



RESOURCE AND PATIENT MANAGEMENT SYSTEM

Immunization Module

(BI)

User Manual

Version 8.5
November 2011

Office of Information Technology (OIT)
Division of Information Resource Management
Albuquerque, New Mexico

Table of Contents

1.0	Introduction.....	1
2.0	New Features in Version 8.5.....	2
2.1	Most Important New Features	2
2.2	PATIENT MENU	2
2.2.1	Updated Forecasting: HPV in males, IPV, Influenza in children, Tdap, Mening booster, 2nd dose of Hep A	2
2.2.2	Contraindications: Immunodeficient status to include Rotavirus.....	2
2.2.3	Add/Edit Screen: Disable VFC in 19 years and older	2
2.2.4	Intradermal (ID) injection sites	2
2.2.5	Patient Lists and Letters	3
2.3	REPORTS MENU.....	3
2.3.1	3-27 month Quarterly Report: new 'on-time' logic.....	3
2.3.2	Two Year Old Report.....	3
2.3.3	Adult Report.....	4
2.3.4	VAC Report	4
2.3.5	PCV Report	4
2.3.6	Adolescent Report.....	4
2.4	MANAGERS MENU.....	4
2.4.1	Optional Zoster Forecasting	4
2.4.2	Automatically activate children <36 months with no community listed...	4
2.4.3	Update Vaccine Table and Manufacturers Table.....	5
2.4.4	Changes to High Risk Factor Check.....	5
2.4.5	Add NDC codes to Lot number add/edit	5
2.4.6	Export Vaccine Table to Excel.....	5
2.4.7	Security Key BIZ LOT ONLY Check/Fix	5
3.0	Orientation	6
3.1	System Overview.....	6
3.2	Menu System.....	6
3.2.1	Reports Menu	8
3.2.2	Manager Menu	8
3.3	Menu Diagram	8
3.4	Case Managers and the Program Manager.....	9
3.5	ImmServe Forecasting Program	9
3.6	Conventions in the Software and Manual	10
3.6.1	The Enter Key.....	10
3.6.2	Double Slash (//).....	10
3.6.3	Screen Captures.....	10
3.6.4	Online Help.....	11
3.6.5	Backspace and Arrow Keys.....	11
3.6.6	The Up-Hat (^).....	11
3.6.7	The "Select Device" Prompt.....	11

3.7	ListMan Screen Displays	12
3.7.1	Generic Actions	13
3.8	ScreenMan Displays.....	14
4.0	Patient Menu	16
4.1	Single Patient Record (SGL)	16
4.1.1	Add Immunization (A)	18
4.1.2	Skin Test Add (S)	22
4.1.3	Edit Visit (E).....	23
4.1.4	Delete Visit (D)	24
4.1.5	ImmServe Profile (I).....	25
4.1.6	Health Summary (H).....	28
4.1.7	Patient Edit (P)	29
4.1.8	Contraindications (C).....	31
4.1.9	Letter Print (L).....	32
4.2	Print Individual Patient Letter (LET)	33
4.3	Patient Lists and Letters (LLS)	34
4.3.1	Overview of Immunization List and Letters Parameters	35
4.3.2	Specifying Parameters for a List or Letter	36
4.3.3	Printing a List.....	42
4.3.4	Print a Due Letter	42
5.0	Reports Menu.....	44
5.1	Adolescent Report (ADO)	44
5.2	Adult Report (ADL)	48
5.3	Influenza Report (FLU)	51
5.4	3-27 Month Report (QTR).....	54
5.5	Two-Yr-Old Rates Report	58
5.6	PCV Report	61
5.7	Vaccine Accountability Report (VAC)	63
6.0	Manager Menu	66
6.1	Edit Patient Errors (ERR).....	67
6.2	Add/Edit Case Manager (CMG).....	68
6.3	Transfer a Case Manager's Patients (CMT)	68
6.4	Scan for Patients (SCN)	69
6.5	Site Parameters Edit (ESP)	69
6.6	Package Information (PKG).....	74
6.7	Form Letters Add/Edit (LET).....	75
6.7.1	Form Letter Section Descriptions:	77
6.8	Lot Number Add/Edit (LOT)	78
6.9	Vaccine Table Edit (VAC)	81
6.10	Restandardize the Vaccine Table (RES)	84
6.11	Export Immunizations (EXP).....	85
6.11.1	Export Patients Individually	85
6.11.2	Export by Group	87

6.12	Allocate/De-Allocate Imm Menu Keys (KEY)	87
6.13	Export Vaccine Table to Excel File	89
Glossary		131
Acronym List		135
Contact Information		136

Preface

This manual provides instructions for using the Resource and Patient Management System (RPMS) Immunization Module properly. This manual describes all processes and procedures involved in collecting and managing the immunization data of patients, and the specific steps involved in setting up and customizing the software.

1.0 Introduction

This manual describes the use of the Indian Health Service (IHS) RPMS Immunization Module v8.5. The manual is designed to aid healthcare staff and computer personnel in the use of the new module. While there is context-sensitive on-line help available at all prompts by typing ?, this manual provides a more organized presentation of the features of the software.

The original RPMS Immunization tracking software was written in the 1980s. Version 7.0, which was a complete rewrite of the Immunization software, began in 1996 with consultation from a national team of IHS field staff who developed a set of design requirements for the software. The current version of the software (v8.5) replaces all previous versions (v8.xx, v7.xx, and v6.8).

2.0 New Features in Version 8.5

2.1 Most Important New Features

Version 8.5 includes updated forecasting for HPV in males, IPV, influenza in children, Tdap, Zoster, and Meningococcal conjugate (MCV) vaccines. The 3-27 month Quarterly Report is updated to include new “on-time” logic and the 2 year old report now takes into account vaccine formulation for Hib when determining up to date status. There is a PCV report to document receipt of PCV13 vaccine. The VAC report can be printed by vaccine lot number.

2.2 PATIENT MENU

2.2.1 Updated Forecasting: HPV in males, IPV, Influenza in children, Tdap, Mening booster, 2nd dose of Hep A

- HPV forecasts in males 19-18 (26) years who receive 1 dose.
- IPV3 to 4 interval 6 months; IPV4 must be age 4 years or older
- Influenza – only one dose required in children <9 years who received Flu in 2010-11 – all others need 2 doses 4 or more weeks apart
- Tdap – forecast one dose for all ages regardless of interval since Td, including 7-10 year olds incompletely vaccinated and 65+ year olds
- Meningococcal booster forecast at 16 yrs for those who received dose before 16 yrs.
- 2nd dose of Hep A now forecasts 6 months after 1st dose.

2.2.2 Contraindications: Immunodeficient status to include Rotavirus

Updated “Contraindications” of immunodeficient to include Rotavirus

2.2.3 Add/Edit Screen: Disable VFC in 19 years and older

VFC eligibility will no longer be displayed and completed for patients 19 years and older.

2.2.4 Intradermal (ID) injection sites

Added injection sites RID and LID for right/left intradermal

2.2.5 Patient Lists and Letters

In Patient Lists and Letters, the following filters have been added to the parameters:

- Parameter 3: Patient Group – Beneficiary. Users can limit this group to only American Indian/Alaska Native Beneficiaries
- Parameter 10: Additional Information. New data element includes VFC status

2.3 REPORTS MENU

2.3.1 3-27 month Quarterly Report: new ‘on-time’ logic

- The 3-27 month Report logic now counts children current for Hib and PCV if they started late but are considered ‘up-to-date’ per the catch up schedule
- Hib vaccine logic now accounts for different formulations and different dose numbers needed when calculating up to date status.

Table 2-1: 3-27 month report forecasting logic Hib, PCV, Rotavirus

Vaccine	3-4mo	5-6mo	7-15mo	16-18mo	19-23mo
Hib					
Pedvax (all doses <12mo)	1	2	2	3 or 2 ≥ 12 mo. 1 ≥ 15 mo.	3 or 2 ≥ 12 mo. 1 ≥ 15 mo.
ActHIB	1	2	3 or 2 ≥ 7 mo.	4 or 3 ≥ 7 mo. 2 ≥ 12 mo. 1 ≥ 15 mo.	4 or 3 ≥ 7 mo. 2 ≥ 12 mo. 1 ≥ 15 mo.
PCV (PCV7 and/or PCV13)	1	2	3 or 2 ≥ 7 mo.	4 or 3 ≥ 7 mo. 2 ≥ 12 mo. 1 ≥ 24 mo.	4 or 3 ≥ 7 mo. 2 ≥ 12 mo. 1 ≥ 24 mo.
Rotavirus					
RotaTeq (Rota-5)	1	2	3	3	3
Rotarix (Rota-1)	1	2	2	2	2

2.3.2 Two Year Old Report

The Two Year Old report logic now accounts for different formulations and different dose numbers needed for Hib and Rotavirus vaccine in order to be up to date.

2.3.3 Adult Report

- Age range broadened to 19 years and older.
- Report includes coverage with: Tdap ever, Tdap/Td in past 10 years, Pneumococcal in 65 yrs and older, and HPV in 19-26 year old females and males.

2.3.4 VAC Report

The VAC Report has a new option to run report by vaccine lot number.

2.3.5 PCV Report

There is a new PCV report to show PCV13 vaccine usage by age group and time period.

2.3.6 Adolescent Report

The Adolescent report has been revised as outlined below:

- Added male denominators and coverage for HPV
- Correct under-reporting of Flu immunizations corrected
- Changed the Up-to-date measure for Current/Not Current. Current = 1 Tdap/Td and 1 Mening.

2.4 MANAGERS MENU

2.4.1 Optional Zoster Forecasting

Under ESP (Edit Site Parameters) Option #11, users can choose to forecast for Zoster vaccine in all adults >60 years.

2.4.2 Automatically activate children <36 months with no community listed

Children < 36 months who have no community listed will be automatically made “Active” in the Immunization package.

2.4.3 Update Vaccine Table and Manufacturers Table

The Vaccine Table has been updated with changes made by CDC to the CVX (vaccine) and MVX (manufacturer) codes in recent months. The following vaccines have been added: Flu-dermal (Influenza intradermal vaccine), Adeno-oral, Tet Tox, na (Tetanus toxoid, non-adsorbed), Td-NA (Tetanus diphtheria, non-adsorbed), RSV-MAbm (motavizumab), and DTaPPVHHb (Diphtheria and Tetanus Toxoids and Acellular Pertussis Adsorbed, Inactivated Poliovirus, Haemophilus b Conjugate [Meningococcal Outer Membrane Protein Complex], and Hepatitis B (Recombinant Vaccine).

2.4.4 Changes to High Risk Factor Check

Under ESP (Edit Site Parameters) codes for smoking related health factors have been updated.

2.4.5 Add NDC codes to Lot number add/edit

Added National Drug Code (NDC) field to the Lot number add/edit screen which links to a list of NDC codes. If a NDC code is entered here, it will automatically populate in the Add Immunization Screen in the Patient Menu when a lot number is added.

2.4.6 Export Vaccine Table to Excel

A new feature added which sends file named RPMS Vaccine Table.csv to Host File Server.

2.4.7 Security Key BIZ LOT ONLY Check/Fix

A check on the integrity of BIZ LOT ONLY Security Key in locking the BI LOT NUMBER NON-MANAGER Option is automatically performed when IMMv8.5 is installed. (The BI LOT NUMBER NON-MANAGER Option gives “off-menu” access to a user, such as a pharmacist, to add and maintain the Lot Number Inventory without gaining access to the rest of the Manager Menu in the Immunization Package.) It may be necessary to reassign the BIZ LOT ONLY key to some users who previously had access but find it missing after the installation of Imm v8.5.

3.0 Orientation

3.1 System Overview

The Immunization Module provides a means to track and recall patients for immunizations, to provide feedback to the providers and administrators about immunization rates in their patient population, and to share immunization information with authorized agencies.

Any patient whose immunizations are to be forecast must first be registered in the main patient database through the RPMS Registration Module. Immunization data for all registered patients is stored with all other patient medical information in the Patient Care Component (PCC) files. Registered patients are automatically added to the Immunization Registry as either “Active” or “Inactive.” The status of Active is most relevant for young children. Active patients in the Immunization Registry are those whose immunizations are tracked at the site, and for those younger than 36 months, the Active status determines who is included in the childhood immunization reports. Children younger than 36 months of age residing in a facility’s GPRA communities are automatically added as Active in the Immunization Registry. Patients can be changed to Inactive status if they move or go to another provider.

The RPMS Immunization Module is composed of a Main Menu with options available in three submenus. An option is selected by typing the option name or the option’s 3-character abbreviation (in the column to the left of the option name), and then pressing Enter. Options on the submenus are grouped by the type of function they perform. Some screens also display options at the bottom of the screen to perform operations on the information presented on the screen.

Not all options and actions are available to all users. Options and actions that require special knowledge or display confidential information may be locked with keys that are given only to certain staff, such as the program manager. If an option or action described in this user manual do not appear on your screen, this may be because you do not have the key to that particular option. If you have questions regarding locked options and actions, or questions in general regarding how to navigate through RPMS menus, please contact your site manager.

3.2 Menu System

The main entry point to the RPMS Immunization Module is the Immunization Menu option. (This option may also appear as the synonym IMM. Contact your computer support staff for help in locating the Immunization Menu). The RPMS Immunization Main Menu provides the three main options illustrated in Figure 3-1.

3.2.1 Reports Menu

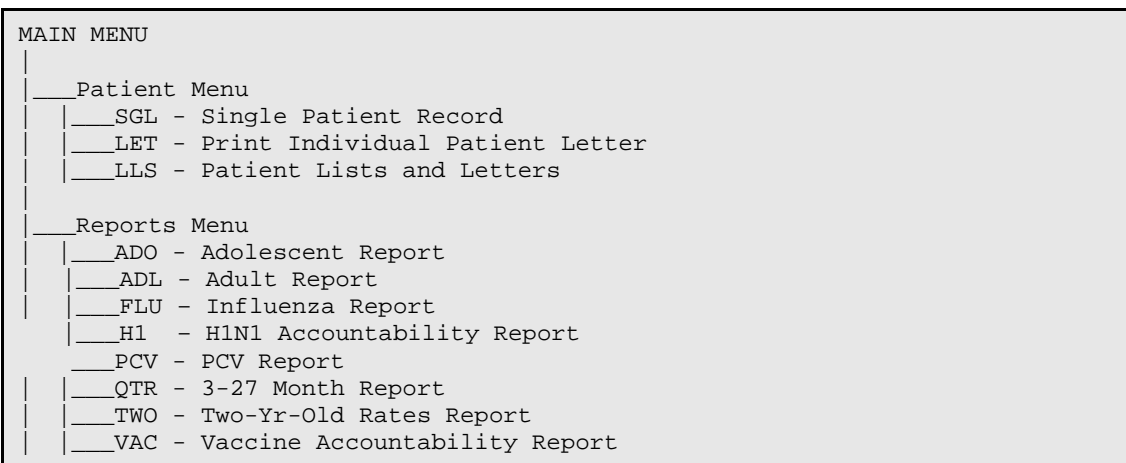
The Reports Menu allows you to generate the following standard reports:

- Adolescent Report – Presents immunization rates for patients 11 years 0 days through 17 years 364 days.
- Adult Report – Presents immunization rates for patients over the age of 19 years.
- Influenza Report – Presents immunization rates for influenza vaccination for all ages.
- 3-27 Month Report – Presents age-appropriate immunization rates for 3- to 27-month-old children
- Two-Yr-Old Rates Report – Presents age-specific immunization rates for 19- to 35-month-old children listed as Active in the Immunization Registry, including the 4-3-1-3-3-1-4 series rate (4DTP, 3polio, 1 MMR, 3Hib, 3 Hep B, and 1 Varicella, PCV) used for Healthy People 2020 and GPRA objectives.
- Vaccine Accountability Report – Presents doses administered for a given time period by age group, series and lot number
- H1N1 Accountability Report – Presents H1N1 doses administered for a given time period by age group and vaccine type. Also reports number of first doses and number of second doses.
- PCV Report - shows PCV13 vaccine usage by age group and time period.

3.2.2 Manager Menu

Managers use the options in this menu to perform such functions as adding and editing form letters, editing site parameters, re-standardizing the vaccine table, and exporting immunizations in flat ASCII text. The Manager Menu is locked and is only available to those who hold the Manager key.

3.3 Menu Diagram



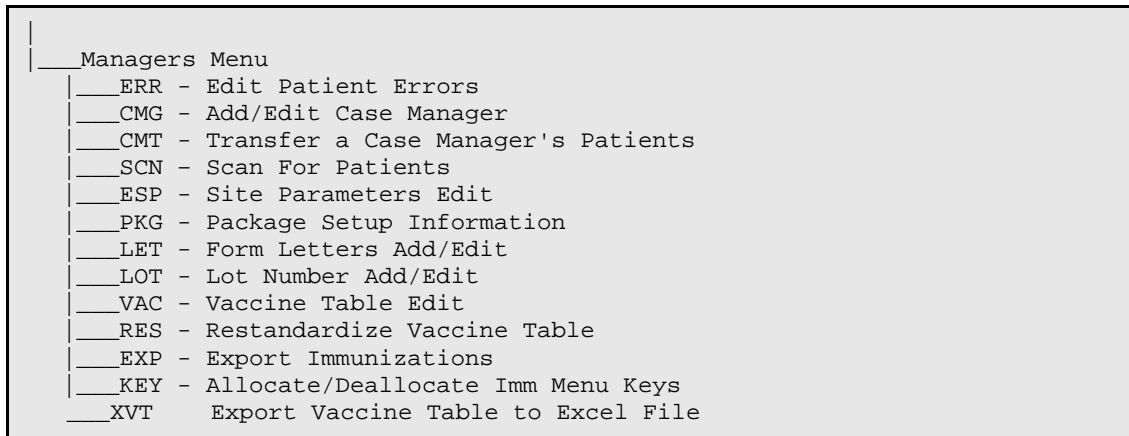


Figure 3-2: Diagram of Main Menu

3.4 Case Managers and the Program Manager

A “case manager” is a user of the RPMS Immunization Module who is responsible for managing patients. This can include immunization tracking and recall, entering or editing patient data, selecting appropriate letters, scanning for delinquent needs, and more.

The “program manager” is the person chiefly responsible for the setup and operation of the RPMS Immunization Module at a given site. This person works with the computer site manager on the technical aspects of the software, and performs maintenance tasks that require a more detailed understanding of the software than is required of case managers. At small sites, the program manager may also be the only case manager. (This individual is assigned the BIZ MANAGER key by the site manager).

3.5 ImmServe Forecasting Program

IHS contracts with a third party, Medical Decision Associates, for the use of their rule-based software, ImmServe, to evaluate immunization histories and determine due dates. ImmServe contains immunization logic for childhood and adult immunizations and can be customized for different immunization schedules. All the immunization schedules available through ImmServe conform to the ACIP recommendations. ImmServe can be refined as immunization logic evolves or new vaccines and vaccine combinations are added. See 0 for additional information.

3.6 Conventions in the Software and Manual

The Resource and Patient Management System (RPMS) has established certain terms and operating procedures (conventions) for the Immunization Module. The following section describes these conventions to help you learn how to use the system quickly. As you read the following explanations, refer to your keyboard to ensure that you can correctly identify each key and command function.

3.6.1 The Enter Key

At many points in this manual you are instructed to type some letters and press the Enter key (“Press Enter.”). The Enter key refers to the key on your keyboard labeled “Enter” or “Return.” (Most PC computer keyboards have an Enter key rather than a Return key. On electric typewriters, this was the carriage return key). If you see [RET] or an instruction to “press Return” or “press the Return key,” press the Enter key.

3.6.2 Double Slash (//)

RPMS software requests user input by asking a question or directing you to select an answer at a prompt. As shown in Figure 3-1, when the prompt is followed by a suggested response and two slashes (//), the suggested response before the two slashes is the default answer for that question.

A	Add Immunization	D	Delete Visit	P	Patient Edit
S	Skin Test Add	I	ImmServe Profile	C	Contraindications
E	Edit Visit	H	Health Summary	L	Letter Print
Select Action: Quit//					

Figure 3-3: "Select Action" prompt with default answer ("Quit")

- To select the default answer without retyping it, press Enter.
- To use a different option, type the option after the double slash and press **Enter**.
For example, to edit a visit at the prompt in Figure 3-3, type **E** at the “Select Action” prompt.
- If a prompt has a default answer but you want the response to be blank, you can delete the default answer or type @ at the prompt.

3.6.3 Screen Captures

Figure 3-4 shows an example of a screen capture.

```

IMMUNIZATION v8.5      *   PATIENT MENU   *           Site: DEMO MED CTR
                        =====           User:  USER ,MARTHA

      SGLSingle Patient Record
      LETPrint Individual Patient Letter
      LLSPatient Lists and Letters
Select Patient Menu Option: PAT   Patient Immunization Record

```

Figure 3-4: Sample screen capture

Bold type in a screen capture indicates a user action. After every entry that you type, you must press the Enter key to create the entry. If the screen capture displays only the two double slashes (//) without any bold type, press the Enter key without entering anything.

3.6.4 Online Help

Online help is available for most menu options and data entry prompts. Typing a single question mark (?) at the data entry prompt produces instructions for entering requested data. Typing two question marks (??) displays a more complete message. Some prompts display a list of available choices. If at any time you are not sure how to answer a particular question, or if you want to know more about the menu choices, type a single question mark (?) to display more information.

3.6.5 Backspace and Arrow Keys

The Backspace key moves the cursor to the left, erasing characters as it moves. The Up and Down arrow keys move you to fields above and below the current location of the cursor. The Left and Right arrow keys generally are not used. If you are having problems with these keys, contact your site manager.

3.6.6 The Up-Hat (^)

The up-hat, also known as the caret (^) (Shift+6), is a special control character. Use it to exit from a particular activity or data entry sequence. Typing the up-hat (caret) at any prompt usually returns you to the preceding prompt or menu level. It can also be used to exit from long data displays, such as vendor lists, that require many screens.

Activate the up-hat by pressing the Shift key and the 6 key located at the top of the typewriter keyboard together. Pressing the Shift key and the 6 key on the numeric keypad does not create a “^” character.

3.6.7 The “Select Device” Prompt

When the software is ready to display a list or report, it displays the “Select Device” prompt. To send the report or list to a printer, type the printer name or number. To display the report or list on your screen, type HOME (or 0). For help in answering the “Select Device” prompt, contact your site manager.

Some reports allow you to type Q (for Queue) at the “Device” prompt. This enables you to send a report to a printer, and then returns you immediately to your screen while the report is printing, rather than waiting for the report to finish before returning you to your screen. This is helpful if the report takes a long time to run (search) or print. After typing Q, the system displays the “Queue To Print On Device” prompt. At this point, enter the name of the printer on which you want to print the report.

3.7 ListMan Screen Displays

The RPMS Immunization Module v8.4 makes extensive use of ListMan screens to display information and to allow the user to perform actions on the information presented. Figure 3-5 shows a typical ListMan screen.

PATIENT VIEW (IMM v8.5)		Aug 22, 2011 10:45:34		Page: 1 of 4	
Patient: DEMO,BABYGIRL		DOB: 18-Feb-2008 (42 mths)			
Chart#: 980060 at ANCH MED CTR		Inactive		Female M HBSAg: U	
#	Immunization History			Immunizations DUE on	
08/22/2011					
1	04/14/08 DTaP (PEDIARIX)	Anch		DTaP	past due
2	06/05/08 DTaP (PEDIARIX)	Anch		HEP A PED	past due
3	08/05/08 DTaP (PEDIARIX)	Anch		FLU-TIV	due
4	04/14/08 IPV (PEDIARIX)	Anch		Last Letter: 26-May-2011	
5	06/05/08 IPV (PEDIARIX)	Anch			
6	08/05/08 IPV (PEDIARIX)	Anch			

				* CONTRAINDICATIONS/REFUSALS	
*					
7	04/01/08 PEDVAXHIB	Anch			
8	08/13/09 PEDVAXHIB	Dena		VARICELLA: Parent Refusal	
				PEDVAXHIB: Parent Refusal	
9	04/14/08 HEP B PED (PEDIARIX)	Anch		FLU-NASAL: Immune Deficiency	
+ Scroll down to view more. Type ?? or Q to QUIT.					
A	Add Immunization	D	Delete Visit	P	Patient Edit
S	Skin Test Add	I	ImmServe Profile	C	Contraindications
E	Edit Visit	H	Health Summary	L	Letter Print

Figure 3-5: Listman screen

ListMan screens include the following three areas:

Header Area

The Header area is a fixed (non-scrollable) area that displays the title of the screen and demographic information for a specific patient (in Figure 3-5, the lines beginning with “Patient” and “Chart”).

List Area

The List area displays a list of items, such as Immunizations or Date of Forecast, on which you can take action. If all the items do not fit on one page, you can press the Up or Down arrow keys to scroll the list. If there is more than one page of items, the page number is displayed in the upper right corner of the screen (Page 1 of #).

Action Area

The Action area contains three elements – the message line, a list of actions, and the “Select Action” prompt.

- **Message Line:** This line displays a plus sign (+), a minus sign (-), a string of periods (...), or an informational statement (for example, “Type ?? for more actions.”).
 - To display the next page of the list, type a **plus** sign (+) at the “Select Action” prompt.
 - To display the previous page of the list, type a **minus** sign (-) at the “Select Action” prompt.

Note: The plus, minus, and greater than (>) signs are only valid actions if they are displayed on this message line.

- **List of Actions:** The actions that are currently available.
 - To perform an action in the list, type the letter of the action at the “Select Action” prompt and press Enter.
 - To see a list of additional actions, type **double question mark (??)** at the “Select Action” prompt.
- **“Select Action” Prompt:** At the “Select Action” prompt, type the name or abbreviation of an option and press Enter to perform one of the following actions:
 - Browse through the list.
 - Select items that need action.
 - Take action against those items.
 - Select other actions without leaving the option.

3.7.1 Generic Actions

In addition to the actions specific to the ListMan screen, the system provides generic hidden actions applicable to all ListMan screens. To view these generic actions, type a **double question mark (??)** at the “Select Action” prompt. Table 3-1 shows the abbreviation for each action in brackets following the action name.

Table 3-1: ListMan Actions and Descriptions

Action	Description
Next Screen [+]	Move to the next screen (may be shown as a default)
Previous Screen[-]	Move to the previous screen
Up a Line [UP]	Move up one line
Down a Line [DN]	Move down one line
Shift View to Right [>]	Move the screen to the right if the screen width is more than 80 characters
Shift View to Left [<]	Move the screen to the left if the screen width is more than 80 characters
First Screen [FS]	Move to the first screen
Last Screen [LS]	Move to the last screen
Go to Page [GO]	Move to any selected page in the list
Re Display Screen [RD]	Redisplay the current screen
Print Screen [PS]	Prints header and portion of the list currently displayed
Print List [PL]	Prints the list of entries currently displayed
Search List [SL]	Finds selected text in list of entries
Auto Display (On/Off) [ADPL]	Toggles the menu of actions to be displayed/not displayed automatically
Quit	Exits the screen (may to shown as a default)

3.8 ScreenMan Displays

RPMS Immunization Module v8.4 makes extensive use of ScreenMan to allow users to edit data relating to patients and their immunizations, skin tests, contraindications, etc.

Much like ListMan, ScreenMan displays header information in the top third of the screen, editable information in the middle third of the screen, and commands and help in the bottom third of the screen.

Figure 3-6 shows a sample of a ScreenMan display.

```

* * * ADD/EDIT IMMUNIZATION VISIT * * *

Patient: DOE,FLORENCE                      DOB: 05-Oct-1997 (20
months)
Chart#: 00-00-04 at UNSPEC MED CTR          Inactive      Female

-----
Date: MAR 27,2003                          Category: Ambulatory
Vaccine: DTaP-Hep B-IPV                    Lot#:
Inj Site:                                Vol:      ml
Location Type: IHS                          Location: UNSPEC MED CTR
Provider:                                    Reaction:
VIS Date:                                    Dose Override:

Exit      Save      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND:                                     Press <PF1>H for help

```

Figure 3-6: ScreenMan example

ScreenMan Tips

- Context-sensitive help (help messages relating to the prompt or question at which your cursor is resting) is automatically displayed in the bottom third of the screen. Type ? at any prompt to display more help at the bottom of the screen.
- In general, it is most efficient to press the Enter key to move from one prompt to the next. However, you can also move around the screen using the cursor keys.
- The PF1-E key combination allows you to exit and save your data from any point on the screen without moving to the “COMMAND” prompt at the bottom. That is the most efficient method of exiting ScreenMan screens. (“PF1-E” means “press and hold the PF1 key and then press the E key.”) PF1-Q allows you to exit without saving your work.

Note: “PF1” refers to the PF keys on a computer terminal. If you are using a PC, substitute the F1 key for the PF1 key. See your site manager for support.

4.0 Patient Menu

Figure 4-1 shows the Patient Menu, which is a submenu of the Main Menu (Figure 3-1). The Patient Menu provides access to the basic tracking and recall functions of the Immunization software.

