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# National Patient Information Reporting System: National Data Warehouse

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## **NPIRS Basic Business Rules**

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Version 5.0

Department of Health and  
Human Services

Indian Health Service

Office of Information  
Technology(OIT)

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## Version Control

Version	Date	Notes
1.4	May 2004	Initial version.
2.0	September 2009	Update to all information. COTR acceptance September 15, 2009
2.1	September 2010	Clarify CHO encounter type definition to include Service Categories C, R and T and Service Category A, S and O for workload-reportable CHO encounters exported through HL7 and SFE.
2.2	March 2011	Updated links. Modified definition of valid SSN. Added additional criteria for User Pop consideration
3.0	April 2011	Final
3.1 3.2	January 2012	DNKA (Did Not Keep Appointment) APC encounters will not be classified as workload-reportable.
3.3	January 2012	Corrections to table formatting on page 21
3.4	January 2012	Additional clarification of DNKA change
4.0	January 2012	Final
4.1	December 2013	Grammar, formatting and punctuation corrections.
5.0	August 2020	Added 'M' Telemedicine as an APC workload reportable service category for dates of service beginning 1 Oct 2019. Also updated to reflect: <ul style="list-style-type: none"> <li>• ICD10 DNKA codes replaced ICD9 in Dec 2016</li> <li>• Simplified Delimited (SD) format replaced Structured File (SF) format Aug 2012</li> <li>• Added Alternate Simplified Delimited (ASD)</li> <li>• Added Encounter tables (ICN, Infant Feeding, Revenue)</li> <li>• Aberdeen Area renamed to Great Plains</li> <li>• Updated all hyperlinks</li> </ul>

## Background

The National Data Warehouse (NDW) is the national data repository for Indian Health Service (IHS) statistical health care data. This health care data is primarily patient registration and encounters occurring at either IHS facilities or contracting facilities. This document covers the business rules for the NDW core business functions, which are essential to all of the services that the NDW provides.

The core NDW business functions include:

- Loading and storing received registration data
- Loading and storing received encounter data
- Generating user population reports
- Generating workload reports

A few of the additional services that the NDW provides are:

- Fulfilling special data and report requests from Headquarters, outside entities, IHS Administrative Area Offices, or Sites
- Producing annual reports for the Centers for Disease Control and Prevention (CDC), Census, and Tumor Registry
- Serving as the liaison between the IHS Administrative Area Offices and the Centers for Medicare & Medicaid Services (CMS) Interface
- Maintaining and supporting the NDW Informational website  
(See <https://www.ihs.gov/npirs/>)
- Maintaining and supporting the Meta Data website  
(See <https://www.ihs.gov/metadata/>)
- Providing User Access to IHS data through the General Data Mart  
(See the [NDW General Data Mart Getting Started Guide](#) and the [NDW Data Quality Mart User Guide](#))
- Maintaining and supporting the Export Tracking Mart  
(See the [NDW Export Tracking User Guide](#))
- Loading and storing Registration Data

## Definitions and Relevant Code Sets

Throughout this document there are a number of references to ‘valid chart numbers,’ ‘valid social security numbers’ (SSNs), and ‘IHS Administrative Areas.’ The definition of each of these terms appears below:

- **Valid chart number:** Any chart number that has a value populated, except for those where value is equal to ‘9999999999’, ‘0000999999’ or ‘0000000000.’
- **Valid social security number (SSN):** Any 9 characters with the exception of “123456789”, “000000001” or all the same digit (i.e. “999999999”). Valid is not to be confused with ‘verified’.
- **IHS Administrative Area:** One of 12 designated **regions**, namely, Alaska, Albuquerque, Bemidji, Billings, California, Great Plains, Nashville, Navajo, Oklahoma, Phoenix, Portland, and Tucson.

Some of the fields referred to in this document are associated with code sets that are available for viewing. Refer to Appendix A for a cross reference of field names and their corresponding look-up tables.

## Load and Storage of Registration Data

The NDW receives Registration data from both RPMS and Non-RPMS sources in either Health Level 7 (HL7) or Simplified Delimited Registrations (SDR) formats as shown in the following table.

Source	Export File Format
RPMS	HL7
Non-RPMS	Both HL7 and SDR

Registration data is stored in the NDW in the five major registration tables described below.

