

Indian Health Service

Immunization Updates

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AUGUST 24, 2023



Learning Objectives

By the end of this presentation you will be able to:

- Understand what changed with high risk forecasting for Pneumococcal vaccination
- What does Supplemental Text have to offer the end user
- How was forecasting improved for Meningococcal B vaccine
- Compare the old and new changes of the Adult report
- Understand what are the new changes to the EHR Immunization Component

High Risk Forecasting

Expanded lookup for diagnosis using V POV and SNOMED concepts

```
# Immunization History
-----
Case Manager.....: Unknown
Designated Provider...: Unknown
Parent/Guardian.....:
Current Community....: ABERDEEN
Date First Entered...: 02-Aug-2013 (Manual)
High Risk Pneumo,Hep.: Pneumo (as of 05/13,
Forecast Flu/Pneumo...: Normal
Mother's HBsAG Status: Unknown
State Registry.....: Unknown
Other Information....:
```

IPL			
Family Hx			
Surgical Hx			
Pt Goals			
Anticoagulation			
Integrated Problem List <input type="button" value="Expand All"/>			
Core Problems			
Chronic			
Episodic			
Social / Environmental			
Routine / Admin			
Inpatient			
Status	Onset Date	Priority	Provider Narrative
Episodic			Diabetic sensory polyneuropathy



```
HLN ICE Forecaster v1.37.2 for: ...
-- IMM HISTORY EVALUATION -----
Date      CVX      Vaccine (combo)      Status - Reason
-----
-- FORECAST -----
DUE:
| Vaccine      Status      Earliest      Recommended      Overdue
-----
FUTURE:
| Vaccine      Status      Earliest      Recommended      Overdue
-----
COMPLETE:
| Vaccine      Status
-----
HIGH RISK:
| Vaccine      Status
-----
| PNEUMO      Added for High Risk Medical Conditions.
```

High Risk Forecasting

Added BQI taxonomies

- Transplant
- Cancer
- Immunodeficiency
- VSAC

Ordering Provider

Ordering Provider field

```
Imm v8.5*26          * * *  ADD AN IMMUNIZATION VISIT  * * *
Patient: DEMO,ANGELA          DOB: 01-Jan-1960 (63 yrs)
Chart#: 456123 at 2021 DEMO HOSPITA      Active      Female
-----
Visit Date: JUL 5,2023          Category: Ambulatory
Admin Date:
Vaccine: Pneumococcal, PCV-20      Lot#:
        (PCV-20)
Inj Site: Right Deltoid SQ        Vol: 0.5 ml
Location Type: IHS              Location: 2021 DEMO HOSPITAL (TNST)
Provider: ACUNA,THOM            Ordering Provider: PALANKI,SURYAM
VIS Date: MAY 12,2023 Presented: JUL 5,2023
Vac Elig: V01 -
```

Forecasting using Admin Date

Imm v8.5*26 * * * ADD AN IMMUNIZATION VISIT * * *

Patient: [REDACTED] DOB: 23-May-1997 (26 yrs)
Chart#: 892141 at 2021 DEMO HOSPITA Inactive Female

Visit Date: JAN 1, 2023 Category: Ambulatory
Admin Date: JAN 7, 2023
Vaccine: Hep B, adjuvanted Lot#: AB1234
(HEP B ADJV) Remaining: Not tracked
Exp Date: 02/01/24
Inj Site: Right Deltoid SQ Vol: 0.5 ml
Location Type: IHS Location: 2021 DEMO HOSPITAL (INST)
Provider: PALANKI, SURYAM Ordering Provider: DEMO, DOCTOR A MD
VIS Date: MAY 12, 2023 Presented: JAN 7, 2023
Vac Elig: V01 -

HLN ICE Forecaster v1.37.2 for: [REDACTED]

