICD9/ICD10 code indicating the secondary procedure 2		Alpha	10	RE	⁷ Secondary procedure code
76	Secondary procedure 3	ICD9/ICD10 code indicating the secondary procedure 3		Alpha	10	RE	⁷ Secondary procedure code
77	Secondary procedure 4	ICD9/ICD10 code indicating the secondary procedure 4		Alpha	10	RE	⁷ Secondary procedure code
78	Secondary procedure 5	ICD9/ICD10 code indicating the secondary procedure 5		Alpha	10	RE	⁷ Secondary procedure code
79	Secondary procedure 6	ICD9/ICD10 code indicating the secondary procedure 6		Alpha	10	RE	⁷ Secondary procedure code
80	Secondary procedure 7	ICD9/ICD10 code indicating the secondary procedure 7		Alpha	10	RE	⁷ Secondary procedure code

Field #	Field Name	Description	Value Set	Data Type	Max Length	Usage	Comment
81	Secondary procedure 8	ICD9/ICD10 code indicating the secondary procedure 8		Alpha	10	RE	⁷ Secondary procedure code
82	Secondary procedure 9	ICD9/ICD10 code indicating the secondary procedure 9		Alpha	10	RE	⁷ Secondary procedure code
83	Total charges	Total charges to patient from facility related to visit		Numeric	10	RE	Gross charge balance #####.##
84	Medical service	Code identifying type of patient visit.		Alpha	30	RE	Service line
85	Employer of patient	Name of patient's employer.		Alpha	30	RE	Name of employer
86	Occupation of patient	Descriptive name of patient's occupation		Alpha	30	O	Format: Free Text
87	Employment status of patient			Alpha	30	RE	Format: Free Text
88	Employment work hazards of patient	Text describing work place hazards at patient's work location.		Alpha	100	O	Format: Free Text
89	Activity level at employment	Text describing the patient's activity level at work.		Alpha	30	O	Format: Free Text Examples of acceptable activity levels are included in Appendix A
90	Operate Hazardous Equipment	Code indicating whether patient operates hazardous equipment in the course of doing their job.		Alpha	1	O	Values: "Y" = Operate hazardous equipment in the course of doing their job, else "N" If it is unknown, please leave field empty.
91	Facility Identifier	Code identifying facility from which the patient originated.		Alpha	20	RE	Code set for facility_id is to be provided by sending facility

Clinical Data Record Specification

Field #	Field Name	Description	Value Set	Data Type	Max Length	R/RE/O ¹	Comment
1	Visit ID	Unique Identifier for this visit by this patient at this hospital. Ex: 8399193 or 20110228-00247		Alpha	20	R	
2	Medical Record Number	Unique Identifier for this patient at this hospital.		Alpha	20	R	
3	Admit BP (BP)	First BP taken upon admission		Alpha	7	R	Format SSS/DDD Where "SSS" is the systolic portion of the BP reading and DDD is the diastolic portion of the reading.
4	Admit BP Date	Date of first BP taken upon admission		Date	8	R	Format YYYYMMDD
5	Highest systolic Reading	Highest systolic reading taken during hospitalization		Numeric	3	R	
6	High systolic Date	Date of highest systolic reading taken during hospitalization		Date	8	R	Format YYYYMMDD
7	Highest diastolic reading	Highest diastolic reading taken during hospitalization		Numeric	7	R	
8	High diastolic date	Date with highest diastolic reading taken during hospitalization		Date	8	R	Format YYYYMMDD
9	Active Medication List	List of active medications (name only)		Alpha	255	R	Free text field, Medication names are to be separated with a "^" caret
10	Height	Height		Numeric	3	R	
11	Height Units	Unit of height measurement	UCUM	Alpha	3	R	Value Set Table UCUM
12	Weight	Weight		Numeric	4	R	
13	Weight Units	Unit of weight measurement	UCUM	Alpha	3	R	Value Set Table UCUM
14	Smoking Status	Smoking Status	0136	Alpha	20	RE	Values "Y" if patient has smoked in the past year, else "N" If it is unknown, please leave field empty.
15	Cause of Death	Preliminary cause of death		Alpha	50	R	Free text
16	Discharge Medications	List of discharge medications (name only)		Alpha	250	R	Free text field: All medication names separated by "^" caret
17	Working Diagnosis	Working Diagnosis		Alphanumeric	10	O	² Working Diagnosis Code
18	High-density lipoprotein (HDL) Test Result	Most recent HDL result		Numeric	3	RE	Most recent HDL result - include all visits by patient
19	HDL Reference Range	Reference Range for HDL		Alphanumeric	20	RE	³ Reference Range
20	Low-density lipoprotein (LDL) Test Result	Most recent LDL result		Numeric	3	RE	Most recent LDL result - include all visits by patient
21	LDL Reference Range	Reference Range for LDL		Alphanumeric	20	RE	³ Reference Range
22	Triglycerides Test Result	Most recent triglycerides result		Numeric	3	RE	Most recent triglycerides result - include all visits by patient
23	Triglycerides Reference Range	Reference Range for Triglycerides		Alphanumeric	20	RE	³ Reference Range
24	HDL Test Date	Date of most recent HDL result		Date	8	RE	Format YYYYMMDD
25	LDL Test date	Date of most recent LDL result		Date	8	RE	Format YYYYMMDD
26	Triglyceride Test Date	Date of most recent triglycerides result		Date	8	RE	Format YYYYMMDD