Table Name	
PAT_REG	General Information about the patient that is expected to remain relatively static
CHART	Chart Number(s) the patient was assigned by a facility
DEMOGR	Demographic Information about the patient that is frequently changed
INSUR_ELIG	Insurance Eligibility
ALIAS	Contains any aliases by which an individual may be known
ICN	Contains the patient identifiers from the RPMS Master Patient Index (MPI) application

## Registration Identifiers

The NDW stores a copy of each patient registration. Every incoming registration should have a 15-digit unique registration code that uniquely identifies a registration record. The first five digits identify the source database and the last ten digits represent the internal entry number. To be prepared for the possibility that a record may not have a unique registration code, NDW also assigns a registration identifier (REG\_ID) to each registration. The REG\_ID is a sequential number used to identify individual registrations in the database and as a key to link registrations with encounters.

## Load and Storage of Encounter Data

The NDW receives Encounter data from multiple sources and in multiple formats as shown in the table below.

Source	Export File Format
RPMS PCC (Patient Care Component) module	HL7
RPMS CHS/MIS (Contract Health Service Management Information System) module	CHSSTAT
CHS FI (Fiscal Intermediary)	STATRECS OR DENTSTAT
Non-RPMS	HL7, ASD, and SDE

The NDW stores the encounter data in the tables listed below.

Table Name	Description
ADA_PROC	The ADA Procedures table contains ADA procedure-specific information.
CLIN_MEAS	The Clinical Measure table contains clinical measure-specific information.
DX	The Diagnosis ICD9 table contains the diagnosis code(s) for the encounter.
ENCTRSS	The Encounters table, the primary table of the ENCTR schema, contains the basic information that most or all encounters provide and the key, ENCTRSS_ID.
ENCTRSS_CONTRACT	The Encounters-Contract table contains detailed health contract-related information.
ENCTRSS_DENTAL	The Encounters-Dental table contains detailed dental-related information.

Table Name	Description
ENCTRSS_INPAT	The Encounters-Inpatient table contains detailed inpatient-related information.
ENCTRSS_MISC	The Encounters-Miscellaneous table contains miscellaneous information.
ENCTRSS_PHN	The Encounters-Public Health Nurse table contains detailed PHN-related information.
EXAM	The Exam table contains exam-specific information.
HCPCS_PROC	The HCPCS Procedure table contains HCPCS/CPT-specific information.
HEALTH_FACTOR	The Health Factor table contains health factor-specific information.
ICN	The ICN table contain the patient identifiers from the RPMS Master Patient Index (MPI) application.
IMMUN	The Immunization table contains immunization-specific information.
INFANT_FEEDING	The Infant Feeding table contains infant feeding-specific information.
LAB_TEST	The Lab Test table contains lab test-specific information.
MEDICATION	The Medication table contains medication-specific information.
PAT_EDUCATION	The Patient Education table contains patient education-specific information.
PAT_SKIN_TEST	The Patient Skin Test table contains skin test-specific information.
PROCEDURE	The Procedure ICD9 table contains the procedure ICD9 code and date for the procedures related to a particular encounter.
PROVIDER_CODE	The Provider Code table contains the provider identifier code information.
REVENUE	The Revenue table contains revenue information for contract data.
TEETH	The Teeth table contains teeth-specific information.

## Identifying the Type of Encounter

The NDW implements the logic below to identify the type of encounter based on established rules. The logic for the types of encounters is depicted by the export file format as the exporting sources send different variables for identifying the encounter type.

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**The following business rules are used to differentiate the types of encounters for processing and reporting:**

## Direct Outpatient Records

Direct outpatient encounters, also known as Ambulatory Patient Care (APC) encounters, are defined as an outpatient service at any IHS or Tribal Facility. These encounters are exported in the Health Level 7 (HL7), Simplified Delimited Encounter (SDE), or Alternative Simplified Delimited (ASD) formats. The business rules for identifying this type of encounter are the same for all formats.

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**Note:** These records do not include encounters in the Dental (DEN) and Dental Pharmacy (DPH) categories. See [Dental Record Categories](#).

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**The following business rules apply for direct outpatient encounters:**

<i>Service Type</i>	value equal to:	<b>I</b>	(IHS)
		<b>T</b>	(Tribe, Non-638/Non-Compact)
		<b>O</b>	(Other)
		<b>6</b>	(Tribe, 638 Programs)
		<b>P</b>	(Tribe, Compacted Program)
		<b>U</b>	(Urban Clinic)

And

<i>Service Category</i>	value equal to:	<b>A</b>	(Ambulatory)
		<b>S</b>	(Day Surgery)
		<b>O</b>	(Observation)
		<b>C</b>	(Chart Review)
		<b>R</b>	(Nursing Home)
		<b>T</b>	(Telecommunications)
		<b>M</b>	(Telemedicine)

## Direct Inpatient Records (INP)

Direct inpatient encounters are defined as a patient hospitalization in any IHS or Tribal Facility. These encounters are exported in the HL7, SDE or ASD formats. The business rules for identifying this type of encounter are the same for all formats.