-- IMM HISTORY EVALUATION -----

Date	CVX	Vaccine (combo)	Status - Reason

-- FORECAST -----			

DUE:				
Vaccine	Status	Earliest	Recommended	Overdue
-----	-----	-----	-----	-----
HEP B,NOS	Due now	02/04/2023	02/04/2023	NO DATE

Adult Report – New Features

ADULT IMMUNIZATION REPORT

- 1 - Quarter Ending Date.....: 05/19/2023
- 2 - Community.....: ALL
- 3 - Health Care Facility.....: ALL
- 4 - Beneficiary Type.....: INDIAN/ALASKA NATIVE
- 5 - Include CPT Coded Visits...: NO
- 6 - Patient Population Group...: Active Users (2+ visits, 3 yrs)

Select a left column number to change an item.

V View Adult Report P Print Adult Report H Help

Adult Report – New Features

* Adult Immunization Report *
Report Date: 03/16/2023

Active Users (2+ visits, 3 yrs)

Beneficiary Type: INDIAN/ALASKA NATIVE

	Number	Percent
Total Number of Patients 19 years and older.....:	123	
TETANUS: # patients Tdap EVER.....:	9	7.3
TETANUS: # patients Tdap EVER AND.....		
[Td OR Tdap in past 10 years].....:	8	6.5
Total Number of Patients 19-59.....:	88	
HEP B: # patients - Series initiated.....:	1	1.1
HEP B: # patients - Dose 2 initiated.....:	1	1.1
HEP B: # patients - Series completed.....:	2	2.3
Total Number of Patients age 19-26.....:	24	19.5
HPV: # patients - Series initiated.....:	1	4.2
HPV: # patients - Dose 2 initiated.....:	1	4.2
HPV: # patients - Series completed.....:	1	4.2
Total Number of Patients 50 years and older.....:	56	45.5
Shringrix: # patients - Series initiated.....:	1	1.8
Shringrix: # patients - Series completed.....:	6	10.7
Total Number of Patients age 19-64.....:	97	78.9
PCV13 and PPSV23: # patients - fully vaccinated.....:	1	1.0
PCV20: # patients - fully vaccinated.....:	1	1.0
PPSV23 and PCV15: # patients - fully vaccinated.....:	1	1.0
Total Number of Patients 65 years and older.....:	25	20.3
Tetanus: # patients w/Td/Tdap in past 10 years.....:	4	16.0
PCV13 and PPSV23: # patients - fully vaccinated.....:	1	4.0
PCV20: # patients - fully vaccinated.....:	2	8.0
PPSV23 and PCV15: # patients - fully vaccinated.....:	2	8.0
Total Patients included who had Refusals on record....:	14	