- To display the Patient Menu (Figure 4-2), type **PAT** at the “Select Immunization Menu Option” prompt.

The following options appear on the Patient Menu:

- SGL Single Patient Record
- LET Print Individual Patient Letter
- LLS Patient Lists and Letters

```

IMMUNIZATION v8.5      *  PATIENT MENU  *           Site: DEMO MED CTR
                        =====           User: USER, MARTHA

      SGL  Single Patient Record
      LET  Print Individual Patient Letter
      LLS  Patient Lists and Letters

Select Patient Menu Option: PAT  Patient Immunization Record

```

Figure 4-1: Patient Menu

4.1 Single Patient Record (SGL)

Use the Single Patient Record option to view the immunization history of an individual patient and perform the following functions for that patient:

- Add or edit immunizations.
- Add or edit skin tests and results.
- Delete incorrect immunization information.
- Update contraindications, refusals, or history of chicken pox.
- Update patient registration information.
- Document consent for participation in the state’s Immunization Registry.
- View a health summary (including immunization health summary).
- Print a due letter and official immunization histories.
- View the immunization profile for any patient.

Selecting the Single Patient Record option

To select a single patient record, follow these steps:

1. At the “Select Patient Menu Option” prompt, type **SGL**.

2. At the “Select Patient Name” prompt, type the patient’s name, chart number, or DOB to display the PATIENT VIEW screen, as shown in Figure 4-2.

PATIENT VIEW (IMM v8.5)		Aug 22, 2011 10:49:03		Page: 1 of 4	
Patient: DEMO,BABYGIRL		DOB: 18-Feb-2008 (42 mths)			
Chart#: 980060 at ANCH MED CTR		Inactive Female		M HBsAg: U	
# Immunization History			Immunizations DUE on 08/22/2011		
1	04/14/08	DTaP (PEDIARIX)	Anch	DTaP	past due
2	06/05/08	DTaP (PEDIARIX)	Anch	HEP A PED	past due
3	08/05/08	DTaP (PEDIARIX)	Anch	FLU-TIV	due
4 04/14/08 IPV (PEDIARIX) Anch			Last Letter: 26-May-2011		
5 06/05/08 IPV (PEDIARIX) Anch					
6 08/05/08 IPV (PEDIARIX) Anch			-----		
			* CONTRAINDICATIONS/REFUSALS *		
7	04/01/08	PEDVAXHIB	Anch	VARICELLA: Parent Refusal	
8	08/13/09	PEDVAXHIB	Dena	PEDVAXHIB: Parent Refusal	
9	04/14/08	HEP B PED (PEDIARIX)	Anch	FLU-NASAL: Immune Deficiency	
+ Scroll down to view more. Type ?? or Q to QUIT.					
A	Add Immunization	D	Delete Visit	P	Patient Edit
S	Skin Test Add	I	ImmServe Profile	C	Contraindications
E	Edit Visit	H	Health Summary	L	Letter Print

Figure 4-2: PATIENT VIEW screen

Important Notes

- All patients displayed using the Single Patient Record option are automatically added to the Immunization Registry if they are not already in it. If the user displaying a record has the BIZ EDIT PATIENTS key, he or she may be prompted to update the patient’s status in the Immunization Registry.
 - If the patient is over 18 years, or if the user does not have the BIZ EDIT PATIENTS key, the patient is added with a status of “Inactive” and a reason of “Never Activated.”
 - If the patient is 18 years of age or younger and the user has the BIZ EDIT PATIENTS key, the user is prompted to select a status.
 - If the patient is already in the Immunization Registry with a status of “Inactive” but is less than 36 months old, and the user has the BIZ EDIT PATIENTS key, the user is prompted to change the patient’s status to “Active.”
 - If the patient is deceased, he or she is automatically added with a status of “Inactive” and a reason of “Never Activated.”
- The patient’s next appointment is displayed in the Additional Patient Information section only if your site is running the RPMS scheduling package and the patient has a future appointment.
- Patient age is determined by a count of months or years based on the patient’s birth date. For example, a patient is not 3 months old until the same date in the third month, regardless of how many days are in the intervening months.

- If a patient is recorded as deceased in the Registration Module, this information is displayed on the PATIENT VIEW screen. Letters are not printed for patients who are deceased.
- To view the list of hidden actions on most ListMan screens, type ?? at the “Select Action” prompt.

Note: See Section 3.7.1 for a description of ListMan actions.

4.1.1 Add Immunization (A)

Use the Add Immunization option (A) on the PATIENT VIEW screen to enter a patient’s new or historical immunizations into RPMS using the ADD IMMUNIZATION VISIT screen, as shown in Figure 4-3. Use this option for patients of any status (e.g., child or adult, Active or Inactive in the Immunization Registry).

```

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

Patient: DEMO,BABYGIRL          DOB: 18-Feb-2008 (42 mths)
Chart#: 980060 at ANCH MED CTR   Inactive      Female
-----
Date: AUG 22,2011                Category: Ambulatory

Vaccine: HIB (PRP-OMP)           Lot#:
(PEDVAXHIB)

NDC Code:
Inj Site:                        Vol: .5 ml
Location Type: IHS              Location: ANCH MED CTR
Provider: SINGLETON,ROSALYN J MD
VIS Date: SEP 18,2008
VFC Elig: Am Indian/AK Native
-----
Exit      Save      Refresh

Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND:

```

Figure 4-3: ADD IMMUNIZATION VISIT screen

The RPMS Immunization package is designed to include all the information that must be documented when immunizations are given. Each site that chooses to do direct data entry should require that all fields be completed.

Combination vaccines can be entered by name, such as Comvax[®] or Pediarix[®]. Dose numbers are not recorded. The site, route, and amount can be recorded in RPMS.

When adding a new immunization visit, you may enter the lot number first, rather than selecting the vaccine first. For some people, this may be more efficient and help avoid errors caused by selecting the wrong vaccine and being unable to find the correct lot number.

Also note that if you select a vaccine first, your choice of lot numbers is limited to those that apply to that particular vaccine. The same is true when editing an immunization, where the vaccine has already been chosen.

Each new immunization visit must be assigned a category of “Ambulatory,” “Historical,” or “Inpatient.”

- Ambulatory refers to outpatient or clinic visits (as opposed to inpatient) that occurred at the clinic or hospital where the Immunization software is being used.
- Historical refers to immunizations given at other facilities (not the current facility where the visit is being entered) and to visits that occurred in the past and for which details may not be known. This category is available so a patient’s immunization history can be as complete as possible, while recognizing that all of the information may not be available.

If a date other than today is entered, the category automatically defaults to “Historical.” If an ambulatory visit is being entered after the fact, the category can be changed back to “Ambulatory.”

Note: Ordinarily, when entering immunizations with a category of “Ambulatory,” only the currently active vaccines are available for selection (as determined by the manager under the Vaccine Table Edit option).

However, when the category is “Historical,” all vaccines, both active and inactive, are available so that a complete history can be entered.

Care should be taken when entering ambulatory immunizations at the current facility a day or more later than the actual visit. If the visit date is other than today’s date, the category automatically defaults to “Historical” and many inactive (and inappropriate) vaccines become available for selection. Designating a visit as “Historical” relaxes many safeguards designed to ensure complete and accurate data entry (checks for active vaccines, lot number requirements, duplicate visit checks, etc.)

If the immunization being entered is not truly historical, but merely an ambulatory visit being entered a day or two late, then it is very important to change the category back to “Ambulatory.” This helps to ensure accurate data entry and avoid difficulties and confusion later.

- Inpatient refers to immunizations given while a patient is admitted to the current hospital/facility where the Immunization Module software is in use.

Table 4-1 lists the information that should be entered in the ADD IMMUNIZATION VISIT screen for each of the three categories.

Table 4-1: Immunization visit data for Ambulatory, Historical, and Inpatient categories

	Ambulatory	Historical	Inpatient
Date	Accept the default (today's date)	Type the date of the immunization	Accept the default (today's date)
Vaccine	Type the vaccine name or combination name (e.g., Comvax® or Pediarix®)	Type the vaccine name or combination name (e.g., Comvax® or Pediarix®)	Type the vaccine name or combination name (e.g., Comvax® or Pediarix®)
Lot #	Type the lot number that appears on the vial. The number of remaining doses and the expiration date will be filled in automatically.	Leave blank as unknown	Type the lot number that appears on the vial
Injection Site	Type the injection site	Leave blank as unknown	Type the injection site
Volume	Accept the default unless different	Delete the default by typing the @ sign (Shift + 2)	Accept the default unless different
Location Type	Accept the default (IHS)	Accept the default (IHS) or change to "Other" (O) if not an IHS location	Accept the default (IHS)
Location	Accept the default (your facility)	Type the location where the immunization was given	Accept the default (your facility)
Provider	Accept the default, or change if the person entering the data is not the same as the person who gave the immunization	Delete the default by typing the @ sign (Shift + 2)	Accept the default, or change if the person entering the data is not the same as the person who gave the immunization
VIS Date	Accept the default	Delete the default by typing the @ sign (Shift + 2)	Accept the default
VFC Elig	Accept the default or change the value as appropriate	Accept the default or change the value as appropriate	Accept the default or change the value as appropriate
Category	Accept the default ("Ambulatory")	Accept the default ("Historical")	Change to "Inpatient"

Shortcut Keys

- Exit and save: Press **F1** and then **E**.

- Exit without saving: Press **F1** and then **Q**.
- Delete a specific entry: Type **@**.
- To accept the last IHS location entered if different than the default: Press the spacebar and then the press **Enter**.

Lot Number

The manager can set a default lot number for each vaccine in the Manager Menu, and chooses whether to make the lot number required or optional. See Section 6.0 for more information.

If you select a duplicate lot number, one of the following messages appears depending on whether you hold a Manager-level security key:

- For users who do not hold the BIZ MANAGER Key

You have selected a Duplicate Lot Number. This means that the lot number exists at least one other time in the lot number file, and the Immunization Visit you are entering cannot be stored until the duplicate has been resolved.

Only a person with access to the Immunization Manager's menu can resolve duplicate lot numbers. Since you do not have this access, you should contact your Immunization Program Manager or your Computer Site Manager for support with this problem. In the meantime, you may finish entering the Immunization Visit without a lot number, and add the lot number to this visit after the duplicate has been resolved. Or you can quit without adding the visit at this time.

- For users who hold the BIZ MANAGER Key

You have selected a Duplicate Lot Number. This means that the lot number already exists in the lot number file, and the Immunization Visit you are entering cannot be stored until the duplicate has been resolved. Refer to the Lot Number Add/Edit option on the Manager Menu for resolution of duplicate lot numbers.

Location Type

The Location Type field is used to specify whether a location is an IHS, Tribal or Urban Indian facility (any location that has a recognized IHS facility location code), or OTHER (unofficial locations, such as private doctors without an IHS Facility Location Code). All OTHER locations point to one Location Code which is set using the Edit Site Parameters option. See Section 6.5 for more information.

Location

If the location is an official IHS location, you must enter the name of an IHS facility contained on the official IHS list or the correct code. If you chose OTHER for the Location Type field, you may use nonofficial locations (e.g., Dr. Ray Beck).

Note: Immunizations given by staff outside the facility (e.g., at a home visit or out in the community) should have a Location Type of IHS, and the Location field should contain the name of the IHS facility with which the staff are affiliated.

Reaction

Choose from the following list:

- Anaphylaxis or Collapse (Contraindicates next dose)
- Arthritis or Arthralgias
- Convulsions
- Fever>104
- Lethargy
- Swelling>4cm

Vaccine Information Statement (VIS) Date

Providers are required to give each parent/patient a VIS for each vaccine administered and to document the publication date of the VIS as evidence of informed consent. You can set a default VIS date using the Vaccine Table Edit option. See Section 6.9 for more information.

Vaccines For Children Eligibility (VFC)

The VFC Elig field provides eight options for recording the patient's VFC eligibility for each vaccine: Unknown, Not Eligible, Medicaid, Uninsured, Am Indian/AK Native, Federally Qualified, State-specific Elig, and Local-specific Elig. If the patient's RPMS Registration Beneficiary Type is 01 (American Indian/Alaska Native) and the patient is under 19 years of age, Am Indian/AK Native appears as the default in the VFC Elig field. VFC Elig field will not be displayed for patients 19 years and older.

4.1.2 Skin Test Add (S)

Use the Skin Test Add option (S) on the PATIENT VIEW screen to enter dates for placement of new or historical skin tests (PPD, Monovac, Tine) and the results of the skin tests on the ADD/EDIT SKIN TEST VISIT screen, as shown in Figure 4-4.

```

* * * ADD/EDIT SKIN TEST VISIT * * *

Patient: DEMO, PATIENT                DOB: 16-Mar-1999 (6 months)
Chart#: 00-00-99 at UNSPEC MED CTR      Active   Male

      Date: FEB 15,2003                Category: Ambulatory

Skin Test: CHLAMYDIA                   Site: LEFT FOREARM   Volume: .1 ml
Result: NEGATIVE                       Reading: 13mm       Date of Reading:

Location Type: IHS                     Location: UNSPEC MED CTR
Skin Test Provider:
Skin Test Reader:

COMMAND                                Press <PF1>H for help
Insert
```

Figure 4-4: ADD/EDIT SKIN TEST VISIT screen

Use the procedures outlined in Section 4.1.1, Add Immunization (A), to add a skin test.

- To display a list of skin tests type ?? at the “Skin Test” prompt.
- The result of the skin test is either positive or negative.
- The reading is the induration in mm (e.g., 0, 02, or 12mm).
- Identify the skin test provider and reader.

4.1.3 Edit Visit (E)

Use the Edit Visit (E) option on the Patient View screen to change incorrect vaccine or skin test information in RPMS, including an incorrect date, vaccine, etc. The screens and actions are identical to those described in Section 4.1.1 Add Immunization (A), except there are two additional choices available when editing a vaccine, as shown in Table 4-2.

Table 4-2: Additional choices when editing a vaccine

	Ambulatory	Historical	Inpatient
Reaction	Type ?? to see available options. If there was a reaction to a vaccine, enter the appropriate option.	Leave blank if the reaction to a historical vaccine is not known. Enter the appropriate reaction if known.	Type ?? to see available options. If there was a reaction to a vaccine, enter the appropriate option.
Dose Over-ride*	Use to force a dose to "Valid" (if given a day or so early but won't affect school) or "Invalid" (due to expired vaccine, etc). Type ?? to see available options. Use only with provider approval.	Use to force a dose to "Valid" (if given a day or so early but won't affect school) or "Invalid" (due to expired vaccine, etc). Type ?? to see available options. Use only with provider approval.	Use to force a dose to "Valid" (if given a day or so early but won't affect school) or "Invalid" (due to expired vaccine, etc). Type ?? to see available options. Use only with provider approval.

Note: Using dose over-ride affects immunization forecasting; it will ignore invalid doses and will count forced valid doses.

Short Cut Keys

- Exit and save: Press **F1** and then **E**.
- Exit without saving: Press **F1** and then **Q**.
- Delete a specific entry: Type **@**.
- To accept the last IHS location entered if different than the default: Press the spacebar and then the press **Enter**.

4.1.4 Delete Visit (D)

Use the Delete Visit (D) option on the PATIENT VIEW screen to delete a complete immunization visit or skin test that was erroneously entered (for example, a duplicate immunization record). Figure 4-5 displays an example of the delete confirmation screen that appears when you select a visit to delete.

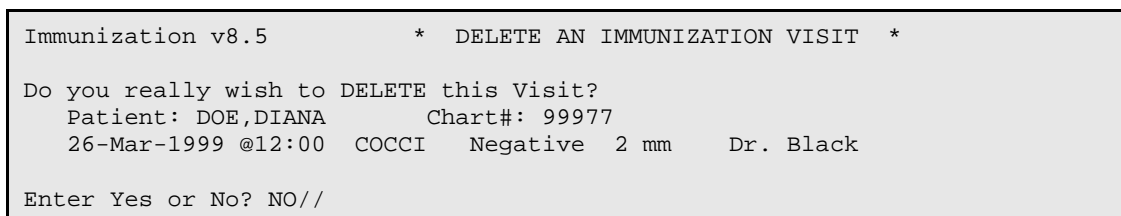


Figure 4-5: DELETE AN IMMUNIZATION VISIT screen

4.1.5 ImmServe Profile (I)

Use the ImmServe Profile option on the PATIENT VIEW screen to view an in-depth immunization forecast for any patient in the Immunization Registry, including explanations of errors in the patient's immunization history (e.g., DTaP 1 because it was given before 42 days of life). Refer to the Package Information (PKG) option on the Manager Menu or to Appendix B.2, CVX/CPT/ICD9 Code Crosswalk

Short Name	HL7 Code	CPT Code	ICD Dx Code	ICD Proc Code	HCPCS for CMS
ACTHIB (PRP-T)	48	90648	V03.81	99.55	
BCG	19	90585	V03.2	99.33	
BOTULINUM	27	90287	V07.2	99.57	
CHOLERA	26	90725	V03.0	99.31	
CMV-IGIV	29	90291	V07.2	99.14	
COMVAX (HEPB-HIB)	51	90748	V06.8 or (V03.81 V05.3)	99.55	
DTaP	20	90700	V06.1	99.39	
DTaP-5PE	106	90700	V06.1	99.39	
DTaP-HIB	50	90721	V06.8 or (V06.1 V03.81)	99.55	
DTaP-IPV(Kinrix)	130	90696	V06.3 or (V06.1 V04.0)	99.55	
DT-PEDS	28	90702	V06.5	99.36	
FLU-HIGH	135	90662	V04.81	99.52	
FLU-NASAL	111	90660	V04.81	99.52	G8108
FLU-TIVhx	15	90658	V04.81	99.52	G8108
FLU-TIVpf 6-35 mo	140	90655	V04.81	99.52	G8108
FLU-TIVpf 3+ yrs	140	90656	VO4.81	99.52	
FLU-TIV 6-35 mo	141	90657	V04.81	99.52	
FLU-TIV 3+ yrs	141	90658	V04.81	99.52	
FLU-TIV-ID	140	90659	V04.81	99.52	
HBIG	30	90371	V07.2	99.14	
HEP A Adult	52	90632	V05.3	99.55	

Short Name	HL7 Code	CPT Code	ICD Dx Code	ICD Proc Code	HCPCS for CMS
HEP A PED 2DOSE	83	90633	V05.3	99.55	
HEP B	45	90744	V05.3	99.55	
HEP B ADLT	43	90746	V05.3	99.55	
HEP B ADOL 2DOSE	43	90743	V05.3	99.55	
HEP B DIAL	44	90740	V05.3	99.55	
HEP B PED	8	90744	V05.3	99.55	
HEPA/HEPB (TWINRIX)	104	90636	V05.3	99.55	
HIBTITER (HbOC)	47	90645	V03.81	99.55	
HPV-2	118	90650	V04.89	99.55	
HPV-4	62	90649	V04.89	99.55	
IG	86	90281	V07.2	99.59	
IGIV	87	90283	V07.2	99.59	
IPV	10	90713	V04.0	99.41	
Japan E IM	134	90738			
Japanese E	30	90735			
MENING-CV4	114	90734	V03.89	99.55	
MENING-CV4O	136	90734	V03.89	99.55	
MENING-PS	32	90733	V03.89	99.55	
MMR	3	90707	V06.4	99.48	
MMRV	94	90710	V06.8 or (V06.4 V05.4)	99.55	
MR	4	90708	V04.2 V04.3	99.55	
OPV	2	90712	V04.0	99.41	
PEDIARIX DTaP-HEPB-IPV	110	90723	V06.8 or (V06.1 V04.0 V05.3)	99.55	
PEDVAXHIB (PRP-OMP)	49	90647	V03.81	99.55	
PENTACEL DTAP-HIB-IPV	120	90698	V06.8 or (V06.1 V04.0 V03.81)	99.55	
PLAGUE	23	90727	V03.3	99.34	
PCV-13	133	90670	V03.82	99.55	G8115

Short Name	HL7 Code	CPT Code	ICD Dx Code	ICD Proc Code	HCPCS for CMS
PCV-7	100	90669	V03.82	99.55	
PNEUMO-PS	33	90732	V03.82	99.55	G8115
RABIES ID	40	90676	V04.5	99.44	
RABIES IM	18	90675	V04.5	99.44	
RABIES IMMUNE GLOB	34	90375	V07.2	99.14	
ROTA-1	119	90681	V04.89	99.55	
ROTA-5	116	90680	V04.89	99.55	
RSV-IGIV	71	90379	V07.2	99.14	
RSV-Mab (Synagis)	93	90378	V07.2	99.14	
SMALLPOX	75	96379	V04.1	99.42	
Td-ADULT	9	90718	V06.5	99.36	
Td-ADULTpf	113	90714	V06.5	99.36	
Tdap	115	90715	V06.1	99.39	
TET TOX	35	90703	V03.7	99.38	
TIG	13	90389	V07.2	99.14	
TYPHOID, ORAL	25	90690	V03.1	99.32	
TYPHOID, PM	53	90693	V03.1	99.32	
TYPHOID, VICPS	101	90691	V03.1	99.32	
TYPHOID, PA	41	90692	V03.1	99.32	
VACCINIA IMM GLOB	79	90393	V07.2	99.14	
VARICELLA	21	90716	V05.4	99.54	
VZIG	36	90396	V07.2	99.14	
VZIG-IND	117	90396	V07.2	99.14	
YELLOW FEV	37	90717	V04.4	99.43	
ZOSTER	121	90736	V05.4	99.54	

ImmServe Forecasting Rules, for more information about ImmServe forecasting.

Figure 4-6 shows an example of the ImmServe Profile screen.


```

Patient: PATIENT, JANE                                DOB: 27-APR-1998 (7m)
Chart#: 11-11-70 at UNSPEC MED CTR                    Active      Female
-----
ImmServe (Release 5.1, Rule Set 3.0, Version: IHS_9gm18)
  Case run Fri Oct 9 09:11:47 2008
INDIAN HEALTH SERVICE Report biwin3201
Requested Numbered Doses Processing Method: HIGHEST NUMBERED DOSE
Requested Series Forecasting: HepB DTP Td/B Hib OPV/IPV MMR/Me
  HepA Var
Series Forecasted: HepB DTP Td/B Hib OPV/IPV MMR/Me HepA VAR
Requested Series Failure Modes: None.
-----
Case: DOE, JANE      Chart#: 10-45-60
Date used for forecast: 10/9/98
Date of birth: 4/27/1998
Contraindicated vaccines: Varicella (Hx of chicken Pox)
Other facts: Mother HBsAg status unknown

DtaP 1: 6/6/1998 HbOC 1: 6/6/1998
The following immunizations are due on 10/9/98
  HepB 1 (past due)
  DtaP 2 (past due)
  HbOC 2 (past due)
  Polio 1 (past due)
The following immunizations will be due:
  HepB 2, on or after 11/9/1998
  DtaP 3, on or after 12/9/1998
  HbOC 3, on or after 12/9/1998
  Polio 2, on or after 12/9/1998
The following vaccine series are either complete or no longer relevant for
this case:
  Hib          VAR

```

Figure 4-6: ImmServe Profile screen

4.1.6 Health Summary (H)

Use the Health Summary (H) option on the PATIENT VIEW screen to view or print a health summary for the patient. You can select from a number of health summaries including Immunization, Adult Regular, Cancer, CHR, Dental, Diabetes Standard, Mental Health/Social Services, Patient Merge (Complete), Pediatric, Problem List, and Sample. A sample Health Summary screen is shown in Figure 4-7.

```

***** CONFIDENTIAL PATIENT INFORMATION -- APR 14,1999  8:36 AM  [JEC]
***** DOE,PATIENT #99999  (IMMUNIZATION SUMMARY)  pg. 1 *****
DOE,PATIENT      DOB: AUG 8,1982
INDIAN HOSP.    HEALTH RECORD NUMBER: 99906
5 PALM DR, MYTOWN, NM  87999
----- IMMUNIZATIONS -----
--      IMMUNIZATION FORECAST:
      HEP B              past due

      DTP                03/07/91  18 mths UNSPEC Med Ctr
      DTP                04/07/95   5 yrs  UNSPEC Med Ctr
      Td-ADULT          08/09/02  12 yrs  UNSPEC Med Ctr          U0520AA
+      Enter ?? for more actions
>>>
+ NEXT SCREEN          -   PREVIOUS SCREEN          Q   QUIT
Select Action: +//

```

Figure 4-7: Health Summary screen

4.1.7 Patient Edit (P)

Use the Patient Edit (P) option on the PATIENT VIEW screen to edit a patient record on the EDIT PATIENT CASE DATA screen, as shown in Figure 4-8. The following edits can be made to the patient record:

- Change a patient's Active status in the Immunization Registry to Inactive.
- Add or edit a case manager.
- Edit the mother's HBsAg status.
- Forecast Influenza/Pneumo or disregard forecast based on risk factors.
- Add the name of a parent or guardian for due letters.
- Document consent for participation in state Immunization Registry.

```

* * * EDIT PATIENT CASE DATA * * *

Patient Name: GROOM,MOTT (30 mths)           Chart#: 7777
Street: Unknown                             Patient Phone: Unknown
Cty/St/Zip: Unknown, No State No Zip

-----
(The above data may be edited through Patient Registration.)

Case Manager: MCGHEE, TED M
Parent/Guardian:
Other Info:

Inactive Date: APR 8,2010           Inactive Reason: Moved Elsewhere
Moved to/Tx Elsewhere: Phoenix

Forecast Infl/Pneumo: Normal
Mother's HBsAG Status: Unknown           State Registry Consent: NO

-----
Select the patient's mother's HBsAg Status: P for Positive, N for Negative,
or U for Unknown.

Press <PF1>H for help      Insert

```

Figure 4-8: EDIT PATIENT CASE DATA screen

4.1.7.1 Inactivating Patients

To inactivate a patient, you must select a date of inactivation and a reason for inactivation from drop-down lists. Reasons include the following:

- Moved elsewhere
- Treatment elsewhere
- Deceased
- Ineligible

Patients who were inactivated prior to Immunization Module v8.3 have “Previously inactivated” or “Never activated” in the “Reason for inactivation” field.

Moved to/Tx Elsewhere

Add text for the location where the patient moved or the provider/facility name where the patient is getting care.

Important Notes

- Entering a date in the Inactive Date field flags the patient as inactive as of that date. Several reports and letters allow the user to specify whether to include inactive patients as well as active patients or to limit results to active patients.

Note: If the patient is inactivated in the RPMS Patient Registration package, it is not possible to select and edit the patient in the Immunization package (for the given site). This can lead to a problem where a patient counts as delinquent for immunizations, but cannot be edited or even inactivated in the Immunization package.

Because of this potential problem, it is important to inactivate the patient in the Immunization package first and then inactivate the patient in the Patient Registration package.

- If the Parent/Guardian field is left blank, the due letters are addressed to “Parent/Guardian of” followed by the patient name.
- Use the Forecast Influenza/Pneumo field to add the patient to the group that is forecast for Influenza every year between September 15 and March 15 and/or forecast for Pneumo. Select whether Normal (0), Influenza (1), Pneumococcal (2), or Both (3) vaccines should be forecasted for this patient. Leave it blank or enter “Normal” to forecast these vaccines in accordance with the standard forecasting. You may also select (4) Disregard Risk Factors to prevent this patient from being forecast for Influenza and Pneumo due to previous High Risk diagnoses in their record.
- If you enter “Positive” for Mother’s HBsAg Status, this status is displayed each time you view the patient’s immunization record on the PATIENT VIEW screen.

4.1.8 Contraindications (C)

Use the Contraindications (C) option on the PATIENT VIEW screen to add or delete contraindications for specific vaccines on the CONTRAIND screen, as shown in Figure 4-9. Table 4-3 shows the reasons for contraindication.

Table 4-3: Reasons for Contraindication

Anaphylaxis	Immune Deficient
Carrier (e.g. HBsAg Carrier)	Lethargy/Hypotonic Episode
Convulsion	Neomycin Allergy
Egg Allergy	Parent Refusal
Fever > 104	Patient Refusal
Hx of Chicken Pox	Persistent Crying
Immune	Positive TB Skin Test (PPD only)
Immune Deficiency	Vaccine Unavailable

```

CONTRAINED (IMM v8.5)           Apr 16, 1999 16:04:36           Page: 1 of 1
Patient: DOE,PATIENT           DOB: 23-Jan-53 (46 years)
Chart#: 99999 at UNSPEC MED CTR   Active Female

# Vaccine   Reason           Date Noted
1 VARICELLA: Hx of Chicken Pox   10-Dec-1998

Enter ?? for more actions.
A Add Contraindication           E Explanation
D Delete Contraindication

Select Action: Quit//

```

Figure 4-9: CONTRAINED screen

The top of the CONTRAINED screen displays the patient's demographic information, most of which is edited through the RPMS Patient Registration module.

The middle of the screen lists any contraindications to vaccines that the patient is known to have, along with the reason for the contraindication and the date it was noted.