**The following business rules apply for direct inpatient encounters:**

<i>Service Type</i>	value equal to:	<b>I</b>	(IHS)
		<b>T</b>	(Tribe, Non-638/Non-Compact)
		<b>O</b>	(Other)
		<b>6</b>	(Tribe, 638 Programs)
		<b>P</b>	(Tribe, Compacted Program)
		<b>U</b>	(Urban Clinic)

And

<i>Service Category</i>	value equal to:	<b>H</b>	(Hospitalizations)
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## **Contract Outpatient Records (CHO)**

Contract outpatient encounters are defined as any outpatient encounters that are not available directly from IHS or Tribes that are purchased under contract from community hospitals and practitioners. These services must be approved by an IHS authorizing facility.

**The following business rules apply for contract outpatient encounters:**

For HL7, SDE and ASD exports:

<i>Service Type</i>	value equal to:	<b>C</b>	(Contract)
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And

<i>Service Category</i>	value equal to:	<b>A</b>	(Ambulatory)
		<b>S</b>	(Day Surgery)
		<b>O</b>	(Observation)
		<b>C</b>	(Chart Review)
		<b>R</b>	(Nursing Home)
		<b>T</b>	(Telecommunications)

For FI STATRECS exports:

<i>Record Code</i>	value equal to:	<b>20</b>	(Outpatient Record)
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For CHS/MIS CHSSTAT exports:

<b>Record Number</b>	value equal to:	<b>CO</b>	(Contract Outpatient - record 1)
		<b>C2</b>	(Contract Outpatient - record 2)
		<b>C3</b>	(Contract Outpatient - record 3)
		<b>C4</b>	(Contract Outpatient - record 4)
		<b>C5</b>	(Contract Outpatient - record 5)
		<b>C6</b>	(Contract Outpatient - record 6)
		<b>C7</b>	(Contract Outpatient - record 7)
		<b>C8</b>	(Contract Outpatient - record 8)
		<b>CX</b>	(Contract Outpatient - record 9)

## Contract Inpatient Records (CHI)

Contract inpatient encounters are defined as any hospitalization that occurs at a community hospital outside of the IHS or Tribal network and is purchased under contract. These services must be approved by an IHS authorizing facility.

**The following business rules apply for contract inpatient encounters:**

For HL7, SDE and ASD exports:

<b>Service Type</b>	value equal to:	<b>C</b>	(Contract)
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And

<b>Service Category</b>	value equal to:	<b>H</b>	(Hospitalizations)
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For FI STATRECS exports:

<b>Record Code</b>	value equal to:	<b>19</b>	(Inpatient Record)
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For CHS/MIS CHSSTAT exports:

<b>Record Number</b>	value equal to:	<b>HC</b>	(Contract Inpatient - record 1)
		<b>H2</b>	(Contract Inpatient - record 2)
		<b>H3</b>	(Contract Inpatient - record 3)
		<b>H4</b>	(Contract Inpatient - record 4)
		<b>H5</b>	(Contract Inpatient - record 5)
		<b>H6</b>	(Contract Inpatient - record 6)
		<b>H7</b>	(Contract Inpatient - record 7)
		<b>H8</b>	(Contract Inpatient - record 8)
		<b>H9</b>	(Contract Inpatient - record 9)
		<b>H0</b>	(Contract Inpatient - record 10)
		<b>HA</b>	(Contract Inpatient - record 11)
		<b>HB</b>	(Contract Inpatient - record 12)
		<b>HD</b>	(Contract Inpatient - record 13)
		<b>HX</b>	(Contract Inpatient - record 14)

## Dental Record Categories

Dental Pharmacy (DPH) is a subset of Dental (DEN) encounters. The Dental Pharmacy category was created for the ease of APC workload reporting. DPH encounter types are designated to be associated with the provider discipline ‘Pharmacist’ in direct outpatient reporting; therefore, DPH encounters are considered to be both a Dental encounter and an Outpatient (APC) Pharmacy encounter.

DPH encounters are double-counted in Workload reports:

- DEN and DPH encounters are combined for the Dental Workload reports.
- APC and DPH encounters are combined for the APC Workload reports.