Adult Report – New Features

```

* * * NEW GPRA COMPOSITE MEASURE SECTION * * *

Total Number of Patients ages 19 through 49 years.....: 67

  Received 1 dose of Tdap ever.....: 2 3.0
  Received 1 dose of Tdap or Td < 10 years.....: 2 3.0
  Received 1 dose of Tdap ever AND Tdap or Td < 10 yrs: 2 3.0
  Received HEP B Series complete.....: 1 1.5

  Received ALL of the above (appropriately vaccinated): 1 1.5

Total Number of Patients ages 50 through 59 years.....: 21

  Received 1 dose of Tdap ever.....: 1 4.8
  Received 1 dose of Tdap or Td < 10 years.....: 1 4.8
  Received 1 dose of Tdap ever AND Tdap or Td < 10 yrs: 1 4.8
  Received HEP B Series complete.....: 1 4.8
  Received Shingrix series complete.....: 1 4.8

  Received ALL of the above (appropriately vaccinated): 1 4.8

Total Number of Patients ages 60 through 65 years.....: 10

  Received 1 dose of Tdap ever.....: 1 10.0
  Received 1 dose of Tdap or Td < 10 years.....: 1 10.0
  Received 1 dose of Tdap ever AND Tdap or Td < 10 yrs: 1 10.0
  Received Shingrix series complete.....: 1 10.0

  Received ALL of the above (appropriately vaccinated): 1 10.0

Total Number of Patients 66 years and older.....: 25

  Received 1 dose of Tdap ever.....: 5 20.0
  Received 1 dose of Tdap or Td < 10 years.....: 4 16.0
  Received 1 dose of Tdap ever AND Tdap or Td < 10 yrs: 4 16.0
  Received Shingrix series complete.....: 4 16.0

Must meet ONE of the following:
  Received 1 dose of PCV13 AND 1 dose PPSV23.....: 1 4.0
  Received 1 dose of PCV20.....: 2 8.0
  Received 1 dose of PCV15 AND 1 dose of PPSV23.....: 2 8.0
  Received 1 of the above - fully vaccinated for Pneum: 5 20.0

Must meet ONE of the following:
  Received 1 dose of Tdap AND Tdap/Td <10 years AND Shingrix
  series complete and 1 dose PCV13 AND 1 dose PPSV23....: 1 4.0
  Received 1 dose of Tdap AND Tdap/Td <10 years AND Shingrix
  series complete and 1 dose PCV20.....: 1 4.0
  Received 1 dose of Tdap AND Tdap/Td <10 years AND Shingrix
  series complete and 1 dose PCV15 AND 1 dose PPSV23....: 1 4.0

  Met one of the above (fully vaccinated).....: 3 12.0

Total Number of Patients 19 years and older.....: 123

Total Patients 19 years and older appropriately
vaccinated per age recommendations.....: 6 4.9

```

DUE Letter

- Adding 2nd street address
- Adding Patient Preferred Name

Demo 2 Clinic
PO Box 129
Supai, AZ 86435

07-Jul-2023

Date of Birth: 01-Jul-1986 (37 yrs)
Chart#: 890630

EARLENA DEMO
515 N. SECOND STREET
APT #2
ALB, NM 87119

Dear EARL

Our records show that you are due for immunizations. Please make an appointment at your earliest.

Sincerely,

Carol Demo-too, PHN
Phone: 575-448-2641

High Risk Factor Check

* ENABLE/DISABLE RISK FACTOR CHECKS *

This parameter allows you to select which, if any, High Risk forecasting is enabled on your system. The choices are as follows:

- 0 - None
- 1 - Pneumo for High Risk history
- 2 - Hep B for Diabetes Mellitus
- 3 - Hep A and Hep B for CLD/Hep C
- 4 - COVID Immunocompromised

select one or more of the above, separated by commas: 1// ■

CVX codes 33, 215, 216

```
HLN ICE Forecaster v1.37.2 for: ...
-- IMM HISTORY EVALUATION -----
   Date      CVX   Vaccine (combo)      Status - Reason
-----
-- FORECAST -----
DUE:
| Vaccine      Status          Earliest      Recommended   Overdue
|-----|-----|-----|-----|-----
FUTURE:
| Vaccine      Status          Earliest      Recommended   Overdue
|-----|-----|-----|-----|-----
COMPLETE:
| Vaccine      Status
|-----|-----
HIGH RISK:
| Vaccine      Status
|-----|-----
| PNEUMO      Added for High Risk Medical Conditions.
```

Refusals

Added in
3 to 27 mth, 2 yr old,
Adult, Adol, Flu rpt

KRINGLE, KRIS 105977 12/22/1971 (51 yrs) M PARKER

Refusals: FLU-IIV3 (01/14/13)

Contraindications: DTP, MMR, MR,
MEASLES, RUBELLA, MUMPS,
Td-ADULT

PARKER HOSP page 20
 * Adolescent Immunization Report (11-17 yrs) *
 Report Date: 02/02/2023
 End Date: 02/02/2023

Active Users (2+ visits, 3 yrs) Total Patients: 22 (F:13 M:9)