The bottom of the screen provides the actions available to add or delete contraindications or to view this explanation.

Contraindications added for a patient on the CONTRAINED screen cause the contraindicated vaccine to be eliminated from the forecast (in the right column of the main PATIENT VIEW screen). However, if the reason chosen for a contraindication is "Patient Refusal," the vaccine is not eliminated from the forecast. You can edit the refusal date (e.g., Current refusal for Influenza vaccine). If you choose Immune Deficiency, then MMR, Varicella, OPV, Rotavirus and Flu-Nasal (all live vaccines) are automatically contraindicated.

Note: You may select TST-PPD INTRADERMAL (PPD) as the vaccine. In this case, the only reason selectable is Positive TB Skin Test. This allows the system to display a contraindication to future PPD tests.

4.1.9 Letter Print (L)

Use the Letter Print (L) option on the PATIENT VIEW screen to print one of the available form letters (Due Letter, Official Immunization Record, etc.) for the selected patient, as shown in Figure 4-10.

```

DEMO Clinic
123 MAIN
Anywhere, Alaska 12345
(123) 456-7890
30-Mar-1999

```

```

Chart#: 99960
DEMO PATIENT
100 5TH ST.
Anywhere, Alaska 12345

Date of Birth: 01-Jan-1900 (6 Months)
Parent/Guardian of

Dear Parent or Guardian:

Your child, DEMO, is due for immunizations. According to our records, the
following immunizations have already been received:

CARLA will be due for the immunizations listed below:

    HEP B
    Td-ADULT

If you feel our records are not correct, please notify us so that we may
make the corrections to update our records. Otherwise, please come to our
clinic.
We would surely appreciate you bringing your own personal immunization
records so that we can update our records as well as your records!

23-April-1999 at UNSPECIFIED MEDICAL CENTER

Sincerely,

Dr. ADAM ADAM
Printed: 30-Mar-1999 @12:26          Case Manager: DEMO USER
    
```

Figure 4-10: Letter print screen

Available form letters are set up by the site manager. There should be at least one “Standard Due Letter” and one “Official Immunization Record.” At the prompt, type the name of the letter, or type ? to select from a list of form letters.

4.2 Print Individual Patient Letter (LET)

Use the Print Individual Patient Letter (LET) option on the Patient Menu, as shown in Figure 4-11, to display or print any of the available form letters for a patient.

This option is identical to the Letter Print (L) option described in Section 4.1.9. However, no individual patient data is available from the Patient Menu, so clerical staff can send letters to patients without having access to edit patient data.

```

IMMUNIZATION v8.5          *   PATIENT MENU   *           Site: UNSPEC MED
CTR                        =====           User: USER, DEMO

SGL  Single Patient Record
LET  Print Individual Patient Letter
LLS  Patient Lists and Letters

Select Patient Menu Option: LET   Print Individual Patient Letter
    
```

Figure 4-11: Patient Menu

This option displays prompts for selection of the patient, the form letter, and the device on which to print the letter. At the “Form Letter” prompt, type the name of the letter, or type ? to select from a list of form letters. An example of an Official Immunization Record form letter for an individual patient is shown in Figure 4-12.

```

CHILDHOOD OFFICIAL IMMUNIZATION RECORD
UNSPECIFIED MEDICAL CENTER
801 Vassar
Anywhere, Alaska 12345
(123) 256-4000
30-Mar-1999

Date of Birth: 01-Jan-1999 (2 months)

Parent/Guardian of
DEMO PATIENT
100 Main Street
ANYWHERE, ALASKA 12345

Our records show that DEMO has received the following immunizations:

      Immunization      Date Received      Location
      -----      -
      1-DtorP          26-Mar-1999      UNSPECIFIED Medical Center
      1-Hib            26-Mar-1999      UNSPECIFIED Medical Center

If you feel our records are not correct, please notify us so that we may
make the corrections to update our records.

Sincerely,
Your Outpatient Nursing Department
    
```

Figure 4-12: Example of an Official Immunization Record form letter

4.3 Patient Lists and Letters (LLS)

Use the Patient Lists and Letters (LET) option on the Patient Menu, as shown in Figure 4-13, to display or print a Due List, a Master List, or any of the available form letters for a group of patients.

```

IMMUNIZATION v8.5          * PATIENT MENU *          Site: UNSPEC MED
CTR
                        =====
                                User: DEMO, USER

SGL  Single Patient Record
LET  Print Individual Patient Letter
LLS  Patient Lists and Letters

Select Patient Menu Option: LLS    Due Lists and Letters
    
```

Figure 4-13: Patient menu

A list or group of letters can be printed for a given forecast date, an age range, a patient group, a community or group of communities, or one or more case managers. This option gives you the ability to search for and print lists for one or more specific lot number(s) or a specific vaccine type. Note that you can accept all default settings or change specific settings as necessary.

At the “Select Patient Menu Option” prompt on the PATIENT MENU screen, type **LLS** to display the IMMUNIZATION LISTS & LETTERS screen as shown in Figure 4-14.

The IMMUNIZATION LISTS & LETTERS screen contains a header at the top of the screen, a numbered list of parameters in the center, and available actions and a “Select Action” prompt at the bottom of the screen.

```

Immunization v8.5                Aug 15, 2011  14:34:04                Page: 1 of 1

                                IMMUNIZATION LISTS & LETTERS

1 - Date of Forecast/Clinic...: 08-Apr-2010
2 - Age Range.....: 1-72 Months
3 - Patient Group.....: Active

4 - Community.....: ALL
5 - Case Manager.....: ALL
6 - Designated Provider.....: ALL
7 - Immunizations Received...: ALL
8 - Immunizations Due.....: ALL
9 - Health Care Facility.....: DEMO HOSPITAL
10 - Lot Number.....: ALL

11 - Additional Information...: None
12 - Order of Listing.....: by Patient Age
13 - Include Deceased.....: No

      Select a left column number to change an item.
List of Patients                Print Due Letters                Help
Select Action: Quit//
    
```

Figure 4-14: IMMUNIZATION LISTS & LETTERS screen

4.3.1 Overview of Immunization List and Letters Parameters

Use the IMMUNIZATION LISTS & LETTERS screen to view Due List and Master List reports and to print Due Letter form letters.

As shown in Figure 4-14, this screen includes a list of parameters that can be changed to select a specific group of patients. To change a parameter, type the number from the left column at the “Select Action” prompt. For help or more information about the parameter being changed, type ? at any prompt.

After you have set the parameters to retrieve the correct group of patients, type **L** at the “Select Action” prompt to print or view a list of the selected patients, or type **P** to print due letters for the selected patients.

Because the system must review every patient in the Immunization Registry to build a list to view or print, some computer systems may take a long time to display the list.

4.3.2 Specifying Parameters for a List or Letter

This section describes how to change the information to be included in a selected list or letter.

1. Date of Forecast/Clinic

The forecast date or clinic date is the date used to calculate which immunizations are due for patients. For example, if you choose today, the letter or report lists the immunizations and patients due today. If you choose a future date (the date of a clinic), the letter or report lists immunizations due on that date. A date in the past cannot be selected.

Note: If a forecast date in the future is selected, some patients may appear as past due for that future date, even though they are not past due today.

2. Age Range

- To select patients in specific age range (in months), type the beginning age and the ending age of the range, separated by a dash (e.g., 6 - 23).
- Because the list will include patients from the minimum age in the range to those who are one day less than a month older than the maximum age, the age range “6 23” includes patients who are 6 months old up to, but not including, those who are 24 months old.
- To select only patients of a single age, type the age in months. For example, to select only 12-month-old patients, type 12.
- To include all patients regardless of age, type **ALL**.
- To specify a range in years rather than months, type **Y** to change from months to years.

3. Patient Group

Use the Patient Group parameter to select the group(s) of patients to include in the list. Any combination of the groups listed on the PATIENT GROUP screen can be included as shown in Figure 4-15, by typing the numbers separated by commas (for example: 1, 3, 4) at the “Select Patient Group” prompt.

- The Due or Past Due groups, if selected alone, include only Active patients.

- The Due group automatically includes the Past Due group.
- The Search Template option cannot be combined with any other group.

```

IMMUNIZATION v8.5          *   PATIENT GROUP   *

Please select the Patient Group for this list:

 1- DUE.....(Patients Due for Immunizations)
 2- PAST DUE.....(Only Patients who are PAST Due)
 3- ACTIVE.....(List of Active Patients)
 4- INACTIVE.....(Inactive Patients, by date if desired)
 5- AUTOMATICALLY ACTIVATED..(By date if desired)
 6- REFUSALS.....(Patients who have refused an vaccines)
 7- FEMALES ONLY.....(Only female patients included)
 8- SEARCH TEMPLATE.....(Pre-selected group of Patients)
Enter "?" for further explanation.

Select Patient Group: 1,3//
    
```

Figure 4-15: PATIENT GROUP screen

- The selected group is further limited by the criteria you select on the main Immunization Lists and Letters screen, such as Age Range, Communities, and Lot Numbers.
- The Active and Inactive options list all patients in the Immunization Registry, unless they are combined with the Due or Past Due options.

For example, option 3 (Active) lists all active patients in the registry, while the combination of options 1 (Due), 3 (Active), and 4 (Inactive) lists all active and inactive patients who are due for immunizations.

- After you choose a Patient Group, you will get an additional prompt to choose whether you want to only include American Indian/Alaska Native beneficiaries, or to include all patients.
- To list or send a letter to all patients who have received a particular vaccine or lot number, select groups 3 (Active) and 4 (Inactive) on the PATIENT GROUP screen, and then specify either the vaccine (using the Immunizations Received option) or the lot number (using the Lot Numbers option) on the IMMUNIZATION LISTS & LETTERS screen.
- A search template (option 8) is a group of individual patients produced and stored by other software, usually QMan, and saved under a template name. If you choose this option, you must select the template you want to use from a list of existing search templates.

For more information about search templates and how to create your own, contact your computer support people for training.

4. Communities

Use the Communities parameter to select and save one or more communities for which you can print a list or letters. The default is “All Communities.” You can also select your GPRA communities. If you select specific communities, only patients whose current community specified in Patient Registration matches one of the selected communities are included in the export (See Figure 4-16).

Note: Several parameters involve a list of items, such as Communities, Case Managers, Immunizations Received, Lot Numbers.

You can edit these parameters to build a list of one or more of the items pertaining to the parameter. The list you build is saved as your own personal list of this particular item and is presented again whenever you return to make selections from that list.

```

Immunization v8.5
                                * SELECTION OF COMMUNITIES *

You have the opportunity here to use the GPRA set of Communities.

* Enter "G" to automatically use the GPRA set and proceed.
* Enter "L" to LOAD the GPRA set and then edit your list before
proceeding.
* Enter "P" to load the PREVIOUS set of Communities you used.
Select G, L, or P: Load//

```

Figure 4-16: Select communities screen

Four actions are available for editing these lists:

- Add (A): Adds another item to the list
- Delete (D): Removes an item from the list
- Entire File (E): Selects all of the specified items
- Clear All (C): Removes all of the specified items from the list

Your personal list of communities is saved each time you build it. Whenever you return to this list, the previous list of communities you built is presented as a default list.

5. Case Managers

Use the Case Managers parameter to select and save the names of one or more case managers whose patients you want to print a list or letters for. The default is “All Case Managers.” If you select specific case managers, only patients who have the selected case managers are included. The procedure for selecting case managers is the same as described above for selecting communities. Your personal list of case managers is saved each time you build it.

6. Designated Provider

Use the Designated Provider parameter to print a list or letters for patients from the panel of one or more designated primary providers. The default is “All Designated Providers.” If you select specific designated providers, only patients who have the selected designated providers are included. The procedure for selecting designated providers is the same as described above for selecting communities. Your personal list of designated providers is saved each time you build it.

7. Immunizations Received

Use the Immunizations Received parameter to select and build a list of vaccines received by patients. The default is “All Vaccines.” If you select specific vaccines received, then only patients who have received the selected vaccines are included. The procedure for selecting vaccines received is the same as for selecting communities. Your personal list of vaccines received is saved each time you build it. If you choose a single vaccine or group of vaccines, you will get a prompt that will allow you to choose whether you want to print all vaccines in the patient history, or just the vaccines chosen.

8. Immunizations Due

Use the Immunizations Due parameter to select and build a list of vaccines due for your report. The default is “All Vaccines.” If you select specific vaccines due, then only patients who are due for the selected vaccines are included. The procedure for selecting vaccines is the same as described above for selecting communities. Your personal list of vaccines is saved each time you build it.

Note: If you have selected the Past Due group for the Patient Group parameter (Parameter 3), then the Immunizations Due parameter becomes “Immunizations Past Due.” This allows searching for patients who are past due for specific vaccines.

9. Lot Number

Use the Lot Number parameter to select and build a list of lot numbers for your report. The default is “All Lot Numbers.” If you select specific lot numbers, only patients who have received immunizations with the specified lot numbers are included. The procedure for selecting lot numbers is the same as described above for selecting communities. Your personal list of lot numbers is saved each time you build it.

10. Health Care Facilities

Use the Health Care Facilities parameter to select and build a list of facilities for your report. If you select one or more specific facilities, only patients who have a Health Record Number (HRN) at one of the selected health care facilities are included.

11. Additional Information

Use the Additional Information parameter to select additional patient information, as shown in Figure 4-17, to be included in a list. This parameter does not apply to letters.

```

IMMUNIZATION v8.5
* ADDITIONAL INFORMATION *

Choose from:
Address
Case Manager
Directions to House
Facility where shot was given
Forecast
Immunization History
Lot Numbers (Immunization History)
Next Appointment (RPMS Schedule)
Parent/Guardian
Phone Number
Reason Inactivated
Refusals
Skin Tests
VFC (Immunization History)
Select Information Item:
  
```

Figure 4-17: ADDITIONAL INFORMATION screen

Any combination of items may be added. The procedure for selecting additional information elements is the same as for selecting communities. Your personal list of additional information is saved each time you build it.

- **Directions to House:** Refers to the physical location of patient's home, as entered on Page 9 of the Patient Registration module.
- **Parent/Guardian:** Refers to the patient's parent or guardian as listed in Additional Patient Information of the Patient View in the Immunization module.

Note: This is not necessarily the same as the father's name or mother's maiden name as listed in the Patient Registration module.

- **Next Appointment:** Refers to the patient's next appointment if the RPMS Scheduling package is in use on this system and if the patient has a future appointment scheduled.
- **Current Community:** Refers to Page 1, Field #8 of the Patient Registration module. The patient's current community automatically appears in the right-most column of the Due List.

12. Order of Listing

The SELECT ORDER screen, shown in Figure 4-18, allows you to select the order in which patients are sorted.

```

IMMUNIZATION v8.5          *   SELECT ORDER   *

Select the Order by which patients should be sorted.

  1   Patient Age
  2   Patient Name (alphabetically)
  3   Patient Chart#
  4   Case Manager
  5   Case Manager, then Community
  6   Community, then Case Manager
  7   Community, then Patient Age
  8   Community, then Patient Name
  9   Community, then Patient Chart#
 10   Zipcode, then Patient Name

Select Order: Patient Age//

```

Figure 4-18: Select order of listing screen

- Patient Age lists patients in order of increasing age.
- Patient Name lists patients by last name, first name alphabetically.
- Patient Chart# lists patients by increasing chart number (HRN).
- Case Manager lists patients grouped by case manager, and then sorted alphabetically by patient name under each case manager.
- Case Manager, then Community lists patients grouped first by case manager and then by community.
- Community, then Case Manager lists patients grouped first by community and then by case manager.
- Community, then Patient Age lists patients grouped first by community and then by patient age.
- Community, then Patient Name lists patients grouped first by community and then by patient name.
- Community, then Patient Chart# lists patients grouped first by community and then by patient chart#.
- Zip Code, then Patient Name lists patients grouped first by zip codes, with lowest zip codes first, and then by patient name (useful for bulk mailing discounts).

13. Include Deceased

Use the Include Deceased parameter to include deceased patients in the list or report. In general, deceased patients are left off of lists and reports unless you need this information for such purposes tracking recipients of a particular vaccine or reconciling various reports.

4.3.3 Printing a List

Use the List of Patients option to display the list of selected patients on your screen, as shown in Figure 4-19, or to send the list directly to the printer queue. You can also print the list after displaying it on your screen.

```

IMMUNIZATION v8.5

WARNING: Confidential Patient Information, Privacy Act applies.

                                UNSPECIFIED MEDICAL CENTER
                                -----

Report Date: 31-Mar-2008      Total Patients: 6 (1-72 Months)
Clinic Date: 31-Mar-2008      Patient Group: Active

Name           HRCN#      DOB           Age
Parent/Guardian
=====
PATIENT, DEMO      12345      01-Jan-1999   (2 months)
  Needs: HIB
         POLIO
-----
DEMO, JOANNE      67890      01-Jan-1999   (2 months)
  Needs: HEPB
         HIB
         POLIO
-----

```

Figure 4-19: List of selected patients

Print: If it usually takes a long time for your computer to produce a list of patients, it may be more efficient to queue it to a printer, allowing you to do other work while the report is printing.

View: If you choose to view the list of patients on your screen, you must wait while the computer retrieves the information. You can browse the list on screen by scrolling up and down using the arrow keys. You can also print the list after it appears on the screen, but it takes longer than using the Print option.

4.3.4 Print a Due Letter

Use the Print Due Letters option to send a selected due letter to your printer or display it on your screen. As with the List of Patients option, you can also print the letter after displaying it on screen.

If you send a letter to your printer for a patient or group of patients, the Patient Immunization (Patient View screen) shows the date on which it was printed.

Use the Manager Menu to modify the Standard Form Letter. Figure 4-20 shows an example of a Print a Due Letter screen.

```
IMMUNIZATION v8.5
* DATE/LOCATION LINE *

The Letter you have selected prints a Date/Location line between
The Bottom Section and the Closing Section of the letter.
An example would be:

    5-May-1998 at the Children's Clinic, UNPECIFIED Medical Center

This line may be up to 70 characters long.
Please enter/edit the Date/Location line now.

Line
    10/9/1998 at the Children's Clinic, UNPECIFIED Medical Center
```

Figure 4-20: Print a Due Letter screen

Note: If you have a Date/Location in your form letter and you are asked to choose a DATE/LOCATION of CLINIC, you may enter a specific clinic appointment date, or you may change this line to request it

5.0 Reports Menu

Figure 5-1 shows the Reports Menu, which is a submenu of the Main Menu (Figure 3-1). Use the Reports Menu to generate and print or display standard reports of immunization rates in the following formats: Adolescent Report, Adult Immunization Report, Influenza Report, 3-27 month Report, H1N1 report, PCV report and Two-Year-Old Rates Report. The Reports Menu also offers a doses administered report called the Vaccine Accountability Report and an H1N1 Accountability report. .

- The patients in these reports can be grouped and displayed the following ways: Not Current (Not Age Appropriate), Current, or Both Groups.
- When you select View the Report, a prompt appears at the bottom of the screen that allows you to display and edit the patients included in the report.

Note: This feature is only available if the report is viewed rather than printed.

To display the Reports Menu, type **REP** at the “Select New Immunization Menu Option” prompt.

The Reports Menu displays the options shown in Figure 5-1. Sections 5.1 through 5.6 explain how to use the options on the Reports Menu.

```

IMMUNIZATION v8.5          *  REPORTS MENU  *          Site: ANCH MED CTR
                           ===== User:

ADO    Adolescent Report
ADL    Adult Report
FLU    Influenza Report
H1     H1N1 Accountability Report
PCV    PCV Report
QTR    3-27 Month Report
TWO    Two-Yr-Old Rates Report
VAC    Vaccine Accountability Report

```

Figure 5-1: Reports menu

5.1 Adolescent Report (ADO)

The Adolescent Immunization Report provides statistics on Adolescent Immunizations. The population of patients reviewed includes those patients from 11 years 0 days to 17 years 364 days. Sites have the option to select from the following patients groups: Active in Immunization Package, Active Clinical User (2 visits/3 years), User Population (1 visit/3 year), or All Registered (all patients registered in the RPMS system).

The Adolescent report follows the logic of the National Immunization Survey (NIS) to provide immunization coverage rates for single vaccines and groups of vaccines in children 11 to 12 years, 13 years, and 13 to 17 years of age by certain key ages (i.e. 3 HepB and 2 MMR and 1-Td/Tdap, 3-HepB, 2-MMR, 1-Var) by the date of the report. The key ages by which vaccines were received are listed across the top of the report. Total patients who received each dose of the vaccines for each age-group are listed in rows beside each dose (e.g., the total number (%) of 11 to 12 year old patients receiving 3-HepB by the Report Date). The date header on far left header signifies doses received by the report date and includes all doses a child received up to the Quarter Ending Date chosen. All percentages represent a fraction of the total patients as noted at the top and bottom of the report.

Criteria

Single Antigens: HepB doses 1-3, MMR dose 1-2, Varicella doses 1-2 and Hx of Chickenpox, Tdap or Td/Tdap 1 dose, HepA doses 1-2, Meningococcal dose 1, Flu dose 1 in past year. The report also monitors HPV vaccine doses 1-3 for both females and males.

Combinations: Three combinations of vaccines are monitored for both genders: a. 1-Td/Tdap, 3-HepB, 2-MMR, 1-Var; b. 1-Td/Tdap, 3-HepB, 2-MMR, 1-Mening, 2-Var; and c. 1-Td/Tdap, 3-HepB, 2-MMR, 1-Mening, 2-Var, 3-HPV.

Current/Not Current: Patients who have received 1 Tdap/TD and 1 Mening are considered “Current” in this report. Patients who have not received these 2 vaccines are “Not Current”.

Report Parameters

There are five items or parameters shown in Figure 5-2 that you may change to select a specific group of patients.

Quarter Ending Date (1): The report compiles immunization rates as of the date entered. Typically, this date is the end of a quarter.

Community (2): If you select specific communities, only patients whose current community matches selected communities is included in the report. Current Community refers to Item 6 on Page 1 of the RPMS Patient Registration.

Health Care Facility (3): If you select specific Health Care Facilities, only Patients who have active chart numbers at one or more of the selected facilities is included in the report.

Case Manager (4): If you select specific Case Managers, only patients who have the selected Case Managers are included.

Beneficiary Types (5): If you select Beneficiary Types, only patients whose beneficiary type is one of those you select is included in the report. Beneficiary Type refers to Item 3 on page 2 of the RPMS Patient Registration package.

Patient Population Group (6): You can select from 4 different population groups for the Adolescent report: Active in the Immunization Registry, Registered Patients (All) – this includes all patients registered in RPMS; User Population – patients with 1 visit/3 years, or Active Clinical (2 visits/last 3 years).

```

ADOLESCENT IMMUNIZATION RATES REPORT

1 - Quarter Ending Date.....: 31-Mar-2011
2 - Community.....: ALL
3 - Health Care Facility.....: ALL
4 - Case Manager.....: ALL
5 - Beneficiary Type.....: INDIAN/ALASKA NATIVE
6 - Patient Population Group...: Active Users(2+ visits, 3 yrs)
  V View Quarterly Report    P Print Quarterly Report    H Help

Select Action: Quit//
    
```

Figure 5-2: Adolescent immunization report screen

```

Immunization v8.5
Native Medical Center
* Adolescent Immunization Report (11-17 yrs) *
Report Date: 08/05/2011
End Date: 6/30/11
page 1

Imm Register (Active)          Total Patients: 3009 (F:1444 M:1565)
-----
Communities:
-----
Beneficiary Type: INDIAN/ALASKA NATIVE
-----

```

Age Group	11-12yrs	13yrs	13-17yrs
Denominators	1193	601	1816
1-HEPB	1133 95%	579 96%	1648 91%
2-HEPB	1117 94%	574 96%	1610 89%
3-HEPB	1106 93%	563 94%	1575 87%
1-MMR	1138 95%	574 96%	1636 90%
2-MMR	1023	522	1511

	86%	87%	83%
1-VAR	796 67%	291 48%	685 38%
2-VAR	404 34%	163 27%	370 20%
Hx of Chickenpox (Immune)	259 22%	217 36%	722 40%
1-Tdap	458 38%	366 61%	924 51%
1-Tdap/Td	478 40%	374 62%	1273 70%
1-HEPA	1095 92%	549 91%	1614 89%
2-HEPA	1041 87%	523 87%	1504 83%
1-MEN	415 35%	299 50%	916 50%
1-FLU	164 14%	76 13%	205 11%
1-TD_B 3-HEPB 2-MMR 1-VAR	444 37%		1035 57%
1-TD_B 3-HEPB 2-MMR 1-MEN 2-VAR			
1-TD_B 1-MEN	408 34%		896 49%
Female Denominators	11-12yrs 568	13yrs 284	13-17yrs 876
1-HPV	188 33%	135 48%	423 48%
2-HPV	96 17%	75 26%	261 30%
3-HPV	39 7%	46 16%	140 16%
1-TD_B 3-HEPB 2-MMR 1-MEN 2-VAR 3-HPV (females)	23 4%		39 4%
Male Denominators	11-12yrs 625	13yrs 317	13-17yrs 940
1-HPV	0	0	0

2-HPV	0	0	0
3-HPV	0	0	0
1-TD_B 3-HEPB 2-MMR 1-MEN 2-VAR 3-HPV (males)			
Total Patients reviewed: 3009 Females: 1444 Males: 1565 Total Patients reviewed who had Refusals on record: 70			
*Denominators are Immunization Register Patients with a status of Active. *Patients considered "Current" have 1-TDap_TD and 1-Mening.			

Figure 5-3: Sample adolescent immunization report

5.2 Adult Report (ADL)

The Adult Immunization Report provides statistics on Adult Immunizations. The population of patients reviewed are those 19 years and older

Criteria

Tetanus: For all patients - tetanus immunization documented in the past 10 years. This includes any of the following CVX Codes: 1, 9, 20, 22, 28, 35, 50, 106, 107, or 110.

HPV: For patients 19-26 years, report looks for documentation of 1, 2 and 3 doses of HPV. This includes CVX codes: 118, 62, and 137.

Pneumovax: For patients 65+ years looks for a pneumococcal immunization documented at/after 65 years of age and ever. This includes any of the following CVX Codes: 33, 100, or 109.

Zoster: 1 dose of Zoster for those 60 + years. This includes CVX code 121.

Current/Not Current: The patient must be current for Td/Tdap and Pneumo as appropriate to be counted as “current”

Report Parameters

The Adult Immunization Report screen, shown in Figure 5-4, allows you to adjust the report to your needs. There are four parameters on the screen that you may use to select a specific group of patients. To change an item, enter its left column number (1-4) at the prompt on the bottom of the screen. Type ? at any prompt for more information about the parameter you are changing.

Once you have the parameters set to retrieve the group of patients you want, select **V** to view the Adult Report or **P** to print it. Figure 5-5 provides an example of an adult immunization report.

If it customarily takes a long time for your computer to prepare this report, it may be preferable to print and queue the report to a printer, rather than viewing it on screen. (This would avoid tying up your screen while the report is being prepared).

Quarter Ending Date (1): The report compiles immunization rates as of the date entered. Typically, this date would be the end of a quarter. The system interprets most forms in which you type the date. If you type in only a month and a year, the system assigns the last day of the month for the report. The patient ages (65 years, etc.) are calculated as of the date you enter here:

Community (2): If you select communities, only patients whose current community matches one of the communities selected is included in the report. Current Community refers to Item 6 on page 1 of the RPMS Patient Registration package.

Health Care Facility (3): If you select Health Care Facilities, only patients who have active chart numbers at a selected facilities are included in the report.

Beneficiary Types (4): If you select Beneficiary Types, only patients whose beneficiary type is one of those you select to include in the report. Beneficiary Type refers to Item 3 on page 2 of the RPMS Patient Registration package.

CPT Coded Visits (5): If you type YES in this field, the report searches for and includes any immunizations that were only entered as CPT Codes.

```

Immunization v8.5      Aug 22, 2011 11:02:09      Page: 1 of 1
                        ADULT IMMUNIZATION REPORT

1 - Quarter Ending Date.....: 08/22/2011
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)

                        Enter ?? for more actions
V View Adult Report      P Print Adult Report      H Help
Select Action: Quit//
    
```

Figure 5-4: Adult immunization report screen

```

Immunization v8.5
                                Alaska Native Medical Center
                                * Adult Immunization Report *
                                Report Date: 09/12/2011
                                Date Range: 09/12/2010 - 09/12/2011
                                page 1

Active Users (2+ visits, 3 yrs)
-----
Beneficiary Type: INDIAN/ALASKA NATIVE
-----
                                                    Number   Percent
=====
Total Number of Patients over 19 years old.....: 38,688

TETANUS: # patients w/Td in past 10 years.....: 26,489   68.5
TETANUS: # patients w/Tdap in past 10 years.....: 15,783   40.8

HPV: Total # Female patients age 19-26.....: 5,603    14.5
HPV: # Female patients age 19-26 w/HPV1.....: 1,204    21.5
HPV: # Female patients age 19-26 w/HPV2.....: 827     14.8
HPV: # Female patients age 19-26 w/HPV3.....: 566     10.1

HPV: Total # Male patients age 19-26.....: 3,484    9.0
HPV: # Male patients age 19-26 w/HPV1.....: 3        0.1
HPV: # Male patients age 19-26 w/HPV2.....: 1        0.0
HPV: # Male patients age 19-26 w/HPV3.....: 0        0.0

Total Number of Patients over 60 years old.....: 6,133   15.9
ZOSTER: # patients w/Zostavax ever.....: 101     1.6

Total Number of Patients over 65 years old.....: 4,066   10.5
TETANUS: # patients w/Td in past 10 years.....: 2,573   63.3
PNEUMOVAX: # patients w/Pneumovax at or over 65 yrs.: 2,364   58.1
PNEUMOVAX: # patients w/Pneumovax ever.....: 3,325   81.7

Total Patients included who had Refusals on record....: 1025
    
```

Figure 5-5: Sample adult immunization report

5.3 Influenza Report (FLU)

This Influenza Report provides influenza vaccine coverage data for all age groups. The report can be set for the Sep1 – Dec 31 or Sep 1 – March 31 period of a flu season.