Field #	Field Name	Description	Value Set	Data Type	Max Length	R/RE/O ¹	Comment
27	Hemoglobin A1C Result	Result of most recent Hemoglobin A1C test		Alphanumeric	5	RE	Most recent hemoglobin A1C result - include all visits by patient
28	H1AC Reference Range	Reference Range for H1AC		Alphanumeric	20	RE	³ Reference Range
29	Hemoglobin A1C Test Date	Date of most recent Hemoglobin A1C test		Date	8	RE	Format YYYYMMDD
30	Facility ID	Facility Identifier		Alphanumeric	10	R	Facility Identifier - Identification code for facility Code set should be provided by sending facility
31	Initial Heart Rate	Number of heart beats per minute (Initial Reading)		Numeric	3	RE	
32	Initial Respiratory Rate	Number of breaths per minute (Initial Reading)		Numeric	3	RE	
33	Initial Temperature	Body temperature (Initial Reading)		Numeric	5	RE	
34	Temperature UOM	Unit of Measure for Body Temperature		Alphanumeric	5	RE	If the body temperature is included in element 33 then the unit of measure for body temp is required. Valid values include "degF" for Fahrenheit and "cel" for Celsius.
35	Initial Pulse Oximetry Level	Oxygenation percentage of the patient's hemoglobin (Initial Reading)		Alphanumeric	20	RE	Value can be sent as a simple number such as 98 to indicate a Pulse Oximetry reading of 98% or a more complex observation result such as "99% on RA" to indicate a Pulse Oximetry reading of 99% on room air
36	Admit Date	Date when the patient was admitted to this care facility		Date	8	R	Format: YYYYMMDD
37	Discharge Date	Date when the patient was discharged from this care facility		Date	8	R	Format: YYYYMMDD
38	Troponin Test Results	Results of troponin lab test		Alphanumeric	255	RE	Concatenation of patient troponin level test results separating each value with (^) a caret
39	Troponin Reference Level	Reference Level for Troponin Test Results		Numeric	8	C	Reference range for troponin test results. If the Troponin Test Results data element contains data then Troponin Reference level is required, otherwise data element can be left blank
40	Troponin Test Result Date/Time	Date and Time of Troponin Test		Alphanumeric	255	C	Corresponding date and time for Troponin tests Format YYYYMMDDhhmm. Time hhmm is based on a 24 hour clock. All corresponding date and times for troponin tests are separated by a "^" caret. If the Troponin Test Results data element contains data then Troponin Test result date/time is required, otherwise data element can be left blank

Flat file record transmission

“Flat file record transmission” refers to the ability to transmit a CVD flat file record. In order to have this capability, provider organizations need to perform the following:

1. Obtain or develop, install and configure a client interface capable of transmitting a CVD flat file via the Electronic Business using eXtensible Markup Language (ebXML) infrastructure to securely transmit public health information over the Internet to the Public Health Information Network Messaging System (PHINMS) Message Receiver.
2. The CDC provides, free of charge, their PHINMS client Message Sender for communication with their PHINMS Message Receiver. Alternatively, the provider may choose to develop their own ebXML Message Sender to communicate with the PHINMS Message Receiver.
3. The provider organization will submit two text files containing both CVD demographic and clinical records to be delivered via their ebXML-based client Message Sender to the SSEDON PHINMS Message Receiver.
4. It is the responsibility of the provider organization to obtain or develop, install and configure an ebXML client Message Sender for sending the CVD flat file records
5. The provider organization will need to obtain from SSEDON a CPA (Collaboration Protocol Agreement) for access to the SSEDON Real-time system.

****SSEDON PROVIDES NEITHER INSTALLATION, CONFIGURATION NOR TECHNICAL SUPPORT FOR THE EBXML CLIENT MESSAGE SENDER.**

Full documentation and contact information for the PHINMS product may be found at the following link:
<http://www.cdc.gov/phin/>

Full documentation for the ebXML specification may be found at the following link: <http://www.ebxml.org/specs>

PHINMS is ebXML version 2.0 compliant.