Beneficiary Type: INDIAN/ALASKA NATIVE

Age Group	11-12yrs	13yrs	13-17yrs
Denominators	2	8	20
Fully Vac'd HPV 3 Doses	0	0	0
Fully Vac'd 2 & 3 combined	0	0	0

Total Patients reviewed: 22 Females: 13 Males: 9
 Total Patients reviewed who had Refusals on record: 2

Meningococcal B

- Vaccine group parameter
- Forecasting of first dose for ages 16 to 18 years
- Forecasting of 2nd dose

Source:  **Immunization Record**  Source: RPMS

Forecast	
Men4,NOS	past due
HPV,NOS	past due
COV,NOS	due
Men-B,NOS	due

Immunization History

Patient: WHATSONIAME,STEPHANIE MAR DOB: 18-Jun-2005 (17 yrs)
 Chart#: 893648 at 2021 DEMO HOSPITA Active Female M HBsAg: UNK

#	Immunization History	Year	Immunizations DUE on 02/06/2023
1	03/01/06 DTaP	2020	Tdap past due
2	08/08/06 DTaP (PEDIARIX)	2020	FLU,NOS due
3	09/26/06 DTaP (PEDIARIX)	2020	Men4,NOS past due
4	05/01/07 DTaP	2020	HPV,NOS past due
5	02/07/12 DTaP (KINRIX)	2020	COV,NOS due
			Men-B,NOS due
6	03/01/06 IPV	2020	
7	08/08/06 IPV (PEDIARIX)	2020	
8	09/26/06 IPV (PEDIARIX)	2020	
9	02/07/12 IPV (KINRIX)	2020	

Last Letter: 27-Mar-2013

ICE Supplemental Text

HLN ICE Forecaster v1.37.2 for:

-- IMM HISTORY EVALUATION -----

Date	CVX	Vaccine (combo)	Status - Reason
------	-----	-----------------	-----------------

-- FORECAST -----

HIGH RISK:

Vaccine	Status
None	

Supplemental Text:

The Pneumococcal evaluations and recommendations in ICE primarily target the routine series. Adults ages 19-64 with underlying medical conditions or other risk factors who have not previously received PCV or whose previous vaccination history is unknown should receive 1 dose of PCV (either PCV20 or PCV15). When PCV15 is used, it should be followed by a dose of PPSV23 at the appropriate interval(s). Patients who previously received a PCV13 should receive PPSV23 as recommended for them before the introduction of PCV15 and PCV20, based on age or risk factors. Refer to ACIP for additional information. The vaccine administered should be a single dose of a Pfizer COVID-19 vaccine.

ICE Supplemental Text

HLN ICE Forecaster v1.37.2 for:

-- IMM HISTORY EVALUATION -----

Date	CVX	Vaccine (combo)	Status - Reason
01/01/2022	218	COV,PfrPed	VALID
01/22/2022	218	COV,PfrPed	VALID
05/22/2022	301	COV,PfrBbP	VALID

Supplemental Text:

The timing of the administration of this shot does not follow the guidelines regarding the minimum interval of 5 months required for the 1st Booster Dose.

Funding Source Codes

Expanded the funding source codes in the Lot number table


v	VFC
n	NON-VFC
o	Other State
i	IHS/Tribal
VXC1	Federal funds
VXC2	State funds
VXC3	Tribal funds
VXC50	Public
VXC51	Public VFC
VXC52	Public non-VFC
PHC70	Private funds
PHC68	Military funds
OTH	Other
UNK	Unspecified

<u>Lot Number:</u> AB7255	<u>Vaccine:</u> COVID-19, mRNA, LNP-S, PF, 3 mcg/	
Sub-lot:	(COV,PfrTot)	
Status: Active	<u>Manufacturer:</u> MODERNA US	
Expiration Date: JAN 1,2025	<u>Source:</u> VFC	
<u>NDC Code:</u> 00005-0000-01		
Starting Count: 1	Doses Unused: 1	Doses Used: 0
Low Supply Alert:		(calculated)
Facility:		