Report Columns

Age is calculated on 12/31 of the year selected.

The first column, 10-23 months, includes children who were 6-23 months old during the influenza season of the selected year.

The fourth column, 18-49 years, includes all patients WITHOUT a high risk condition. The fifth column includes, 18-49 HR includes patients 18-49 years WITH a high risk condition (as defined in the high risk flu taxonomy).

Report Rows

The Denominator row of the report is the total number of patients within that age group who are included in the report.

Note: Any child who was Inactivated prior to 12/31 of the selected year will not be included in the report.

Criteria

The 1-Influenza year season row of the report includes all patients who received at least one dose during the influenza season of the year selected (Sept-Dec). This includes CVX codes : 88,144,123,135,111,141,15,140, and 16

The Fully immunized row of the report includes children who are:

- 10-23 Months Old:
 - Received 2 doses during the influenza season of the year selected. (Sept 1 - December 31st or March 31st, whichever is selected), or
 - Received 1+ dose before Sept 1 and 1+ dose during Sept-December (or March).
- 24-59 Months Old:
 - Received 2 doses during the influenza season of the year selected. (Sept 1 - December 31st or March 31st, whichever is selected), or
 - Received 1+ dose before Sept1 and 1+ dose during Sept-December (or March).
- 5+ years who received 1 dose of influenza vaccine.

The Influenza REPORT screen allows you to adjust the report to your needs.

Once you have the parameters set to retrieve the group of patients you want, select **V** to view the Adult Report or **P** to print it. Figure 5-6 provides an example of an influenza report.

If it customarily takes a long time for your computer to prepare this report, it may be preferable to send the report to a printer, rather than viewing it on screen. (This allows you to do other tasks while the report is being prepared).

Quarter Ending Date (1): The report compiles immunization rates as of the date entered. Typically, this date is the end of a quarter. The system interprets most forms in which you type the date. If you type in only a month and a year, the system assigns the last day of the month for the report. The patient ages (65 years, etc.) are calculated as of the date you enter here:

Community (2): If you select communities, only patients whose current community matches the communities selected is included in the report. Current Community refers to Item 6 on page 1 of the RPMS Patient Registration package.

Health Care Facility (3): If you select Health Care Facilities, only patients who have active chart numbers at selected facilities are included in the report.

Beneficiary Types (4): If you select Beneficiary Types, only patients whose beneficiary type matches those you select are in the report. Beneficiary Type refers to Item 3 on page 2 of the RPMS Patient Registration package.

CPT Coded Visits (5): If you type YES in this field, the report searches for and includes any immunizations that were only entered as CPT Codes.

```

Immunization v8.5      Aug 18, 2011 11:24:40      Page: 1 of 1
                                INFLUENZA IMMUNIZATION REPORT

1 - Report Year (Flu Season).....: 2010/2011(09/01/10- 12/31/10)
2 - Community.....: ALL
3 - Health Care Facility.....: ALL
4 - Case Manager.....: ALL
5 - Beneficiary Type.....: INDIAN/ALASKA NATIVE
6 - Patient Population Group.....: Active Users (2+ visits, 3 yrs)
7 - Report Type (Standard or H1N1).: Standard Flu

      Select a left column number to change an item.
V View Flu Report      P Print Flu Report      H Help
Select Action: Quit//
    
```

Figure 5-6: Flu Report screen

Immunization v8.5		Unspecified Medical Center						page 1
		Standard Flu Immunization Report						
		14-Apr-2011						
Date Range: 9/15/10 - 03/31/11								
		Age in months/years on 12/31/2010						Totals
	10-23m	2-4y	5-17y	18-49y	*18-49hr	50-64y	65+yrs	
Denominator	1117	2852	11837	16502	1693	3925	1861	39787
1-FLU	558	916	1569	1381	484	1107	710	6725
2010 Season	50%	32%	13%	8%	29%	28%	38%	17%
Fully Immunized	361	610	1569	1381	484	1107	710	6222
	32%	21%	13%	8%	29%	28%	38%	14%
Total Patients included who had Influenza Refusals on record								306
*NOTE: The 18-49hr column tallies patients who are High Risk in that Age Group. They are not included in the normal 18-49y column.								

Figure 5-7: Sample Flu Report

5.4 3-27 Month Report (QTR)

With this Reports Menu option you can generate a report of the age-appropriate immunization rates for Active children 3 to 27 months of age. The Immunization Quarterly Report screen, shown in 0-9, allows you to adjust the report to your needs.

The IHS, Tribal and Urban Indian health programs report the current age-appropriate immunization rate of active children 3 to 27 months of age. The criteria listed below are used by IHS to determine the up-to-date status of children in each age group, and the age-specific rates are combined into a total rate. Varicella and Pneumococcal vaccines can be excluded in the report totals by typing **NO** for option 6. However, for your report to Headquarters type **YES** to include these in the totals. Age-appropriate immunization rates are given for each age group as well as a total 3 to 27 months age-appropriate rate, using the following criteria:

Table 5-1: Age-Appropriate Immunization Rates

Age	Vaccine
3-4 months old	1-DTaP 1-IPV 1-Hib 1-HepB 1-PCV
5-6 months old	2-DTaP 2-IPV 2-Hib 2-HepB 2-PCV
7-15 months old	3-DTaP 2-IPV 2-Hib 2-HepB 3-PCV
16-18 months old	3-DTaP 2-IPV 2/3-Hib 2-HepB 3-PCV 1-MMR 1-Var
19-23 months old	4-DTaP 3-IPV 3/4 -Hib 3-HepB 4-PCV 1-MMR 1-Var
24-27 months old	4-DTaP 3-IPV 3/4 -Hib 3-HepB 4-PCV 1-MMR 1-Var

In addition, the 3-27 Month Report counts children current for Hib and Pneumo if they started late but are considered ‘up-to-date’ per the catch up schedule. Hib vaccine logic includes manufacturer-specific dose numbers. Rotavirus data are included, but rotavirus vaccine isn’t required for ‘current’ status.

Table 5-2: 3-27 month report forecasting logic for Hib, PCV, Rotavirus

Vaccine	3-4mo	5-6mo	7-15mo	16-18mo	19-23mo	24-27mo
Hib						
Pedvax (all doses <12mo)	1	2	2	3 or 2 ≥ 12 mo. 1 ≥ 15 mo.	3 or 2 ≥ 12 mo. 1 ≥ 15 mo.	3 or 2 ≥ 12 mo. 1 ≥ 15 mo.
ActHIB	1	2	3 or 2 ≥ 7 mo.	4 or 3 ≥ 7 mo. 2 ≥ 12 mo. 1 ≥ 15 mo.	4 or 3 ≥ 7 mo. 2 ≥ 12 mo. 1 ≥ 15 mo.	4 or 3 ≥ 7 mo. 2 ≥ 12 mo. 1 ≥ 15 mo.
PCV (PCV7 and/or PCV13)	1	2	3 or 2 ≥ 7 mo.	4 or 3 ≥ 7 mo. 2 ≥ 12 mo. 1 ≥ 24 mo.	4 or 3 ≥ 7 mo. 2 ≥ 12 mo. 1 ≥ 24 mo.	4 or 3 ≥ 7 mo. 2 ≥ 12 mo. 1 ≥ 24 mo.
Rotavirus						
RotaTeq (Rota-5)	1	2	3	3	3	3
Rotarix (Rota-1)	1	2	2	2	2	2

Quarter Ending Date (1): The report compiles immunization rates as of the date entered. Typically, this date is the end of a quarter. The system interprets most forms in which you type the date. If you type in only a month and a year, the system assigns the last day of the month for the report. The patient ages (3 months, 5 months, etc.) will be calculated as of the date you enter here.

Community (2): If your selection is for specific communities, only patients whose current community (under Patient Registration) matches one of the communities selected is included in the report. Current Community refers to Item 6 on Page 1 of the RPMS Patient Registration package.

Health Care Facility (3): If you select Health Care Facilities, only patients who have active chart numbers at one or more of the selected facilities are included in the report. (The default facility is the one under which you have logged in).

Case Manager (4): If you select Case Managers, only patients who have the selected Case Managers are included in the report.

Beneficiary Types (5): If you select Beneficiary Types, only patients whose Beneficiary Type is one you selected are included in the report. Beneficiary Type refers to Item 3 on page 2 of the RPMS Patient Registration package.

Patient Population Group (6): You can select from 4 different population groups for the Adolescent report: Active in the Immunization Registry, Registered Patients (All) – this includes all patients registered in RPMS; User Population – patients with 1 visit/3 years, or Active Clinical (2 visits/last 3 years).

Include Varicella and Pneumo (7): Answer YES if you wish to have Pneumo and Varicella rates included in the Appropriate for Age statistics at the top of the report. If you answer "NO", Varicella and Pneumo will NOT appear in the Minimum needs header row at the top of the report. In both cases, the statistics for Varicella and Pneumo will be displayed individually in additional rows at the bottom of the report.

```

Immunization v8.5      Aug 18, 2011 11:28:47      Page: 1 of 1

          3-27 MONTH IMMUNIZATION REPORT

1 - Quarter Ending Date.....: 08/18/2011
2 - Community.....: ALL
3 - Health Care Facility.....: ALL
4 - Case Manager.....: ALL
5 - Beneficiary Type.....: INDIAN/ALASKA NATIVE
6 - Patient Population Group...: Active Users (2+ visits,3 yrs)
7 - Include Varicella & Pneumo.: YES

V View Quarterly Report   P Print Quarterly Report   H Help

Select Action: Quit//

```

Figure 5-8: 3-27 Month Report screen

Note: The software stores every patient in the report. If you View the Report, a prompt appears at the bottom of the screen that allows you to print lists of patients who were: Not Current (Not Age Appropriate), Current, or Both Groups. (This is only available if the report is viewed rather than printed).

It is possible that some children are Not Age Appropriate because they are behind on vaccines, so they may not be due for any immunizations. Also, any immunizations given after the Quarter Ending Date of the report are not counted.

Immunization v8.5		Unspecified Medical Center					page 1	
		3-27 Month Immunization Report						
		31-June-2011						
Active								

Facility: UNSPEC. MED CTR								

		Age in Months					Totals	
		3-4	5-6	7-15	16-18	19-23	24-27	
=====								
# in Age		117	116	627	211	342	251	1664

Minimum Needs		1-DTaP 1-POLIO 1-HIB 1-HEPB 1-PCV	2-DTaP 2-POLIO 2-HIB 2-HEPB 2-PCV	3-DTaP 2-POLIO 2-HIB 2-HEPB 3-PCV	3-DTaP 2-POLIO 3-HIB 2-HEPB 1-MMR 1-VAR	4-DTaP 3-POLIO 3-HIB 3-HEPB 4-PCV 1-MMR 1-VAR	4-DTaP 3-POLIO 3-HIB 3-HEPB 4-PCV 1-MMR 1-VAR	

Approp. for Age		98 84%	87 75%	492 78%	150 71%	229 67%	191 76%	1247 75%

1-DTaP		98	107	601	207	331	249	1593
2-DTaP		32	88	572	207	325	248	1472
3-DTaP			25	502	197	315	243	1282
4-DTaP				11	94	242	209	556

1-POLIO		98	107	601	206	330	249	1591
2-POLIO		33	88	569	206	325	247	1468
3-POLIO			25	501	195	314	243	1278

1-MMR				167	174	307	243	891

1-HIB		98	108	602	207	332	248	1595
2-HIB		33	88	569	206	328	246	1470
3-HIB			1	179	178	303	237	898
4-HIB				9	10	20	12	51

1-HEPB		111	110	604	207	330	249	1611
2-HEPB		93	104	592	204	329	247	1569
3-HEPB		28	77	550	203	321	246	1425

1-VAR				164	168	299	241	872

1-HEPA			9	101	262	224	596
2-HEPA				1	16	76	93
1-PCV	98	107	600	206	329	249	1589
2-PCV	33	87	572	206	325	248	1471
3-PCV		25	500	196	316	243	1280
4-PCV			153	162	271	205	791
1-ROTA	91	95	544	183	286	219	1418
2-ROTA	33	83	519	180	264	205	1284
3-ROTA		25	403	144	205	156	933
Total Patients included who had Refusals on record							142

Figure 5-9: Sample 3-27 Month Report

5.5 Two-Yr-Old Rates Report

The Two-Yr-Old Immunization report, shown in Figure 5-10, provides age-specific immunization rates for individual vaccines (e.g. DTaP) as well as groups of vaccines (e.g. DTaP 4, polio 3, MMR 1) in active children currently 19 to 35 months of age.

```

Immunization v8.5                Aug 18, 2011 11:39:43                Page: 1 of 1

                                TWO-YR-OLD IMMUNIZATION RATES REPORT

1 - Quarter Ending Date.....: 08/18/2011
2 - Age Range.....: 19-35 months
3 - Community.....: ALL
4 - Health Care Facility.....: ALL
5 - Case Manager.....: ALL
6 - Beneficiary Type.....: INDIAN/ALASKA NATIVE
7 - Patient Population Group...: Active Users (2+ visits, 3 yrs)

V View Rates Report      P Print Rates Report      H Help
Select Action: Quit//
    
```

Figure 5-10: Two-Yr-Old Rates Report

The Two-Yr-Old report audits immunization data in the same manner as CDC's CASA (Clinic Assessment Software Application) software, the National Immunization Survey and the Year 2010 Health Objectives. Figure 5-11 is provided as an example of this report.

Single vaccines: e.g.

- % with DT(a)P 1 by age 3 months:
- % with DT(a)P 2 by age 5 months
- % with DT(a)P 3 by age 7 months
- % with DT(a)P 4 by age 19 months, by 24 months, by the report date
- Vaccine groups: e.g. % with DT(a)P 4, polio 3, Hib 3, MMR 1 by age 24 months, by the report date

The National Reporting measure is % with 4DTaP, 3polio, 1MMR, 3Hib, 3 HepB, 1Var, 4PCV by the report date,

Immunization v8.5							Unspecified Medical Center		page 1	
* Two-Yr-Old Immunization Report (19-35 mths) *							Report Date: 08/08/2011		End Date: 03/31/2009	
Active Users (2+ visits, 3 yrs)							Total Patients: 52			
Community:										
Beneficiary Type: INDIAN/ALASKA NATIVE										
Received by	3 mo	5 mo	7 mo	16 mo	19 mo	03/31/09				
	# %	# %	# %	# %	# %	# %	# %			
1-DTaP	48 92%	48 92%	48 92%	49 94%	49 94%	50 96%				
2-DTaP		36 69%	45 87%	48 92%	48 92%	48 92%				
3-DTaP			33 63%	46 88%	46 88%	47 90%				
4-DTaP				10 19%	23 44%	40 77%				
1-POLIO	48 92%	48 92%	48 92%	48 92%	48 92%	48 92%				
2-POLIO		36 69%	45 87%	48 92%	48 92%	48 92%				
3-POLIO			33 63%	46 88%	46 88%	47 90%				
1-HIB	48 92%	48 92%	48 92%	49 94%	49 94%	49 94%				
2-HIB		36 69%	45 87%	49 94%	49 94%	49 94%				
3-HIB			2	44	45	46				

			4%	85%	87%	88%
4-HIB				3 6%	3 6%	3 6%
1-HEPB	48 92%	48 92%	48 92%	48 92%	48 92%	48 92%
2-HEPB	42 81%	47 90%	48 92%	48 92%	48 92%	48 92%
3-HEPB		30 58%	43 83%	48 92%	48 92%	48 92%
1-MMR				43 83%	45 87%	46 88%
1-VAR				40 77%	42 81%	45 87%
1-HEPA				12 23%	24 46%	41 79%
2-HEPA						17 33%
1-FLU			15 29%	33 63%	35 67%	36 69%
2-FLU			1 2%	12 23%	18 35%	25 48%
3-FLU				1 2%	6 12%	13 25%
4-FLU						4 8%
1-PCV	48 92%	48 92%	48 92%	48 92%	48 92%	49 94%
2-PCV		36 69%	45 87%	48 92%	48 92%	48 92%
3-PCV			33 63%	46 88%	46 88%	47 90%
4-PCV				39 75%	41 79%	42 81%
1-ROTA	15 29%	15 29%	15 29%	15 29%	15 29%	15 29%
2-ROTA		12 23%	14 27%	14 27%	14 27%	14 27%
3-ROTA			10 19%	10 19%	10 19%	10 19%
1-DTaP 1-POL 1-HIB 1-HEPB	48 92%	48 92%	48 92%	48 92%	48 92%	48 92%

4-DTaP 3-POL | 1-MMR	10 19%	22 42%	39 75%
4-DTaP 3-POL | 1-MMR 3-HIB	10 19%	22 42%	39 75%
4-DTaP 3-POL | 1-MMR 3-HIB 3-HEPB	10 19%	22 42%	39 75%
4-DTaP 3-POL | 1-MMR 3-HIB 3-HEPB 1-VAR	10 19%	21 40%	38 73%
4-DTaP 3-POL | 1-MMR 3-HIB 3-HEPB 1-VAR 3-PCV	10 19%	21 40%	38 73%
4-DTaP 3-POL | 1-MMR 3-HIB 3-HEPB 1-VAR 4-PCV *UTD	10 19%	20 38%	36 69%
4-DTaP 3-POL | 1-MMR 3-HIB 3-HEPB 1-VAR 4-PCV 1-HEPA	10 19%	19 37%	36 69%
4-DTaP 3-POL | 1-MMR 3-HIB 3-HEPB 1-VAR 4-PCV 2-HEPA 3-ROTA			
4-DTaP 3-POL | 1-MMR 3-HIB 3-HEPB 1-VAR 4-PCV 2-HEPA 3-ROTA 2-FLU			
Total Active Patients reviewed			52
Total Patients included who had Refusals on record			2

Figure 5-11: Sample of Two-Yr-Old Rates Report

In addition, the Two Yr Old Report takes into account Hib and Rotavirus vaccine formulation and number of doses needed (3 vs. 4 Hib; 2 vs. 3 Rota) in determining up-to-date status,

5.6 PCV Report

We have included a new report that provides coverage with PCV13 vaccine for different age groups.

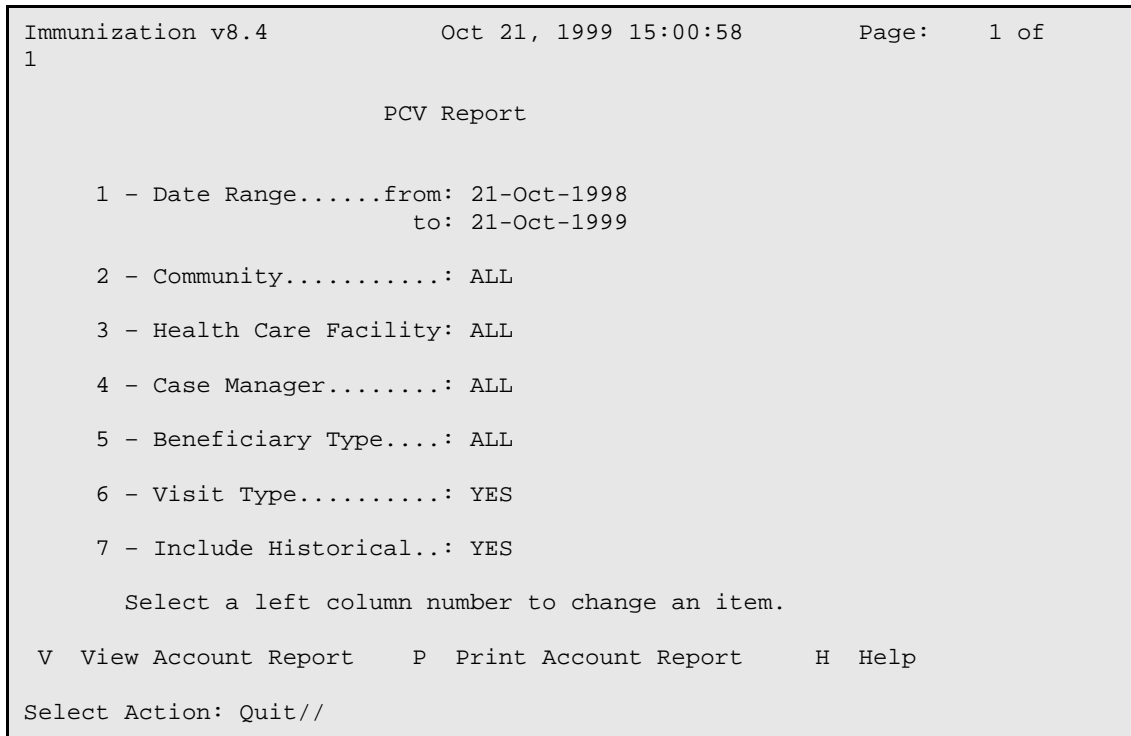


Figure 5-12: PCV Report selection screen

# of Children	0-59m	2-23m	24-59m	6-11m	12-23m
Denominator	70	0	70	0	0
1+ doses PCV13	1 1%	0 0%	1 1%	0 0%	0 0%
3+ doses PCV13	0 0%	0 0%	0 0%	0 0%	0 0%
4+ doses PCV13	0 0%	0 0%	0 0%	0 0%	0 0%
Total Doses					

Figure 5-13: Sample PCV Report

5.7 Vaccine Accountability Report (VAC)

The Vaccine Accountability report, shown in Figure 5-14, shows doses administered by vaccine series (e.g., DTaP) and by age group. Vaccines can also be listed by lot number. This report can be printed for any time period (typically, these are monthly reports) for a given facility, visit type (e.g. PHN, 638), or for a community or group of communities.

```

Immunization v8.5                Aug 18, 2011 11:45:15                Page: 1 of 1
                                VACCINE ACCOUNTABILITY REPORT

1 - Date Range.....: 08/18/2010 - 08/18/2011
2 - Community.....: ALL
3 - Health Care Facility.....: ALL
4 - Case Manager.....: ALL

5 - Beneficiary Type.....: ALL
6 - Visit Type.....: ALL

7 - Include Historical.....: YES
8 - Display by Lot Number.....: NO

Select a left column number to change an item.

V View Account Report    P Print Account Report    H Help

Select Action: Quit//
    
```

Figure 5-14: Vaccine Accountability Report selection screen

UNSPECIFIED Medical Center Vaccine Accountability Report 28-Jan-2004												
Reporting period: 30-Sep-2002 to 30-Sep-2003											(Historical Included)	
<1	-1-	-2-	3-5	-6-	7-10	11-12	13-18	19-24	25-44	45-64	65+	TOTAL
----- DTaP -----												
3207	1259	184	1401	22	3	1	4		4	1		6086
----- Td-ADULT -----												
	1		4		61	941	1142	517	1625	948	295	5534
----- IPV -----												
3170	282	54	1342	22	15	12	45	3	5	7	1	4958
----- PEDVAXHIB -----												
2209	1280	62	32	2	1		6	1	1	4		3598

HEP B												
134	165	7	8	6	3	8	50	35	86	49	5	556
HEP B ADLT												
			1			1	30	238	571	290	35	1166
HEP B PED												
3260	1005	48	90	46	43	57	174	21	11	3	1	4759
MMR												
6	1268	59	1316	12	11	7	61	104	180	19		3043
VARICELLA												
5	1213	158	154	16	75	31	127	4	13	1		1797
HEP A												
3	12	1618	1103	69	148	185	543	111	246	89	2	4129
INFLUENZA												
151	297	186	422	92	331	182	463	534	2763	3351	1948	10720
PNEUM-CONJ												
2878	1062	241	209		2	1	3	2	12	22	21	4453
PNEUMO-PS												
5	4	6	11	2	13	4	34	13	153	605	412	1262
TOTAL IMMUNIZATIONS (for all vaccines in this report)											52745	

Figure 5-15: Sample Vaccine Accountability Report

The Vaccine Accountability report can also be displayed by lot number.

```

Immunization v8.5
Alaska Native Medical Center
* Vaccine Accountability Report *
Report Date: 08/09/2011
Date Range: 01/01/2009 - 03/31/2009
page 1

(Historical Included)
-----
Facilities: ANCH MED CTR; SOUTHCENTRAL FOUNDATION; WASILLA
-----
<1    -1-    -2-    3-5    -6-    7-10   11-12  13-18  19-24  25-44  45-64  65+   TOTAL
-----
=====
DTAP,NOS - All Lots
-----
1      1
-----
    
```

DTaP,NOS - No Lot Number						
						1 1
DTaP - All Lots						
20	185	31	146	6		1 389
DTaP - AC14B064AA						
4	6	3	8			21
DTaP - AC14B065AA						
16	152	25	113	5		1 312


```

IMMUNIZATION v8.5          *  MANAGER MENU  *          Site: ANCH MED CTR
                          =====          User:
ERR      Edit Patient Errors
CMG      Add/Edit Case Manager
CMT      Transfer a Case Manager's Patients
SCN      Scan For Patients
-----
ESP      Site Parameters Edit
PKG      Package Setup Information
LET      Form Letters Add/Edit
LOT      Lot Number Add/Edit
VAC      Vaccine Table Edit
RES      Restandardize Vaccine Table
EXP      Export Immunizations
KEY      Allocate/Deallocate Imm Menu Keys
XVT      Export Vaccine Table to Excel File

Select Manager Menu Option: ERR      Edit Patient Errors
    
```

Figure 6-2: Manager menu

6.1 Edit Patient Errors (ERR)

This screen, shown in Figure 6-3, displays patient Immunization histories that contain errors according to the ImmServe Forecasting utility and provides you with the ability to correct or delete those errors. The columns, from left to right, list the following:

- Patient Name
- Active/Inactive Status (A=Active, I=Inactive, N=Not In Register)
- HRCN# (Health Record Number or Chart#)
- Age (y=years, m=months, d=days)
- Vaccine Group in which the error is occurring
- An abbreviated statement explaining the error

The three actions at the bottom of the screen allow you to make corrections to patient errors on the list (Edit Patient Error) or to delete them, either individually (Delete Patient Error) or all at once (Clear/Delete All Errors) from the list.


```

                                Indian Medical Center
                                -----
ALL PATIENT ERRORS (Total: 20)

# Patient           Active  HRCN#  AgeV  Grp   Error
1 Patient,Demo      I      123456 9y    HIB Un-Numbered Dose
2 Patient,Demo      I      654321 10y   HEPB  Un-Numbered Dose
3 Patient,Demo.     I      000001 10y   HIB Un-Numbered Dose
4 Patient,Demo      A      000002 12y   HEPB  Duplicate Dose#'S

Enter ?? for more actions
E Edit Patient Error  D Delete Patient Error  C Clear/Delete All Errors
Select Action: Quit//
    
```

Figure 6-3: Edit patient errors screen

6.2 Add/Edit Case Manager (CMG)

This option, shown in Figure 6-4, allows the manager to add or edit a Case Manager. When you add new Case Managers, they can be selected when editing a patient's Case Data. The Date Inactivated field makes it possible for you to inactivate case managers.

```

Immunization v8.4
                                *  ADD/EDIT CASE MANAGERS  *

Select CASE MANAGER:  MANAGER, DEMO           DM           MANAGER
...OK? Yes// (Yes)
DATE INACTIVATED:
    
```

Figure 6-4: Add/edit case manager's screen

6.3 Transfer a Case Manager's Patients (CMT)

The manager can use this option to transfer patients to another case manager in events such as a turnover in staff or a re-assignment of cases. Figure 6-5 shows an example of a Transfer Case Manager's Patients screen. The person indicated as the new Case Manager must first be added to the file using the Add/Edit Case Managers option.

```

Select OLD CASE MANAGER: ??
Choose from:
  DEMO, DEMO
  MANAGER, DEMO
  MANAGER, DEMO
  MANAGER, DEMO2
Select OLD CASE MANAGER: MANAGER, DEMO
Select NEW CASE MANAGER: MANAGER, DEMO2      RM
All patients currently assigned to: MANAGER, DEMO
Will be reassigned to.....: MANAGER, DEMO2
Do you wish to proceed? Enter Yes or No? Yes
22 patients transferred from MANAGER, DEMO to MANAGER, DEMO2.
    
```

Figure 6-5: Transfer a case manager's patient's screen

6.4 Scan for Patients (SCN)

This program scans the RPMS Patient Database for children who are less than 36-months-old. Any child who is not in the Immunization Database and who lives in one of the Communities you select is made Active in the Immunization Register.