A description of these reports is outlined in the [Userpop/Workload User Guide](#).

## Dental Records (DEN)

Dental encounters are defined as any dental service provided by IHS, Tribal or Contract facilities.

### The following business rules apply for dental encounters:

For HL7, SDE and ASD exports:

<b>Service Type</b>	value equal to:	<b>I</b>	(IHS)
		<b>T</b>	(Tribe, Non-638/Non-Compact)
		<b>O</b>	(Other)
		<b>6</b>	(Tribe, 638 Programs)
		<b>P</b>	(Tribe, Compacted Program)
		<b>U</b>	(Urban Clinic)

And

<b>Service Category</b>	value equal to:	<b>A</b>	(Ambulatory)
		<b>S</b>	(Day Surgery)
		<b>O</b>	(Observation)
		<b>C</b>	(Chart Review)
		<b>R</b>	(Nursing Home)
		<b>T</b>	(Telecommunications)

And

<b>Clinic Code</b>	value equal to:	<b>56</b>	(Dental)
		<b>57</b>	(PSDT)
		<b>99</b>	(Third Party Dental)

And

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**Any Provider Code** value equal to:

<b>52</b>	(Dentist)
<b>60</b>	(Dental Assistant)
<b>54</b>	(Dental Assistant, Prenatal)
<b>46</b>	(Dental Hygienist)
<b>B7</b>	(Dental Aide Therapist)

And

**ADA Code** must be: **Present** (at least one ADA Code)

For CHS/MIS CHSSTAT exports:

**Record Number** value equal to:

<b>DO</b>	(Contract Dental - record 1)
<b>D2</b>	(Contract Dental - record 2)
<b>D3</b>	(Contract Dental - record 3)
<b>D4</b>	(Contract Dental - record 4)
<b>DX</b>	(Contract Dental - record 5)

All records in '**DENTSTAT**' export are considered dental records.

## Dental Pharmacy Records (DPH)

Dental Pharmacy encounters are defined as dental visits to any IHS or Tribal facility with at least one prescription issued.

### The following business rules apply for dental pharmacy encounters:

For HL7, SDE and ASD exports:

**Service Type** value equal to:

<b>I</b>	(IHS)
<b>T</b>	(Tribe, Non-638/Non-Compact)
<b>O</b>	(Other)
<b>6</b>	(Tribe, 638 Programs)
<b>P</b>	(Tribe, Compacted Program)
<b>U</b>	(Urban Clinic)

And

**Service Category** value equal to:

<b>A</b>	(Ambulatory)
<b>S</b>	(Day Surgery)
<b>O</b>	(Observation)
<b>C</b>	(Chart Review)
<b>R</b>	(Nursing Home)
<b>T</b>	(Telecommunications)

And

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<b><i>Clinic Code</i></b>	value equal to:	<b>56</b>	(Dental)
And			
<b><i>Any Provider Code</i></b>	value equal to:	<b>52</b>	(Dentist)
And			
<b><i>The ADA Code</i></b>	must be:	<b>Present</b>	
And			
<b><i>RX Quantity</i></b>	must be:	<b>Greater than zero</b>	

## Other Records (OTH)

Other encounters are defined as any patient service that does not fit into the previous categories.

**The following business rules apply for all other encounters:**

For HL7, SDE and ASD exports:

<b><i>Service Type</i></b>	value is equal to:	<b>S</b>	(State)
		<b>V</b>	(Veteran)
And			
<b><i>Service Category</i></b>	is equal to:	<b>any value</b>	
<b>OR</b>			
<b><i>Service Type</i></b>	value is equal to:	<b>C</b>	(Contract)
		<b>I</b>	(IHS)
		<b>T</b>	(Tribe, Non-638/Non-Compact)
		<b>O</b>	(Other)
		<b>6</b>	(Tribe, 638 Programs)
		<b>P</b>	(Tribe, Compacted Program)
		<b>U</b>	(Urban Clinic)
And			
<b><i>Service Category</i></b>	value is equal to:	<b>I</b>	(In Hospital)
		<b>N</b>	(Not found)
		<b>E</b>	(Historical Event)
		<b>D</b>	(Daily Hospitalization Data)
		<b>X</b>	(Ancillary Package Daily Data)

## Matching Encounters to Registrations

In the NDW, each registration record is identified by its internal registration identifier (REG\_ID).