ICE v1.37.2 – Hepatitis B

- Forecasting 1st dose for ages 19 – 59 years
- Validation of dose 1, 2, 3 for Hepatitis B (CVX code 220)

```
# Immunization History | Immunizations DUE  
| HEP B,NOS due
```

Source: **Immunization Record**  Source: RPMS

Forecast

HEP B, NOS	due
------------	-----

Immunization History

HLN ICE Forecaster v1.37.2 for: 01/22/2023

-- IMM HISTORY EVALUATION -----

Date	CVX	vaccine (combo)	Status
07/22/2022	220	Hep B REAV	VALID
08/19/2022	220	Hep B REAV	VALID
01/22/2023	220	Hep B REAV	VALID

ICE v1.37.2 - Pneumococcal

- Fixing the forecasting of a PPSV23 3rd dose to not display

```
HLN ICE Forecaster v1.37.2 for: . . .
-- IMM HISTORY EVALUATION -----
   Date      CVX   Vaccine (combo)      Status - Reason
-----
07/07/1997   33   PNEUMO-PS             VALID
07/07/2013   33   PNEUMO-PS             VALID
07/07/2016  133   PCV-13                 VALID
COMPLETE:
| Vaccine      Status
| -----
| PNEUMO,NOS   Complete
```

ICE v1.37.2

- Use PCV-15 in place PCV-13 for at 2mths,4mths, 6mths and 12mths

HLN ICE Forecaster v1.37.2 for: . . .

-- IMM HISTORY EVALUATION -----

Date	CVX	Vaccine (combo)	Status - Reason
04/19/2020	215	PCV-15	VALID
06/19/2020	215	PCV-15	VALID
08/19/2020	215	PCV-15	VALID
02/19/2021	215	PCV-15	VALID

Indian Health Service EHR Immunization Component update

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AUGUST 24, 2023



Immunization Component

Immunization Record i
State Immunization Profile v

Forecast

HEP B,NOS Past Due ●

Immunizations from Outside Sources

Updates: Arizona: Aug 04, 2020 Refresh States

Contraindications Add Delete

Source	Reaction	Date
H1N1	GBS	27-Jun-2022
HEP A PED	Anaphylaxis	27-Jun-2022
COV,Jsln	Anaphylaxis	27-Jun-2022
RCC	Severe allergic	27-Jun-2022





Immunization History ? Actions v

Registry	Visit Date	Admin Date	Vaccine	Ordered By	Administered By	Age@Visit	Location	Reaction	Inj Site	Lot
RPMS ONLY	08/01/2022	08/01/2022	HEP B PED (COMVAX)			57 mths	Walgreens			
RPMS ONLY	08/01/2022	08/01/2022	PEDVAXHIB (COMVAX)			57 mths	Walgreens			
RPMS ONLY	01/12/2021	01/12/2021	COV,Mod		FLOOD,WILLIAM	38 mths	2017 DEMO CLINIC TEHRA		Right Deltoid IM	23456MOD
RPMS ONLY	02/10/2023	02/10/2023	COV,ModBPd			5 yrs	Tesuque			
RPMS ONLY	03/06/2023	03/06/2023	COV,ModBPd			5 yrs	Elim Yukuniarag Yungcarvik Cln			
RPMS ONLY	08/01/2022	08/01/2022	COV,ModTot			57 mths	Walgreens			
RPMS ONLY	01/12/2021	01/12/2021	COV,Pfr		FLOOD,WILLIAM	38 mths	2017 DEMO CLINIC TEHRA		Left Thigh IM	8769PFIZ
RPMS ONLY	06/27/2022	10/05/2022	COV,PfTot	STRUBLE,FAY	GEMELAS,JAMES	55 mths	2017 DEMO CLINIC TEHRA		Left Thigh IM	
RPMS ONLY	08/01/2022	08/01/2022	DTaP			57 mths	Walgreens			
RPMS ONLY	02/15/2023	02/15/2023	DTaP			5 yrs	Tucson Indian Center			
RPMS+AZ	07/26/2018	07/26/2018	DTaP			8 mths	Claremore Hospital			