The program allows you to select specific communities from which patients are scanned. (This is the Current Community field in RPMS Patient Registration.) You then automatically have the opportunity to use the GPRA set of communities by selecting one of the following options:

- G to use the GPRA set and proceed automatically.
- L to LOAD the GPRA set and then edit your list before proceeding.
- P to load the PREVIOUS set of Communities you used.

6.5 Site Parameters Edit (ESP)

This option allows the manager to edit parameters that are specific to a site (facility) as shown in Figure 6-6. Refer to the PKG option on the Manager Menu or to Site Parameters for more information relating to the Site Parameters.

```

Immunization v8.5                Aug 18, 2011 12:00:42                Page:    1 of    2

      Edit Site Parameters for: ANCH MED CTR

1) Default Case Manager.....:
2) Other Location.....: ANCHORAGE-STATE    ALASKA NON-IHS
3) Standard Imm Due Letter ..: standard due
4) Official Imm Record Letter.: Official Immunization Record
5) Facility Report Header.....: Alaska Native Medical Center
6) Host File Server Path.....: /usr/spool/uucppublic/
7) Minimum Days Last Letter...: 60 days
8) Minimum vs Recommended Age.: Recommended Age
9) ImmServe Forecasting Option.: #11, NO 4-Day Grace, HPV through 18
10) Lot Number Options.....: Required, Default Low Supply Alert=50
11) Pneumo, Flu, Zoster Options.: Pneumo: 50y Flu: All ages Zoster: No
12) Forecasting (Imms Due).....: Enabled
13) Chart# with dashes.....: No Dashes (123456)
14) User as Default Provider...: Yes
15) ImmServe Directory.....: /usr/local/immserve85/
16) GPRA Communities.....: 6 Communities selected for GPRA.
17) Inpatient Visit Check.....: Disabled
18) High Risk Factor Check.....: Disabled
19) Import CPT-coded Visits...: Enabled
20) Visit Selection Menu.....: Disabled (Link Visits automatically)
Select a left column number to change an item.

Select Action: Quit//

```

Figure 6-6: Edit Site Parameters screen

The site parameters are defined as follows:

1. **Default Case Manager:** The Case Manager who is presented automatically as a default at all Case Manager prompts, such as when you are adding a new patient.
2. **Other Location:** An entry in the IHS Location file that is designated as the Other Location for a PCC Visit when the location is not in the Location File (e.g. private doctor).
3. **Standard Imm Due Letter:** The form letter that is sent to patients or their parents listing their Immunization History, and informing them of which immunizations are due next. It may also contain information about where and when to receive the next immunizations. The letter selected here is presented as the default letter to use when printing Due Letters. To select the letter for this Site Parameter, it must already have been created with the LET option on the Manager Menu (MGR > LET). Create a new letter named Standard Due Letter and then return to this site parameter to choose it.
4. **Official Imm Record Letter:** The letter that presents all of a patient's Immunization information and is generally sent to schools, parents, other clinics, etc. The letter selected here is used as the patient's Official Immunization Record whenever users select that action. To select the letter for this Site Parameter, it must already have been created using the LET option on the Manager Menu (MGR > LET). Create a new letter named Official Immunization Record and then return to this site parameter to choose it.
5. **Facility Report Header:** The name of your site or institution as you want it to appear at the top of various reports and screens throughout this software goes into the Facility Report Header. (This may be the same as the Site Name that appears on some screens; however, that name is often an abbreviated form of the site name).
6. **Host File Server Path:** The directory on the Host File Server where files to be imported and exported are stored. Include all necessary slashes in the path name (everything except the filename itself). For example: C:\TEMP\ (on a PC) or /usr/mumps/ (in UNIX).
7. **Minimum Days Last Letter:** The least number of days that must pass after a patient letter is printed before the software automatically prints another letter to the same patient. The software does not print a second Due Letter within the default number of days since the last one was generated. The Case Manager can change this number when printing Due Letters and you can print an individual letter at any time.
8. **Minimum vs. Recommended Age:** Allows you to direct the ImmServe Forecasting program to forecast Immunizations due at either the Minimum Acceptable Patient Age or at the Recommended Age (e.g. 10 weeks of age vs. 4 months of age) .

9. ImmServe Forecasting Option: See Figure 6-7. Versions 1, 3, 5, 6, 7 and 11 forecast the first vaccines series at 6 wks; the others beginning at 2 mths. All versions forecast Rotavirus at 2 (6 wks), 4, and 6 mths, and Influenza between Aug 15 and March 31st. Options 3,4 & 6 forecast Hep A starting at 12 months, while options 1,2,5 and 11 forecast Hep A at 15 months. Option 11 does not forecast Hep A or Hep B in persons over 18 years, regardless of prior doses. All options forecast Tdap, MCV4, and HPV for adolescents per ACIP recs (HPV doses 2 and 3 forecast only in males who receive dose 1).

Figure 6-7 shows forecasting options.

Option	6 Mths	12 Mths	15 Mths
1)	IPV	Hib, MMR, Pn, Var	DTaP, HepA
2) .....	....	Hib, IPV, MMR, Pn, Var	DTaP, HepA
3)	IPV	DTaP, Hib, MMR, Pn, Var, HepA	
4) .....	....	DTaP, Hib, IPV, MMR, Pn, Var, HepA	
5)	IPV	Hib, MMR, Var	DTaP, Pn, HepA
6)	IPV	Hib, MMR, Var, HepA.....	DTaP, Pn
7) Comvax	IPV	DTaP, HepB, Hib, MMR, Pn, Var	Hep A
11)	IPV	Hib, MMR, Pn, Var	DTaP, HepA

Figure 6-7: Vaccine forecasting options

4-Day Grace Period: The ACIP recommends that vaccine doses administered four days or less before the minimum interval or age be counted as valid. (Not all states accept this 4-Day Grace Period). The Forecasting Rules allow you to choose YES if you want to screen using the 4-Day Grace Period or to choose NO to adhere strictly to the recommended intervals.

Note: The 4-Day Grace Period does not affect vaccine forecasting, only screening for the validity of the dose administered.

HPV Vaccine Forecasting Option: After you select the 4-day grace period option, a prompt appears that allows you to forecast HPV vaccine for 11 to 18-year-olds or 11 to 26-year-olds. The ACIP recommends HPV for females 11 to 12 years with catch up for 13 to 26-year-olds. However, HPV is provided by the Vaccine for Children's Program only for 9 to 18-year-olds.

10. Lot Numbers Options: Lot number Required: Indicates whether lot numbers are required when entering Immunization visits (Yes) or should be Optional (No). If lot numbers are required when entering Immunization visits, enter **YES** for this parameter. If lot numbers are Optional, enter **NO**.

Note: Lot numbers are not required for Immunizations with a Category of Historical Event, even if this site parameter is set to Yes.

Lot Number Low Supply Alert: When the number of remaining doses of a given Lot falls below its Low Supply Alert (set by the manager when editing Lot Numbers), a Low Supply Alert pops up on the screen as a user is adding or editing an immunization with that particular Lot Number.

The number entered here, under the Site Parameters, is the Low Supply Alert DEFAULT. In the absence of a specific Low Supply Alert for a given Lot Number, this Default is used.

Note: No alert occurs if a Starting Amount is not entered for the particular lot number in the EDIT LOT NUMBER TABLE.

11. Pneumo, Flu, Zoster Parameters: This allows choices for which adult immunizations are to be routinely forecast, and for pneumococcal and influenza, at what ages. Pneumococcal vaccine is typically routine at 65 years (or 50 years of age in Alaska). Influenza may be for all ages (Yes), or for 6 months–18 years and >50 years (if you choose No). You can choose whether or not to routinely forecast Zoster for adults 60 years and older.

Other Adult vaccine options: Tdap is forecast in all persons 11 years and older if they have not received Tdap, regardless of interval since receipt of Td . Hep A and B are forecast in 19 years and older only in persons who have received a prior dose; Option 11 does not forecast Hep A or Hep B in adults. Table C-2 in Appendix C shows the vaccines in each option, and Table C-3 shows the current forecasting options
12. Forecasting (Imms Due): Indicates whether the ImmServe Forecasting Utility is properly installed (Enable) or not (Disable). If the ImmServe Forecasting Utility is properly installed and Immunizations Due should be forecast when viewing and editing patient histories, printing Due Lists, and so on, choose Enable. If the ImmServe Utility is not installed, choose Disable. If at any point a forecasting error occurs, this is due to a problem with the ImmServe Utility. In this case, either the ImmServe Utility should be re-installed (see Installation Notes in the Technical Manual), or this parameter should be disabled until the problem is corrected by technical support.
13. Chart Number with Dashes: Indicates whether chart numbers (Health Record Numbers) are displayed with dashes throughout the Immunization Module.
 - Chart number displayed without dashes: 12345
 - Same Chart number displayed with dashes: 01-23-45
14. User as Default Provider: When entering new immunizations or new Skin Tests through the Immunization Module, it is possible to have the user appear as the Default Provider. In other words, when the screen for a new visit first comes up, the Provider field is already filled with the user's name. (The user is the person logged on and entering the data).

This only occurs if the user is a provider (has the Provider Key). This does not occur on edits of pre-existing visits.

15. Immserve Directory: This is the directory where the ImmServe Forecasting files reside. In general this directory is determined and preset by the Immunization Package Installation and Instructions. For purposes of support, it's best to keep the standard directory designation. However, this parameter allows you to enter or edit a path other than the one expected, if necessary. (Path length may not be more than 70 characters long.) The standard paths incorporate the Imm Package version number, for example:

- AIX: /usr/local/immserve821/
- NT/XP: C:\Program Files\Immserve821\

16. GPRA Communities: This allows the Immunization Program Manager to build and maintain a list of communities to be used for GPRA purposes in reports, patient scans, and so on. This list is not affected by other RPMS GPRA software.
17. Inpatient Visit Check: When an Immunization Visit or Skin Test Visit is stored, the default visit category is Ambulatory (Outpatient). However, if the RPMS PIMS (Patient Information Management System) or various billing applications are in use, the patient may have the Status of Inpatient at the time of the visit.

To avoid conflicts that may arise from inpatient and ambulatory visits being listed for the same day, this software can check the Inpatient Status of the patient at the time of the immunization or skin test. If the patient is listed as an Inpatient at the time of the immunization, the software can automatically change the category from Ambulatory to Inpatient for the immunization.

Turn this feature on by setting Inpatient Visit Check to enable. If the Inpatient Visit Check feature is causing problems, however, (such as conflicts with Third-Party Billing software), then set the parameter to disable and no Inpatient check occurs.

18. High Risk Factor Check: When forecasting immunizations for a patient, this program looks at the patient's medical history (visits) and attempts to determine if the patient has an increased risk for influenza or pneumococcal disease. If the patient has two visits in the past three years for a High Risk condition, the program forecasts the patient as due for one or both of those immunizations. This parameter either enables or disables that feature.
19. Import CPT-Coded Visits: In RPMS, it is possible for some immunizations to be entered by CPT Code into the CPT Visit File, rather than into the true Immunization Visit File. These CPT-coded immunizations do not appear on the patient's Immunization Profile, nor are they always included in the Immunization Package Reports.

When the Import CPT-coded Visits site parameter is enabled, those immunizations that are entered only as CPT Visits are checked and automatically entered into the proper Immunization Visits File if they do not already exist there.

If this parameter is disabled, the program makes no attempt to bring CPT-coded Visits into the Immunization files.

20. Visit Selection Menu: When adding or editing immunizations, this program will either create a NEW Visit or link the immunization to an EXISTING Visit. This process can be occurring automatically, or it can be controlled by the user at the time the immunization is being entered.

If the Visit Selection Menu is DISABLED, the program will look for similar Visits for the patient on that day and attempt to link with one if enough information matches. If no such Visits exist, a new Visit will be created automatically. (This can sometimes lead to Visits that are incorrectly linked and must be corrected manually.)

If the Visit Selection Menu is ENABLED, the program will look for similar Visits--and if any exist--a Visit Selection Menu will pop up. The Visit Selection Menu will allow the user to either create a new Visit or select from existing Visits for that day. (If there are no existing Visits, a new Visit will be created automatically.)

6.6 Package Information (PKG)

This option displays information about the Immunization Module v8.5. It addresses software options and access to them, device information, handling of the old software, and reference to site parameters. Information in this Manager Menu option is intended for use by the module manager and the local/site programmer in setting up the new module and maintaining it. Figure 6-8 provides an example of this screen.

```

(Immunization v8.5)                Aug 22, 2011 11:14:53                Page: 1 of 17

                PACKAGE INFORMATION for IMMUNIZATION, Version 8.5

The text presented here is intended to provide Site Managers with
helpful information regarding setup and management of the RPMS
Immunization Package, version 8.2.

I. OPTIONS
-----

The main menu option for the Immunization package is BIMENU.
At most sites this would be placed on AKMOCORE along with other
RPMS packages. For the sake of consistency from site to site,
it is recommended that the synonym "IMM" (Immunization) be
given to the main menu option BIMENU, however, this is not a
requirement. BIMENU allows access to every other option within
+      Scroll down to view more. Type ?? for more actions
Select Action: Quit//

```

Figure 6-8: Module information for immunization

6.7 Form Letters Add/Edit (LET)

This option allows the manager to edit current form letters or create and save new form letters to use under the Letter Print Action on the Patient View screen or the Immunization Lists and Letters screen.

When you choose to add a new form letter this program loads a sample form letter, which you may then edit to suit the purpose of your new form letter. There are two sample form letters:

- Standard Due Letter
- Official Immunization Record

After you select a form letter, it is displayed on the View/Edit Form Letter screen where you can edit and save it as your new form letter.

The View/Edit Form Letter screen allows you to customize form letters. The top section of the screen displays the name of the form letter.

The middle section of the screen displays the body of the letter in a scrollable region. Use the up and down arrow keys to view all parts of the letter.

The bottom section of the screen lists actions you can take to edit sections of the letter or to print or delete the letter.

Fields in the letter appear in uppercase text within vertical bars, such as |PATIENT NAME|. These fields may be moved within the letter or they may be deleted. However, the text within the vertical bars must not be altered.

The form letter is divided into seven sections, as shown in Figure 6-9. You can edit any portion of the sample letter to create your new form letter by entering the letter or word of the section (e.g., T - Top) at the prompt.

```

Top:
                                UNSPECIFIED Immies Clinic
123 MAIN ST
ANWHERE, USA  77777
[BI TODAY]

                                Date of Birth: [B1 DATE OF BIRTH]
                                Chart #: [B1 CHART NUMBER]

|BI PARENT/GUARDIAN|
|BI NAME FIRST LAST|
|BI MAILING ADD-STREET|
|BI MAILING ADD-STREET-2|
|BI MAILING ADD-CITY STATE ZIP|
Dear Parent or Guardian:
Your child, |BI NAME FIRST|, is due for immunizations. According to our
records, the
following immunizations have already been received:
-----
history:

12-Aug-1994:  1-DTP, 1-OPV, 1-PEDVAXHIB, 1-HEP B VAC
10-Oct-1994:  2-DTP, 2-OPV, 2-PEDVAXHIB, 2-HEP B VAC
-----
middle:

|BI NAME FIRST| will be due for the immunizations listed below:
-----
forecast:

DTP
HEP B VAC
-----
bottom:
If you feel our records are not correct, please notify us so that we may
make the corrections to update our records. Otherwise, please come to our
clinic. We would appreciate you bringing your personal immunization records
so that we can update our records as well. -----
date/location:

10-Dec-1994  at UNSPECIFIED Clinic, UNSPECIFIED Medical Center
-----
closing:
Sincerely,

Dr. Ralph Avritt
-----
+   Scroll down to view more.  Type ?? for more actions
T   Top                        F   Forecast          C   Closing
H   History                    B   Bottom          P   Print Sample Letter
M   Middle                    D   Date/Loc       X   Delete Form Letter
Select Action: Quit//
    
```

Figure 6-9: Form letter add/edit screen

6.7.1 Form Letter Section Descriptions:

T - Top: The Top section of the letter contains your address, today's date, and the patient's name, chart number, and address. You may edit any information of the Top using the Word Processor Help instructions in Error! Reference source not found. Today's date, the patient's name, address, phone number, and date of birth appear automatically as noted by the appropriate text inside brackets (e.g., [TODAY]).

Note: In version 8.1*1 patch, the letters were enhanced to allow printing of a patient's second address line if they have one. The |BI MAILING ADD-STREET-2| line must be added manually to any existing letters, if this information is desired. Newly created form letters automatically have the patient's second address line.

H - History: The History section of the letter contains the patient's immunization history. You can change the immunization history (by date, by vaccine, and so on.). You can also choose to omit the immunization history from your form letter. This section also includes the patient's contraindications, if any.

M - Middle: The Middle section of the letter is free text. You can edit any portion of the middle section.

F - Forecast: The Forecast section of the letter contains the immunizations for which the child is due on the Forecast/Clinic date chosen in Immunization Lists and Letters. The Forecast does not show the series number, only the vaccines for which the patient is due. You may choose to omit the Forecast.

B - Bottom: The Bottom section of the letter is also free text. It can contain a line that reads: Current Next Appt: |BI NEXT APPOINTMENT|. If your site is running RPMS Scheduling, this field includes the patient's next scheduled appointment. If your site is not running RPMS Scheduling, this line does not print the patient's next appointment.

D - Date/Loc: The Date/Loc section of the letter gives the patient the Date and Location for the Immunization Clinic and can be used to request that the patient visit a specific clinic. This is a special section that may be edited by the user (clerk or clinic staff) at the time the letter is sent. It allows clinical staff to change the date, time, and location of an appointment on the fly when printing the letter without giving them access to edit the other 6 sections of the form letter. If you want to have the patient call for an appointment, you can include that message (e.g., Please call the Children's Clinic, 729-1000, for an appointment to get your child's immunizations update.) in the bottom section and you can eliminate this portion of the letter.

C - Closing: The Closing section contains your name and the name of the clinic. You may edit this section.

6.8 Lot Number Add/Edit (LOT)

With this option the manager can add or edit a current lot number for any vaccine in the vaccine table. Version 8.4 includes a lot number inventory monitoring system. When the pharmacist/manager enters a lot number, they input the expiration date, source (VFC, non-VFC), available doses, unused doses, as well as a lot-specific low supply alert. The doses unused decreases each time a vaccine of that lot number is entered in RPMS as having been administered to a patient. The provider receives an alert notice if they enter an expired vaccine lot, or if the supply is low. Selection of this option displays the screen shown in Figure 6-10.

```

1) By Unused Doses (least first)
2) By Expiration Date
3) By Lot Number
4) By Vaccine Name, then by Unused Doses
5) By Vaccine Name, then by Exp Date
6) By Vaccine Name, then by Lot Number

Immunization v8.4           May 31, 2008 16:21:10           Page: 1 of 3

                ANCH MED CTR
                -----
                EDIT LOT NUMBER TABLE
                (Listed by Lot Number)

#  Lot Number      Vaccine      MVX Status      Exp Date      Start  Unused  Facility
1  RWETERT.....VARICELLA...ADA..Active....08/29/08..   6...   0.....
2  MMM78.....FLU-NASAL...CSL..Active....08/07/08..  60...  50.....
3  444.....VARICELLA...SKB..Active....05/27/07..  300...  55.....
4  33333.....VARICELLA...JPN..Active....03/16/07..  477...  89.....
5  4321.....PEDVAXHIB...BAY..Active....02/09/07..  690... 427..ALASKA N.
6  444448.....VARICELLA...JPN..Active....02/14/07.. 3000... 451..KOTZEBUE.
7  433.....ADENOV,NOS...CSL..Active....08/20/08..  500... 500.....
8  555.....ADENOV,NOS...CSL..Active.....           500... 500.....
9  54Z8.....ADENOV,NOS...CSL..Active....08/13/08..  600... 599.....
10 12345.....MMR.....SI...Active....01/31/07..10000... 2376..KOTZEBUE.
11 888.....ACTHIB.....ADA..Active.....
12 3453.....ACTHIB.....ADA..Active.....

+          Scroll down to view more. Type ?? for more actions

A  Add/Edit Lot Number      E  Edit a Lot Number      I  Inactivate Old Lots
                                C  Change List Order      H  Help
Select Action: Quit//VACCINE: HEPATITIS B IMMUNE GLOBULIN//
    
```

Figure 6-10: Lot Number list screen

The Lot Number Table always is listed with the group of all ACTIVE Lot Numbers first, followed, optionally, by all INACTIVE Lot Numbers. However, within those two groups you may select the order in which the Lot Numbers are displayed, as follows:

Lot Number Table

This screen allows you to add and edit the eight fields of lot numbers. To add or edit a particular lot number, type **A** and then enter the lot number. If the lot number already exists in the table, that lot number is displayed and you can edit its fields.

Alternatively, as a shortcut, you may select a lot number you see on the screen by typing **S** and then entering the left-column number that corresponds to the lot number you want to edit.

Lastly, you may automatically inactivate all lot numbers that either have expired or have no expiration date by typing **I**.

The fields for each lot number are:

- **Lot Number**

Sub Lot – Sub-lot field added to the Add/Edit Lot Number screen. Lot Number and Sub-lot are presented as two different fields, edited independently; the program then concatenates them using an asterisk “*” as a delimiter. Edit prompts check and prevent the user from including “*” as part of the lot or sub-lot; total length is also monitored, informing the user of how many characters are “left” for the sub-lot, given the lot number length (the total may not exceed 12 characters).

In reports and patient data screens, the lot number combination (delimited by “*”) appears as a single entity for selection and sorting (eg. 3334V*A). The combination can be assigned to a facility, limiting selection of that lot-sub-lot combination to users logged on to that facility. The Lot-Sub-lot combination can also be inventoried as a single, distinct entity (for use by distinct facilities or programs).

If no Sub-lot is entered, then the Lot Number and Lot Number For Export are the same, no “*” appears in the Lot Number, and Sub-lot is not an issue.

- **Vaccine** – This is the vaccine to which the lot number is assigned. A vaccine is required when entering a new lot number.
- **Manufacturer (MVX)** – This is the standard CDC/HL7 Manufacturer Code assigned to the company that produced the Lot. Enter ?? to view the entire Manufacturer Code list. A manufacturer is required when entering a new lot number.
- **Status** – If a lot number is set to Inactive, users cannot select it when entering new patient immunizations for this vaccine. However, previous immunizations with this lot number continue to show up on the patient histories.

Also, if you attempt to enter a lot number for a vaccine that is Inactive, a pop-up alert appears notifying you that the vaccine must first be made Active or that you must select a different vaccine.

- **NDC code** –The National Drug Code (NDC) is a unique product identifier used in the United States for drugs intended for human use. If there are one or more NDC codes associated with a lot number, you can have them auto-display by typing ?? at the prompt.

- Expiration Date – This is the date that the lot expires.
- Starting Count – Total number of doses in the starting inventory for the lot when it was first received.
- Doses Unused – Number of doses of a lot remaining or unused. This number decreases each time an immunization using that lot number is entered into RPMS through the Immunization package or data entry. The pharmacist or user can also reset this number if it becomes incorrect, such as might occur with wasted doses, data entry errors, and so on.

Note: This number can be negative. A negative number for the Unused Amount indicates that deletions, data entry errors, or testing caused by subtraction each time the lot number is used in the computer – even if it is not actually used clinically. Therefore, it is entirely appropriate for the vaccine manager or pharmacist to correct the Number Unused to reflect the actual number of doses remaining in inventory (in other words, sitting on the shelf).

- Vaccine Source – VFC or non-VFC
- Health Care Facility – Adding a Health Care Facility to a lot number causes that lot number to become unavailable for any user who is not logged on to the named facility.

In general, there is no need to assign lot numbers to specific facilities. However, if more than one facility uses the same computer (such as dialing in from remote sites), then it may be desirable to assign lot numbers to specific facilities. Then, users from another facility are prevented from erroneously using a lot number not assigned to their facility.

In cases where a lot number is shared by multiple facilities using the same computer, it may be desirable to create sub-Lots by appending a -a, -b, -c, and so on. to the lot number. For example, Facility A would get #1234-a, Facility B would get #1234-b, Facility C would get #1234-c, and so on.

This enables the manager or pharmacist to assign a starting amount for each sub-Lot to each facility and ensure that the inventory at each site is accurate. Figure 6-11 shows the screen for adding or editing lot numbers.

```

Imm v8.5                * * *  ADD A LOT NUMBER  * * *
    Lot Number:
    _____
Lot Number:              Vaccine:
  Sub-lot:
    Status:              Manufacturer:
    
```

Expiration Date:	Source:	
NDC Code:		
Starting Count:	Doses Unused:	Doses Used:
Low Supply Alert:		(calculated)
Facility:		
Enter/edit the Lot Number.		

Figure 6-11: Lot number add/edit screen

New Lot Numbers

When lot numbers contain a mixture of letters and numbers, use all capital (uppercase) letters for lot numbers. Choose the manufacturers from the standard Manufacturer's list. Type ?? to obtain the entire Manufacturer's list.

Duplicate Lot Numbers

For several years, now, the software has not permitted duplicate lot numbers to be entered. In general, this is no longer an issue. However, in the event that duplicate lot numbers should show up on your system, there is a method to resolve the problem.

To resolve duplicate lot numbers:

1. Enter the lot number in question. Two or more choices are presented.
2. Select one of the choices to be the valid lot number.
3. Edit this lot number, making sure it is active and that all relevant vaccines are listed under it.
4. Select and edit each duplicate lot number by placing a z in front of the number (for example, change 483-116 to Z483-116).
5. If there is a second duplicate, add ZZ to the beginning of that lot number; for a third duplicate, add ZZZ, and so on. By adding leading Zs to the duplicates, the duplicates are easy to distinguishable from the valid lot number. This method also makes the old duplicate lot numbers recognizable on pre-existing visits.
6. Make the duplicate lot numbers inactive. If an old visit is edited and it includes old duplicate lot numbers, the old duplicate should be replaced with the current valid lot number (easily recognized by ignoring the leading Zs).

6.9 Vaccine Table Edit (VAC)

By using the Vaccine Table Edit option, the manager can edit five parameters of any vaccine. Figure 6-12 shows a sample of the table. Selecting Change List Order from the Action Menu below changes the sort order of the list between alphabetical (by name) and numerical (by CVX Code).

```

Immunization v8.5          Aug 18, 2011 12:39:15          Page: 1 of 66
-----
Unspecified Medical Center
-----
EDIT LOT NUMBER TABLE
(Listed by Unused Doses)

# Lot Number      Vaccine      Status  Exp Date  Start Unused  Facility
1 0818U..... PEDVAXHIB...Active..02/09/10.. 1270.. -184.....
2 AC14B064AA.....DTaP.....Active..01/30/10.. 720.. -183.. MED.
3 0667Z..... MMR.....Active..05/04/12.. 140.. -114.....
4 AC21B173AA.....PEDIARIX...Active..08/14/10.. 1350.. -98.....
5 1185U..... PEDVAXHIB...Active..02/10/10.. 1760.. -94.....
6 501017P.....FLU-NASAL...Active..12/08/10.. 300.. -86.....
7 0821U..... PEDVAXHIB...Active..02/08/10.. 1320.. -84.. MED.
8 C2631AA.....Tdap.....Active..07/13/09.. 590.. -75.. MED.
9 UP077AA.....H1N1.....Active..05/22/11.. 660.. -71.....
10 1292Y..... PEDVAXHIB...Active..12/11/11.. 1310.. -70.....
11 E44527.....PCV-13.....Active..05/31/11.. 1280.. -67.....
12 AC21B110AB.....PEDIARIX...Active..08/10/09.. 770.. -63.. MED

+          Scroll down to view more. Type ?? for more actions

E Edit Vaccine          C Change List Order      H Help
F Forecasting          P Print List

Select Action: Quit//
    
```

Figure 6-12: Vaccine table edit screen

This screen allows you to edit five fields of each vaccine.

To edit a particular vaccine, type **E**, then select the left column number that corresponds to the vaccine you want to edit. The screen shown in Figure 6-13 is displayed.

```

Imm v8.5          * * * EDIT A LOT NUMBER * * *

Lot Number: 0667Z

-----

Lot Number: 0667Z          Vaccine: MMR
Sub-lot:                  (MMR)

Status: Active          Manufacturer: MERCK & CO.
Expiration Date: MAY 4,2012          Source: VFC
NDC Code: 00006-4011-00

Starting Count: 140          Doses Unused:          Doses Used: 254
Low Supply Alert:          (calculated)

Facility:
    
```

Figure 6-13: Vaccine Edit screen

This screen includes the following fields:

Status: If a vaccine is set to Inactive, users cannot enter new patient immunizations for this vaccine. However, previous immunizations with this vaccine continue to appear on the patient histories. The Program Manager should inactivate extra vaccines in a vaccine group (e.g. HepA NOS, HepB NOS), to minimize the number of vaccine options for providers.