During the loading of encounter data, each encounter is associated with a registration identifier by comparing one or more of the following variables:

- Unique Registration Code
- Chart Facility Code
- Authorizing Facility Code
- Chart Number
- Valid Social Security Number (SSN)

Once matched, the encounter record is assigned the corresponding registration identifier. If a matching registration cannot be identified, the encounter remains classified as un-matched.

### The following business rules are used to match encounters to registrations:

1. First the encounters are compared with registrations on:

- Unique Registration Code

**OR**

2. If the Unique Registration Code is missing, then encounters are compared with registrations on:

- Chart Facility Code  
And
- A Valid Chart Number

**OR**

If both **Unique Registration Code** and **Chart Number** are missing or invalid, then encounters are compared with registrations on:

- Chart Facility Code  
And
- Valid SSN

**OR**

If both the **Unique Registration Code** and **Chart Facility Code** are missing, then encounters are compared with registrations on:

- Authorizing Facility Code  
And
- A Valid Chart Number

**OR**

If the record has an **Invalid Chart Number** and the **Unique Registration Code** and **Chart Facility Code** are missing then the encounters are compared with registrations on:

- Authorizing Facility Code  
And
- Valid SSN

## Un-Matched Encounters

Encounters are normally matched to registrations during the import process; however, there are times that Encounter data is loaded before NDW receives the corresponding Registration data. An encounter for which a matching registration was not found will be loaded to the Encounter tables with Registration Identifier (REG\_ID) = 0. A utility is run on a weekly basis that links previously unmatched data in the Encounter tables with data in the Registration tables. The REG\_ID is updated for those that received an incoming registration during the timeframe. This process typically runs as part of the Extract, Transform and Load (ETL) process tree.

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**Note:** Encounters with a Registration Identifier equal to 0 are included in official workload reporting but not included in official User Population report processing.

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## Unduplicating Encounter Records

The NDW stores all records received whether they are duplicates or not. The same record can be received from one source multiple times, or the same record received from multiple sources. The unduplication process is performed in two steps. The first step is an initial unduplication of records that have been sent more than once from the same source due to modifications by the site. For HL7, SDE and ASD exports, a unique, 15 digit encounter code is sent with each record to uniquely identify the encounter. The first five digits identify the source database, and the last ten digits represent the internal entry number. The unique encounter code combined with the date last modified is used to determine if the incoming record is older than the existing record. This may happen if files are sent out of order. If the incoming record is not older, the existing record is marked as non-current (Current Encounter Flag = 'No') and the incoming record is marked as current (Current Encounter Flag = 'Yes').

The second step takes place after the encounter data Extract, Transform and Load (ETL) process and before report generation. An official unduplication is performed against the entire NDW database and encompasses all export file formats. Using the following business rules, combined with the most recent Row Create Date/Timestamp, a Duplicate Flag is created to identify whether a record is a duplicate or not.

Once a group of records is identified as being multiple iterations of the same encounter, the Duplicate Flag (DUP\_FG) of the record with the most recent Row Create Date/Timestamp is set to 'No' and the remaining records' Duplicate Flags set to 'Yes.'

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**Note:** For [Workload-Reportable Encounters](#), if the record is marked current and the duplicate flag equals 'No,' then the record is used in the official Workload Reports.

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**The Duplicate Flag is created based on the following business rules for each encounter type:**

## **Direct Outpatient Records**

When a valid **Chart Number** is present then the records are compared on:

- Chart Number
- Chart Facility Code
- Location of Encounter
- Service Date
- Clinic Code
- Primary Provider

When a valid **Chart Number** is **not** present then the records are compared on:

- SSN
- Chart Facility Code
- Location of Encounter
- Service Date
- Clinic Code
- Primary Provider

## **Direct Inpatient Records**

When a valid **Chart Number** is present then the records are compared on:

- Chart Number
- Chart Facility Code
- Location of Encounter
- Service Date
- Discharge Date

When a valid **Chart Number** is **not** present then the records are compared on:

- SSN
- Chart Facility Code
- Location of Encounter
- Service Date
- Discharge Date

## Contract Health (Outpatient and Inpatient) Records

When a valid **Chart Number** is present then the records are compared on:

- Chart Number
- Authorizing Facility Code (or if missing Chart Facility Code)
- Service Date

When a valid **Chart Number** is **not** present then the records are compared on:

- SSN
- Authorizing Facility Code (or if missing Chart Facility Code)
- Service Date

## Dental Health Records

When a valid **Chart Number** is present then the records are compared on:

- Chart Number
- Chart Facility Code (or if missing Authorizing Facility Code)
- Service Date
- Birth Date