Immunization Component

- Forecasting Window

Forecast

SMALLPOX,M	Past Due 
Tdap	Past Due 
COV,NOS	Due 
ZOS-Shgrx	Due 

Vaccine Search

Search Criteria:

Show all active vaccines
 Show only active vaccines with a Lot number
 Show all vaccines

Select one of the following records

Active	Short Name (IHS)	CVX	Immunization	Description
▪	Tdap	115	Tdap	TETANUS TOXOID, REDUCED DIPHTHERIA, ACELL P

Immunization Component

Add Vaccine [Close]

Vaccine: [Search]

Ordered By [Search]

Administered By: [Search]

Lot: [Dropdown]

Injection Site: [Dropdown]

Volume: [Spinner] ml Given: [Calendar]

Vac Info Sheet: [Calendar] Patient/Family Counseled

VIS Presented [Calendar]

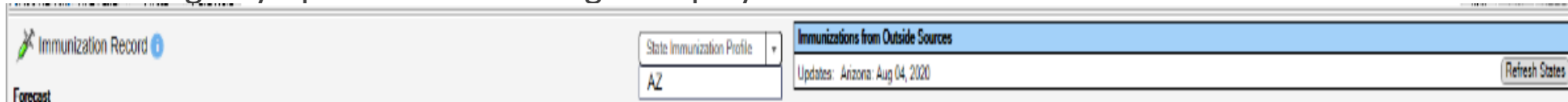
Vac. Eligibility [Dropdown]

Current
 Historical
 Not Done

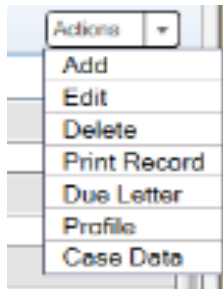
Immunization Component

State Profiles can be displayed and printed for one or all.

- State Registry updates and messages display



All buttons have been moved under an Action Dropdown.



Immunization Component

Immunization History User Preference

- User column display setting

The screenshot shows a software interface for 'Immunization History'. A table displays vaccination records with columns for Vaccine, Location, Age@Visit, and Reaction. A dialog box is open, allowing users to select which columns to display. All options are checked.

Vaccine	Location	Age@Visit	Reaction
FLU,NOS	2017 DEMO CLINIC		
FLU,NOS	2017 DEMO CLINIC		
Td-ADULT	EAGLE BUTTE		
Td-ADULT	EAGLE BUTTE		
FLU,NOS	OTHER		