Default Lot#: This is the Lot# default that is automatically entered in the Lot# field for this vaccine when users add new immunizations for patients. The user, of course, can overwrite or delete the default if it is not correct.

VIS Default Date: This is the Vaccine Information Statement (VIS) default Date (Date of publication, not date given to patient). It gets entered automatically in the VIS Date field when users add new immunizations for this vaccine.

Default Volume: This is the default volume of the injection for the given vaccine. It gets entered automatically in the volume field when users are adding new immunizations for this vaccine.

Forecasting

For each Vaccine Group, forecasting may be turned on or off. This is done from the Edit Vaccine Group Forecasting screen. The Forecast column indicates whether a vaccine is forecasted (listed as due for patients) or not. Each vaccine belongs to a VACCINE GROUP, for example, the HEP A GROUP. Turning OFF forecasting for the HEP A Vaccine Group blocks all forecasting of any vaccines that contain Hep A vaccine. To change forecasting for a Vaccine Group, select the Forecasting Action at the bottom of the screen shown in Figure 6-14.


```

Immunization v8.5   Aug 15,2011 13:52:45   Page:   1 of   1

                                ANCH MED CTR
                                -----
                                EDIT VACCINE GROUP FORECASTING

# Vaccine Group      Forecast
1  DTORP.....YES
2  FLU.....YES
3  H1N1.....YES
4  HEPA.....YES
5  HEPB.....YES
6  HIB.....YES
7  HPV.....YES
8  MENING.....YES
9  MMRORME.....YES
10 OORIPV.....YES
11 PNEUMO.....YES
12 ROTAVIRUS.....YES
13 TD_B.....YES
14 VAR.....YES
    Enter ?? for more actions
                                Change Vaccine Group
Select Action: Quit//

```

Figure 6-14: Vaccine table edit forecasting screen

Note: Combination vaccines cannot be forecast specifically – their component vaccines are forecast (if the patient is due). Use of combination vaccines is an option open to the provider. Inputting combination vaccines into the patient's history satisfies the requirements of the component vaccines.

6.10 Restandardize the Vaccine Table (RES)

The Immunization Package v8.4 comes includes a Vaccine Table (Immunization File), which is standardized with HL7/CVX codes consistent with the CDC's NIP (National Immunization Program) CVX Code set. There are several fields in the Vaccine Table that relate to functions in the package, most notably the ImmServe Forecasting utility. For this reason it is critically important that specific fields in the table are not altered.

Each time a user logs into the Immunization package, the Vaccine Table is checked for integrity. If certain fields are altered, a warning message is issued, and several functions within the package begin to display the warning. Some basic functions of the package continue to operate, such as the display of a patient's immunization history. Other functions only display the warning.

Figure 6-15 shows the text of the warning. (The last paragraph does not appear if the user does not have the BIZ MANAGER Key). As the warning indicates, re-standardizing the table simply involves selecting RES from the Manager Menu. This can be done at any time, and users need not log out of the package. Runtime lasts a few seconds at most.

```

WARNING

Vaccine Table (IMMUNIZATION File) is not standard--cannot proceed.
At this point you should back out of the Immunization Package
and contact your Site Manager or the person in charge of the
Immunization Software.

Or, you may fix this by Restandardizing the Immunization File.
To do so, proceed to the Manager Menu and select Restandardize.
(Menu Synonyms: MGR > RES)

```

Figure 6-15: Warning message

6.11 Export Immunizations (EXP)

This program allows you to select a group of patients and to export their demographic and immunization data either to a file or to your screen (for capture by a PC).

You can either select individual patients (by name or chart number), or select a group of patients by specifying Status in the Register, Visit History, Age Range, Facility, and Current Community. You can also limit the data export to specific vaccines.

You can either export the data in an ASCII text format or ImmServe data format.

At the Manager Menu, type EXP at the “Select Manager Menu Option” prompt to display the Export Immunization Records screen shown in Figure 6-16.

```

Immunization v8.5
*   EXPORT IMMUNIZATION RECORDS   *

Do you wish to:

1) Select patients INDIVIDUALLY by entering their Names or Chart Numbers
  Or
2) Select patients by GROUP, specifying Age Range, Status, Current
  Community, etc.

Enter either 1 or 2:

```

Figure 6-16: Export immunizations screen

6.11.1 Export Patients Individually

To export patients individually, type 1 at the “Enter Either 1 or 2” prompt. A screen similar to the one shown in Figure 6-17 is displayed.

```

Immunization v8.5      Aug 22, 2011 11:18:27      Page:      1 of      1

                                EXPORT DATA BY GROUP

1 - Survey Date.....: 22-Aug-2011

2 - Age Range.....: 1-72 Months

3 - Patient Group.....: ACTIVE in the Register.

4 - Health Care Facility.....: ALL
5 - Community.....: ALL
6 - Immunizations Received...: ALL

7 - Data Elements.....: None

8 - File Format.....: ASCII

9 - Output Device.....: SCREEN
   Select a left column number to change an item.
   Select Action: Quit//                                Export Data

```

Figure 6-17: Export data by individuals screen

Data Element (#4): This selection only pertains to exports with ASCII Format. (HL7 and Imm/Serv Data Elements are predetermined). The very first (or top) record lists, by title, the selected data elements (or fields) in the order in which they occur in the records.

Note: Immunization v8.5 contains some additional data elements (75 in all). Of particular significance to users who export data to CASA (an immunization program analysis tool) is the data element: VACCINE CODE, HL7-CVX LEADING ZERO. This places a leading zero at the beginning of any single-digit HL7-CVX code, which is a requirement of the CASA software.

File Format (#5): You may export records in either ASCII, Imm/Serv format. ASCII format positions the data elements you specify for each immunization on a separate line or record. Data elements are separated by quote-comma-quote (known as a CSV file). immServ is a commercial, vendor-specific format of use only to programmers working with this software.

Output Device (#6): You can export the data to your screen or to a file. Export to your screen (PC) allows you to view it, and then save it as a file. Export to a file allows you to copy it to a disk or transmit it to another computer for processing. When you select File and are asked to name it, your filename must confirm to the naming convention of your operating system without slashes, colons, or spaces. The path is set in the Site Parameters (MGR > ESP) by your Site Manager or Program Manager.

6.11.2 Export by Group

This screen provides options for exporting the data of groups of patients. There are nine screen options that you can change to specify which patients and data are to be exported, as well as the output device for the export.

You are asked whether you want to select patients individually or by group. Type **2** (select patients by group) to display the screen shown in Figure 6-18.

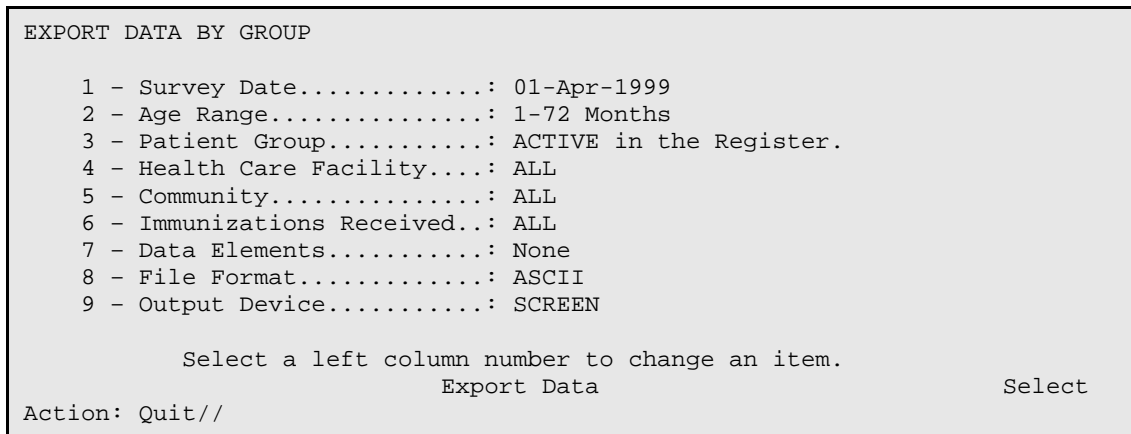


Figure 6-18: Export data by group screen

Patient Group (#3): The Patient Group can only be one of the following:

- Only patients who were active in the Immunization Register on the Survey Date.
- Both active and inactive patients in the Immunization Register.
- All patients who have had an immunization at the selected facility(s), including those not in the Immunization Register.

Health Care Facility (#4): If you select specific health care facilities, only patients with at least one immunization at one of the selected health care facilities are included in the export.

Community (#5): If you select for specific communities, only patients whose current community (under Patient Registration) is one of the selected communities are included in the export.

Immunizations Received (#6): If you select for specific vaccines, only immunizations given with the selected vaccines are included in the export.

Other parameters are similar to those in the Export Patients Individually option.

6.12 Allocate/De-Allocate Imm Menu Keys (KEY)

This option allows the manager to give a user any one of three access levels to the system. Figure 6-19 shows the Allocate/De-Allocate IMM Menu Keys screen.

```

HOLDERS OF IMMUNIZATION KEYS AT INDIAN MED CTR
-----
HOLDER          BIZMENU  BIZ EDIT PATIENTS  BIZ MANAGER  BIZ LOT
ONLY

USER,CHRIS.....YES
USER,CYNTHIA .....YES
USER,LAZELL .....YES.....YES.....YES
USER,ELLEN .....YES.....YES
USER,BARBARA .....YES
USER,ALFRED .....YES.....YES

+          Scroll down to view more.  Type ?? for more action

A  Add/Edit a Holder      E  Explanation of Keys      P  Print List

Select Action: Quit//
    
```

Figure 6-19: Allocation/deallocation of immunization keys screen

Use this option assign the following security keys to users:

BIZMENU: Provides users access to the Main Menu of the New Immunization Module (BIMENU) and its submenus for viewing patient data and reports. The BIZMENU Key does not provide any add or edit capabilities; however, holders of this key may print patient letters, view patient data, and run reports.

BIZ EDIT PATIENTS: Allows users to add and edit a patient's Immunization History, Contraindications, Skin Tests, Parent/Guardian, and so on. This key does not provide access to any additional menu options; instead, it adds several actions to the main Patient View screen. This key should be given to staff who are responsible for data entry and patient management.

BIZ MANAGER: Allows managers to access the Manager Menu (BI MENU-MANAGER), which is a submenu of the Main Menu (BIMENU). The Manager Menu provides access to many sensitive functions pertaining to Site Parameters, Form Letters, the Vaccine Table, Lot Numbers, Exports, and the allocation of Security Keys. The BIZ MANAGER Key should only be given to the manager of the Immunization Module.

BIZ LOT ONLY: Allows someone, such as a pharmacist, to add and maintain the Lot Number Inventory without gaining access to the rest of the Manager Menu in the Immunization Package. The menu option named BI LOT NUMBER NON-MANAGER, which is locked by the Key BIZ LOT NON-MANAGER. This standalone option is not connected to the rest of the RPMS Immunization Menu; instead, it can be assigned to any menu of any user for the purpose of adding and editing lot numbers in the Immunization Package.

Note: Assignment of this option, BI LOT NUMBER NON-MANAGER, to other menus in RPMS is done by the local Site Manager, as is the key, BIZ LOT NON-MANAGER. This option and its key cannot be assigned from within the Immunization Package itself.

6.13 Export Vaccine Table to Excel File

Allows users to export Vaccine table to a file at /usr/spool/uucppublic/. This is a precursor to downloading Vaccine Reports to an Excel file.

Appendix A: Change History

A.1 Version 6.8 Changes

Version 6.8 features included the ability to track patients' immunization due dates, enter and edit patients' immunization histories, print due lists and letters, print a Quarterly Immunization Report of Age-Appropriate Immunizations, and print a Vaccine Accountability (Doses Administered) report.

A.2 Version 7.0 Changes

Version 7.0 contained the features that were found in the old version 6.8 of the Immunization software and many new or updated features. Immunization due dates were forecast by a regularly updated forecasting algorithm, ImmServe, developed and maintained by Medical Decision Associates. ImmServe also provided a detailed report or profile on each patient's immunization history and forecast. An unlimited number of letters could be created. An export function was developed. A new Two-Year-Old Report was added, which presented vaccine-specific and vaccine-combination reports of immunizations for two-year-olds to chart progress toward Year 2000 Health Objectives.

A.3 Version 7.1 Changes

Version 7.1 contained the following enhancements and updates to v7.0:

- Updated Forecasting: For polio, influenza (forecast at age 50), and rotavirus (inactivated).
- Patient View Screen: On the Patient View screen, in the Forecast section on the right hand side, the dates were removed because they caused confusion. Only the vaccines due on the date of the forecast are displayed.
- Forecasting Options: Nine forecasting rule sets are offered.

Note: In version 7.1, the Immunization package does not list Comvax as a separate vaccine. Comvax should be entered as PedvaxHIB and Hep B vaccines, using the same lot number to link the two vaccines.

- Measles Dose Numbers: A dose number was added to Measles.
- Pneumococcal Conjugate Vaccine: There are now two pneumococcal vaccines:
 - Pneumo-PS - (Pneumovax) - forecast for adults > 65 (in AK forecast >55, every 6 years)

- Pneum-conj.- pneumococcal conjugate vaccine (Pevnar) - forecast for children < 59 months of age
- Reports: Pneumococcal conjugate vaccine has been added to the Quarterly Immunization Report (however pneum-conj is not counted in the totals), the Two-Year-Old Report and the Vaccine Accountability Report.
- Reports: A Health Care Facilities parameter has been added to the Quarterly Immunization and the Two-Yr-Old Immunization Reports.
- Letters: If the RPMS Scheduling Package is being used at a site, you can now choose to have the patient’s next scheduled appointment appear on a due letter. Next Appointment also appears at the bottom of the Patient View Screen, and is now an element that may be included in the Due List as Additional Information.
- Export: Two new data elements have been added to the Export: Mother’s Maiden Name and Patient Beneficiary Type.
- Data Entry: If a patient is hospitalized and has not yet been discharged, the Immunization software ignores a hospitalization if it has a Visit Type as Contract.
- Patient Menu Change: Wording of options on the Patient Menu has been changed to Patient Lists and Letters to more clearly indicate that the Lists and Letters option is not limited to Due Lists.

A.4 Version 8.0 Changes

- Combination Vaccines – Every potential vaccine (CVX) code, including combination vaccines, are available for data entry. For combination vaccines, the nurse or data entry person can enter either the product name (e.g. Pediarix(TM)) or antigens (e.g DTaP-IPV-HepB). ImmServe forecasts the individual antigens and lists the individual antigens in their own series group on the vaccine history as shown in Figure A- 1.

Patient: DEMO,PATIENT DOB: 21-Feb-2008 (6 mths)					
Chart#: 00-01-06 at DEMO HOSPITAL Active Female M HBsAg: UNK					
#	Immunization History			|	Immunizations DUE on
	09/16/2008			|	

1	09/16/08	DTaP (PEDIARIX)	Alas	|	HIB,NOS past due
				|	PNEUM-CONJ past due
2	09/16/08	IPV (PEDIARIX)	Alas	|	FLU-SPLIT due
3	09/16/08	HEP B PED (PEDIARIX)	Alas	|	Last Letter: None

Figure A- 1: Combination Vaccines

- Combination vaccines are displayed in this way throughout the Immunization Package and split into their component antigens for all reports (except Vaccine Accountability Report).

- Combination vaccine can only be entered using one VIS date. In the future, the CDC hopes to have one VIS date for all childhood vaccines.
- The vaccine table, spellings, CVX codes, and CPT codes are taken directly from the CDC table <http://www.cdc.gov/vaccines/programs/iis/stds/cvx.htm>
- Contraindications to a combination vaccine prevent the forecast of the related antigens (e.g. Contraindication to Pediarix™ prevents forecast of DTaP, IPV, or Hib).
- There are no dose numbers on vaccines. Vaccines are forecast based only on the actual number of doses included in RPMS, and the age/intervals. All reports only count the number of doses in RPMS.
- The age at which the dose was given was added to the Health Summary.
- Vaccine Forecasting Options: There are 10 Vaccine Forecasting options. For each option, the site can choose whether to use the 4-day grace period. The forecasting options vary by use of Comvax, and by the recommended age for the 3rd IPV, 4th DTaP, final Hib, final Hep B, 4th Pn, MMR, and Varicella. The options are shown in Table A- 1.

Table A- 1: Vaccine Forecasting Options

	6 Months	12 Months	15 Months
1)		IPV, MMR, Pn, Var	DTaP, Hib
2)		Hib, IPV, MMR, Pn, Var	DTaP
3)	IPV	DTaP, Hib, MMR, Pn, Var	
4)		DTaP, Hib, IPV, MMR, Pn, Var	
5)	IPV	Hib, MMR, Var	DTaP, Pn
6) Comvax		HepB, Hib, MMR, Pn, Var	DTaP, IPV
7) Comvax	IPV	DTap, HepB, Hib, MMR, Pn, Var	
8) Comvax		HepB, Hib, IPV, MMR, Pn	DTaP, Var
9) Comvax	IPV	HepB, Hib, Var, MMR	DTaP, Pn
10)	IPV	Hib, MMR, Pn	DTaP, Var

- Forecast Influenza in Children: All children who are 6 to 23 months of age between September 1st and January 31st are forecast for a first dose of influenza during this time period. We do not have the sophistication to forecast a second dose the first year.

- Updated Adult Pneumococcal Forecasting: Pneumococcal vaccine is forecast automatically at 65 years of age (or you can choose 55 years in the Managers' Menu) for all adults. Adults who receive a pneumococcal dose < 65 years of age have another dose forecast at 65 (or 55) years of age. In Alaska, you can choose to have pneumococcal vaccine forecast every 6 years after 55 years of age.
- Force Invalid/Valid Doses: In the Edit Vaccine option there is an option to force a dose to be invalid (because it expired or had inappropriate temperature exposure) or to be valid (if it is invalid according to ImmServe because it does not meet minimum age/interval criteria, but it is valid in your State). The forced valid or invalid doses (determined by the ImmServe forecast or forced invalid by the provider) are tagged with an asterisk and brief explanation on the Health Summary and Vaccine History, but not on due letters.

A.4.1 Reports

A.4.1.1 A.4.1.1 Adult Report (New)

Prints a vaccine report using today's date for adults > 50 and adults >65 years with a visit to the reporting facility in the past year with the proportion who received:

- Influenza in past year
- Pneumo ever
- Pneumo in past 6 years
- Td in past 10 years

A.4.1.2 Two-Year-Old Report

Changes age range to 19 to 35 months to be consistent with age ranges for the National Immunization Survey.

A.4.1.3 Vaccine Accountability Report

- Does not show dose numbers
- Added location type so that providers can look at doses by PHN vs. IHS

A.4.1.4 Quarterly Report

- When you view the report, you can print a line list of: a) patients on the report who are age-appropriate, b) patients who are not age-appropriate, or c) all patients included in the report.
- You can choose to include or exclude Hep A, Varicella and Pneumococcal vaccine in the total age-appropriate rate. Even if you exclude it in the total rate, the report still lists these vaccines individually.

A.4.1.5 Direct Data Entry

- Added fields for new options:
 - Forcing valid or invalid
 - Site/route of administration (e.g. Left thigh IM)
 - Dose amount (default 0.5cc for most)
- You can change default in Vaccine Edit Table (MGR > VAC)
- For entries other than today's date, the default is historical immunization
- Data entry screen is reorganized for more efficient navigation
- Standard Manufacturers Table: We use the standard Manufacturer's codes. Currently, providers have a non-standard Manufacturer's list.
- The new version only runs on the CACHE platform. Site Managers must have their systems upgraded from MSM to CACHE.
- Orphan Visits modified in PCC: The PCC Visit re-linking program in PCC was modified to link orphan or incomplete immunization visits created by direct data entry to a visit entered by data entry personnel which has a provider and purpose of visit. If the re-linker cannot link immunizations to a visit, then the PCC data entry staff can use a newly created option called Complete Orphaned Immunization Visits. This program assigns a purpose of visit and a provider of service to the visit. This option should be run only for a time period for which the data entry staff has completed all PCC forms to prevent automatically completing visits that can eventually be completed by the normal data entry process. (For example, if data entry is two weeks behind, then this option should be run for a time period that ends with a date that is two weeks ago).

A.5 Version 8.1

- Combination Vaccines: Every potential vaccine (CVX) code, including combination vaccines, is available for data entry.
- Developing GPRA Communities Taxonomy: After installing version 8.1, sites are prompted to develop their list of GPRA communities. The GPRA coordinators should be consulted to ensure that the list is consistent with the list used for GPRA indicators.
- Automatic Activation into the Immunization Package: The Not in Registry status no longer exists. New Scan feature searches the RPMS Patient Database for children who are less than 36-months-old and reside in GPRA communities for the facility and automatically enters them into the Register. Children already in the Register or residing outside of the GPRA communities are not affected. When you look up an inactive <36-month-old child in the Immunization Package, a prompt appears asking if you want to activate the child.

- Inactivating Children: To inactivate a patient, you must select a reason from a drop down menu. Reasons include: Moved Elsewhere, Treatment Elsewhere, Deceased, and Ineligible. If possible, add the location to which the patient moved and the provider's name if a patient is getting care elsewhere. For patients who were inactivated prior to Immunization v8.1, Previously Inactivated or Never Activated appears in the Reason for Inactivation field.

A.5.1 Patient Menu Changes

- When adding immunizations, if the category of Historical is entered or if the date is more than 5 days prior to today, the person entering the immunization is not automatically entered as the default provider.
- When a category of Historical is chosen on the Add/Edit an Immunization screen, inactive vaccines are available for selection.
- Risk Taxonomies now affect forecasting of Influenza and Pneumo. Other enhancements to forecasting of Pneumo and Influenza have been made (including forecasting Influenza through March 31).
- New fields are added for Skin Tests to record Site and Volume.
- TST-PPD can now be added as a contraindication (with a reason of Positive TB Skin Test).
- On the Patient View screen, new fields are displayed under Additional Information:
 - The Patient's Current Community is now displayed.
 - Date First Entered now appears with a method (automatically, manually).
 - Inactive Date now has a reason displayed with it.
 - Made Inactive by now appears with the name of the user.
 - Moved to/Tx Elsewhere now appears (text up to 50 characters).
 - High Risk Flu/Pneumo status is now displayed.
 - Forecast Flu/Pneumo now includes a Disregard High Risk option.
 - Pneumo Site Parameter is displayed for reference.
 - Next Appointment only displays if the Patient has one in RPMS.
- 2.2.7 Logic to check Inpatient Status has been improved (and can be disabled via Manager's Edit Site Parameter menu).
- 2.2.8 Enhancements to Lists and Letters options:
 - Reason Inactivated can be selected as Additional Info.
 - On Patient Lists and Letters, Current Community automatically displays in the right-most column instead of Parent/Guardian (which has been moved to an Additional Information item to be added if desired).

- A selectable Date Range has been added to the Immunizations Received parameter of the List and Letters.
- Letters: A new template is available that lists Forecast first, then History. Also, contraindications that are Refusals no longer appear in printed letters.
- Two new Patient Groups have been added to Lists and Letters: Automatically Activated and Refusals.
- An Include Deceased parameter has been added to the Lists and Letters menu.
- 2.2.9 Patient lookup automatically adds patients to the Register, with prompt for Active versus Inactive based on age.
- 2.2.10 it is now possible to select for specific Immunizations Past Due.

A.5.2 Reports Menu Changes

- All reports now offer the opportunity to list all of the patients considered in the report, and to edit the patients' data individually from within the report.
- Immunization Package version number and patch number now appear at the top left of all printed reports.
- New Manager-edited Set of GPRA Communities can be selected for any reports in order to produce closer consistency with CRS reports.
- Number of Refusals appears at the bottom of relevant reports.
- New option in Two-Yr-Old Report allowing choice of either 19 to 35 month span or 24 to 35 month span.

A.5.3 Manager Menu Changes

- New Vaccines: Four new vaccines have been added to the Vaccine Table in keeping with the latest additions to the CDC NIH Standard Vaccine Table:
 - TETTOX, NOS (112)
 - Td-ADULTpf (113)
 - MENING-CV4 (114)
 - Tdap (115)
- Vaccine Forecasting Options: There are still 10 Vaccine Forecasting options; however, they have changed somewhat. For each option, the site can choose whether to use the 4-day grace period. The forecasting options vary by use of Comvax, and by the recommended age for the 3rd IPV, 4th DTaP, final Hib, final Hep B, 4th Pn, MMR, and Varicella. The options are shown in Figure A- 2.

Mth	6 Mths	12 Mths	15 Mths	24
-	-----	-----	-----	-----
1)	IPV	DTaP, Hib, MMR, Pn, Var		Pn23

2)	.....	....	Hib, IPV, MMR, Pn, Var	DTaP
3)	.....	IPV	DTaP, Hib, MMR, Pn, Var	
4)	.....	....	DTaP, Hib, IPV, MMR, Pn, Var.	
5)	.....	IPV	Hib, MMR, Var	DTaP, Pn
6)	.....	IPV	Hib, MMR, Pn	DTaP, Var
7)	Comvax	IPV	DTap, HepB, Hib, MMR, Pn, Var	
8)	Comvax	....	HepB, Hib, IPV, MMR, Pn	DTaP, Var
9)	Comvax	IPV	HepB, Hib, Var, MMR	DTaP, Pn
10)	Comvax	....	HepB, Hib, IPV, MMR, Var.....	DTaP, Pn

All versions include DTaP for Infants and Hep A.

Figure A- 2:Vaccine forecasting options

- Forecasting On/Off by Vaccine Groups:There is a new screen to turn forecasting on or off for each Vaccine Group.
- The full vaccine name is displayed on the Edit a Vaccine screen.
- New Site Parameters:
 - GPRA Communities: New site parameter allows identifying a set of GPRA Communities to be used in reports.
 - Inpatient Visit Check:New site parameter to enable/disable the checking of a patient’s Inpatient Status when adding new immunization visits.
 - High Risk Factor Check:New site parameter to enable or disable the automated check on patients’ high risk status when forecasting.
 - Import CPT-Coded Visits: New site parameter to enable or disable the automated import of visits added only via CPT Coding and not through the Immunization Package or PCC Data Entry IM mnemonic.
- A minor problem with the Lot Number Add option was corrected (no longer prompts for multiple vaccines).
- Hep A Peds (31) no longer forecasts for patients 18 years of age and older, but can be translated to Hep A ADLT (52).
- Hep B Peds (8) no longer forecasts for patients 20 years of age and older, but can be translated to Hep B ADLT (43).
- New Scan feature searches the RPMS Patient Database for children who are less than 36 months old and automatically enters them into the Register.
- New Data Element HL7-CVX LEADING ZERO was added for exports to CASA.

A.5.4 Other Changes

- The new PIMS API for creating visits is now used if present on the system.
- Most FileMan Database calls have been converted to employ the new Silent API Calls (in preparation for GUI interfaces).

- New programmer API call for GPRA Two-Year-Old Report (provides list of patients to other packages, i.e., CRS).
- New forecasting API for Health Maintenance Reminder software.
- Enhancement to handle extremely large patient histories in the forecasting string.

Twenty (20) New Programmer Entry Points (PEPs) have been designed and documented for various calls by other software into the Immunization database. (These PEPs are documented in the Immunization Technical Manual and in the code).

A.6 New Features in Version 8.4

The following features are new to v8.4, categorized by menu options.

A.6.1 Most Important New Features

A.6.1.1 New Forecasting for 13-valent Pneumococcal Conjugate Vaccine

Forecasting for the new 13-valent pneumococcal conjugate vaccine has been added to replace the 7-valent pneumococcal conjugate vaccine. Children younger than 59 months who completed the pneumococcal series with the 7-valent product will be forecast to receive a dose of PCV13 vaccine in accordance with the Advisory Committee on Immunization Practices (ACIP) recommendations.

A.6.1.2 Changes to Forecasting Options 3 and 4 to Forecast Hepatitis A Vaccine Starting at 12 Months of Age

In the past, Hepatitis A vaccine was forecast starting at 15 months of age for all forecasting option. Options 3 and 4 have been modified to forecast Hepatitis A at 12 months of age.

A.6.1.3 New Forecasting Option Added

A new forecasting option, Option #6, has been added. This forecasting option forecasts the 3rd dose of IPV at 6 months and DTaP, Hib, MMR, Var, Hep A, and PCV13 at 12 months.

A.6.1.4 New Forecasting for Influenza

In accordance with the ACIP recommendations, an option was added to forecast influenza for ALL age groups. In the Managers Menu, under Edit Site Parameters (ESP), sites have the option to forecast for all ages or to limit forecasting to those 6 months–18 years and 50 years and older. The default setting is to forecast for ALL ages.