When a valid **Chart Number** is **not** present then the records are compared on:

- SSN
- Chart Facility Code (or if missing Authorizing Facility Code)
- Service Date
- Birth Date

## Other Encounter Records

When a valid **Chart Number** is present then the records are compared on:

- Chart Number
- Chart Facility Code
- Location of Encounter
- Service Date
- Discharge Date
- Primary Provider Code

When a valid **Chart Number** is **not** present then the records are compared on:

- SSN
- Chart Facility Code
- Location of Encounter
- Service Date
- Discharge Date
- Primary Provider Code

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## User Population Reports

The User Population (USERPOP) reports are provided to the IHS Administrative Area Offices and Headquarters, Office of Program Statistics. There are multiple draft reports generated each year and one official Fiscal Year (FY) version. These reports provide counts of all registered and active users (patients) within each IHS Administrative Area. They are created by extracting patient registration information and associated encounter (workload) data from the NDW database.

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**Note:** The official User Population reports referred to in this document are the ones posted on the NDW Reporting Web Site, not the ones published by the Office of Public Health Support. For a discussion of the relationship between the two, see the User Population frequently asked question (FAQ) [“How does the Userpop report on the web relate to the ‘official Userpop count’ issued by HQ?”](#)

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Everyone sent in by a given IHS Administrative Area will be counted just once within that Area’s USERPOP report.<sup>1</sup> The key elements that are used to determine where or how they will be counted on these reports are:

- Duplicate Flag
- Indian Status
- Active Flag
- Community of Residence

### Duplicate Flag

The NDW can receive the same registration record multiple times from the same source and the same person can be registered at multiple places.

The unduplication process is performed in two steps. The first step is an initial unduplication of records that have been sent more than once from the same source due to modifications by the site. The unique registration code combined with the date last modified is used to determine if the incoming record is older than the existing record. This can happen if files are not sent in date order. If the incoming record is not older, the existing registration record is replaced.

The second step takes place during the preparation for a set of User Population Reports. In order to count a person only once in each IHS Area, the following business rules are applied to unduplicate the registration records:

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<sup>1</sup> The only exceptions to this rule are registrations from Alaska's Area 39 or those missing either chart facility, chart number, last name or both first and middle names. Records with missing fields will appear in the Data Quality Mart report – DQM-UP1.

- The first step in identifying multiple registrations for the same patient is to create an Integrity Identifier (INTEGRITY\_ID) for each registration. This is done using a special software package that does probabilistic matching of records based on all three name fields (First Name, Last Name, and Middle Name), the SSN, Date of Birth, and Gender applied to the entire NDW registration database.
- The unduplication process is completed by setting the duplicate flag for each registration record (REG\_ID). The entire set of registration records that belong to the same IHS Administrative Area is checked for presence of duplicate Integrity Identifiers. If the same Integrity Identifier is assigned to two or more registration records, the one with most recently modified (or created) date is considered as the non-duplicate (REGION\_DUP\_FG = 'N') and is counted on the User Population reports. The other records are marked as duplicates and are not counted. Additionally, the Active Status of the non-duplicate registration record is upgraded to Active if any of its duplicates are Active.

## Indian Status

Indian Status determination is made based on current values for each Registration ID (REG\_ID). A patient will be considered an Indian (IndianStatusFlag = 'Y') if that patient meets one of the following criteria:

- Member of a federally recognized Tribe (Tribe Code<sup>2</sup> = '000' – '997' and Indian Flag<sup>3</sup> = 'Indian')
- Tribe Code = '998' or '999' and Beneficiary Code = '01'
- Tribe Code = '998' or '999' and Indian Blood Quantum<sup>4</sup> = '1' or '2' or '3' or '4'

In all other cases, the patient will be considered as non-Indian.

The Indian Status of the non-duplicate registration record determines how the person is represented on the User Population report.

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<sup>2</sup> Tribe Code is obtained from the Tribes Table in the Standard Code Book – see Appendix A

<sup>3</sup> Indian Flag is retrieved from the Tribes Table in the Standard Code Book – see Appendix A

<sup>4</sup> The Blood Quantum Codes Table can be found in the Standard Code Book – see Appendix A

## Active Flag

The determination of each patient's active status is made based on the presence of the workload-reportable encounter records.