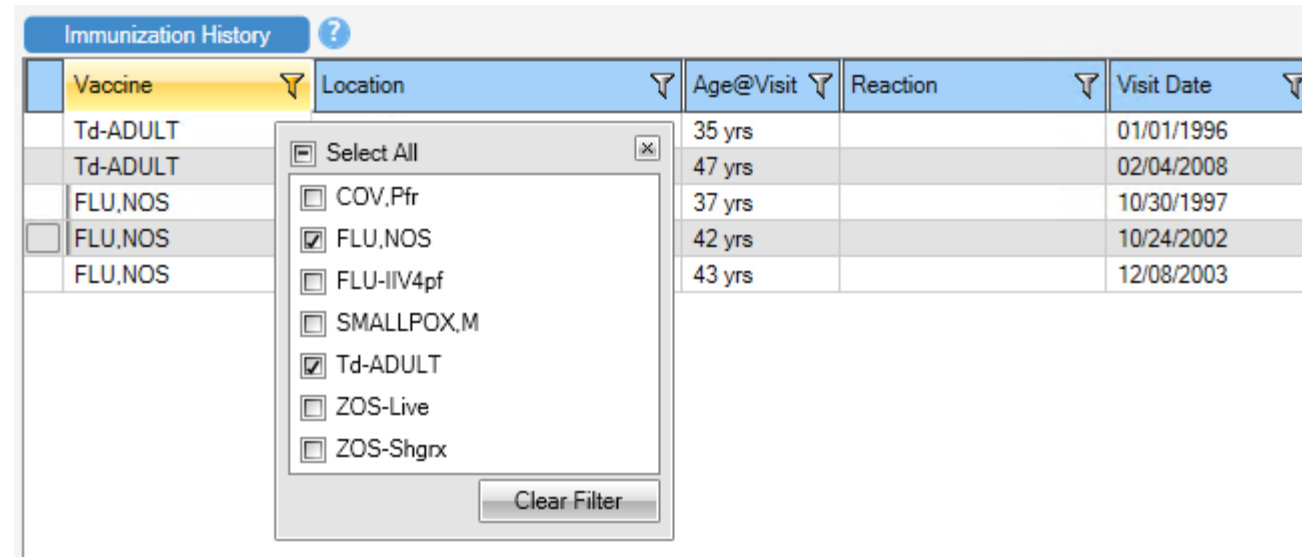
Immunization History User Preference Dialog Box:

- Location
- Age@Visit
- Reaction
- Volume
- Inj. Site
- Lot
- Manufacturer
- VIS Date
- Administered By
- Vaccine Eligibility
- Ordered By
- VIS Presented
- Admin Date
- Admin Notes

Buttons: Restore Defaults, Close

Immunization Component

- Filtering



The screenshot shows a table titled "Immunization History" with a filter dropdown menu open over the "Vaccine" column. The table has columns for Vaccine, Location, Age@Visit, Reaction, and Visit Date. The filter menu lists various vaccine types with checkboxes, and "FLU,NOS" and "Td-ADULT" are currently selected. A "Clear Filter" button is at the bottom of the menu.

Vaccine	Location	Age@Visit	Reaction	Visit Date
Td-ADULT		35 yrs		01/01/1996
Td-ADULT		47 yrs		02/04/2008
FLU,NOS		37 yrs		10/30/1997
FLU,NOS		42 yrs		10/24/2002
FLU,NOS		43 yrs		12/08/2003

Filter Menu:

- Select All
- COV,Pfr
- FLU,NOS
- FLU-IIV4pf
- SMALLPOX,M
- Td-ADULT
- ZOS-Live
- ZOS-Shgrx

Clear Filter

Immunization Component

- Grouped by

Grouped by: Location										Actions
Vaccine	Location	Age@Visit	Reaction	Visit Date	Registry	Volume	Inj. Site	Lot		
^										
HBIG		39 yrs	Absent response to treatment	02/16/2023@15:13	REFUSED					
HEP A, ADULT		30 yrs	Not indicated	01/15/2015	REFUSED					
COVID-19, mRNA, LNP-S, PF, 100 mcg or 50mcg		39 yrs	Refused	02/09/2023@15:12	REFUSED					
^ 2017 DEMO CLINIC TEHRA										
DTP	2017 DEMO CLINIC TEHRA	3 mths		06/01/1984	RPMS ONLY					
DTP	2017 DEMO CLINIC TEHRA	7 mths		10/02/1984	RPMS ONLY					
DTP	2017 DEMO CLINIC TEHRA	10 mths		12/12/1984	RPMS ONLY					
DTP	2017 DEMO CLINIC TEHRA	18 mths		08/14/1985	RPMS ONLY					
DTP	2017 DEMO CLINIC TEHRA	5 yrs		01/12/1990	RPMS ONLY					
Td-ADULT	2017 DEMO CLINIC TEHRA	16 yrs		10/12/2000	RPMS ONLY					
OPV	2017 DEMO CLINIC TEHRA	3 mths		06/01/1984	RPMS ONLY					