A.6.1.5 New Pneumococcal Vaccine High Risk Taxonomy

The Pneumococcal Vaccine High Risk taxonomy has been updated to include asthma. In addition, in the Managers Menu under Edit Site Parameters (ESP), sites have the option of including smoking in the taxonomy;

A.6.1.6 New Field in Lot Number Add/Edit Menu to Allow for Sub-Lot Designation

A new field has been added to the Lot Number Add/Edit menu to allow designation of sub-lots within a facility or within an RPMS database shared by multiple facilities. This will preserve the true lot number, but will also allow providers and sites to designate sub-lots for inventory tracking purposes.

A.6.1.7 Change to Adolescent Report

The filter to include only patients listed as “Active” in the Immunization Registry in the Adolescent Report has been replaced by four denominator options. Sites can now select from the following patient groups: Active in Immunization Package, Active Clinical User (2 visits/3 years), User Population (1 visit/3 year), or All Registered (all patients registered in the RPMS system).

A.6.1.8 Change to 3 – 27 Month Old Report

Report parameter #6 has been changed to “Include Pneumococcal & VAR.” The default is “Yes.” This parameter includes pneumococcal conjugate vaccine and varicella vaccine in the “Minimum Needs” list for the appropriate age groups.

A.6.2 PATIENT MENU**A.6.2.1 New Display for Vaccines Imported from a State Immunization Registry**

Vaccines added to the immunization history through data exchange with a state registry will be designated by a “+” (requires BYIM version 2.1).

A.6.2.2 New Field for Documenting Consent for Participation in a State Immunization Registry

Under “Patient Edit,” a new field to document consent for participation in a state immunization registry was added. Options are “Y,” “N,” or blank. This information is displayed in the “Additional Information” section of the patient record.

A.6.2.3 Ability to Edit Refusal Date

An option has been added to edit an existing refusal date for a vaccine. Only one refusal date will be displayed in the immunization history, but a new refusal entry will be added to the PCC Refusal file.

A.6.2.4 Changes to Forecasting

In addition to the changes to the forecasting options listed above, the following changes have been made:

- Recognition of a 2-dose Adolescent Hep B schedule: A 3rd dose will not be forecast for patients 11–15 years who received the Merck Hepatitis B vaccine product.
- Females who start HPV at 9 years will have subsequent doses forecast on schedule.

A.6.2.5 Patient Lists and Letters

In Patient Lists and Letters, the following filters have been added to the parameters:

- Parameter 3: Patient Group – Refusals. Users can limit this group to refusals for a specific vaccine and date range
- New Parameter 6: “Designated Provider.” Sites can run lists by designated providers.
- Parameter 10: Additional Information. New data elements include Refusals and Location where shot was given.

A.6.3 REPORTS MENU

A.6.3.1 Adult Report: Inclusion of Zostavax

The adult report now includes coverage with Zostavax vaccine for adults 60 years and older.

A.6.3.2 Influenza Report

The influenza report has been expanded to include the following age groups: 6–59 months, 5–xx years, 18–49 high risk, 18–49 years (excluding high risk), 50–64 years, and 65 years. Sites can also select the reporting period (e.g. Sept–Dec, or Sept–March). The influenza report can be run as a standard report for seasonal influenza, or an H1N1 report for 2009 H1N1 coverage.

A.6.4 MANAGERS MENU

A.6.4.1 Change to Pneumococcal Forecasting Options

Under ESP (Edit Site Parameters), users can select the minimum age for 23-valent pneumococcal forecasting to be 55 years (if there are local recommendations) or 65 years. The option to forecast every 6 years has been removed.

A.6.4.2 Changes to “Short Names” for Vaccines

“Flu-Split” has been changed to “Flu-TIV.” Influenza-NOS has been changed to “Flu-NOS.”

A.6.4.3 Update Vaccine Table and Manufacturers Table

The Vaccine Table has been updated with changes made by CDC to the CVX (vaccine) and MVX (manufacturer) codes in recent months. The following vaccines have been added: HPV; NOS; MeningCV4O (Menveo); Hiberix (PRP-T); Typhus, historical; DTaPIPvHepBHib; Flu-High dose.

A.6.4.4 Changes to High Risk Factor Check

Under ESP (Edit Site Parameters) when enabling the High Risk Factor Check, sites can choose whether to include smokers in the high risk taxonomy for pneumococcal vaccine.

Appendix B: Vaccine Table for v8.5

B.1 Vaccine Table

Table B- 1: Vaccine Table

No.	Vaccine	HL7	Active	Default Lot #	VIS Default	Dose	Forecast
1	ACTHIB	48	Active		9/18/2008	.5 ml	YES
2	ADENO,ORAL	143	Inactive				
3	ADENOV,NOS	82	Inactive			.5 ml	NO
4	ADENOVI,T4	54	Inactive			.5 ml	NO
5	ADENOVI,T7	55	Inactive			.5 ml	NO
6	ANTHRAX	24	Inactive		3/10/2010	.5 ml	NO
7	BCG	19	Inactive			.5 ml	NO
8	BOTULINUM	27	Active			.5 ml	NO
9	CHOLERA	26	Active			.5 ml	NO
10	CMVIG	29	Active			.5 ml	NO
11	COMVAX	51	Inactive		9/18/2008	.5 ml	NO
12	DENGUE FEV	56	Inactive			.5 ml	NO
13	DIPHThERIA	12	Inactive			.5 ml	NO
14	DT-PEDS	28	Active		5/17/2007	.5 ml	YES
15	DTaP	20	Active		5/17/2007	.5 ml	YES
16	DTAP,5PE	106	Inactive		5/17/2007	.5 ml	YES
17	DTAP,NOS	107	Inactive			.5 ml	YES
18	DTAP-HIB	50	Inactive		9/18/2008	.5 ml	NO
19	DTaPIPVHh	132	Inactive			.5 ml	NO
20	DTP	1	Inactive			.5 ml	YES
21	DTP-HIB	22	Inactive			.5 ml	NO
22	DTP-HIB-HE	102	Inactive		9/18/2008	.5 ml	NO
23	FLU,NOS	88	Inactive			.5 ml	YES
24	FLU-H5N1	123	Inactive				YES
25	FLU-DERMAL	144	Active		7/26/11	0.1 ml	YES
26	FLU-HIGH	135	Active		7/26/11	0.5 ml	YES
27	FLU-NASAL	111	Active		7/26/11	2 ml	YES
28	FLU-TIV	15	Active		7/26/11	.5 ml	YES
29	FLU-TIVhx	15	Inactive			.5 ml	YES
30	FLU-TIVpf	140	Active		7/26/11		YES
31	FLU-WHOLE	16	Inactive			.5 ml	YES

No.	Vaccine	HL7	Active	Default Lot #	VIS Default	Dose	Forecast
32	H1N1	127	Active		10/1/2009	.5 ml	NO
33	H1N1,NOS	128	Inactive			.5 ml	NO
34	H1N1-NASAL	125	Active		10/1/2009	2 ml	NO
35	H1N1-pfree	126	Active		10/1/2009		NO
36	HANTAVIRUS	57	Inactive			.5 ml	NO
37	HBIG	30	Active				YES
38	HEP A 3PED	84	Inactive		3/21/2006	.5 ml	YES
39	HEP A ADLT	52	Active		3/21/2006	1 ml	YES
40	HEP A PED	83	Active		3/21/2006	.5 ml	YES
41	HEP A,NOS	85	Inactive			.5 ml	YES
42	HEP AP,NOS	31	Inactive			.5 ml	YES
43	HEP B ADLT	43	Active		7/18/2007	1 ml	YES
44	HEP B ADOL	42	Inactive		7/18/2007	.5 ml	YES
45	HEP B DIAL	44	Inactive		7/18/2007	1 ml	YES
46	HEP B PED	8	Active		7/18/2007	.5 ml	YES
47	HEP B,NOS	45	Inactive		7/18/2007	.5 ml	YES
48	HEP C	58	Inactive			.5 ml	NO
49	HEP E	59	Inactive			.5 ml	NO
50	HERPES SIM	60	Inactive			.5 ml	NO
51	HIB,NOS	17	Inactive			.5 ml	YES
52	HIBTITER	47	Inactive		9/18/2008	.5 ml	YES
53	HIV	61	Inactive			.5 ml	NO
54	HPV,NOS	137	Inactive		5/03/2011		YES
55	HPV-2	118	Active		5/03/2011	.5 ml	YES
56	HPV-4	62	Active		5/03/2011	.5 ml	YES
57	IG	86	Active				NO
58	IG,NOS	14	Inactive				NO
59	IGIV	87	Active				NO
60	IPV	10	Active		1/1/2011	.5 ml	YES
61	JAPAN E IM	134	Active		3/01/2010		NO
62	JAPANESE E	39	Inactive		3/01/2010	.5 ml	NO
63	JUNIN VIRU	63	Inactive			.5 ml	NO
64	KINRIX	130	Active		5/17/2007	.5 ml	NO
65	LEISHMANIA	64	Inactive			.5 ml	NO
66	LEPROSY	65	Inactive			.5 ml	NO
67	LYME	66	Inactive			.5 ml	NO
68	MALARIA	67	Inactive			.5 ml	NO
69	MEASLES	5	Inactive		3/13/2008	.5 ml	YES
70	MELANOMA	68	Inactive			.5 ml	NO

No.	Vaccine	HL7	Active	Default Lot #	VIS Default	Dose	Forecast
71	MEN-C CONJ	103	Inactive			.5 ml	YES
72	MENING,NOS	108	Inactive			.5 ml	YES
73	MENING-CV4	114	Active		10/14/2011	.5 ml	YES
74	MENING-PS	32	Active		1014/2011	.5 ml	YES
75	MeningCV4O	136	Active		10/14/2011	.5 ml	YES
76	MMR	3	Active		3/13/2008	.5 ml	YES
77	MMRV	94	Active		5/21/10	.5 ml	NO
78	MR	4	Inactive		3/13/2008	.5 ml	YES
79	MUMPS	7	Inactive		3/13/2008	.5 ml	YES
80	NO VACCINE	998	Inactive			.5 ml	NO
81	OPV	2	Inactive		1/1/2000	.5 ml	YES
82	OTHER	999	Inactive			.5 ml	NO
83	PARAINFLUE	69	Inactive			.5 ml	NO
84	PCV-13	133	Active		4/16/2010	.5 ml	YES
85	PCV-7	100	Active		9/18/2008	.5 ml	YES
86	PEDIARIX	110	Active		9/18/2008	.5 ml	NO
87	PEDVAXHIB	49	Active		9/18/2008	.5 ml	YES
88	PENTACEL	120	Inactive		9/18/2008	.5 ml	NO
89	PERTUSSIS	11	Inactive			.5 ml	NO
90	PLAGUE	23	Inactive			.5 ml	NO
91	PNEUMO,NOS	109	Inactive			.5 ml	YES
92	PNEUMO-PS	33	Active		10/6/2009	.5 ml	YES
93	POLIO,NOS	89	Inactive			.5 ml	YES
94	PROHIBIT	46	Inactive		12/16/1998	.5 ml	YES
95	Q FEVER	70	Inactive			.5 ml	NO
96	RABIES,ID	40	Active		10/6/2009	.5 ml	NO
97	RABIES,IM	18	Active		10/6/2009	.5 ml	NO
98	RABIES,NOS	90	Inactive			.5 ml	NO
99	RESERVED -	99	Inactive			.5 ml	NO
100	RHEUMATIC	72	Inactive			.5 ml	NO
101	RIFT VALLE	73	Inactive			.5 ml	NO
102	RIG	34	Active			.5 ml	NO
103	ROTA,NOS	122	Inactive				YES
104	ROTA-1	119	Active		9/18/2008		YES
105	ROTA-4	74	Inactive			.5 ml	YES
106	ROTA-5	116	Active		9/18/2008	2 ml	YES
107	RSV-IGIV	71	Inactive				NO
108	RSV-MAb	93	Active				NO
109	RUBELLA	6	Inactive		3/13/2008	.5 ml	YES

No.	Vaccine	HL7	Active	Default Lot #	VIS Default	Dose	Forecast
110	RUBELLA/MU	38	Inactive		3/13/2008	.5 ml	NO
111	SMALLPOX	75	Inactive		8/31/2007	.5 ml	NO
112	SMALLPOX,D	105	Inactive		8/31/2007	.5 ml	NO
113	STAPHYLOCO	76	Inactive			.5 ml	NO
114	Td,NOS	139	Inactive			.5 ml	YES
115	Td-ADULT	9	Active		11/18/2008	.5 ml	YES
116	Td-ADULTpf	113	Active		11/18/2008	.5 ml	YES
117	Td-NA	138	Inactive		11/18/2008	.5 ml	YES
118	Tdap	115	Active		11/18/2008	.5 ml	YES
119	TET TOX	35	Active		11/18/2008	.5 ml	YES
120	TET TOX-NA	142	Inactive		11/18/2008	.5 ml	YES
121	TETTOX,NOS	112	Inactive		11/18/2008	.5 ml	YES
122	TICK-BORNE	77	Inactive			.5 ml	NO
123	TIG	13	Active				NO
124	TST,NOS	98	Inactive			.5 ml	NO
125	TST-OT TIN	95	Inactive			.5 ml	NO
126	TST-PPD	96	Inactive			.5 ml	NO
127	TST-PPD TI	97	Inactive			.5 ml	NO
128	TULAREMIA	78	Inactive			.5 ml	NO
129	TWINRIX	104	Active		7/18/2007	.5 ml	NO
130	TYPH,NOS	91	Inactive			.5 ml	NO
131	TYPHOID,OR	25	Active		5/19/2004	.5 ml	NO
132	TYPHOID,PA	41	Active		5/19/2004	.5 ml	NO
133	TYPHOID,PM	53	Active		5/19/2004	.5 ml	NO
134	TYPHOID,VI	101	Active		5/19/2004	.5 ml	NO
135	TYPHUS,NOS	131	Active				NO
136	VACCINIA I	79	Active			.5 ml	NO
137	VARICELLA	21	Active		3/13/2008	.5 ml	YES
138	VEE, INACT	81	Inactive			.5 ml	NO
139	VEE, LIVE	80	Inactive			.5 ml	NO
140	VEE,NOS	92	Inactive			.5 ml	NO
141	VZIG	36	Inactive				NO
142	VZIG-IND	117	Active				YES
143	YELLOW FEV	37	Active		11/9/2004	.5 ml	NO
144	ZOSTER	121	Active		10/6/2009		YES

B.2 CVX/CPT/ICD9 Code Crosswalk

Table B- 2: CVX/CPT/ICD9 Code Crosswalk

Short Name	HL7 Code	CPT Code	ICD Dx Code	ICD Proc Code	HCPCS for CMS
ACTHIB (PRP-T)	48	90648	V03.81	99.55	
BCG	19	90585	V03.2	99.33	
BOTULINUM	27	90287	V07.2	99.57	
CHOLERA	26	90725	V03.0	99.31	
CMV-IGIV	29	90291	V07.2	99.14	
COMVAX (HEPB-HIB)	51	90748	V06.8 or (V03.81 V05.3)	99.55	
DTaP	20	90700	V06.1	99.39	
DTaP-5PE	106	90700	V06.1	99.39	
DTaP-HIB	50	90721	V06.8 or (V06.1 V03.81)	99.55	
DTaP-IPV(Kinrix)	130	90696	V06.3 or (V06.1 V04.0)	99.55	
DT-PEDS	28	90702	V06.5	99.36	
FLU-HIGH	135	90662	V04.81	99.52	
FLU-NASAL	111	90660	V04.81	99.52	G8108
FLU-TIVhx	15	90658	V04.81	99.52	G8108
FLU-TIVpf 6-35 mo	140	90655	V04.81	99.52	G8108
FLU-TIVpf 3+ yrs	140	90656	VO4.81	99.52	
FLU-TIV 6-35 mo	141	90657	V04.81	99.52	
FLU-TIV 3+ yrs	141	90658	V04.81	99.52	
FLU-TIV-ID	140	90659	V04.81	99.52	
HBIG	30	90371	V07.2	99.14	
HEP A Adult	52	90632	V05.3	99.55	
HEP A PED 2DOSE	83	90633	V05.3	99.55	
HEP B	45	90744	V05.3	99.55	
HEP B ADLT	43	90746	V05.3	99.55	
HEP B ADOL 2DOSE	43	90743	V05.3	99.55	
HEP B DIAL	44	90740	V05.3	99.55	
HEP B PED	8	90744	V05.3	99.55	
HEPA/HEPB (TWINRIX)	104	90636	V05.3	99.55	
HIBTITER (HbOC)	47	90645	V03.81	99.55	
HPV-2	118	90650	V04.89	99.55	
HPV-4	62	90649	V04.89	99.55	
IG	86	90281	V07.2	99.59	
IGIV	87	90283	V07.2	99.59	
IPV	10	90713	V04.0	99.41	
Japan E IM	134	90738			
Japanese E	30	90735			
MENING-CV4	114	90734	V03.89	99.55	
MENING-CV4O	136	90734	V03.89	99.55	
MENING-PS	32	90733	V03.89	99.55	
MMR	3	90707	V06.4	99.48	

MMRV	94	90710	V06.8 or (V06.4 V05.4)	99.55	
MR	4	90708	V04.2 V04.3	99.55	
OPV	2	90712	V04.0	99.41	
PEDIARIX DTaP- HEPB-IPV	110	90723	V06.8 or (V06.1 V04.0 V05.3)	99.55	
PEDVAXHIB (PRP- OMP)	49	90647	V03.81	99.55	
PENTACEL DTAP-HIB- IPV	120	90698	V06.8 or (V06.1 V04.0 V03.81)	99.55	
PLAGUE	23	90727	V03.3	99.34	
PCV-13	133	90670	V03.82	99.55	G8115
PCV-7	100	90669	V03.82	99.55	
PNEUMO-PS	33	90732	V03.82	99.55	G8115
RABIES ID	40	90676	V04.5	99.44	
RABIES IM	18	90675	V04.5	99.44	
RABIES IMMUNE GLOB	34	90375	V07.2	99.14	
ROTA-1	119	90681	V04.89	99.55	
ROTA-5	116	90680	V04.89	99.55	
RSV-IGIV	71	90379	V07.2	99.14	
RSV-Mab (Synagis)	93	90378	V07.2	99.14	
SMALLPOX	75	96379	V04.1	99.42	
Td-ADULT	9	90718	V06.5	99.36	
Td-ADULTpf	113	90714	V06.5	99.36	
Tdap	115	90715	V06.1	99.39	
TET TOX	35	90703	V03.7	99.38	
TIG	13	90389	V07.2	99.14	
TYPHOID, ORAL	25	90690	V03.1	99.32	
TYPHOID, PM	53	90693	V03.1	99.32	
TYPHOID, VICPS	101	90691	V03.1	99.32	
TYPHOID,PA	41	90692	V03.1	99.32	
VACCINIA IMM GLOB	79	90393	V07.2	99.14	
VARICELLA	21	90716	V05.4	99.54	
VZIG	36	90396	V07.2	99.14	
VZIG-IND	117	90396	V07.2	99.14	
YELLOW FEV	37	90717	V04.4	99.43	
ZOSTER	121	90736	V05.4	99.54	

Appendix C: Forecasting Rules

C.1 ImmServe Forecasting Rules

These parameters are in the IMM/Def Table and are used for forecasting vaccine doses.

Table C- 1: Vaccine Forecasting Rules

Vaccine Dose	Acceptable Age	Recommended Age	Past Due Age	Minimum wait since last dose	Maximum Age
HBIG	0M	0M			7D
HepB1	0M	0M	3M		18Y
HepB2	4W	6W or 2M	5M	4W	
HepB3	24 W	6M or 12 M	19M	8W	
DTorP1	6W	6W or 2M	3M		(7Y)
DTorP2	10W	4M	5M	4W	(7Y)
DTorP3	14W	6M	7M	4W	(7Y)
DTorP4	12M	12 or 15M	19M	6M*	(7Y)
DTorP5	4Y	4Y	6Y	6M	(7Y)
Tdap adol.	11Y	11Y			18Y
Tdap adult	19Y	19Y			
TD_B	21 Y			10Y	
Hib1	6W	6W or 2M	3M		59M
Hib2	10W	4M	5M	4W	59M
HibTITER3	14W	6M	7M	4W	59M
HibTITER4	12M	12 or 15M	16M	8W	59M
PedvaxHIB3	12M	12M	16M	8W	59M
IPV1	6W	6W or 2M	3M		18Y
IPV2	10W	4M	5M	4W	18Y
IPV3	14W	6,12, or 15M	19M	4W	18Y
IPV4	4Y	4Y	6Y	6M	18Y
Pneum-conj	6W	6W or 2M	3M	4W	59M
Pneum-conj	10W	4M	5M	4W	59M
Pneum-conj	14W	6M	7M	4W	59M
Pneum-conj	12M	12Mor 15M	16M	8W	59M
Rota1	6W	6W or 2M	3M		14W

Vaccine Dose	Acceptable Age	Recommended Age	Past Due Age	Minimum wait since last dose	Maximum Age
Rota2	10W	4M	5M	4W	32W
Rota3	14W	6M	7M	4W	32W
MMR1	12M	12 or 15M	16M		18Y
MMR2	4Y**	4Y	6Y	4W	18Y
Varicella1	12M	12M	19M		18Y
Varicella2	13M	4Y	6Y	3M(4W>13Y)	18Y
HepA1	12M	15M	16 M or 19M		18Y
HepA2	18M			6M	
Influenza	6M	6M		4W	59M
Mening CV41	11Y	11Y	13Y		18Y
Mening CV42	16Y	16Y	17Y	8W	18Y
HPV1	9Y	11Y			26Y or 18Y
HPV2	9Y			4W	26Y or 19Y
HPV3	9Y			12W;6 M from HPV1	26Y or 19Y

* For screening table, minimum interval is 4 months (-4 days if 4 day grace period).

** For screening table, minimum age is 13 months (if first dose given at 12 months).

Options for Customizing Vaccine Forecasting:

Forecasting options are listed in the Edit Site Parameters option of the Manager's Menu (MGR > ESP). Parameter 8 allows the Program Manager to choose to forecast due dates at the Acceptable Age or at the Recommended Age. Parameter 9 allows the Program Manager to choose a set of ImmServe Forecasting Rules.

Forecasting Adult Vaccines:

The new Immunization software forecasts the minimum Adult Vaccines, including:

- Tdap is forecast one time for persons 11 and older, regardless of interval since last Td, if they have not received a Tdap Influenza vaccine – You can choose to forecast influenza each year for all ages, or for persons 6 months -18 years and 50 years and older. With the latter choice, influenza is forecast for persons 2 to 49 years of age who have had two visits in the past three years for a high-risk medical condition.

- Pneumococcal vaccine – forecast for persons over 65 years of age. You can choose to forecast for 50-64 year olds with no prior pneumococcal vaccine. Pneumococcal vaccine is also forecast for persons 5 to 64 (50) years of age who have had two visits in the past three years for a high-risk medical condition.
- HepB – forecast for adults who received a dose at an age younger than 18-years-old.

Forecasting Options

Versions 1, 3, 5, 6, 7 and 11 forecast the first vaccines series at 6 wks;the others beginning at 2 mths. All versions forecast Rotavirus at 2 (6 wks), 4, and 6 mths, and Influenza between Aug 15 and March 14 for infants 6 months-18 years (or all ages). Options 3,4 & 6 forecast Hep A starting at 12 months, while options 1,2,5 and 11 forecast Hep A at 15 months. Option 11 does not forecast Hep A or Hep B in persons over 18 years, regardless of prior doses. All options forecast Tdap, MCV4, and HPV for adolescents per ACIP recs (HPV doses 2 and 3 forecast only in males who receive dose 1).,

Table C- 2: Forecasting Option Descriptions

Option Number	Vaccine Combination
Option 1	6m IPV; 12m Hib, MMR,Var Pn 15m DTaP, HepA
Option 2	12m IPV, Hib, Var, MMR, Pn, 15m DTaP, HepA
Option 3	6m IPV 12m DTaP, Hib, Var, MMR,Pn, HepA
Option 4	12m DTaP, Hib, IPV, MMR, Var, Pn, HepA
Option 5	6m IPV 12m Hib, MMR Var, 15m DTaP,Pn, HepA
Option 6	6m IPV 12m, Hib, MMR,Var, HepA 15 mo DTaP, Pn
Option 7	Comvax, 6 m IPV 12m hep B, hib, DtaP, Pn, MMR, Var
Option 11	6m IPV 12m Hib, MMR,Var, Pn15m DTaP, HepA

Table C- 3: RPMS Version 8.5 Forecating Options Table: Recommended Ages

Vaccine	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 11*
	6m IPV 12m Hib, MMR, Var, Pn 15m	12m IPV, Hib, Var, MMR, Pn,15m DTaP	6m IPV 12m DTaP, Hib, Var, MMR,Pn	12m DTaP, Hib, IPV, MMR, Var,	6m IPV 12m Hib, MMR Var, 15m DTaP,Pn	6m IPV 12m Hib, MMR Var, Hep A, 15m	Comvax, 6m IPV 12m HepB, Hib, DTaP, Pn	6m IPV 12m Hib,MMR, Var, Pn,15m

	DTaP		12mHepA	Pn,12mHepA		DTaP,Pn,	MMR,Var,	DTaP
HepB1	0M	0M	0M	0M	0M	0M	0M	0M
HepB2	6W	2M	6W	2M	6W	6W	6W	6W
HepB3	6M	6M	6M	6M	6M	6M	12M	6M
DTorP1	6W	2M	6W	2M	6W	6W	6W	6W
DTorP2	4M	4M	4M	4M	4M	4M	4M	4M
DTorP3	6M	6M	6M	6M	6M	6M	6M	6M
DTorP4	15M	15M	12M	12M	15M	15M	12M	15M
DTorP5	4Y	4Y	4Y	4Y	4Y	4Y	4Y	4Y
Tdap	11Y	11Y	11Y	11Y	11Y	11Y	11Y	11Y
Hib1	6W	2M	6W	2M	6W	6W	6WPedvax	6W
Hib2	4M	4M	4M	4M	4M	4M	4MPedvax	4M
Hib3 HboC	6M	6M	6M	6M	6M	6M		6M
Hib4 (3)	12M	12M	12M	12M	12M	12M	12MPedvax	12M
IPV1	6W	2M	6W	2M	6W	6W	6W	6W
IPV2	4M	4M	4M	4M	4M	4M	4M	4M
IPV3	6M	12M	6M	12M	6M	6M	6M	6M
IPV4	4Y	4Y	4Y	4Y	4Y	4Y	4Y	4Y
MMR1	12M	12M	12M	12M	12M	12M	12M	12M
MMR2	4Y	4Y	4Y	4Y	4Y	4Y	4Y	4Y
Varicella	12M	12M	12M	12M	12M	12M	12M	12M
HepA	15M	15M	12M	12M	15M	12M	15M	15M
HepA	21M	21M	18M	18M	21M	18M	21M	21M
PCV13 1	6W	2M	6W	2M	6W	6W	6W	6W
PCV13 2	4M	4M	4M	4M	4M	4M	4M	4M
PCV13 3	6M	6M	6M	6M	6M	6M	6M	6M
PCV13 4	12M	12M	12M	12M	15M	15M	12M	12M

Rota 1	6W	2M	6W	2M	6W	6W	6W	6W
Rota 2	4M	4M	4M	4M	4M	4M	4M	4M
Rota 3	6M	6M	6M	6M	6M	6M	6M	6M
MenCV4	15Y	15Y	15Y	15Y	15Y	15Y	11-15Y	15Y
**Flu	50Y	50Y	50Y	50Y	50Y	50Y	50Y	50Y
**PneuPS	65Y	65Y	65Y	65Y	65Y	65Y	65Y	65Y

C.2 High Risk ICD9 Codes

C.2.1 Taxonomy of High Risk ICD-9 Codes

This appendix lists the ICD-9 Codes used to trigger the forecast of Flu and Pneumo immunizations in high risk persons who are not automatically forecast by their age.

C.3 Influenza

Persons 19 to 49 years who have two or more visits in the past three years with a diagnosis ICD-9 code in Table C- 4 are forecast for Influenza vaccine.

Table C- 4: Influenza Vaccine High Risk Taxonomies (1/2/06) with ICD 9 Codes and Definitions

ICD 9 Code	Definition
042.0-043.09, 044.9	HIV Infection
250.00-250.93	Diabetes
393.-398.99	Rheumatic Heart D
402.00-402.91	Hypertensive HD
404.00-404.93	Hyperten Heart/Renal
410.00-414.9	Ischemic HD
415.0-416.9	Pulmonary HD
424.0-424.9	Other Endocardial HD
425.0-425.9	Cardiomyopathy
428.0-428.9, 429.2	CHF
491.0-491.9	Chronic Bronchitis
492.0-492.8	Emphysema
493.00-493.91	Asthma
494.0-496.	Bronchiectasis, CLD, COPD
501-505	Pneumoconioses

ICD 9 Code	Definition
571.0-571.9	Chronic Liver Dis.
581.0-581.9	Nephrotic Syndrome
585.	Renal Failure
996.80-996.89	Transplant
V42.0-V42.89	Kidney Transplant
V58.1	Chemotherapy
V67.2	Chemotherapy f/u

C.4 Pneumococcal

Persons 5 to 64 years who have two or more visits in the past three years with a diagnosis ICD-9 code in Table C- 5 are forecast for Pneumococcal vaccine.