For the Official USERPOP reports, an Active user is defined as a patient who has had at least one workload-reportable encounter within the last three fiscal years sent in by any IHS or Tribal site in the same IHS Administrative Area where they are registered. The date used to determine if the encounter is within the defined three year date range depends upon the type of encounter being selected, as shown in the following table:

Report Delineation Code	Date Used
Direct Outpatient (APC)	Service Date
Direct Inpatient (INP)	Discharge Date
CHS Outpatient (CHO)	Service Date
CHS Inpatient (CHI)	Discharge Date
Dental (DEN)	Service Date
Dental Pharmacy (DPH)	Service Date

## Community of Residence

The Community of Residence is the key element deciding under what Area of Residence and Service Unit a user will be counted. The Area and Service Unit are retrieved from the Standard Code Book based on the Community of Residence at the time of reporting. Because we live in a highly mobile society, it is normal for the report of one IHS Administrative Area to show people who claim residences outside their own Areas. The Community of Residence of the non-duplicate registration record determines how the person is represented on the User Population report.

The Community of Residence code used in USERPOPs comes primarily from the registration data. In some cases where the registration record value is unknown, an attempt is made to get the community data from the patient's workload-reportable encounter data closest to the end of the three year period.

## Workload Reports

Generating and publishing workload reports are another of the NDW's core business functions. The business rules used to determine if a record is workload-reportable are listed in the section of this document entitled [Workload-Reportable Encounters](#).

The 'standard' workload reports can be divided into two groups:

- Workload verification reports, and
- Other workload reports, which include progress and on-request reports

Encounter records are unduplicated prior to Workload report generation. More information about the unduplication process can be found in the section of this document entitled [Unduplicating Encounter Records](#). All of the workload reports are published on the IHS NDW Reporting Web Site ROHAN and are available only to Area Stat Officers (ASOs). Each IHS Administrative Area has access only to the reports specific to its area.

For more information about the workload reports see the [Userpop/Workload User Guide](#).

## Workload Verification Reports

Workload verification reports are the annual reports used to verify number of visits to IHS Areas/Service Units/Facilities (ASUFAC). During any current fiscal year, workload verification reports are refreshed during each workload cycle and even more frequently toward the end of verification cycle (fiscal year). This approach is intended to resolve any discrepancies early, not just at the end of each fiscal year.

## Workload-Reportable Encounter

During the encounter data load processing each record is evaluated for its workload reportability. The following sections describe the business rules for establishing the records' workload reportability for each type of encounter.

**An encounter is determined to be workload-reportable and the workload flag is set to 'Y' based on the following business rules:**

## Direct Outpatient Records (APC)

Each Direct Outpatient record is evaluated using criteria described below and the workload-reportable flag is set to 'Y' if the following conditions exist:

<b><i>Service Type</i></b>	value equal to:	<b>I</b> (IHS) <b>T</b> (Tribe, Non-638/Non-Compact) <b>O</b> (Other) <b>6</b> (Tribe, 638 Programs) <b>P</b> (Tribe, Compacted Program) <b>U</b> (Urban Clinic)
And		
<b><i>Service Category</i></b>	value equal to:	<b>A</b> (Ambulatory) <b>S</b> (Day Surgery) <b>O</b> (Observation) <b>M</b> (Telemedicine)
And		
<b><i>Clinic Code</i></b>	value found in:	the Standard Code Book (Clinic Codes) With Work Load Report flag = 'Y'
And		
<b><i>Primary Provider Code</i></b>	value found in:	the Standard Code Book (Services Rendered By (Provider)) With Work Load Report flag = 'Y' AND (Provider Status = 'A' Or Provider expiration Date is null or greater than or equal to the Service date).
<b><i>Location of Encounter</i><sup>2</sup></b>	value found in:	the Standard Code Book (Facility Table) With APC Flag = Yes.
<b><i>Diagnosis Code</i></b>	must be:	Present (at least one non-DKNA <sup>5</sup> Diagnosis Code)

<sup>5</sup>DNKA defined as Z04.9, Z53.1, Z53.20, Z53.21, Z53.29

## Direct Inpatient Records (INP)

Each record is evaluated using criteria described below and the workload-reportable flag is set to 'Y' if the following conditions exist:

**Service Type** value equal to:

<b>I</b>	(IHS)
<b>T</b>	(Tribe, Non-638/Non-Compact)
<b>O</b>	(Other)
<b>6</b>	(Tribe, 638 Programs)
<b>P</b>	(Tribe, Compacted Program)

And

**Service Category** value equal to: **H** (Hospitalizations)

**First Diagnosis Code** must be: **Present**

## Dental Records (DEN and DPH)

Each record is evaluated using criteria described below and the workload-reportable flag is set to 'Y' if the following conditions exist:

For HL7, SDE and ASD:

**Service Type** value equal to:

<b>I</b>	(IHS)
<b>T</b>	(Tribe, Non-638/Non-Compact)
<b>O</b>	(Other)
<b>6</b>	(Tribe, 638 Programs)
<b>P</b>	(Tribe, Compacted Program)
<b>U</b>	(Urban Clinic)

And

**Service Category** value equal to:

<b>A</b>	(Ambulatory)
<b>S</b>	(Day Surgery)
<b>O</b>	(Observation)

**ADA Code** must be: **Present** (at least one ADA Code)  
**None of the ADA Codes can be equal to:**  
**9130** (Cancelled Appointment)  
**9140** (Broken Appointment – No Show)

For all other formats:

**ADA Code** must be: **Present** (at least one ADA Code)  
**None of the ADA Codes can be equal to:**  
**9130** (Cancelled Appointment)  
**9140** (Broken Appointment – No Show)



## Contract Outpatient Records (CHO)

Each record is evaluated using criteria described below and the workload-reportable flag is set to 'Y' if the following conditions exist:

For HL7, SDE and ASD formats:

<b>Service Category</b>	value equal to:	<b>A</b>	(Ambulatory)
		<b>S</b>	(Day Surgery)
		<b>O</b>	(Observation)

And

<b>CHS Provider Type<sup>2</sup></b>	value equal to:	<b>01</b>	(Hospital – GM&S)
		<b>05</b>	(Physician)
		<b>06</b>	(Optometrist)
		<b>07</b>	(Dentist)
		<b>12</b>	(Pharmacy)
		<b>16</b>	(All Other)
		<b>17</b>	(Chiropractor)
		<b>18</b>	(NHSC – PNP)
		<b>19</b>	(NHSC – CNW)

For all other formats:

<b>CHS Provider Type<sup>2</sup></b>	value equal to:	<b>01</b>	(Hospital – GM&S)
		<b>05</b>	(Physician)
		<b>06</b>	(Optometrist)
		<b>07</b>	(Dentist)
		<b>12</b>	(Pharmacy)
		<b>16</b>	(All Other)
		<b>17</b>	(Chiropractor)
		<b>18</b>	(NHSC – PNP)
		<b>19</b>	(NHSC – CNW)

## Contract Inpatient Records (CHI)

Each record is evaluated using criteria described below and the workload-reportable flag is set to 'Y' if the following conditions exist:

<b>CHS Provider Type</b>	value equal to:	<b>01</b>	(Hospital – GM&S)
		<b>03</b>	(Hospital – Psychiatric)
		<b>04</b>	(Nursing Home)

## Appendix A: Referenced Code Books

The following table is a list of published<sup>6</sup> Standard Code Book Sections.

Table Name	Variable Name (As Listed in Business Rules)
Admission	
APC Recodes	
Area	Area of Residence
Blood Quantum Codes	Indian Blood Quantum
Cause of Injury Codes (External Cause)	
Classification Codes(Beneficiary)	Beneficiary Code
Clinic	Clinic Code
Clinical Services	
Community	Community of Residence
County	
Facility	Chart Facility, Authorizing Facility, Location of Encounter and ASUFAC
Facility Type	
Patient Education Protocols (Education Topics)	
Place of Injury	
Reservation	
Service Unit	Service Unit
Services Rendered by (Provider Discipline Code)	Provider Code and Primary Provider
State	
Tribe	Tribe Code and Indian Flag
Type of Provider (Vendor)	CHS Provider Type

<sup>6</sup>Standard Code Books are published on the NDW web site  
<http://www.ihs.gov/scb/index.cfm?module=tablesSCB&newquery=1>

The following table is a list of published<sup>7</sup> OIT Standard Code Set Sections.

Table Name	Variable Name (As Listed in Business Rules)
Clinical Measure Codes	
Dental Operation Site Codes	
Diagnosis Cause Codes	
Education Understanding Codes	
Emergency Room Disposition Codes	
Examination Codes	
Inpatient Disposition Codes	
Insurance Category Codes	
Provider Affiliation	
Public Health Nurse Activity Codes	
Public Health Nurse Intervention Level	
Service Category Codes	Service Category
Service Eligibility Codes	
Service Level Codes	
Service Type Codes	Service Type
Skin Test Codes	
Skin Test Result Codes	

<sup>7</sup> OIT Standard Code Set is published on the NDW web site  
<http://www.ihs.gov/scb/index.cfm?module=tablesOSCS&newquery=1>