Appendix A – Value Sets

Table	Name	Value	Description
0001	Sex		
0001		F	Female
0001		M	Male
0001		O	Other
0001		U	Unknown
0004	Patient Class		
0004		B	Obstetrics
0004		E	Emergency
0004		I	Inpatient
0004		O	Outpatient
0004		P	Preadmit
0004		R	Recurring
CDCREC	Race		
CDCREC		1002-5	American Indian or Alaska Native
CDCREC		2028-9	Asian
CDCREC		2054-5	Black or African-American
CDCREC		2076-8	Native Hawaiian or Other Pacific Islander
CDCREC		2106-3	White
CDCREC		2131-1	Other Race
CDCREC		Null	Unknown
0007	Admission Type		
0007		A	Accident
0007		C	Elective
0007		E	Emergency
0007		L	Labor and Delivery
0007		N	Newborn (Birth in healthcare facility)
0007		R	Routine
0007		U	Urgent
0023	Admit Source		
0023		1	Physician Referral
0023		2	Clinic Referral
0023		3	HMO Referral
0023		4	Transfer from a hospita
0023		5	Transfer from a skilled nursing facility
0023		6	Transfer from another health care facility
0023		7	Emergency Room
0023		8	Court/Law Enforcement
0023		9	information not available
0066	Employment Status		

Table	Name	Value	Description
0066		1	Full time employment
0066		2	Part time employment
0066		3	Unemployed
0066		4	Self employed
0066		5	Retired
0066		6	On active military duty
0066		9	Unknown
0066		C	Contract, per diem
0066		L	Leave of absence (e.g., family leave, sabbatical, etc)
0066		O	Other
0066		T	Temporarily unemployed
0069	Hospital Service		
0069		CAR	Cardiac Service
0069		MED	Medical Service
0069		PUL	Pulmonary Service
0069		SUR	Surgical Service
0069		URO	Urology Service
0112	Discharge Disposition		
0112		01	Discharge to home or self care (routine discharge)
0112		02	Discharged/transferred to another short term general hospital for inpatient care
0112		03	Discharged/transferred to skilled nursing facility (SNF)
0112		04	Discharged/transferred to an intermediate care facility (ICF)
0112		05	Discharged/transferred to another type of institution for inpatient care or referred for outpatient services to another institution
0112		06	Discharged/transferred to home under care of organized home health service organization
0112		07	Left against medical advice or discontinued care
0112		08	Discharged/transferred to home under care of Home IV provider
0112		09	Admitted as an inpatient to this hospital
0112		20	Expired (i.e. dead)
0112		30	Still patient or expected to return for outpatient services (i.e. still a patient)
0112		40	Expired (i.e. died) at home
0112		41	Expired (i.e. died) in a medical facility; e.g., hospital, SNF, ICF, or free standing hospice
0112		42	Expired (i.e. died) - place unknown
0136	Yes/No Indicator		
0136		Y	Yes
0136		N	No
0189	Ethnic Group		
0189		H	Hispanic or Latino
0189		N	Not Hispanic or Latino
0189		U	Unknown
0430	Mode of Arrival		
0430		A	Ambulance

Table	Name	Value	Description
0430		C	Car
0430		F	On Foot
0430		H	Helicopter
0430		P	Public Transportation
0430		U	Unknown
0895	Present on Admission (POA) Indicator		
0895		E	Exempt
0895		N	No
0895		U	Unknown
0895		W	Not Applicable
0895		Y	Yes
FIPS 5-2	State IDs Note		
FIPS 5-2		08	Colorado – CO
FIPS 5-2		19	Iowa – IA
FIPS 5-2		20	Kansas – KS
FIPS 5-2		29	Missouri – MO
FIPS 5-2		31	Nebraska – NE
FIPS 5-2		46	South Dakota – SD
FIPS 5-2		56	Wyoming – WY
99PAL	Activity Level at Place of Employment		
99PAL		A	Sedentary Work – Lifting 10lbs or less
99PAL		B	Light Work – Lifting 20lbs or less, frequently lifting and carrying up to 10lbs.
99PAL		C	Medium Work – Lifting 50lbs or less, frequently lifting and carrying up to 25lbs
99PAL		D	Heavy Work – Lifting 100lbs or less, frequently lifting and carrying up to 50lbs
99PAL		E	Very Heavy work – Lifting 100lbs or more, frequently lifting and carrying up to 50lbs
99PEL	Education Level		
99PEL		1	None Thru 8 th Grade
99PEL		2	Some High School
99PEL		3	High School Graduate
99PEL		4	Some college – No Degree
99PEL		5	Associate Degree
99PEL		6	Bachelor’s Degree
99PEL		7	Some Post-Graduate Work
99PEL		8	Master’s Degree
99PEL		9	Professional Degree
99PEL		10	Doctorate Degree
UCUM	Units of Measure		
UCUM		Cel	degrees Celsius [temperature]
UCUM		[degF]	degrees Fahrenheit [temperature]
UCUM		d	day [time]
UCUM		mo	month [time]
UCUM		UNK	Unknown
UCUM		wk	week [time]
UCUM		a	year [time]
UCUM		%	Percent