Table C- 5: Pneumococcal Vaccine High Risk Taxonomies (1/2/06) with ICD 9 Codes and Definitions

ICD 9 Code	Definition
042.0-043.09, 044.9	HIV infection
250.00-250.93	Diabetes
303.90-303.91	Alcohol Dependency
428.0-428.9, 429.2	CHF
492.0-492.8	Emphysema
493.00-493.91	Asthma
494.0-496.	Bronchiectasis, CLD, COPD
501-505	Pneumoconioses
571.0-571.9	Chronic Liver Dis.
581.0-581.9	Nephrotic Syndrome
585.	Renal Failure
865.00 - 865.19	Spleen Injury
996.80-996.89	Transplant
V42.0-V42.89	Kidney Transplant
V58.1-V58.11	Chemotherapy
V67.2	Chemotherapy f/u

Appendix D: Package Setup Information

This appendix contains print-screen of the entire text of the Package Setup Information that is presented under the PKG – Package Setup Information option of the Manager Menu (MGR->PKG).

Setup Information for Version 8.5

The text presented here is intended to provide Site Managers with helpful information regarding setup and management of the RPMS Immunization Package version 8.5.

D.1 Options

The main menu option for the Immunization package is BIMENU. At most sites this would be placed on AKMOCORE along with other RPMS packages. For the sake of consistency from site to site, it is recommended that the synonym IMM (Immunization) be given to the Main Menu option BIMENU. However, this is not a requirement. BIMENU allows access to every other option within the package. (The Package Keys, BIZMENU, BIZ EDIT PATIENTS, and BIZ MANAGER, are discussed below under Security in Section II).

The option BI PATIENT VIEW/EDIT, Patient Immunization Record, is the main option for all users to view a patient's immunization data. This option allows users to display or print the patient's Immunization History and Forecast, Official Immunization Record, and Health Summary. If the user has the appropriate key (BIZ EDIT PATIENTS), additional actions for adding or editing patient data are made available under this option.

Note: Users accessing this option have no Add/Edit capability whatsoever – it provides informational only – unless they have the BIZ EDIT PATIENTS Key, in which case additional Add/Edit Actions are available (See Section D.2, Security, for more information).

This option may be attached to any other Kernel menu and need not be accessed via the main menu, BIMENU. This option is found within the package under the Patient Menu of the Immunization Main Menu.

After this package has been installed and the BIMENU and BI PATIENT VIEW/EDIT options added to the appropriate menus, it is a good idea to run the Build Primary Menu Trees option under Kernel Menu Management (under AKMOEVE). This enables users to jump to menu synonyms within the new Immunization Package.

There is also an option called BI LOT NUMBER NON-MANAGER, which is locked by the Key BIZ LOT NON-MANAGER. This stand-alone option is not connected to the rest of the RPMS Immunization Menu; instead, it may be assigned to any menu of any user for the purpose of adding and editing lot numbers in the Immunization Package. The option allows someone, such as a pharmacist, to add and maintain the Lot Number Inventory without gaining access to the rest of the Manager Menu in the Immunization Package.

D.2 Security

The Security Key BIZMENU allows users to access the Main Menu of the RPMS Immunization Package, BIMENU, and its submenus for viewing patient data and reports. The BIZMENU Key does not provide any add or edit capabilities; however, holders of this key may print patient letters, view patient data, and run reports.

The Security Key BIZ EDIT PATIENTS allows users to add and edit a patient's Immunization History, Contraindications, Skin Tests, Parent/Guardian, etc. This key does not provide access to any additional menu options; instead, it adds several Actions to the main Patient View screen. This key should be given to staff that are responsible for data entry and Patient Management.

The security key BIZ MANAGER allows a user to access the Manager Menu (BI MENU-MANAGER), which is a submenu of the Main Menu (BIMENU). The Manager Menu provides access to many sensitive functions pertaining to Site Parameters, Form Letters, the Vaccine Table, Lot Numbers, Exports, and the allocation of Security Keys.

The BIZ MANAGER Key should only be given to the manager of the Immunization Package.

Also see Explanation of Keys Action on the HOLDERS OF IMMUNIZATION KEYS Screen (MGR>KEY>Exp).

Note: Assignment of the option, BI LOT NUMBER NON-MANAGER, to other menus in RPMS is done by the local Site Manager, as is the key, BIZ LOT NON-MANAGER. This option and its key cannot be assigned from within the Immunization Package itself.

D.3 Devices

This package makes extensive use of the VA Screen Manager and List Manager, which requires that several of the cursor and screen handling fields of the Terminal Type file be present for any Device accessing the package. It is recommended that any Device accessing this package be given a Terminal Type (Subtype) of C-VT100, since the standard VA Kernel distribution comes with all necessary codes pre-loaded. If the Terminal Type does not contain a complete set of screen handling codes, the user receives a message that ScreenMan cannot load the form.

If you suspect that the screen handling codes for C-VT100 on your system are not complete, this package comes with a routine, BIVT100, which updates (as of 2000) your VT100 codes. The routine must be run by a programmer or experienced Site Manager from Programmer Mode, and a line with ZIS must be uncommented.

Other Terminal Types may also be chosen. However, you may need to enter the screen handling codes for Cursor movements, PF keys, Erase Entire Page, and so on, manually if they are not already present for the selected Terminal Type.

If for some reason it is not practical to define Devices accessing the package with a Subtype of C-VT100, users of the package may be given a DEFAULT TERMINAL TYPE FOR LM in the NEW PERSON File #200 of C-VT100. (They are then given a Terminal Type of C-VT100 regardless of which DEVICE they sign on through). It may also be necessary to set the field ASK DEVICE TYPE AT SIGN-ON (again in file #200) equal to ASK to get a user's Terminal Type to change to the C-VT100.

It is important that PCs accessing this software through terminal emulation software have their function keys F1-F4 set to transmit standard VT-100 codes for these keys rather than other customized codes.

This software makes use of basic character format codes such as Reverse Video, Highlight, and Underlining. It may be helpful to adjust the colors that the terminal emulation software employs to display these formats.

There are several network terminal emulation programs available, however many of them have limitations such as not recognizing function keys, not displaying reverse video, not slave printing, etc. As of this printing, we have found that NetTerm 4.2e available at a nominal cost from Intersoft International, Inc., via the WWW is among the best products for use with RPMS software. Trial versions may be obtained online at: <http://www.securenetterm.com/html/netterm.html>.

Initial difficulties with the screen handling codes for ScreenMan and ListMan are not specific to Immunization. However, if problems with the setup cannot be resolved, please contact your Computer Support staff for further assistance.

D.4 Site Parameters

As part of the installation of this new version of Immunization, the site parameters must be reviewed and edited.

The Site Parameter screen may be accessed from the programmer prompt by entering D ^BISITE (no quotes). It may also be accessed from within the Immunization menus by selecting Manager Menu from the Main Menu, and then selecting Edit Site Parameters (MGR->ESP). Help text is displayed during the edit each Site Parameter.

D.5 Vaccine Table

The Immunization Package version 8.4 comes with a Vaccine Table that has been standardized with the CDC's NIP HL7/CVX Code Table. The vaccine table, spellings, CVX codes and CPT codes are taken directly from the CDC table <http://www.cdc.gov/nip/registry/hl7/hl7-cvx.pdf>. There are several new fields in the Vaccine Table that relate to new functions in the package, most notably the ImmServe Forecasting utility. For this reason it is critically important that specific fields within the table not be altered.

Each time a user logs into the Immunization Package, the Vaccine Table is checked for integrity. If certain fields have been altered, a warning message is issued, and several functions within the package begin to display the warning. Some basic functions of the package continue to operate, such as the display of a patient's immunization history. Other functions only display the warning.

Listed below is the text of the warning. The last paragraph of the warning does not appear if the user does not have the BIZ MANAGER Key.). As the warning indicates, re-standardizing the table simply involves selecting RES from the Manager Menu. This can be done at any time, and users need not log out of the package. Runtime is a few seconds at most.

```
WARNING
-----

Vaccine Table (IMMUNIZATION File) is not standard--cannot proceed.

At this point you should back out of the Immunization Package and contact
your site manager or the person in charge of the Immunization Software.

Or, you may fix this by Re-standardizing the Immunization File. To do so,
proceed to the Manager Menu and select Re-standardize. (Menu Synonyms: MGR
> RES)
```

Figure D- 1: Warning Screen

D.6 Duplicate Lot Numbers

Some sites have duplicate lot numbers in their IMMUNIZATION LOT File, which cause the storing of Immunizations in the V IMMUNIZATION File to fail. RPMS Immunization v8.4 recognizes duplicate lot numbers ahead of time and informs the user. If the user holds the BIZ MANAGER Key, the text shown in Figure D- 2 is displayed.

```

You have selected a "Duplicate Lot Number." This means that this
Lot Number exists at least one other time in the Lot Number file,
and the Immunization visit you are entering cannot be stored until
the duplicate has been resolved.
Two steps should be taken to resolve duplicate lot numbers:
Step 1:
Duplicate lot numbers are resolved using the Manager Menu, Lot Number
Add/Edit (MGR F3}LOT). Go to this option and enter the lot number in
question. Two or more choices are presented. Select one of the choices to
be the valid lot number. Edit this lot number, making sure it is active and
that all relevant vaccines are listed under it.
Step 2:
Select and edit each duplicate lot number.
Edit the lot number by typing Z at the beginning (for example, change 483-
116 to Z483-116). If there is a second duplicate, type ZZ to the beginning
of that lot number; for a third duplicate, type ZZZ and so on. Adding
leading Zs to the duplicate lot numbers makes them distinguishable from the
valid lot number. This method also makes the old duplicate lot numbers
recognizable on pre-existing visits.
The duplicate lot numbers should also be made inactive. If an old visit is
to be edited and it has one of the old duplicate lot numbers, the old
duplicate should be replaced with the current valid lot number (easily
recognized by ignoring the leading zs).

```

Figure D- 2: Duplicate lot number warning screen

D.7 Protocols for Use by Other Packages

RPMS Immunization v8.4 contains three ListMan Protocols that may be of use to programmers of other packages:

- **BI PATIENT VIEW/EDIT EXT CALL:** This protocol calls up the ListMan Patient View/Edit screen. The call assumes that DFN (patient) is defined. Other optional parameters are described in routine HAVEPAT^BIPATVW. Only users who hold the BIZ EDIT PATIENTS Key have editing capability.
- **BI IMMUNIZATION ADDED:** This protocol is an Extended Action Type of Protocol (any protocols entered as ITEMS are called when this protocol is called). The Description field of this protocol lists all of the defined variables that relate to the immunization that has just been added.

BI IMMUNIZATION DELETED: This protocol is an Extended Action Type of Protocol (any protocols entered as ITEMS are called when this protocol is called). The Description field of this protocol lists all defined variables that relate to the immunization that has just been deleted.

Appendix E: Word Processor Help

E.1 Summary of Key Sequences

E.1.1 Navigation

Incremental movement Arrow keys

One word left and right <Ctrl-J> and <Ctrl-L>

Next tab stop to the right <Tab>

Jump left and right <PF1><Left> and <PF1><Right>

Beginning and end of line <PF1><PF1><Left>and <PF1><PF1><Right>

Screen up or down <PF1><Up> and <PF1><Down>

or: <PrevScr> and <NextScr>

or: <PageUp> and <PageDown>

Top or bottom of document <PF1>T and <PF1>B

Go to a specific location <PF1>G

E.1.2 Exiting/Saving

Exit and save text <PF1>E

Quit without saving <PF1>Q

Exit, save, and switch editors <PF1>A

Save without exiting <PF1>S

E.1.3 Deleting

Character before cursor <Backspace>

Character at cursor <PF4> or <Remove> or <Delete>

From cursor to end of word <Ctrl-W>

From cursor to end of line <PF1><PF2>

- Entire line <PF1>D
- E.1.4 Settings/Modes**
- Wrap/no wrap mode toggle <PF2>
 - Insert/replace mode toggle <PF3>
 - Set/clear tab stop <PF1><Tab>
 - Set left margin <PF1>>,
 - Set right margin <PF1>.
 - Status line toggle <PF1>?
- E.1.5 Formatting**
- Join current line to next line <PF1>J
 - Reformat paragraph <PF1>R
- E.1.6 Finding**
- Find text <PF1>F or <Find>
 - Find next occurrence of text <PF1>N
 - Find/Replace text <PF1>P
- E.1.7 Cutting/Copying/Pasting**
- Select (Mark) text <PF1>M at beginning and end of text
 - Unselect (Unmark) text <PF1><PF1>M
 - Delete selected text <Delete> or <Backspace> on selected text
 - Cut and save to buffer <PF1>X on selected text
 - Copy and save to buffer <PF1>C on selected text
 - Paste from buffer <PF1>V
 - Move text to another location <PF1>X at new location
 - Copy text to another location <PF1>C at new location

E.2 Change to RPMS MailMan Full Screen Editor

Use the following steps for changing from Line Editor to Full Screen Editor in RPMS MailMan:

1. In RPMS: Select IHS Kernel Option: MailMan Menu
2. Select MailMan Menu Option: OML Other MailMan Functions
3. Select Other MailMan Functions Option: EML Edit user options
4. MESSAGE ACTION DEFAULT: ^ PREFERRED EDITOR
5. PREFERRED EDITOR: (Select: SCREEN EDITOR)
6. In Windows: Switch to Program Manager
7. Go into the Terminal Icon: Settings: Terminal Preferences:

Use Function, Arrow, and Ctrl Keys for windows should not

Appendix F: Rules of Behavior

The Resource and Patient Management (RPMS) system is a United States Department of Health and Human Services (HHS), Indian Health Service (IHS) information system that is **FOR OFFICIAL USE ONLY**. The RPMS system is subject to monitoring; therefore, no expectation of privacy shall be assumed. Individuals found performing unauthorized activities are subject to disciplinary action including criminal prosecution.

All users (Contractors and IHS Employees) of RPMS will be provided a copy of the Rules of Behavior (RoB) and must acknowledge that they have received and read them prior to being granted access to a RPMS system, in accordance IHS policy.

- For a listing of general ROB for all users, see the most recent edition of *IHS General User Security Handbook* (SOP 06-11a).
- For a listing of system administrators/managers rules, see the most recent edition of the *IHS Technical and Managerial Handbook* (SOP 06-11b).

Both documents are available at this IHS Web site: <http://security.ihs.gov/>.

The ROB listed in the following sections are specific to RPMS.

F.1 All RPMS Users

In addition to these rules, each application may include additional RoBs that may be defined within the documentation of that application (e.g., Dental, Pharmacy).

F.1.1 Access

RPMS users shall

- Only use data for which you have been granted authorization.
- Only give information to personnel who have access authority and have a need to know.
- Always verify a caller's identification and job purpose with your supervisor or the entity provided as employer before providing any type of information system access, sensitive information, or nonpublic agency information.
- Be aware that personal use of information resources is authorized on a limited basis within the provisions *Indian Health Manual* Part 8, "Information Resources Management," Chapter 6, "Limited Personal Use of Information Technology Resources."

RPMS users shall not

- Retrieve information for someone who does not have authority to access the information.

- Access, research, or change any user account, file, directory, table, or record not required to perform their *official* duties.
- Store sensitive files on a PC hard drive, or portable devices or media, if access to the PC or files cannot be physically or technically limited.
- Exceed their authorized access limits in RPMS by changing information or searching databases beyond the responsibilities of their jobs or by divulging information to anyone not authorized to know that information.

F.1.2 Information Accessibility

RPMS shall restrict access to information based on the type and identity of the user. However, regardless of the type of user, access shall be restricted to the minimum level necessary to perform the job.

RPMS users shall

- Access only those documents they created and those other documents to which they have a valid need-to-know and to which they have specifically granted access through an RPMS application based on their menus (job roles), keys, and FileMan access codes. Some users may be afforded additional privileges based on the functions they perform, such as system administrator or application administrator.
- Acquire a written preauthorization in accordance with IHS policies and procedures prior to interconnection to or transferring data from RPMS.

F.1.3 Accountability

RPMS users shall

- Behave in an ethical, technically proficient, informed, and trustworthy manner.
- Log out of the system whenever they leave the vicinity of their personal computers (PCs).
- Be alert to threats and vulnerabilities in the security of the system.
- Report all security incidents to their local Information System Security Officer (ISSO)
- Differentiate tasks and functions to ensure that no one person has sole access to or control over important resources.
- Protect all sensitive data entrusted to them as part of their government employment.
- Abide by all Department and Agency policies and procedures and guidelines related to ethics, conduct, behavior, and information technology (IT) information processes.

F.1.4 Confidentiality

RPMS users shall

- Be aware of the sensitivity of electronic and hard copy information, and protect it accordingly.
- Store hard copy reports/storage media containing confidential information in a locked room or cabinet.
- Erase sensitive data on storage media prior to reusing or disposing of the media.
- Protect all RPMS terminals from public viewing at all times.
- Abide by all Health Insurance Portability and Accountability Act (HIPAA) regulations to ensure patient confidentiality.

RPMS users shall not

- Allow confidential information to remain on the PC screen when someone who is not authorized to that data is in the vicinity.
- Store sensitive files on a portable device or media without encrypting.

F.1.5 Integrity

RPMS users shall

- Protect their systems against viruses and similar malicious programs.
- Observe all software license agreements.
- Follow industry standard procedures for maintaining and managing RPMS hardware, operating system software, application software, and/or database software and database tables.
- Comply with all copyright regulations and license agreements associated with RPMS software.

RPMS users shall not

- Violate federal copyright laws.
- Install or use unauthorized software within the system libraries or folders.
- Use freeware, shareware, or public domain software on/with the system without their manager's written permission and without scanning it for viruses first.

F.1.6 System Logon

RPMS users shall

- Have a unique User Identification/Account name and password.

- Be granted access based on authenticating the account name and password entered.
- Be locked out of an account after five successive failed login attempts within a specified time period (e.g., one hour).

F.1.7 Passwords

RPMS users shall

- Change passwords a minimum of every 90 days.
- Create passwords with a minimum of eight characters.
- If the system allows, use a combination of alpha-numeric characters for passwords, with at least one uppercase letter, one lower case letter, and one number. It is recommended, if possible, that a special character also be used in the password.
- Change vendor-supplied passwords immediately.
- Protect passwords by committing them to memory or store them in a safe place (do not store passwords in login scripts or batch files).
- Change passwords immediately if password has been seen, guessed, or otherwise compromised, and report the compromise or suspected compromise to their ISSO.
- Keep user identifications (IDs) and passwords confidential.

RPMS users shall not

- Use common words found in any dictionary as a password.
- Use obvious readable passwords or passwords that incorporate personal data elements (e.g., user's name, date of birth, address, telephone number, or social security number; names of children or spouses; favorite band, sports team, or automobile; or other personal attributes).
- Share passwords/IDs with anyone or accept the use of another's password/ID, even if offered.
- Reuse passwords. A new password must contain no more than five characters per eight characters from the previous password.
- Post passwords.
- Keep a password list in an obvious place, such as under keyboards, in desk drawers, or in any other location where it might be disclosed.
- Give a password out over the phone.

F.1.8 Backups

RPMS users shall

- Plan for contingencies such as physical disasters, loss of processing, and disclosure of information by preparing alternate work strategies and system recovery mechanisms.
- Make backups of systems and files on a regular, defined basis.
- If possible, store backups away from the system in a secure environment.

F.1.9 Reporting

RPMS users shall

- Contact and inform their ISSO that they have identified an IT security incident and begin the reporting process by providing an IT Incident Reporting Form regarding this incident.
- Report security incidents as detailed in the *IHS Incident Handling Guide* (SOP 05-03).

RPMS users shall not

- Assume that someone else has already reported an incident. The risk of an incident going unreported far outweighs the possibility that an incident gets reported more than once.

F.1.10 Session Timeouts

RPMS system implements system-based timeouts that back users out of a prompt after no more than 5 minutes of inactivity.

RPMS users shall

- Utilize a screen saver with password protection set to suspend operations at no greater than 10 minutes of inactivity. This will prevent inappropriate access and viewing of any material displayed on the screen after some period of inactivity.

F.1.11 Hardware

RPMS users shall

- Avoid placing system equipment near obvious environmental hazards (e.g., water pipes).
- Keep an inventory of all system equipment.
- Keep records of maintenance/repairs performed on system equipment.

RPMS users shall not

- Eat or drink near system equipment.

F.1.12 Awareness

RPMS users shall

- Participate in organization-wide security training as required.
- Read and adhere to security information pertaining to system hardware and software.
- Take the annual information security awareness.
- Read all applicable RPMS manuals for the applications used in their jobs.

F.1.13 Remote Access

Each subscriber organization establishes its own policies for determining which employees may work at home or in other remote workplace locations. Any remote work arrangement should include policies that

- Are in writing.
- Provide authentication of the remote user through the use of ID and password or other acceptable technical means.
- Outline the work requirements and the security safeguards and procedures the employee is expected to follow.
- Ensure adequate storage of files, removal, and nonrecovery of temporary files created in processing sensitive data, virus protection, and intrusion detection, and provide physical security for government equipment and sensitive data.
- Establish mechanisms to back up data created and/or stored at alternate work locations.

Remote RPMS users shall

- Remotely access RPMS through a virtual private network (VPN) whenever possible. Use of direct dial in access must be justified and approved in writing and its use secured in accordance with industry best practices or government procedures.

Remote RPMS users shall not

- Disable any encryption established for network, internet, and Web browser communications.

F.2 RPMS Developers

RPMS developers shall

- Always be mindful of protecting the confidentiality, availability, and integrity of RPMS when writing or revising code.
- Always follow the IHS RPMS Programming Standards and Conventions (SAC) when developing for RPMS.
- Only access information or code within the namespaces for which they have been assigned as part of their duties.
- Remember that all RPMS code is the property of the U.S. Government, not the developer.
- Not access live production systems without obtaining appropriate written access, and shall only retain that access for the shortest period possible to accomplish the task that requires the access.
- Observe separation of duties policies and procedures to the fullest extent possible.
- Document or comment all changes to any RPMS software at the time the change or update is made. Documentation shall include the programmer's initials, date of change, and reason for the change.
- Use checksums or other integrity mechanism when releasing their certified applications to assure the integrity of the routines within their RPMS applications.
- Follow industry best standards for systems they are assigned to develop or maintain, and abide by all Department and Agency policies and procedures.
- Document and implement security processes whenever available.

RPMS developers shall not

- Write any code that adversely impacts RPMS, such as backdoor access, "Easter eggs," time bombs, or any other malicious code or make inappropriate comments within the code, manuals, or help frames.
- Grant any user or system administrator access to RPMS unless proper documentation is provided.
- Release any sensitive agency or patient information.

F.3 Privileged Users

Personnel who have significant access to processes and data in RPMS, such as, system security administrators, systems administrators, and database administrators, have added responsibilities to ensure the secure operation of RPMS.

Privileged RPMS users shall

- Verify that any user requesting access to any RPMS system has completed the appropriate access request forms.
- Ensure that government personnel and contractor personnel understand and comply with license requirements. End users, supervisors, and functional managers are ultimately responsible for this compliance.
- Advise the system owner on matters concerning information technology security.
- Assist the system owner in developing security plans, risk assessments, and supporting documentation for the certification and accreditation process.
- Ensure that any changes to RPMS that affect contingency and disaster recovery plans are conveyed to the person responsible for maintaining continuity of operations plans.
- Ensure that adequate physical and administrative safeguards are operational within their areas of responsibility and that access to information and data is restricted to authorized personnel on a need-to-know basis.
- Verify that users have received appropriate security training before allowing access to RPMS.
- Implement applicable security access procedures and mechanisms, incorporate appropriate levels of system auditing, and review audit logs.
- Document and investigate known or suspected security incidents or violations and report them to the ISSO, Chief Information Security Officer (CISO), and systems owner.
- Protect the supervisor, superuser, or system administrator passwords.
- Avoid instances where the same individual has responsibility for several functions (i.e., transaction entry and transaction approval).
- Watch for unscheduled, unusual, and unauthorized programs.
- Help train system users on the appropriate use and security of the system.
- Establish protective controls to ensure the accountability, integrity, confidentiality, and availability of the system.
- Replace passwords when a compromise is suspected. Delete user accounts as quickly as possible from the time that the user is no longer authorized system. Passwords forgotten by their owner should be replaced, not reissued.
- Terminate user accounts when a user transfers or has been terminated. If the user has authority to grant authorizations to others, review these other authorizations. Retrieve any devices used to gain access to the system or equipment. Cancel logon IDs and passwords, and delete or reassign related active and backup files.

- Use a suspend program to prevent an unauthorized user from logging on with the current user's ID if the system is left on and unattended.
- Verify the identity of the user when resetting passwords. This can be done either in person or having the user answer a question that can be compared to one in the administrator's database.
- Shall follow industry best standards for systems they are assigned to, and abide by all Department and Agency policies and procedures.

Privileged RPMS users shall not

- Access any files, records, systems, etc., that are not explicitly needed to perform their duties
- Grant any user or system administrator access to RPMS unless proper documentation is provided.
- Release any sensitive agency or patient information.

Glossary

Case Manager

A user of the RPMS Immunization Module responsible for managing patients. This includes immunization tracking and recall, entering or editing patient data, selecting appropriate letters, scanning for delinquent needs, and more.

Case Manager, Active

Currently carrying a caseload; available for selection when editing a patient's Case Data.

Case Manager, Inactive

Listed for historical purposes; cannot be entered/selected when editing a patient's Case Data.

Contraindication

A symptom or condition that makes a particular procedure or treatment inadvisable.

Data Element

A field in a record (e.g., patient record).

Due Dates

Dates on which ImmServe, a forecasting algorithm, has forecast immunizations as due.

Due Letter

A letter generated and printed by the software that is sent to a patient containing information about immunizations that are due.

Export

A process by which you can send a report to a file or to another computer, site, or agency.

File Format

The layout and style in which data is formatted in a file for export or electronic transmittal.

Forecast

A projection of immunizations that are due and that date on which they should be administered.

Health Summary

A listing of patient information including demographic data, insurance, allergies, scheduled visits, in-hospital visits, outpatient/field visits, referred care, immunizations, health maintenance reminders, missed dental visits, Diabetes and Cancer summary information, mental health/social services data and a problem list.

ImmServe

Software that evaluates immunization histories and determines due dates.

Immunization Rate

The proportion of patients who received a specified vaccine or group of vaccines within a timeframe or by a certain age.

Immunization Register

Also known as Immunization Register; the subset of RPMS registered patients whose immunization administrations are actively being tracked/followed.

Key

A password that allows or restricts access to specific areas of functionality in the software.

Location Type

An identification of a location as an IHS facility or Other such as a private clinic or physician practice.

Lot Number

The number identifying a manufacturer's batch of a particular vaccine; important in the tracking of recipients of a specific batch with which a problem has been determined.

Official Immunization

The letter that presents all of a patient's Immunization information

Output Device

The equipment to which a file is sent; usually refers to a printer or to the computer monitor screen (Home).

Patient, Active

One who is being tracked and followed up on for immunization purposes because of age, vulnerability to disease, or both; generally those patients under a certain number of years of age (e.g., 7 or 8).

Patient, Inactive

One who is no longer being tracked or followed up on for immunization purposes; generally those patients beyond a certain number years of age (e.g., 7 or 8).

PCC Category

Patient Care Component category; that is, ambulatory, historical event, or inpatient.

Program Manager

The person chiefly responsible for the setup and operation of the RPMS Immunization Module at a given site.

Reaction

An adverse response to the administration of an immunization.

Record Letter

Generally sent to schools, parents, other clinics, etc.

Site Manager

The person responsible for operation of the IHS site; determines and assigns access levels to site users.

Site Parameters

Settings that can be made by the Site Manager to customize the software and data to a particular site.

Skin Test

A subcutaneous test to determine delayed hypersensitivity and thereby exposure to an antigen (e.g., PPD).

Statement

Vaccine administered and documents the Date of Publication as evidence of Informed Consent for the vaccination.

Translation Table

A table that gives standard alternate names, maximum doses, series types, and HL7 codes for all vaccines; it explains the translation of the old vaccine names and codes in the Old Immunization Table to the new HL7 codes and names.

Vaccine, Active

Currently available; may be entered/selected when entering new immunizations.

Vaccine, Inactive

Listed only for historical purposes; no longer available as a valid choice.

Vaccine Information Sheet (VIS)

A statement provided to the parent of a patient that identifies each vaccine.

Vaccine Table

A standard list of all IHS vaccines and their HL7 codes.

Acronym List

None

Contact Information

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

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

Fax: (505) 248-4363

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

Email: support@ihs.gov